DEPARTMENT of HEALTH and HUMAN SERVICES

Fiscal Year

2011

Centers for Disease Control and Prevention

Justification of Estimates for Appropriation Committees

INTRODUCTION

The FY 2011 Congressional Justification is one of several documents that fulfill the Department of Health and Human Services' (HHS) performance planning and reporting requirements. HHS achieves full compliance with the Government Performance and Results Act of 1993 and Office of Management and Budget Circulars A-11 and A-136 through the HHS agencies' FY 2011 Congressional Justifications and Online Performance Appendices, the Agency Financial Report, and the HHS FY 2009 Summary of Performance and Financial Information. These documents are available at http://www.hhs.gov/asrt/ob/docbudget/index.html.

The FY 2011 Congressional Justifications and accompanying Online Performance Appendices contain performance summaries and performance strategic plan. The Agency Financial Report provides fiscal and high-level performance results. The HHS Citizens' Report summarizes key past and planned performance and financial information.

MESSAGE FROM THE DIRECTOR

As the Director of the Centers for Disease Control and Prevention (CDC) and the Administrator of the Agency for Toxic Substances and Disease Registry (ATSDR), it is my pleasure to present the agency's budget request for Fiscal Year (FY) 2011. In response to the evolving public health challenges of the 21st century, this budget addresses a balanced portfolio of health protection and prevention activities.

For more than 60 years, CDC's mission has been dedicated to protecting health and promoting quality of life through the prevention and control of disease, injury, and disability. We are committed to reducing the health and economic consequences of the leading causes of death and disability, and ensuring a productive, healthy life for all people. In 2009, H1N1 influenza was at the top of our agenda and will continue to engage our attention in the coming months.

As director, I have set forth the following priority areas in which CDC has renewed its public health commitment:

- Strengthening our dedication to science, particularly in epidemiology and surveillance,
- Improving support to state and local health departments,
- Reducing the incidence of leading, preventable causes of death,
- Intensifying our work in global health,
- Informing the discussion on health reform, and
- Building upon our gains in emergency preparedness.

In highlighting our accomplishments and prioritizing our investments, the FY 2011 budget request reinforces CDC's position as our nation's health-protection leader and conveys our vision for continuing this important work in the future. Maintaining the agency's investments into FY 2011 for critical programs will allow the agency to advance our core health-protection mission while providing the leadership and investment that are needed to move our nation in the direction of better health.

I'm confident about our ability to preserve and protect the health and lives of Americans, and to further strengthen CDC's capacity to carry out our mission.

Sincerely,

Thomas R. Frieden, M.D., M.P.H.
Director, CDC, and
Administrator, ATSDR

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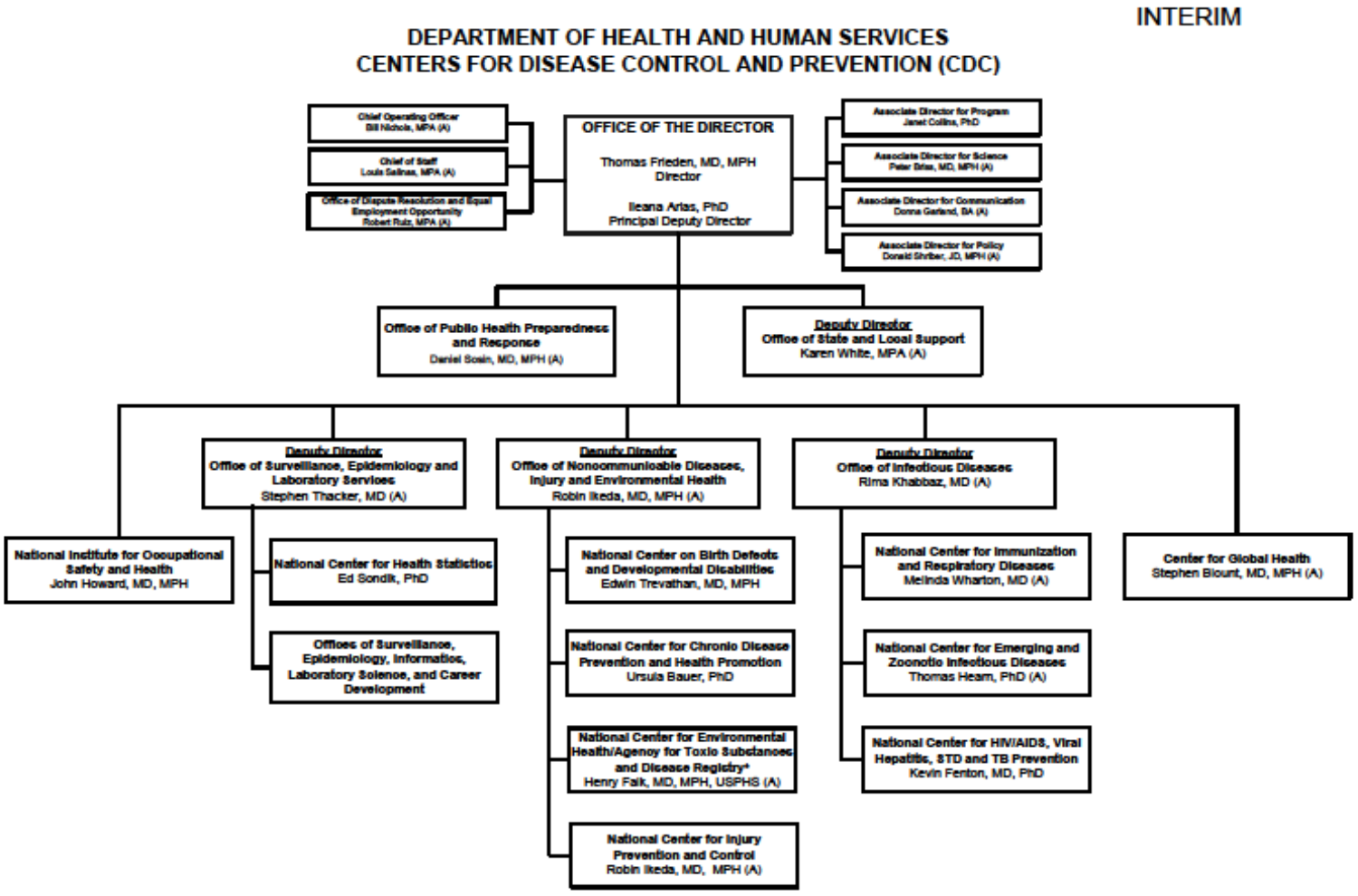
ORGANIZATIONAL CHART



EXECUTIVE SUMMARY

INTRODUCTION AND MISSION

When the Centers for Disease Control and Prevention (CDC) was founded in 1946, the major threats to public health involved infectious diseases. Today, as a leading public health agency in the United States and abroad, CDC seeks to accomplish its mission by working with partners throughout the nation and the world to –

- monitor health,
- detect and investigate health problems,
- conduct research to enhance prevention,
- develop and advocate sound public health policies,
- implement prevention strategies,
- promote healthy behaviors,
- foster safe and healthful environments, and
- provide leadership and training.

CDC's Mission:
Collaborating to create the expertise, information, and tools that people and communities need to protect their health – through health promotion, prevention of disease, injury and disability, and preparedness for new health threats.

These functions are the backbone of CDC's mission. Each of CDC's component organizations undertakes these activities in conducting its specific programs. The steps needed to accomplish this mission are based on scientific excellence, which require well-trained public health practitioners and leaders dedicated to high standards of quality and ethical practice.

CDC collaborates with a diverse set of local, state, and international partners to prevent, monitor, investigate, and resolve the wide range of complex health issues facing the United States and global communities. CDC also recognizes the importance of providing and delivering health information directly to citizens when, where, and how they need it most. We are committed to programs that reduce the health and economic consequences of the leading causes of death and disability, thereby ensuring a long, productive, healthy life for all people.

BUDGET OVERVIEW

The FY 2011 President's Budget Request includes a total of $10.6 billion of funding for CDC and ATSDR. This request reflects an increase of $100.5 million above the FY 2010 Omnibus. With the addition of $225 million from P.L. 111-32, the Supplemental Appropriations Act of 2009, CDC FY 2011 programmatic resources are $6.6 billion. Therefore, CDC's budget authority decreases because CDC will use approximately $225 million in unobligated balances from the FY 2009 Pandemic Influenza Supplemental to offset budget authority for pandemic flu and for a portion of Strategic National Stockpile activities. This request also includes a savings of $100 million through an agency wide effort to reduce inefficiencies and improve overall management in contract and travel activities.

This budget request allows CDC to accomplish its mission by working with partners throughout the nation and the world to monitor health and detect and investigate health problems. This budget request also allows CDC to continue to conduct research to enhance prevention, develop and advocate sound public health policies, implement prevention strategies, and promote healthy behaviors.

These functions are the backbone of CDC′s mission. Each of CDC′s component organizations undertakes these activities in conducting its specific programs. The steps needed to accomplish this mission are also based on scientific excellence, requiring well-trained public health practitioners and leaders dedicated to high standards of quality and ethical practice. CDC remains committed to allocating resources in a way that maximizes our ability to enhance public health capabilities at the federal, state and local level.

INCREASED PROGRAM INVESTMENTS

Increases in this section represent the net increase, which includes pay, non-pay inflationary factors or any travel or contract reductions.

These increases will allow CDC to both fortify the nation's public health infrastructure as well as expand efforts to accelerate health impact, reduce health disparities, and respond to the public health challenges of the 21st century.

World Trade Center (WTC) Program (+$79.4 million)[1]

The FY 2011 budget request includes an increase of $79.4 million above the FY 2010 Omnibus for the World Trade Center Program. With this increase, CDC will continue to provide monitoring and treatment services for mental and physical health conditions related to WTC exposures for both responders and eligible non-responders. The WTC program is critical in meeting the on-going and long term specialty needs of individuals that were exposed to smoke, dust, debris and psychological trauma from the WTC attacks. This increase will enable CDC to continue providing these much needed services.

[1] Funding is provided through the Occupational Safety and Health budget activity.

HIV/AIDS, Viral Hepatitis, STDs and TB Prevention (+$37.9 million)[2]

The FY 2011 budget request includes an increase of $37.9 million to implement approaches outlined in the National AIDS Strategy and to prevent new HIV, STD and viral hepatitis infections, improve the health of those infected with HIV, and reduce disparities in HIV burden in the United States. Strategies to be supported include HIV testing; linkage to care; partner services; and other proven effective behavioral and biomedical approaches. FY 2011 funding for these activities will be spread across the HIV, Viral Hepatitis, and STD budget lines. The increase will also support two integration initiatives, one for Program Collaboration and Service Integration, which will blend interrelated activities and prevention strategies across these syndemics to improve the public health response. The other initiative, Integrated Data for Program Monitoring, will integrate data collected across these prevention programs to improve program planning and implementation. These two initiatives will be funded through the Improving HIV Prevention budget line.

Health Statistics (+$23.2 million)[3]

The FY 2011 budget request includes an increase of $23.2 million above the FY 2010 Omnibus for Health Statistics. With this increase, CDC plans to increase support for the National Health Interview Survey (NHIS), the Ambulatory Medical Care Survey (NAMCS), and the National Vital Statistics System to improve CDC's ability to monitor trends in critical health measures, monitor characteristics of health providers, and increase the electronic reporting of birth and death records. The FY 2011 Budget will fully fund the National Center for Health Statistics surveys and sample sizes at the expanded level funded in FY 2010 including the purchase of data needed for public health purposes currently collected by vital statistics jurisdictions and collection of 12 months of these data within the calendar year.

With this investment, CDC will:

- Expand the NHIS to enable state and community estimates on a broad range of health and health care measures for approximately 30 of the largest states and large metropolitan areas;
- Increase funding for the NAMCS to enable state estimates in a limited number of states (with data combined over two years), improving CDC's ability to monitor the characteristics of ambulatory care providers and their patients;
- Provide funding to an estimated 10 states and territories to implement a web-based EBR system and adopt the 2003 standard certificate; and,
- Provide funding to a limited number of states to begin gradually phasing in EDR systems in all states, using a 50 – 50 cost sharing mechanism.

[2] Funding is provided through the Infectious Disease budget activity.
[3] Funding is provided through the Health Information and Service budget activity.

Public Health Approach to Blood Disorders (+$20.2 million)[4]

CDC's FY 2011 request includes $20.2 million to realign CDC's Blood Disorders program to address the public health challenges associated with blood disorders and related secondary conditions. This realignment will allow CDC to focus its activities on population-based, public health programs targeting the blood disorders with the greatest risk of morbidity and mortality. CDC will utilize a comprehensive and coordinated public health agenda, which includes surveillance and epidemiologic research, laboratory investigation, and prevention research and awareness.

Big Cities Initiative (+$20.0 million)[5]

The FY 2011 budget request includes $20.0 million for a new Big Cities Initiative. With this investment, CDC will fund up to 10 of the largest cities in the U.S. to implement evidence-based programs using proven policy, environmental, and systems change strategies to address three public health priorities: tobacco prevention and control; obesity prevention and control (through improved nutrition and physical activity); and chronic disease detection and management. The goal of the program is to reduce rates of morbidity, disability, and premature mortality due to chronic diseases in these population centers. Funded Big Cities will be provided with a variety of evidence-based actions and strategies to help them reduce these risk factors that lead to chronic disease.

Emerging Infections (+$19.6 million)[6]

The FY 2011 budget request includes an increase of $19.6 million above the FY 2010 Omnibus for emerging infectious diseases, CDC's emerging infectious work supports a broad range of activities, such as surveillance, epidemic investigations, communication with public health institutions locally and globally, and CDC's infectious disease laboratories. Resources will support CDC and select State and local partners to detect and respond emerging infectious diseases.

Section 317 Immunization Program (+$17.2 Million)[7]

The FY 2011 budget request includes an increase of $17.2 million above the FY 2010 Omnibus for the Section 317 Immunization Program (Section 317). This increase will be used for purchase of vaccines recommended by the Advisory Committee on Immunization Practices to reduce vaccine-preventable diseases. The increase will also continue the billables demonstration projects.

Pay Raise (+$13.9 million)[8] **(Non-Add)**

The FY 2011 budget request includes an increase of $13.9 million in pay raises for CDC and ATSDR. Increased funding for pay raises is a critical component of CDC and ATSDR''s budgets to support 9,834 requested FTE's. This level is already included in the programmatic activities.

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[4] Funding is provided through the Health Promotion budget activity.
[5] Funding is provided through the Health Promotion budget activity.
[6] Funding is provided through the Infectious Diseases budget activity.
[7] Funding is provided through the Infectious Diseases budget activity.
[8] Funding is provided across all programs.

Global Health: Field Epidemiology and Laboratory Training and Sustainable Management Development Program (+$11.7 million)[9]

The FY 2011 budget request includes an increase of $11.7 million for the Field Epidemiology and Laboratory Training and the Sustainable Management Development Program. With this increase, CDC will enhance this vital capacity-building program into new countries and regions. Working in partnership with Ministries of Health, this program builds sustainable public health capacity in developing countries, which is critical to the transition of U.S. government global health investments to long-term host country ownership.

Business Services Support (+$12.3 million)[10]

The FY 2011 budget request includes $12.3 million above the FY 2010 Omnibus for Business Services Support. This increase will provide resources to continue support of ongoing services maintained by CDC's business service units, enhance security for critical public health information, and meet federally mandated requirements. CDC will also upgrade information technology systems, including improvements to CDC's IT infrastructure and security and an integrated in/out processing system.

National Healthcare Safety Network (NHSN) (+$12.3 million)[11]

The FY 2011 budget request includes an increase of $12.3 million for the National Healthcare Safety Network. With these increased funds, CDC will support the expansion of NHSN from 2,500 hospitals to 5,000 hospitals and will facilitate the implementation of prevention activities to achieve HHS HAI goals and targets.

Health Prevention Corps (+$10.0 million)[12]

The FY 2011 budget request includes an increase of $10.0 million for Public Health Workforce Development. This increase will create a new workforce program, the Health Prevention Corps, which will recruit new talent into service for state/local health departments and provide the building blocks for creating a stronger, interdisciplinary workforce. The program will target discipline with known shortages such as epidemiology, environmental health and laboratory.

Global Safe Water (+$10.0 million)[13]

The FY 2011 budget request includes an increase of $10.0 million above the FY 2010 Omnibus, for a new global safe water program. With this increase, CDC will improve global access to clean water, sanitation, and hygiene, initiating safe water systems programs, and expanding current programs. Funds will introduce the Safe Water System and Water Safety Plans in additional high need countries to reduce the burden of waterborne disease and improve water and sanitation interventions in target areas.

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[9] Funding is provided through the Global Health budget activity.
[10] Funding is provided through the Business Services Support budget activity.
[11] Funding is provided through the Infectious Diseases budget activity.
[12] Funding is provided through the Public Health Improvement and Leadership budget activity.
[13] Funding is provided through the Global Health budget activity.

Food Safety (+$8.3 million)[14]

The FY 2011 budget request includes an increase of $8.3 million above the FY 2010 Omnibus, for food safety. CDC will use this funding to improve state and local capacity to identify and stop outbreaks by expanding the new network of OutbreakNet Sentinel Sites, which will implement, assess, and standardize best methods and new technologies for multistate foodborne outbreak detection and response. CDC will maintain and support PulseNet capacity for pathogen fingerprinting, cluster identification and cluster assessment at the state and national levels for the identification and investigation of foodborne outbreaks. In addition, CDC will increase the number of trainings for public health partners and implement new lines of communication and new approaches for health messaging. CDC will also work to improve surveillance for foodborne illnesses and develop improved models for and reports on the burden and cost of foodborne illnesses and attribution of illnesses to particular food types.

Occupational Safety and Health: Nanotechnology (+$7.0 million)[15]

The FY 2011 budget request includes an increase of $7.0 million for Nanotechnology. With this increase, CDC will conduct research to reduce the uncertainty about the health effects of nanotechnology, develop an evidence base on risk and controls for workers and ultimately the general population, and develop guidance materials for businesses and government agencies. CDC will also explore partnerships with other agencies to develop workplace exposure measurement methods.

Preventing Unintended Teen Pregnancy (+$7.0 million)[16]

The FY 2011 budget request includes an increase of $7.0 million above the FY 2010 Omnibus to prevent unintended teen pregnancy. Within this increase, CDC will support teen pregnancy prevention by funding five national organizations, Title X regional training organizations, and 22 State teen pregnancy prevention coalitions to promote the use of evidence-based teen pregnancy programs. CDC supports the use of science-based and medically accurate material on teen pregnancy prevention in program efforts to reduce unintended pregnancies.

Built Environment and Health (+$4.0 million)[17]

The FY 2011 budget request includes $4.0 million for the Built Environment and Health activities. With this increase, CDC will support the training and implementation of Health Impact Assessments (HIAs) by public health partners and others on transportation, neighborhood development, and/or housing projects, and identify and disseminate the most effective models. CDC will also emphasize collaborative partnerships with the safe routes to schools programs. CDC will also work to leverage these funds and more fully integrate built environment activities within existing Health Promotion activities.

[14] Funding is provided through the Infectious Diseases budget activity.
[15] Funding is provided through the Occupational Safety and Health budget activity.
[16] Funding is provided through the Health Promotion budget activity.
[17] Funding provide through Environmental Health and Injury Prevention budget activity.

Global Maternal, Newborn, and Child Health (+$2.0 million)[18]

The FY 2011 budget request includes an increase of $2.0 million for maternal, newborn, and child health. With this increase, CDC will integrate and expand service delivery programs targeted toward maternal, newborn, and child populations in one country with high burdens of maternal, neonatal, and infant mortality. This funding will also help to build capacity in Ministries of Health on laboratory diagnostics, surveillance, logistics, and monitoring and evaluation to ensure full integration of maternal, newborn, and child health programs.

Autism (+$1.8 million)[19]

The FY 2011 estimate includes an increase of $1.8 million over the FY2010 Omnibus. CDC will use the increase in Autism resources to increase the number of existing sites in the Autism and Developmental Disabilities Monitoring Network (ADDM) that are able to monitor the occurrence of developmental disabilities in a larger portion of the population. Additionally the increased sites will support an increase in the sites that monitoring other developmental disabilities, such as cerebral palsy and that monitor younger children, in order to improve ascertainment of autism spectrum disorders at younger ages. Funds will support expedited analyses in the Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) and analysis of biologic and genetic samples from the Study to Explore Early Development (SEED), in order to determine the of causes of autism.

National Violent Death Reporting System (+$1.5 million)[20]

The FY 2011 budget request includes an increase of $1.5 million for the National Violent Death Reporting System (NVDRS), an increase of $1.5 million above the FY 2010 Omnibus. With this increase, CDC will fund up to six new states to participate in NVDRS in FY 2011 and will support efforts to link all grantees with state vital statistics to enhance the timeliness of data. NVDRS provides states with a more accurate and complete understanding of the problem of violent deaths in their state.

[18] Funding is provided through the Global Health budget activity.
[19] Funding is provided through Health Promotion.
[20] Funding is provided through Environmental Health and Injury Prevention.

PROGRAM REDUCTIONS AND ELIMINATIONS

Travel Reduction and Contract Savings (-$100.0 million)[21] (Non-Add)

The FY 2011 budget request includes a decrease of $100.0 million for travel and contract savings. This decrease will include reductions in costs associated with travel and the use of contracts. The FY 2011 Budget includes administrative savings of $100 million through targeted reductions in travel and contract activities. These savings will not have a negative effect on programmatic activities and will only improve program effectiveness through an agency wide effort to reduce inefficiencies and improve overall management in contract and travel activities. For example, specific travel savings will be achieved through the reduction on unnecessary travel across the country and will use technology to meet agency needs without necessarily meeting in-person. Overall, this savings reduction will strengthen CDC's Federal workforce and gain programmatic efficiencies and improvements through contract reductions where CDC has contracted out for external work, instead of investing in CDC's direct federal workforce where it is both more efficient and effective. See additional information on page 17.

Buildings and Facilities (-$69.2 million)[22]

The FY 2011 budget request does not include new funding to support buildings and facilities activities. CDC will use available unobligated B&F balances in FY 2010 for all repair and improvement (R&I) sustainment and improvement investments. CDC has sufficient B&F funds to meet all FY 2011 R&I needs.

Vector-borne Diseases (-$26.7 million)[23]

The FY 2011 budget request does not include funding for Vector-borne Diseases. No specific funding is included for vector-borne activities, including West Nile Virus surveillance (WNV). Several years of CDC funds have allowed states to develop and enhance their WNV activities. FY 2011 funds include $155.2 million for the emerging infectious disease budget line, an increase of $18.9 million above the FY 2010 Omnibus. These emerging Infectious disease funds can support vector-borne activities in FY 2011, including WNV if determined a priority by States and the CDC.

Congressional Projects (-$20.6 million)[24]

The FY 2011 request includes a decrease of $20.6 million for Public Health Improvement and Leadership in the area of congressionally determined projects. This line funded one-time projects whose selection was incorporated into law by reference.

Blood Disorders (-$19.9 million)[25]

CDC's FY 2011 request includes a programmatic elimination of $19.9M for the Blood Disorders program. CDC's FY 2011 request includes a proposal to realign CDC's Blood Disorders program to address the public health challenges associated with blood disorders and related secondary

[21] Funding is provided across all programs.
[22] Funding is provided across Buildings and Facilities budget activity.
[23] Funding is provided through the Infectious Diseases budget activity.
[24] Funding is provided through the Public Health Improvement and Leadership budget activity.
[25] Funding is provided through the Health Promotion budget activity.

conditions. This realignment will allow CDC increased flexibility to prioritize population-based programs targeting blood disorder with the greatest risk of morbidity and mortality in order to maximize the health impact.

Johanna's Law (-$6.8 million)[26]

The FY 2011 budget request does not include dedicated funding for Johanna's Law. CDC has fulfilled the milestones referenced under The Gynecological Cancer Education and Awareness Act of 2005, also known as "Johanna's Law". In FY 2011, CDC will continue awareness and education activities related to gynecologic cancers through other budget activities, including Ovarian Cancer and Comprehensive Cancer Control.

Preparedness, Detection, and Control of Infectious Diseases (-$8.6 million)[27]

The FY 2011 budget includes a decrease of $8.6 million for Preparedness, Detection, and Control of Infectious Diseases. One primary activity supported through these funds is CDC's Antimicrobial Resistance (AR) program. The AR program supports state-based and local surveillance systems for identifying emerging resistance and tracking infections in the community and healthcare settings and in animals, various educational activities and CDC's involvement with national planning efforts to combat AR. Antimicrobial Resistance activities, such as surveillance, technical assistance, and epidemiological and laboratory support, will continue in FY 2011. Additional activities will continue on a prioritized basis as funding exists through the Emerging Infections program's discretionary funding.

Geraldine Ferraro Cancer Education Program (-$4.7 million)[28]

The FY 2011 budget request does not include dedicated funding for the Geraldine Ferraro Cancer Education Program, a decrease of $4.7 million below the FY 2010 Omnibus. Through other budget activities such as the Comprehensive Cancer Control Program, CDC will continue to provide technical assistance to public and private, nonprofit and for-profit national organizations that are working to increase awareness of, and education about, hematologic cancers to patients, their family members, friends, caregivers, and health care providers.

Anthrax (-$2.6 million)[29]

The FY 2011 budget request does not include funding for Anthrax. CDC will eliminate direct funding for the Anthrax program. During FY 2010, CDC will submit the Anthrax Vaccine Research Program final report to FDA and will respond to regulatory compliance audits and requests from FDA for additional information, analyses, and laboratory testing. CDC has accomplished and met all stated goals requested by the U.S. Congress.

[26] Funding is provided through the Health Promotion budget activity.
[27] Funding is provided through the Infectious Diseases budget activity.
[28] Funding is provided through the Health Promotion budget activity.
[29] Funding is provided through the Bioterrorism Preparedness and Response budget activity.

Polycythermia Vera (PV) Cluster Study (-$2.5 million)[30]

The FY 2011 budget request does not include direct funding for the Polycycthermia Vera Cluster Study. This funding has supported an evaluation of the association between exposures to hazardous substances and Pennsylvania PV cluster. The evaluation will be completed with FY 2010 funding and no additional funding is needed to complete this activity.

Mind-Body Institute (-$1.5 million)

The FY 2011 request includes a decrease of $1.5 million for the Mind, Body Research program. This program has ended its five-year cooperative agreement cycle. The activities supported by the Mind Body Research Program could be supported through other competitive grants offered by CDC

Inflammatory Bowel Disease (IBD) (-$0.7 million)[31]

The FY 2011 budget request does not include specific funding for Inflammatory Bowel Disease. CDC will continue to provide technical assistance to partners who are researching the natural history of IBD and factors that predict the course of the disease. This research includes studies examining provider variation in the treatment of Crohn's disease, disparities in mortality for IBD patients, disparities in surveillance for colorectal cancer associated with IBD, and variation in outcomes in relation to race. This activity has also been supported through existing NIH research.

Interstitial Cystitis (IC) (-$0.7 million)[32]

The FY 2011 budget request does not include dedicated funding for Interstitial Cystitis. CDC will continue to provide technical assistance to partners who are developing, implementing, and evaluating a national health promotion and education campaign to increase the general public and health care provider awareness and education of IC. This activity has also been supported through existing NIH research.

Alveolar Capillary Dysplasia (-$0.2 million)[33]

The FY 2011 estimate eliminates funding for Alveolar Capillary Dysplasia. CDC believes that the population of patients affected by these disorders would benefit from a comprehensive approach, rather than a disorder-specific approach.

[30] Funding is provided through the Environmental Health and Injury Prevention Budget Activity.
[31] Funding is provided through the Health Promotion budget activity.
[32] Funding is provided through the Health Promotion budget activity.
[33] Funding is provided through the Health Promotion budget activity.

TRAVEL REDUCTION AND CONTRACT SAVINGS

The FY 2011 budget request includes a decrease of $100.0 million below the FY 2010 Omnibus for reductions in costs associated with travel and the use of contracts. In FY 2011, CDC is proposing a savings through targeted reductions in travel and contract activities. These savings will not have a negative impact on programmatic activities and will only improve program effectiveness through the agency wide effort to reduce inefficiencies and improve overall management in contract and travel activities. No programmatic activities will be reduced through these savings.

To realize this reduction, CDC will operate more efficiently in the areas of travel and service contracts. For example, the utilization of existing mass communication technologies such as conference calls, teleconferencing, and webinars as alternatives to unnecessary in-person attendance at required meetings and trainings will be increased that may be more disruptive to programmatic operations. CDC is also reviewing existing travel policies that require in--person attendance eat meeting, which may be more disruptive to grantee operations and could be managed better through conference calls or webinars. Some contracts may expire before the FY 2011 budget period and no longer be available for reduction so CDC will apply those reductions elsewhere. Overall, this reduction will shift the focus to strengthening CDC's federal workforce and gain programmatic efficiencies and improvements through contract reductions

Of the $100 million in travel and contract savings, approximately $8 million is for travel savings and approximately $92 million in contract savings. CDC determined all contract and travel savings on a program-by program nature to validate all individual contracts and travel savings and to maintain all programmatic activities.

One way this will be achieved is by converting contractors to FTE's. This conversion will lead to savings due to the decreased costs for contractor support versus FTE's. Most of the savings will be achieved through this contracting reform effort.

The below table reflects these reductions, which are based on travel and contracting information collected in FY 2009.

FY 2011 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
ALL PURPOSE TABLE
(DOLLARS IN THOUSANDS)

Budget Activity	FY 2009 Appropriation	FY 2009 Recovery	FY 2010 Appropriation	FY 2011 President Budget[1]	FY 2011 Travel Reduction	FY 2011 Contract Reduction	FY 2011 President's Budget
Immunization and Respiratory Diseases							
Budget Authority	$703,254	$300,000	$705,596	$570,176	($374)	($4,095)	$566,599
PHS Evaluation Transfers	*$12,794*	*$0*	*$12,864*	*$12,864*	*$0*	*$0*	*$12,864*
Subtotal, Immunization and Respiratory Diseases BA & PHS -	*$716,048*	*$300,000*	*$718,460*	*$583,932*	*($374)*	*($4,095)*	*$579,463*
Balances from P.L. 111-32 Pandemic Flu	*$0*	*$0*	*$0*	$156,344	*$0*	*$0*	*$156,344*
Total, Immunization and Respiratory Diseases	*$716,048*	*$300,000*	*$718,460*	*$740,276*	*($374)*	*($4,095)*	*$735,807*
HIV/AIDS, Viral Hepatitis, STD and TB Prevention	$1,006,375	$0	$1,045,382	$1,094,340	($931)	($10,123)	$1,083,286
Zoonotic, Vector-Borne, and Enteric Diseases	$67,978	$0	$76,647	$58,796	($69)	($700)	$58,027
Preparedness, Detection, and Control of Infectious Diseases	$157,426	$0	$168,689	$193,836	($148)	($1,613)	$192,075
Chronic Disease Prevention, Health Promotion, and Genomics	$881,686	$0	$931,292	$955,669	($760)	($17,602)	$937,307
Birth Defects, Developmental Disabilities, Disability and Health	$138,022	$0	$143,368	$146,036	($90)	($2,407)	$143,539
Health Statistics							
Budget Authority	$0	$0	$0	$0	$0	$0	$0
PHS Evaluation Transfers	*$124,701*	*$0*	*$138,683*	*$161,883*	*$0*	*$0*	*$161,883*
Subtotal, Health Statistics-	*$124,701*	*$0*	*$138,683*	*$161,883*	*$0*	*$0*	*$161,883*
Health Informatics							
Budget Authority	$45,324	$0	$39,717	$39,971	($122)	($3,444)	$36,405
PHS Evaluation Transfers	*$24,751*	*$0*	*$30,880*	*$30,880*	$0	*$0*	*$30,880*
Subtotal, Health Informatics	*$70,075*	*$0*	*$70,597*	*$70,851*	*($122)*	*($3,444)*	*$67,285*
Health Marketing							
Budget Authority	$4,738	$0	$32,338	$62,692	($70)	($1,994)	$60,628
PHS Evaluation Transfers	*$46,780*	*$0*	*$47,036*	*$17,151*	*$0*	*$0*	*$17,151*
Subtotal, Health Marketing-	*$84,580*	*$0*	*$79,374*	*$79,843*	*($70)*	*($1,994)*	*$77,779*
Environmental Health	$185,415	$0	$187,118	$186,268	($273)	($3,645)	$182,350
Injury Prevention and Control	$145,242	$0	$148,615	$150,345	($215)	($2,560)	$147,570
Occupational Safety and Health							
Budget Authority	$268,834	$0	$281,447	$374,107	($796)	($8,993)	$364,318
PHS Evaluation Transfers	*$91,225*	*$0*	*$91,724*	*$91,724*	*$0*	*$0*	*$91,724*
Subtotal, Occupational Safety and Health -	*$360,059*	*$0*	*$373,171*	*$465,831*	*($796)*	*($8,993)*	*$456,042*
Global Health	*$319,113*	*$0*	*$336,124*	*$356,436*	*($1,883)*	*($2,609)*	*$351,944*
Public Health Research (PHS Evaluation Transfers)	*$31,000*	*$0*	*$31,170*	*$31,170*	*$0*	*$0*	*$31,170*
Public Health Improvement and Leadership (PHIL)	*$209,136*	*$0*	*$211,432*	*$201,119*	*($862)*	*($7,341)*	*$192,916*
Preventive Health & Health Services Block Grant (PHHSBG)	*$102,000*	*$0*	*$102,034*	*$102,034*	*$0*	*$0*	*$102,034*
Buildings and Facilities	*$151,500*	*$0*	*$69,150*	*$0*	*$0*	*$0*	*$0*
Business Services Support	*$359,877*	*$0*	*$369,869*	*$388,649*	*($410)*	*($6,087)*	*$382,152*
Bioterrorism Preparedness and Response							
Budget Authority	*$1,514,657*	*$0*	*$1,549,358*	*$1,483,832*	*($959)*	*($18,217)*	*$1,464,656*
Balances from P.L. 111-32 Pandemic Flu	*$0*	*$0*	*$0*	*$68,515*	*$0*	*$0*	*$68,515*
Total, Bioterrorism Preparedness and Response	*$1,514,657*	*$0*	*$1,549,358*	*$1,552,347*	*($959)*	*($18,217)*	*$1,533,171*
Total, L/HHS/ED -	*$6,293,639*	*$300,000*	*$6,398,176*	*$6,279,128*	*($7,962)*	*($91,430)*	*$6,265,806*
Total, L/HHS/ED (inc. PHS) -	*$6,624,890*	*$300,000*	*$6,750,533*	*$6,624,800*	*($7,962)*	*($91,430)*	*$6,611,478*
Agency for Toxic Substances and Disease Registry	$74,039	$0	$76,792	$76,945	($138)	($470)	$76,337
Unobligated Balances from P.L. 111-32 Pandemic Flu	$0	$0	$0	$224,859	$0	$0	$224,859
Public Health and Social Services Emergency Fund	$200,000	$0	$0	$0	$0	$0	$0
Vaccines for Children	$3,382,875	$0	$3,636,201	$3,651,354	$0	$0	$3,651,354
Energy Employees Occupational Illness Compensation Program Act (EEOICPA)	$55,358	$0	$55,358	$55,358	$0	$0	$55,358
User Fees	$2,226	$0	$2,226	$2,226	$0	$0	$2,226
Total, CDC/ATSDR (incl. PHS & P.L. 111-32) Total -	*$10,339,388*	*$300,000*	*$10,521,110*	*$10,635,542*	*($8,100)*	*($91,900)*	*$10,621,612*

[1] This funding level includes programmatic increase/decreases and pay rasie but does not include contract and travel reductions.

NEW APPROPRIATIONS LANGUAGE

The six leading causes of death in the United States and in all states are heart disease, cancer, stroke, chronic lower respiratory disease, unintentional injuries, and diabetes. The behavioral and environmental causes of these diseases and conditions are tobacco use, poor nutrition and physical inactivity, alcohol consumption, microbial agents, toxic agents, and motor vehicles. The CDC receives modest funding to address these behavioral and environmental causes and reduce the diseases and conditions that result in the majority of deaths in the US and in all states.

CDC requests new appropriations language to provide needed flexibility to States to address the leading causes of morbidity and mortality. More specifically, the language would:

- Provide flexibility to States to comprehensively address risk factors that contribute to more than half of all deaths in the US and in states: Tobacco use and poor nutrition/physical inactivity;
- Generate savings from improved efficiencies through coordinated approaches and interventions built on collaborations across chronic disease and risk factor categories; and
- Hold States accountable to improve health outcomes for the leading causes of death.

The existing resources dedicated to preventing and reducing chronic diseases, conditions and risk factors do not reflect with the burden of chronic diseases and the risk factors that cause them. Limited resources could be more effectively and efficiently managed if CDC and states were provided with flexibility to use resources to enhance collaborations among key chronic disease and risk factor prevention programs. Specifically, flexibility for states to address the leading causes of premature death will improve states' ability to maximize public health outcomes by allowing states to consider all the resources they have available, including state and local public health investments, tobacco settlement dollars, grant and foundation support and other sources of public health funding. Flexibility in the use of federal dollars allows states to concentrate resources on the leading causes of morbidity and mortality and direct resources to programs with the greatest potential to improve the health of the greatest number of people. In particular, Federal resources that are directed toward low incidence health problems or problems for which cost-effective population strategies are not available could be redirected by states to expand work in high priority areas addressing the leading preventable cause of morbidity and mortality. Flexibility also offers states the opportunity to focus on underlying risk behaviors with substantial negative impact on multiple health outcomes, to blend resources across funding streams, to build and expand successful programs, and to capitalize on circumstances and opportunities unique to the state.

To ensure these flexible dollars are used in the most effective way possible, CDC, under the direction of the Secretary, will provide explicit criteria to be used in the review and approval of flexible funding requests. The review and approval process will ensure that the uses of this provision are consistent with improving health outcomes in areas that account for the greatest burden of disease. Evaluation of the outcomes of this provision will be important to provide the evidence necessary to continue, expand, or halt the use of flexible funding.

To best promote these opportunities, CDC requests the following new appropriations language:

Provided further, That with respect to grants to States authorized under Sections 301, 307, 310, 311, 304, and 317 of the PHS Act, any State may redirect up to 10 percent of any fiscal year 2011 grant program allocation to supplement other grants the State receives from funds provided under this heading to address one or more of the top six leading causes of death: Provided further, That each State choosing to redirect funds under the preceding proviso shall submit a detailed plan to the Secretary not less than 30 days prior to such redirection, and, not later than 30 days after the close of the fiscal year, provide a final report in the format specified by the Secretary on the amounts so redirected and how such amounts were used to improve the performance of State public health programs: Provided further, That such redirections may not be used to supplant existing state funded activities (Department of Health and Human Services Appropriations Act, 2010).

AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (Recovery Act)

The summary below reflects an investment of $1 billion to promote Prevention and Wellness across the Department.

CDC is committed to the reduction in Healthcare-Associated Infections (HAIs). The Act appropriated $50.0 million to the Department of Health and Human Services (HHS) to provide funding for states to carry out activities related to the implementation of HAI reduction strategies. Of the total funding, CDC received $40.0 million to enhance state and local efforts to prevent and reduce HAIs by: (1) Creating or expanding state-based HAI prevention collaborative; (2) Enhancing states' abilities to assess where HAIs are occurring and evaluate the impact of hospital-based interventions in other health care settings; (3) Support targeted efforts to monitor and investigate the changing epidemiology of HAIs in populations as a result of prevention collaboratives. The remaining $10.0 million was allocated to the Centers for Medicare and Medicaid (CMS) to expand awareness of proper infection control techniques, increase the extent to which infection control deficiencies are remedied, and prevent future serious infections.

Immunization is one of the most important public health tools for preventing death and disability from vaccine-preventable diseases. In the U.S., immunization recommendations target 17 vaccine-preventable diseases across the lifespan. Despite this achievement, some vaccine-preventable diseases continue to place significant burden on the public's health. The funding provided through the Recovery Act for increasing vaccination and vaccination services will have a tremendous impact on the nation's health. CDC was appropriated $300.0 million in the Recovery Act for Section 317 Immunization. Section 317 currently funds 64 immunization programs, including all 50 states, the District of Columbia, five urban areas, the U.S. territories, and selected Pacific Island nations. Activities will focus on four focus areas:

1. Reaching more children and adults to expand the number of people vaccinated and thus protected from vaccine preventable disease in the U.S.
2. Conducting innovative initiatives for improving reimbursement, and enhancing the interoperability of electronic immunization data exchange between Electronic Health Record systems and immunization registries to develop specifications to harmonize clinical decision support algorithms.
3. Increasing national public awareness and knowledge about the benefits and risks of vaccines and vaccine-preventable diseases.
4. Strengthening the evidence base for current vaccine policies and programs, with a focus on recently recommended vaccines.

In the U.S. today, chronic diseases such as obesity, diabetes, and cardiovascular disease are the cause of seven out of ten deaths and the vast majority of serious illness, disability, and health care costs. Key risk factors, such as lack of physical activity, poor nutrition, and tobacco use, are major contributors to the nation's leading causes of death. Prevention and effective disease management would have a significant impact on health and could prevent many premature deaths. The Recovery Act includes $650.0 million for evidence-based clinical and community-based prevention and wellness strategies that deliver specific, measurable health outcomes. The program, titled Communities Putting Prevention to Work (CPPW) will expand the use of evidence-based strategies and programs, mobilize local resources at the community-level, and strengthen the capacity of states. CPPW emphasizes policy and environmental change at both the state and local levels, focused on increasing levels of physical activity; improving nutrition;

decreasing obesity prevalence; and, decreasing smoking prevalence, teen smoking initiation, and exposure to second-hand smoke.

SUMMARY OF THE RECOVERY ACT OBLIGATIONS AND PERFORMANCE

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION ARRA Obligations (DOLLARS IN THOUSANDS)				
ARRA Implementation Plan	FY 2009	FY 2010	FY 2011	FY 2011 +/- FY 2010
317 [1]	$154.80	$145.20	$0.00	($145.20)
HAI [2]	$40.90	$9.10	$0	($9.10)
CPPW [1]	$0.00	$650.00	$0	($650.00)
Total Discretionary Obligations -	*$195.70*	*$804.30*	*$0*	*($804.30)*

[1] Funds will be available for activities supported into FY 2011. In particular, the CPPW funds will support communities through FY 2012.

[2] Of the $50 million, $10 million was allocated to CMS.

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION ARRA Performance (DOLLARS IN THOUSANDS)			
Performance Measure	FY 2009 Result	FY 2010 Target	FY 2011 Target
317			
Number of ARRA-funded vaccine doses providers will administer to children (0-18 years)	N/A	95%	100%
Number of ARRA-funded vaccine doses providers will administer to adults (19 years and older)	N/A	95%	100%

Data Source: Vaccine Central Distribution Data Warehouse
Additional information about this implementation plan is contained at:
http://www.hhs.gov/recovery/reports/plans/section317imunization_cdc.pdf

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION ARRA Performance (DOLLARS IN THOUSANDS)			
Performance Measure	FY 2009 Result	FY 2010 Target	FY 2011 Target
HAI			
% of all hospitals participating in NHSN [can be broken down by state]	N/A	70%	N/A

Data Source: National Healthcare Safety Network (NSHN)

Additional information about this implementation plan is contained at:
http://www.hhs.gov/recovery/reports/plans/cdc_cms_hai.pdf

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION ARRA Performance (DOLLARS IN THOUSANDS)			
Performance Measure	FY 2009 Result	FY 2010 Target	FY 2011 Target
CPPW			
Tobacco - Increase to 75% the percentage of communities funded under the Communities Putting Prevention to Work (CPPW) program that have enacted new smoke-free policies and/or improved the comprehensiveness of their existing policies.[1]	N/A	5%	75%

[1] Serves as a high proirity goal for the Department of Health and Human Services.

Data Source: Reported by funding recipients

Additional information about this implementation plan will be available once the plan is finalized.

ALL PURPOSE TABLE

FY 2011 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
ALL PURPOSE TABLE
(DOLLARS IN THOUSANDS)

Budget Activity	FY 2009 Appropriation	FY 2009 Recovery Act [1]	FY 2010 Appropriation	FY 2011 President's Budget	FY 2011 PB +/- FY 2010
Infectious Diseases					
Budget Authority	$1,935,033	$300,000	$1,996,314	$1,899,987	-$96,327
PHS Evaluation Transfers	*$12,794*	*$0*	*$12,864*	$12,864	$0
Subtotal, Infectious Diseases BA & PHS -	*$1,947,827*	*$300,000*	*$2,009,178*	*$1,912,851*	*-$96,327*
Balances from P.L. 111-32 Pandemic Flu	*$0*	*$0*	*$0*	$156,344	$156,344
Total, Infectious Disease	*$1,947,827*	*$300,000*	*$2,009,178*	*$2,069,195*	*$60,017*
Health Promotion	*$1,019,708*	*$0*	*$1,074,660*	*$1,080,846*	*$6,186*
Health Information and Service					
Budget Authority	$83,124	$0	$72,055	$97,033	$24,978
PHS Evaluation Transfers	*$196,232*	*$0*	*$216,599*	$209,914	-$6,685
Subtotal, Health Information and Service -	*$279,356*	*$0*	*$288,654*	*$306,947*	*$18,293*
Environmental Health and Injury Prevention	*$330,657*	*$0*	*$335,733*	*$329,920*	*-$5,813*
Occupational Safety and Health					
Budget Authority	$268,834	$0	$281,447	$364,318	$82,871
PHS Evaluation Transfers	*$91,225*	*$0*	*$91,724*	$91,724	$0
Subtotal, Occupational Safety and Health -	*$360,059*	*$0*	*$373,171*	*$456,042*	*$82,871*
Global Health [2]	*$319,113*	*$0*	*$336,124*	*$351,944*	*$15,820*
Public Health Research (PHS Evaluation Transfers)	*$31,000*	*$0*	*$31,170*	*$31,170*	*$0*
Public Health Improvement and Leadership (PHIL)	*$209,136*	*$0*	*$211,432*	*$192,916*	*-$18,516*
Preventive Health & Health Services Block Grant (PHHSBG)	*$102,000*	*$0*	*$102,034*	*$102,034*	*$0*
Buildings and Facilities	*$151,500*	*$0*	*$69,150*	*$0*	*-$69,150*
Business Services Support	*$359,877*	*$0*	*$369,869*	*$382,152*	*$12,283*
Bioterrorism Preparedness and Response					
Budget Authority	*$1,514,657*	*$0*	*$1,549,358*	*$1,464,656*	*-$84,702*
Balances from P.L. 111-32 Pandemic Flu	*$0*	*$0*	*$0*	*$68,515*	*$68,515*
Total, Bioterrorism Preparedness and Response	*$1,514,657*	*$0*	*$1,549,358*	*$1,533,171*	*-$16,187*
Total, L/HHS/ED -	*$6,293,639*	*$300,000*	*$4,848,818*	*$6,265,806*	*-$132,370*
Total, L/HHS/ED (inc. PHS and supplementals) -	*$6,624,890*	*$300,000*	*$6,750,533*	*$6,611,478*	*-$139,055*
Unobligated Balances from P.L. 111-32 Pandemic Flu	*$0*	*$0*	*$0*	*$224,859*	*$224,859*
PHS Evaluation Transfer (non-add)	*$331,251*	*$0*	*$352,357*	*$345,672*	*-$6,685*
Agency for Toxic Substances and Disease Registry	$74,039	$0	$76,792	$76,337	-$455
Public Health and Social Services Emergency Fund	*$200,000*	*$0*	*$0*	*$0*	*$0*
Vaccines for Children [3, 4, 5]	$3,382,875	$0	$3,636,201	$3,651,354	$15,153
Energy Employees Occupational Illness Compensation Program	$55,358	$0	$55,358	$55,358	$0
User Fees	$2,226	$0	$2,226	$2,226	$0
Total, CDC/ATSDR Program Level -	*$10,339,388*	*$300,000*	*$10,521,110*	*$10,621,612*	*$100,502*
Full-Time Equivalents (FTEs) -	*9,635*	*N/A*	*9,735*	*9,835*	*100*

[1] FY 2009 Appropriation amount displays $300M Section 317 funds for American Reinvestment & Recovery Act (P.L. 111-5).

[2] Global Health's Afghanistan Initiative and Health Diplomacy Initiative have been made comparable for FY 2009 and FY 2010. In FY 2009, the Global Health line includes $5.789M for Afghanistan Initiative and $4.5M for Health Diplomacy. In FY 2010, the Global Health line includes $5.789M for Afghanistan Initiative and $2M for Health Diplomacy.

[3] The FY 2010 level for VFC does not include FY 2009 unobligated balances brought forward of $15.988 million, for a total program level of $3,652.189 million.

[4] The difference between the FY 2011 President's Budget and the FY 2010 total program level of $3,652.189 million is -$835,000.

[5] The FY 2009 VFC number represents actual obligations, not appropriation.

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BUDGET EXHIBITS

APPROPRIATIONS LANGUAGE

CENTERS FOR DISEASE CONTROL AND PREVENTION APPROPRIATION LANGUAGE

DISEASE CONTROL, RESEARCH, AND TRAINING

To carry out titles II, III, VII, XI, XV, XVII, XIX, XXI and XXVI of the Public Health Service Act (`PHS Act'), sections 101, 102, 103, 201, 202, 203, 301, 501, and 514 of the Federal Mine Safety and Health Act of 1977, section 13 of the Mine Improvement and New Emergency Response Act of 2006, sections 20, 21, and 22 of the Occupational Safety and Health Act of 1970, title*s II and* IV of the Immigration and Nationality Act, section 501 of the Refugee Education Assistance Act of 1980, and for expenses necessary to support activities related to countering potential biological, nuclear, radiological, and chemical threats to civilian populations; including purchase and insurance of official motor vehicles in foreign countries; and purchase, hire, maintenance, and operation of aircraft, **[**$6,390,387,000] *$6,265,806,000***,** of which **[**$69,150,000**]** *$0* shall remain available until expended for acquisition of real property, equipment, construction and renovation of facilities; of which **[**$595,749,000**]** *$523,533,000* shall remain available until expended for the Strategic National Stockpile under section 319F-2 of the PHS Act; **[**of which $20,620,000 shall be used for the projects, and in the amounts, specified under the heading `Disease Control, Research, and Training' in the statement of the managers on the conference report accompanying this Act**]**; of which **[**$118,979,000**]** *$118,092,000* for international HIV/AIDS shall remain available through September 30, **[**2011**]** *2012*; and of which **[**$70,723,000] *$150,137,000* shall be available until expended to provide screening and treatment for first response emergency services personnel, residents, students, and others related to the September 11, 2001 terrorist attacks on the World Trade Center: *Provided,* That in addition, such sums as may be derived from authorized user fees, which shall be credited to this account: *Provided further*, That with respect to the previous proviso, authorized user fees from the Vessel Sanitation Program shall be available through September 30, 2011: *Provided further*, That in addition to amounts provided herein, the following amounts shall be available from amounts available under section 241 of the PHS Act: (1) **[**$12,864,000**]** *$12,864,000* to carry out the National Immunization Surveys; (2) **[**$138,683,000**]** *$161,883,000* to carry out the National Center for

Health Statistics surveys; (3) **[**$30,880,000**]** *$30,880,000* for Public Health Informatics; (4) **[**$47,036,000**]** *$17,151,000* for Health Marketing; (5) **[**$31,170,000**]** *$31,170,000* to carry out Public Health Research; and (6) **[**$91,724,000**]** *$91,724,000* to carry out research activities within the National Occupational Research Agenda: *Provided further,* That none of the funds made available for injury prevention and control at the Centers for Disease Control and Prevention may be used, in whole or in part, to advocate or promote gun control: *Provided further*, That of the funds made available under this heading, up to $1,000 per eligible employee of the Centers for Disease Control and Prevention shall be made available until expended for Individual Learning Accounts: *Provided further*, That the Director may redirect the total amount made available under authority of Public Law 101-502, section 3, dated November 3, 1990, to activities the Director may so designate: *Provided further*, That the Committees on Appropriations of the House of Representatives and the Senate are to be notified promptly of any such redirection: *Provided further,* That not to exceed $20,787,000 may be available for making grants under section 1509 of the PHS Act to not less than 21 States, tribes, or tribal organizations**[**: *Provided further*, That notwithstanding any other provision of law, the Centers for Disease Control and Prevention shall award a single contract or related contracts for development and construction of the next building or facility designated in the Buildings and Facilities Master Plan that collectively include the full scope of the project**]**: *Provided further*, That the solicitation and contract shall contain the clause `availability of funds' found at 48 CFR 52.232-18: *Provided further, That of this amount, $5,789,000 shall be to assist Afghanistan in the development of maternal and child health clinics, consistent with section 103(a)(4)(H) of the Afghanistan Freedom Support Act of 2002*: *Provided further*, That of the funds appropriated, $10,000 shall be for official reception and representation expenses when specifically approved by the Director of the Centers for Disease Control and Prevention: *Provided further*, That employees of the Centers for Disease Control and Prevention or the Public Health Service, both civilian and Commissioned Officers, detailed to States, municipalities, or other organizations under authority of section 214 of the PHS Act, or in overseas assignments, shall be treated as non-Federal employees for reporting purposes only and shall not be included within any personnel ceiling applicable to the Agency, Service, or the Department of Health and

Human Services during the period of detail or assignment. In addition, for necessary expenses to administer the Energy Employees Occupational Illness Compensation Program Act, **[**$55,358,000**]** $55,358,000, to remain available until expended, **[**of which $4,500,000 shall be for use by or in support of the Advisory Board on Radiation and Worker Health (`the Board') to carry out its statutory responsibilities, including obtaining audits, technical assistance, and other support from the Board's audit contractor with regard to radiation dose estimation and reconstruction efforts, site profiles, procedures, and review of Special Exposure Cohort petitions and evaluation reports**]**: *Provided,* That this amount shall be available consistent with the provision regarding administrative expenses in section 151(b) of division B, title I of Public Law 106-554. *Provided further, That with respect to grants to States authorized under Sections 301, 307, 310, 311, 304, and 317 of the PHS Act, any State may redirect up to 10 percent of any fiscal year 2011 grant program allocation to supplement other grants the State receives from funds provided under this heading to address one or more of the top five leading causes of death within such State: Provided further, That each State choosing to redirect funds under the preceding proviso shall submit a detailed plan to the Secretary not less than 30 days prior to such redirection, and, not later than 30 days after the close of the fiscal year, provide a final report in the format specified by the Secretary on the amounts so redirected and how such amounts were used to improve the performance of State public health programs: Provided further, That such redirections may not be used to supplant State funds for such activities (Department of Health and Human Services Appropriations Act, 2010).*

APPROPRIATIONS LANGUAGE ANALYSIS

CENTERS FOR DISEASE CONTROL AND PREVENTION LANGUAGE ANALYSIS

LANGUAGE ANALYSIS

LANGUAGE PROVISION	EXPLANATION
Title II (of the Immigration and Nationality Act)	Title II of the Immigration and Nationality Act is listed to provide consistency of authorizations for ongoing CDC work. This title provides CDC the authority to detain aliens for physical and mental examination.
["…of which $20,620,000 shall be used for the projects, and in the amounts, specified under the heading `Disease Control, Research, and Training' in the statement of the managers on the conference report accompanying this Act"**]**;	The FY 2011 Budget request for CDC does not include one-time project costs included in the FY 2010 enacted appropriation.
[": *Provided further*, That notwithstanding any other provision of law, the Centers for Disease Control and Prevention shall award a single contract or related contracts for development and construction of the next building or facility designated in the Buildings and Facilities Master Plan that collectively include the full scope of the project"**]**	This language is eliminated because FY 2011 budget request does not include funding of the Buildings and Facilities Master Plan.
"Provided further, That of this amount, $5,789,000 shall be to assist Afghanistan in the development of maternal and child health clinics consistent with section 103(a)(4)(H) of the Afghanistan Freedom Support Act of 2002:"	The FY 2011 Budget request proposes to move the Afghanistan Health Initiative from the Office of Global Health Affairs to CDC. This change will allow this initiative to be better integrated into CDC's broader global health work.
["…of which $4,500,000 shall be for use by or in support of the Advisory Board on Radiation and Worker Health ("the Board") to carry out its statutory responsibilities, including obtaining audits, technical assistance, and other support from the Board's audit contractor with regard to radiation dose estimation and reconstruction efforts, site profiles, procedures, and review of Special Exposure Cohort petitions and evaluation reports: *Provided*, That this amount shall be available consistent with the provision regarding administrative expenses in section 151(b) of division B, title I of Public Law 106-554."**]**	Eliminates language that requires a specific level of funding of the $55,358,000 to support the Advisory Board on Radiation and Worker Health to administer the Energy Employees Occupational Illness Compensation Program Act. Eliminating this language will allow more flexibility for CDC to meet the needs associated with increasing costs of the Board.

LANGUAGE PROVISION	EXPLANATION
"Provided further, That with respect to grants to States authorized under Sections 301, 307, 310, 311, 304, and 317 of the PHS Act, any State may redirect up to 10 percent of any fiscal year 2011 grant program allocation to supplement other grants the State receives from funds provided under this heading to address one or more of the top five leading causes of death within such State: Provided further, That each State choosing to redirect funds under the preceding proviso shall submit a detailed plan to the Secretary not less than 30 days prior to such redirection, and, not later than 30 days after the close of the fiscal year, provide a final report in the format specified by the Secretary on the amounts so redirected and how such amounts were used to improve the performance of State public health programs: Provided further, That such redirections may not be used to supplant existing state funded activities."	The FY 2011 Budget includes appropriations language to improve coordination and integration of State chronic disease programs that address similar risk factors. Enhanced flexibility at the State level will increase synergies, reach, and improve health outcomes. This language will provide States with the needed flexibility to address risk factors associated with chronic disease and reduce the prevalence and burden associated with the leading causes of death as well as hold States accountable to improve these health outcomes.

AMOUNTS AVAILABLE FOR OBLIGATION

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION DISEASE, CONTROL, RESEARCH AND TRAINING AMOUNTS AVAILABLE FOR OBLIGATION [1]			
	FY 2009 Actual [2]	FY 2010 Appropriation [3]	FY 2011 President's Budget Request
General Fund Discretionary Appropriation:			
Annual	$6,283,350,000	$6,398,176,000	$6,265,806,000
Rescission	-	-	-
Unobligated balance from P.L. 111-32 Pandemic Flu	-	-	$224,859,000
Subtotal, adjusted Appropriation	$6,283,350,000	$6,398,176,000	$6,490,665,000
Transfers to Other Accounts (Section 202 Transfer to CMS)	-	-	-
Transfers from Other Accounts (Recovery Act Appropriation)	$300,000,000	-	-
Transfers from Other Accounts (H1N1 Supplemental)	$200,000,000	-	-
Transfers from Other Accounts (ATSDR)	$1,137,000	($311,000)	-
Transfers from Other Accounts (Department of State)	-	-	-
Subtotal, adjusted General Fund Discr. Appropriation	$6,784,487,000	$6,397,865,000	$6,490,665,000
Mandatory Appropriation:			
Appropriation (CRADA)	$2,187,000	$1,000,000	$1,000,000
Appropriation (EEOICPA)	$55,358,000	$55,358,000	$55,358,000
Vaccines for Children [4]	$3,382,875,000	$3,652,189,000	$3,651,354,000
Subtotal, adjusted Mandatory Appropriation	$3,440,420,000	$3,708,547,000	$3,707,712,000
Receipts from CRADA	$2,187,000	$1,000,000	$1,750,000
Recovery of prior year Obligations	$8,771,000	-	-
Unobligated balance start of year	($347,696,000)	($559,528,000)	($380,000,000)
Unobligated balance expiring	($3,825,000)	-	-
Unobligated balance end of year	$559,528,000	$380,000,000	$347,696,000
Total Obligations	$10,443,872,000	$9,927,884,000	$10,167,823,000

[1] Excludes the following amounts for reimbursements: FY 2009 $552,989,000; and FY 2010 $439,215,000.

[2] FY 2009 Actual does not include ARRA obligations/funding

[3] Global Health's Afghanistan Initiative and Health Diplomacy Initiative have been made comparable for FY 09 and FY 10 amounts

[4] The FY 2010 level for VFC represents estimated total obligations, including $15.988 million in FY 2009 unobligated balances brought forward and $3,636.201 million in transfer from CMS.

SUMMARY OF CHANGES

FY 2011 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION SUMMARY OF CHANGES
(DOLLARS IN THOUSANDS)

	Dollars	FTEs
FY 2011 Budget (Budget Authority)	$6,265,806	9,529
FY 2010 Enacted (Budget Authority)	$6,398,176	9,429
Net Change	($132,370)	100

	FY	Appropriation	Change from Base	
	FTE	Budget Authority	FTE	Budget Authority
Increases:				
Immunization & Respiratory Diseases				
Section 317 Immunization Program - Vaccine Purchase & State Infrustructure	---	$496,847	-	$14,215
Section 317 - Program Operations	---	$62,621	-	$3,009
Pay Increase for Other Immunization & Respiratory Diseases Activities	---	$2,648	-	$195
Balances from P.L. 111-32	---	$0	-	$156,344
HIV/AIDS, Viral Hepatitis, STD, & TB Prevention				
Domestic HIV/AIDS Prev ention and Treatment	---	$727,980	-	$30,560
Viral Hepatitis	---	$19,259	-	$1,848
Sex ually Transmitted Diseases	---	$153,875	-	$6,713
Pay Increase for Other HIV/AIDS, Viral Hepatitis, STD, & TB Prev ention Activities	---	$144,268	-	$279
Zoonotic, Vector-borne, & Entric Diseases				
Food Safety	---	$26,942	-	$8,253
Pay Increase for Other Zoonotic, Vector-borne, and Entric Diseases Activities	---	$49,647	-	$302
Preparedness, Detection, and Control of Infectious Diseases				
Emerging Infectious Diseases	---	$136,281	-	$19,617
National Healthcare Safety Network	---	$15,150	-	$12,302
Pay Increase for Other Preparedness, Detection, & Control of Infectious Diseases	---	$30,898	-	$47
Chronic Disease Prevention, Health Promotion, & Genomics				
Big Cities Initiativ e	---	$0	-	$20,000
School Health	---	$57,645	-	$3,875
Safe Motherhood - (including Prev ention of Teen Pregnancy)	---	$44,782	-	$10,861
Pay Increase for Other Chronic Disease Prev ention, Health Promotion, & Genomics	---	$828,865	-	$1,280
Birth Defect, Developmental Disabilities, Disability & Health				
Birth Defects	---	$21,342	-	$124
Autism	---	$22,061	-	$1,766
Public Health Approach to Blood Disorders	---	$0	-	$20,243
Pay Increase for Other Birth Defect, Dev elopmental Disabilities, Disability & Health	---	$121,307	-	$205
Health Informatics				
Pay Increase for Health Informatics Activities	---	$39,717	-	$254
Health Marketing				
Health Marketing	---	$32,338	-	$28,290
Environmental Health				
Built Env ironment	---	$0	-	$4,000
Pay Increase for Other Env ironmental Health Activities	---	$187,118		$675
Injury Prevention & Control				
NVDRS	---	$3,544	-	$1,464
Pay Increase for Other Injury Prev ention & Control Activities	---	$145,071	-	$266
Occupational Safety & Health				
National Occupational Research Agenda - (Nanotechnology)	---	$25,682	-	$7,122
World Trade Center (WTC)	---	$70,723	-	$79,414
Pay Increase for Other Occupational Safety & Health Activities	---	$185,042	-	$686
Global Health				
Global Disease Detection	---	$37,756	-	$49
Other Global Health	---	$16,308	-	$18,774
Pay Ioncrease for Other Global Health Activities	---	$282,060	-	$165
Public Health Improvement & Leadership				
Public Health Workforce Dev elopment	---	$37,826	-	$10,113
Pay Rasie for Other Public Health Improv ement & Leadership Activities	---	$173,606	-	$359
Business Services Support				
Business Serv ices Support	---	$369,869	-	$12,283
Public Health Preparedness & Response				
Strategic National Stockpile	---	$595,749	-	$5,000
Balances from P.L. 111-32	---	$0	-	$68,515
Pay Increase for Public Health Preparedness & Response Activities	---	$1,549,358	-	$589
Total CDC Pay Raise (non-add)	---	*N/A*	-	*$13,777*
Total Increases	N/A	$5,164,827	N	$550,056

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION SUMMARY OF CHANGES (Cont.) (DOLLARS IN THOUSANDS)				
Decreases:				
Immunization & Respiratory Diseases				
Seasonal Influenza (Travel and Contract Reductions)	---	$2,648	---	($72)
Pan Flu BA Reduction - PHSSEF Transfer	---	$156,344	---	($156,344)
HIV/AIDS, Viral Hepatitis, STD, & TB Prevention				
Other HIV/AIDS, Viral Hepatitis, STD, & TB Prevention (Travel & Contract Reductions)	---	$144,268	---	($1,496)
Zoonotic, Vector-borne, & Entric Diseases				
Vector-borne Diseases	---	$26,717	---	($26,717)
Zoonotic, Vector-borne, and Entric Diseases (Pay Raise)	---	$49,647	---	($458)
Preparedness, Detection, and Control of Infectious Diseases				
Preparedness, Detection, and Control of Infectious Diseases (Program Reductions)	---	$30,898	---	($1,714)
Other Preparedness, Detection, and Control of Infectious Diseases (Travel & Contract Reductions)	---	$30,898	---	($6,866)
Chronic Disease Prevention, Health Promotion, & Genomics				
Mind-Body Institute	---	$1,500	---	($1,500)
Inflamatory Bowel Disease	---	$686	---	($686)
Interstitial Cystitis	---	$660	---	($660)
Johanna's Law	---	$6,807	---	($6,807)
Geraldine Ferraro Cancer Education Program	---	$4,677	---	($4,677)
Other Chronic Disease Prevention, Health Promotion, & Genomics (Travel & Contract Reductions)	---	$828,865	---	($15,671)
Birth Defect, Developmental Disabilities, Disability & Health				
Blood Disorders	---	$19,912	---	($19,912)
Alveolar capillary Dysplasia	---	$247	---	($247)
Other Birth Defect and Devl. Disabilities, Disability, & Health (Travel & Contract Reductions)	---	$143,368		($2,008)
Health Informatics				
Health Informatics (Travel & Contract Reductions)	---	$39,717	---	($3,566)
Environmental Health				
Polycythemia Vera (PV) Cluster	---	$2,513	---	($2,513)
Other Environmental Health activities (Program Reductions)	---	$78,043	---	($3,012)
Other Environmental Health activities (Travel & Contract Reductions)	---	$187,118	---	($3,918)
Injury Prevention & Control				
Injury Prevention & Control (Travel & Contract Reductions)	---	$145,071	---	($2,775)
Occupational Safety & Health				
Other Occupational Safety & Health (Travel & Contract reductions)	---	$185,042	---	($4,351)
Global Health				
Global Health (Travel & Contract Reductions)	---	$319,816	---	($3,168)
Public Health Improvement & Leadership				
Directors Discretionary Fund	---	$3,000	---	($500)
Congressional Projects (PHIL)	---	$20,620	---	($20,620)
Contract & Travel Reductions to Other Public Health Improvement & Leadership Activities	---	$173,606	---	($7,868)
Buildings and Facilities				
Buildings and Facilities	---	$69,150	---	($69,150)
Public Health Preparedness & Response				
Anthrax	---	$2,600	---	($2,600)
SNF BA Reduction - PHSSEF Transfer	---	$595,749	---	($68,515)
Contract & Travel Reductions to Public Health Preparedness & Response Activities	---	$1,549,358	---	($19,176)
Travel and Contract Reductions (non-add)	---	*N/A*	---	*($99,392)*

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION SUMMARY OF CHANGES (Cont.) (DOLLARS IN THOUSANDS)				
Built-In:				
1. Annualization of Jan - 2010 Pay Raise	---	---	---	$5,235
2. Changes in Day of Pay	---	---	---	$0
3. Within-Grade Increases	---	---	---	$18,674
4. Rental Payments to GSA and Others	---	---	---	$367
Total Built-In	9,429	$6,398,176	100	$24,276
1. Absorption of Current Services	---	---	---	($24,276)
Total	---	---	---	($24,276)
Total Increases (Budget Authority)	9,429	$6,398,176	100	$574,332
Total Decreases (Budget Authority)	N/A	N/A	0	($481,843)
NET CHANGE - L/HHS/ED BUDGET AUTHORITY	9,429	$6,398,176	100	$92,489
Program Level Changes				
1. Vaccines for Children	---	$3,636,201	---	$15,153
2. ATSDR [2]	306	$76,792	0	($455)
3. PHS Evaluation Transfers	---	352,357	---	($6,685)
Total - Program Level Net Increase	306	$4,065,350	0	$8,013
NET CHANGE: BUDGET AUTHORITY & PROGRAM LEVEL	9,735	$10,463,526	100	$100,502

1. Programmatic increases/decreases represent net increases/decreases which includes pay increases and travel and contract reductions
2. Includes pay raise and travel and contract reductions

BUDGET AUTHORITY BY ACTIVITY (ALL PURPOSE TABLE)

FY 2011 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
BUDGET AUTHORITY BY ACTIVITY (APT)
(DOLLARS IN THOUSANDS)

Budget Activity	FY 2009 Appropriation	FY 2009 Recovery Act [1]	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/- FY 2010
Infectious Diseases	$1,935,033	$300,000	$1,996,314	$1,899,987	(96,327)
Health Promotion	*$1,019,708*	*$0*	*$1,074,660*	*$1,080,846*	*6,186*
Health Information and Service	$83,124	$0	$72,055	$97,033	24,978
Environmental Health and Injury Prevention	*$330,657*	*$0*	*$335,733*	*$329,920*	*(5,813)*
Occupational Safety and Health	$268,834	$0	$281,447	$364,318	82,871
Global Health [2]	*$319,113*	*$0*	*$336,124*	*$351,944*	*15,820*
Public Health Improvement and Leadership (PHIL)	*$209,136*	*$0*	*$211,432*	*$192,916*	*(18,516)*
Preventive Health & Health Services Block Grant (PHHSBG)	*$102,000*	*$0*	*$102,034*	*$102,034*	*0*
Buildings and Facilities	*$151,500*	*$0*	*$69,150*	*$0*	*(69,150)*
Business Services Support	*$359,877*	*$0*	*$369,869*	*$382,152*	*12,283*
Bioterrorism Preparedness and Response	*$1,514,657*	*$0*	*$1,549,358*	*$1,464,656*	*(84,702)*
CDC Total, L/HHS/ED -	*$6,293,639*	*$300,000*	*$6,398,176*	*$6,265,806*	*(132,370)*
Agency for Toxic Substances and Disease Registry	$74,039	$0	$76,792	$76,337	(455)
Total, CDC/ATSDR -	*$6,367,678*	*$300,000*	*$6,474,968*	*$6,342,143*	*(132,825)*

[1] FY 2009 CDC Appropriation amount displays $300M Section 317 funds for American Reinvestment & Recovery Act (P.L. 111-5)

[2] Global Health's Afghanistan Initiative and Health Diplomacy Initiative have been made comparable for FY 2009 and FY 2010. In FY 2009, the Global Health line includes $5.789M for Afghanistan Initiative and $4.5M for Health Diplomacy. In FY 2010, the Global Health line includes $5.789M for Afghanistan Initiative and $2M for Health Diplomacy.

AUTHORIZING LEGISLATION

DOLLARS IN THOUSANDS	FY 2010 AMOUNT AUTHORIZED	FY 2010 OMNIBUS	FY 2011 AMOUNT AUTHORIZED	FY 2011 BUDGET
Infectious Diseases:				
Immunization and Respiratory Diseases	Indefinite	$718,460	Indefinite	$579,463
PHSA §§ 301, 307, 310, 311, 317[2], 317A, 317J, 317K[2], 319, 319E[3], 327, 340C, 352, 2125, 2126, 2127 Section 1928 of Social Security Act (42 U.S.C 1396s) Pandemic Influenza: PHSA §§ 317N[2], 317S[4], 319, 319C, 319F, 322, 325, 327 Immigration and Nationality Act Sec. 212 (8 USC Sec. 1182) Immigration and Nationality Act Sec. 232 (8 USC Sec. 1252) Pandemic and All Hazards Preparedness Act (PAHPA) of 2006				
P.L. 111-32 Supplemental Appropriations Act	0	0	0	$156,344
HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	Indefinite	$1,045,382	Indefinite	$1,083,286
PHSA §§ 301, 306[1], 307, 308, 310, 311, 317[2] , 317N[2], 317P, 317U, 318[1], 318A[1], 318B [2] , 322, 325, 327, 352, 2315, 2320, 2341, 2521[1], 2522, 2523, 2524[1], 2625 [6] Tuskegee Health Benefits: P.L. 103-333 Section 502 of Ryan White CARE Act Amendments of 2000 (P.L. 106-345) International authorities- Section 213 of the Departments of Labor, HHS, Education, & Related Agencies Appropriations Act of 2010 (P.L. 111-117, Division D)				
Zoonotic, Vector-Borne, and Enteric Diseases	Indefinite	$76,647	Indefinite	$58,027
PHSA §§ 301, 307, 310, 311, 317[2], 317N[2], 317P[6], 317R[3], 317S[4], 318[1], 319, 319E[3], 319F, 319G[3], 321, 322, 325, 327, 352, 361, 362, 363, 1102 Immigration and Nationality Act Sec. 212 (8 USC Sec. 1182) Immigration and Nationality Act Sec. 232 (8 USC Sec. 1252)				
Preparedness, Detection, and Control of Infectious Diseases	Indefinite	$168,689	Indefinite	$192,075
PHSA §§ 301, 304, 307, 310, 311, 317[2], 317G, 319, 319D, 319E[3], 319G[3], 321, 322, 325, 327, 352, 361-369, 1102, Immigration and Nationality Act Sec. 212 (8 USC Sec. 1182) Immigration and Nationality Act Sec. 232 (8				

DOLLARS IN THOUSANDS	FY 2010 AMOUNT AUTHORIZED	FY 2010 OMNIBUS	FY 2011 AMOUNT AUTHORIZED	FY 2011 BUDGET
USC Sec. 1252) Immigration and Nationality Act Sec.412 (8 USC Sec. 1522)				
Health Promotion:				
Chronic Disease Prevention, Health Promotion, and Genomics	Indefinite	$931,292	Indefinite	$937,307
PHSA §§ 301, 307, 310, 311, 317[2], 317C, 317D[1], 317H[2], 317K[2], 317L[2], 317M[2], 330E[2], 399B-399D[1], 399F[1], 399H-399J[1], 399L[2] 399N[2], 399W-399Z[2], 1102, 1501, 1509[1], 1701[1], 1702, 1703, 1704, 1706[1] Comprehensive Smoking Education Act of 1984 (P.L. 99-474) Comprehensive Smokeless Tobacco Health Education Act of 1986 (P.L. 99-252) Fertility Clinic Success Rate and Certification Act of 1992 (P.L. 102-493) Asthmatic Schoolchildren's Treatment and Health Management Act of 2004 (P.L. 108-377) Benign Brain Tumor Cancer Registries Amendment Act (P.L. 107-260) Breast and Cervical Cancer Mortality Prevention Act (P.L. 101-354) Prematurity Research Expansion and Education for Mothers who Deliver Infants Early Act (P.L. 109-450) Public Health Cigarette Smoking Act of 1969 (P.L. 91-222)				
Birth Defects, Developmental Disabilities, Disabilities & Health	Indefinite	$143,368	Indefinite	$143,539
PHSA §§ 301, 307, 310, 311, 317[2], 317C[4], 317J[2], 327, 352, 399G, 399H-J[1], , 399M[1], 399Q, 1102, 1108[2] PHSA Title IV[2]				
Health Information and Service:				
Health Statistics	Indefinite	$138,683	Indefinite	$161,883
PHSA §§ 301, 304, 306[1] 307, 308 1% Evaluation: PHSA § 241 (non-add); Superseded by Section 206 of the FY 2002 Labor HHS Appropriations Act [P.L. 107-116]	Not more than 1.25% of amounts appropriated for PHSA programs as determined by the Secretary		Not more than 1.25% of amounts appropriated for PHSA programs as determined by the Secretary	
Public Health Informatics	Indefinite	$70,597	Indefinite	$67,285
PHSA §§ 301, 304, 306[1], 307, 308, 310, 311, 317[2], 318[1], 319, 319A, 327, 352, 391[2], 1102, 2315, 2341, Clinical Laboratory Improvement Amendments of 1988, § 4 (42 USC Sec. 263a)				

DOLLARS IN THOUSANDS	FY 2010 AMOUNT AUTHORIZED	FY 2010 OMNIBUS	FY 2011 AMOUNT AUTHORIZED	FY 2011 BUDGET
Health Marketing	Indefinite	$79,374	Indefinite	$77,779
PHSA §§ 301, 304, 307, 308, 310, 311, 317[2], 318[1], 319, 319A[3], 327, 352, 391[2], 1102, 2315, 2341, 2521[1]				
Environmental Health and Injury:				
Environmental Health	Indefinite	$187,118	Indefinite	$182,350
PHSA §§ 301, 307, 310, 311, 317[2], 317A[2], 317B, 317I[2], 327, 352, 361, 1102 Housing and Community Development Act, Sec. 1021 (15 U.S.C. 2685) Chemical Weapons Elimination Activities (50 USC Sec. 1512, 50 USC Sec. 1521) Housing and Community Development (Lead Abatement) Act of 1992 (42 USC Sec. 4851 et seq.)				
Injury Prevention and Control	Indefinite	$148,615	Indefinite	$147,570
PHSA §§ 301, 307, 310, 311, 317[2], 319, 327, 352, 391, 392, 393, 393A, 393B, 393C, 393D, 394[2], 394A[2], 399P Traumatic Brain Injury Act of 2008 (P.L. 110-206) Safety of Seniors Act of 2007 (P.L. 110-202) Sec 413 of the Family Violence Prevention and Services Act (42 USC Sec. 10418) [5]				
Occupational Safety and Health:				
Occupational Safety and Health	Indefinite	$373,171	Indefinite	$456,042
PHSA §§ 301, 304, 306[1], 307, 310, 311, 317[2], 317A[2], 317B, 327 Occupational Safety and Health Act of 1970 (P.L. 91-596), §§ 9, 20-22 (29 USC 657) Federal Mine Safety and Health Act of 1977, P.L. 91-173 as amended by P.L. 95-164, §§ 101, 102, 103, 202, 203,204, 205, 206, 301, 501, 502, 508 and PL 95-239 § 19 (30 USC 904) Federal Fire Prevention and Control Act, § 209, (29U.S.C.671(a)) Radiation Exposure Compensation Act, §§ 6 and 12(42U.S.C.2210) Housing and Community Development Act of 1922 §1021 (15 U.S.C. 2685) Energy Employees Occupational Illness Compensation Program Act (2000) 42 U.S.C. 7384, et. Seq. (as amended) Floyd D. Spence National Defense Authorization Act §§ 3611, 3612, 3623, 3624, 3625, 3626 of P.L. 106-398 National Defense Authorization Act for Fiscal				

DOLLARS IN THOUSANDS	FY 2010 AMOUNT AUTHORIZED	FY 2010 OMNIBUS	FY 2011 AMOUNT AUTHORIZED	FY 2011 BUDGET
Year 2006, PL 109-163 Toxic Substances Control Act (15 USC 2682) Prohibition of Age Discrimination Act (29 USC 623) Mine Improvement and New Emergency Response Act of 2006 (MINER Act), P.L. 109-236 (29 U.S.C. 671, 30 U.S.C. 963 and 965) §§ 6, 11 and 13				
Global Health:				
Global Health	Indefinite	$336,124	Indefinite	$351,944
PHSA §§ 301, 304, 307, 310, 319, 327, 340C, 361-369, 2315, 2341 Foreign Assistance Act of 1961 §§ 104, 627,628 Federal Employee International Organization Service Act § 3 International Health Research Act of 1960 § 5 Agriculture Trade Development and Assistance Act of 1954 § 104 Economy Act 22 U.S.C. 3968 Foreign Employees Compensation Program 41 U.S.C. 253 International Competition Requirement Exception) P.L. 107-116 sec. 215 HR 5656 § 220 FY 2001 Appropriations Bill *103(a)(4)(H) of the Afghanistan Freedom Support Act of 2002*.				
Public Health Research:				
Public Health Research	Indefinite	$31,170	Indefinite	$31,170
PHSA §§ 301, 304, 307, 310, 317[2], 327	Not more than 1.25% of amounts appropriated for PHSA programs as determined by the Secretary		Not more than 1.25% of amounts appropriated for PHSA programs as determined by the Secretary	
Public Health Improvement and Leadership:				
	Indefinite	$211,432	Indefinite	$192,916
PHSA §§ 301, 304, 306[1], 307, 308, 310, 311, 317[2], 317(F), 319, 319A[3], 322, 325, 327, 352, 361 -369, 391[2], 399(F), 399G, 1102, 2315, 2341 Federal Technology Transfer Act of 1986, (15 U.S.C. 3710) Bayh-Dole Act of 1980, P.L. 96-517 Clinical Laboratory Improvement Amendments of 1988, § 4 (42 USC Sec.				

DOLLARS IN THOUSANDS	FY 2010 AMOUNT AUTHORIZED	FY 2010 OMNIBUS	FY 2011 AMOUNT AUTHORIZED	FY 2011 BUDGET
263a)				
Preventive Health and Health Services Block Grant:				
Preventive Health and Health Services Block Grant	Indefinite	$102,034	Indefinite	$102,034
Grants: PHSA Title XIX[1] Prevention Activities: PHSA §§ 214, 301, 304, 306[1], 307, 308, 310, 311, 317J[2], 327 Violent Crime Reduction Programs 40151 of P.L. 103-322				
Buildings and Facilities:				
Buildings and Facilities	Indefinite	$69,150	Indefinite	$0
PHSA §§ 304 (b)(4), 319D[3], 321(a)				
Business Services Support:				
Business Services Support	Indefinite	$369,869	Indefinite	$382,152
PHSA §§ 301, 304, 307, 310, 317[2], 317F[1], 319, 327, 361, 362, 368, 399F[1] Federal Technology Transfer Act of 1986, (15 U.S.C. 3710) Bayh-Dole Act of 1980, P.L. 96-517				
Terrorism:				
Terrorism	Indefinite	$1,549,358	Indefinite	$1,464,656
PHSA §§ 301, 307, 311, 317[3], 319, 319A 319C-1, 319D[3], 319F[3], 319G[3], 351A[4], 361-368, 2801, 2811 42 U.S.C. 262 note,. Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (P.L. 107-188) Pandemic and All Hazards Preparedness Act of 2006 (P.L. 109-417) P.L. 111-32 Supplemental Appropriations Act	0	0	0	$68,515
Reimbursables and Trust Funds: (non-add)				
PHSA §§ 301, 306(b)(4)[1], 353 Clinical Laboratory Improvement Act User fee: Labor-HHS FY Appropriations	Indefinite	$552,162	Indefinite	$552,162
Agency for Toxic Substances and Disease Registry:				
ATSDR	Indefinite	$76,792	Indefinite	$76,337
The Great Lakes Critical Programs Act of 1990, 33 U.S.C. § 1268 Section 104(i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended				

DOLLARS IN THOUSANDS	FY 2010 AMOUNT AUTHORIZED	FY 2010 OMNIBUS	FY 2011 AMOUNT AUTHORIZED	FY 2011 BUDGET
by the Superfund Amendments and Reauthorization Act of 1986 (SARA), 42 U.S.C § 9604(i) The Defense Environmental Restoration Program, 10 U.S.C. § 2704 The Resource Conservation and Recovery Act, as amended, 42 U.S.C § 321 et seq. The Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.				
Total Appropriation		$10,524,198		$10,621,612

1 Expired Prior to 2005
2 Expired 2005
3 Expired 2006
4 Expired 2007
5 Expired 2008
6 Expired 2009

APPROPRIATIONS HISTORY

FY 2011 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION[1]
APPROPRIATION HISTORY TABLE
DISEASE CONTROL, RESEARCH, AND TRAINING

	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2000	2,855,440,000 [9]	2,810,476,000	2,802,838,000	2,961,761,000 [10]
2000 Rescission	--	--	--	(16,810,000)
2001	3,239,487,000	3,290,369,000	3,204,496,000	3,868,027,000
2001 Rescission	--	--	--	(2,317,000)
2001 Sec's 1% Transfer	--	--	--	(2,936,000)
2002	3,878,530,000	4,077,060,000	4,418,910,000	4,293,151,000 [11]
2002 Rescission	--	--	--	(1,894,000)
2002 Rescission	--	--	--	(2,698,000)
2003	4,066,315,000	4,288,857,000	4,387,249,000	4,296,566,000
2003 Rescission	--	--	--	(27,927,000)
2003 Supplemental [12]	--	--	--	16,000,000
2004 [13]	4,157,330,000	4,538,689,000	4,494,496,000	4,367,165,000
2005 [13 14]	4,213,553,000	4,228,778,000	4,538,592,000	4,533,911,000
2005 Labor/HHS Reduction	--	--	--	(1,944,000)
2005 Rescission	--	--	--	(36,256,000)
2005 Supplemental [14]	--	--	--	15,000,000
2006 [13 15]	3,910,963,000	5,945,991,000	6,064,115,000	5,884,934,000
2006 Rescission	--	--	--	(58,848,000)
2006 Suplemental[16]	--	--	--	275,000,000
2006 Supplemental[17]	--	--	--	218,000,000
2006 Section 202 Transfer to CMS	--	--	--	(4,002,000)
2007 [15 16 18]	5,783,205,000	6,073,503,000	6,095,900,000	5,736,913,000
2008 [15]	5,741,651,000	6,138,253,000	6,156,169,000	6,156,541,000
2008 Rescission [15]	--	--	--	(106,567,000)
2009	5,618,009,000	6,202,631,000	6,313,674,000	6,283,350,000
2009 American Reinvestment & Recovery Act[19]				300,000,000
FY 2010	6,312,608,000	6,313,032,000	6,733,377,000	6,390,387,000
FY 2011	6,265,806,000	--	--	--

[9] Revised to include $35,000,000 for Global HIV initiative. Does not include $20,000,000 ($18,040,000 with rescission of $1,960,000) transferred from NIH for Anthrax.

[10] Does not include $229,000,000 ($228,680,000 with rescission of $320,000) in FY 2000 for emergency funding provided under the PHSSEF for Bioterrorism, Global AIDS, Polio, Malaria, Micronutrient Malnutrition, and the Environmental Health Laboratory.

[11] Includes Retirement accruals of +$57,297,000; Management Reform Savings of -$27,295,000

[12] Emergency Wartime Supplemental Appropriations Act, 2003 PL 108-11 for SARS

[13] FY 2004, FY 2005, FY 2006, funding levels for the Estimate reflect the Proposed Law for Immunization.

[14] FY 2005 includes a one time supplemental of $15,000,000 for avian influenza through the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005.

[15] Beginning in FY 2006, Terrorism funds are directly appropriated to CDC instead of being appropriated to the Public Health and Social Service Emergency Fund (PHSSEF). As a result, FY 2006 House, Senate, and Appropriation totals include Terrorism funds. Terrorism funding is included in CDC Appropriation after 2006.

[16] FY 2006 includes a one-time supplemental of $275 million for pandemic influenza and World Trade Center activities through P.L.109-141, Department of Defense Emergeny Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006

[17] FY 2006 includes a one time supplemental of $218 million for pandemic influenza, mining safety, and mosquito abatement through P.L. 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006.

[18] The FY 2007 appropriation amount listed is the FY 2007 estimated CR level based on a year long Continuing Resolution.

[19] FY 2009 Appropriation amount displays $300M Section 317 funds for American Reinvestment & Recovery Act (P.L. 111-5)

APPROPRIATIONS NOT AUTHORIZED BY LAW

CENTERS FOR DISEASE CONTROL & PREVENTION

PROGRAM	LAST YEAR OF AUTHORIZATION	AUTHORIZATION LEVEL	APPROPRIATIONS IN LAST YEAR OF AUTHORIZATION	APPROPRIATIONS IN FY 2010
Infectious Diseases:				
Immunization Program	FY 2005	Such Sums…	$493,032,000	$496,847,000
HIV/AIDS Prevention	FY 2005	Such Sums…	$662,267,000	$727,980,000
Sexually Transmitted Diseases Grants	FY 1998	Such Sums…	$113,671,000	$153,875,000
Tuberculosis Grants	FY 2002	Such Sums…	$132,403,000	$144,268,000
Other Infectious Disease Control [1]	FY 2005	Such Sums…	$225,589,000	$267,243,000
Health Promotion:				
Diabetes	FY 2005	Such Sums…	$63,457,000	$65,998,000
WISEWOMAN	FY 2003	Such Sums…	$12,419,000	$20,787,000
Cancer Registries	FY 2003	Such Sums…	$45,649,000	$51,236,000
Prostate Cancer	FY 2004	Such Sums…	$14,091,000	$13,638,000
Nutrition, Physical Activities and Obesity	FY 2005	Such Sums…	$41,930,000	$44,991,000
Safe Motherhood/Infant Health Promotion	FY 2005	Such Sums…	$44,738,000	$44,782,000
Oral Health Promotion	FY 2005	Such Sums…	$11,204,000	$15,000,000
Prevention Centers	FY 2003	Such Sums…	$26,830,000	$33,675,000
Birth Defects, Developmental Disability, Disability and Health	FY 2007	Such Sums…	$122,242,000	$143,368,000
Environmental Health and Injury:				
Asthma Prevention	FY 2005	Such Sums…	$32,422,000	$30,924,000
Lead Poisoning Prevention	FY 2005	Such Sums…	$36,474,000	$34,805,000
Injury Prevention and Control	FY 2005	Such Sums…	$138,237,000	$148,615,000
Preventive Health and Health Services Block Grant:				
Preventive Health Services Block Grant	FY 1998	Such Sums…	$194,092,000	$102,034,000

1. This line was re-structured, but these activities continue throughout other areas of CDC

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NARRATIVE BY ACTIVITY

PROTECTING HEALTH THROUGH IMMUNIZATION AND THE PREVENTION OF RESPIRATORY DISEASES

The increase in life expectancy during the 20th century is largely attributable to improvements in child survival, which has been associated with reductions in respiratory infectious disease mortality due in part to immunization. Today in the United States, immunization recommendations target 17 vaccine-preventable diseases across the lifespan. Although some vaccine-preventable diseases continue to place significant burden on the public's health, CDC has tallied the remarkable impact on illness and death that vaccines have had, compared with historical data. More than 99 percent reductions are evident for several of the vaccine-preventable diseases assessed.

Acute respiratory and related infections are a critical public health, humanitarian, and security concern. CDC provides technical expertise in implementing domestic and global immunization programs, preparedness planning for pandemic influenza and other emerging infections, and epidemiology and laboratory capacity to detect, prevent, and respond to respiratory and related infectious disease threats.

EPIDEMIOLOGY

Vaccine-preventable diseases in the United States are at or near record lows; for the majority of vaccine-preventable diseases, there has been a 90 percent or greater decline in reported cases when compared with the pre-vaccine era. Communities with pockets of unvaccinated and under-vaccinated populations are at greater risk for outbreaks of vaccine-preventable diseases, such as occurred in 2008 when imported measles resulted in 140 reported cases – nearly a threefold increase over the previous year. The emergence of new or replacement strains of a vaccine-preventable disease can result in a significant increase in serious illnesses and death. In addition, duration of immunity varies by vaccine. For example, despite a nearly 95 percent reduction in cases from the pre-vaccination era, 13,278 pertussis cases were reported in 2008 due to waning immunity. This finding led to a new Advisory Committee on Immunization Practices (ACIP) recommendation for a booster dose in adolescents and adults.

Acute respiratory infections, including pneumonia and influenza, are the eighth leading cause of death in the United States accounting for 56,000 deaths in the United States and an estimated annual toll of more than 3.5 million deaths worldwide. Pneumonia mortality in children fell by 97 percent in the last century, but respiratory infectious diseases continue to be leading causes of pediatric hospitalization and outpatient visits in the United States. On average, influenza leads to more than 200,000 hospitalizations and 36,000 deaths each year. The emergence of 2009 H1N1 influenza resulted in a pandemic that caused an estimated 191,000 hospitalizations, 8,000 adult deaths, and 540 pediatric deaths between April and November 2009.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

While immunization coverage rates among children do not significantly vary by race or ethnicity, racial and ethnic disparities among adults receiving influenza and pneumococcal vaccination have been documented. Certain racial and ethnic populations are also at increased risk for some respiratory infections. For example, rates of pneumococcal infection are higher among Alaska Native, African American, and specific American Indian groups of children. African American, Hispanic, and Native Americans are at higher risk for Haemophilus influenzae infections.

Persons of all age groups are impacted by acute respiratory infections, including pneumonia and influenza. However, rates of serious illness and death are greatest among persons aged 65 years and older, children less than two years of age, and persons of any age who have underlying medical conditions that put them at risk for complications from bacterial pneumonia and influenza. For example, young infants less than three months of age are at highest risk for pertussis-related complications, accounting for approximately 85 percent of pertussis-related deaths in 2004-2005.

ECONOMIC ANALYSIS

Immunization has been one of the most cost-effective public health interventions. For each birth cohort who receives seven of the vaccines[1] given as part of the routine childhood immunization schedule, society saves $9.9 million in direct health care costs; 33,000 lives are saved; and 14 million cases of disease are prevented.

Even with this success, respiratory illnesses continue to cost society both direct health care costs and indirect economic costs. Annual influenza epidemics are estimated to result in an average of 3.1 million hospitalized days and 31.4 million outpatient visits. Estimated direct healthcare costs average $10.4 billion annually[2].

EVIDENCE-BASED INTERVENTIONS

Creating an effective national immunization program requires investments in infrastructure for vaccine delivery and sound scientific information to inform vaccine policy decisions.

- State-based Immunization Programs and Vaccine Purchase: To support childhood immunization recommendations, CDC has supported the implementation of state-based immunization programs that make vaccines available to financially vulnerable children and adolescents. Since the adoption of this strategy, childhood immunization levels in the United States have resulted in record high vaccination levels and record low levels of vaccine-preventable diseases. In 2008, coverage levels of 90 percent or higher among children 19-35 months of age were met for six of seven routinely recommended childhood vaccines.
- Professional Training and Education: Immunization, screening, diagnosis, and appropriate treatment, as well as counseling and other preventive services are critical to the prevention and control of all forms of infectious disease. Evidence has shown that education for clinicians and public health practitioners can help to foster appropriate and culturally competent provision of services at the clinical and public health level. CDC provides training and education to promote safe and effective use, storage, and handling of vaccines; improve the appropriate use of antibiotics and antivirals; and support provider-patient interactions to enhance patient decision-making for preventive services.
- National Awareness Campaigns: A comprehensive national communication program is necessary to raise public awareness of vaccine availability and address public questions about vaccine benefits and risks. CDC's science-based communications activities are informed by efforts to document and define vaccine acceptance and barriers to immunization, and research to develop and evaluate the messages and methods that are most effective at reaching priority populations. Understanding barriers to immunization and determining these best practices result in a cost-effective and streamlined system.
- Evaluating Vaccine Effectiveness, Impact, and Vaccine Policy: The prevention and control of vaccine-preventable and related diseases requires public health surveillance, research, and laboratory activities to provide critical information on disease burden, vaccination coverage levels, outbreaks of disease, emergence of new infectious pathogens, and prevention strategies. CDC conducts post-licensure evaluation of vaccine performance to ensure that the national vaccine programs and policies have the intended public health impact, and supports long-term monitoring to evaluate duration of vaccine-induced immunity and vaccine performance and disease trends over time. These vaccine effectiveness and impact assessments provide additional information about the return on investments from vaccines and better inform vaccine policy.

[1] These vaccines include DTaP, Td, Hib, Polio, MMR, Hepatitis B, and Varicella.
[2] Molinari NA, Ortega-Sanchez IR, Messonnier ML, Thompson WW, Wortley PM, Weintraub E, Bridges CB. The annual impact of seasonal influenza in the US: measuring disease burden and costs. Vaccine. 2007 Jun 28;25(27):5086-96. Epub 2007 Apr 20.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Section 317 Immunization Program	**$495,901**	**$300,000**	**$496,847**	**$511,062**	**+$14,215**
Vaccine Purchase Grants	$261,977	$0	$261,977	$289,546	+$27,569
State Infrastructure Grants	$233,924	$0	$234,870	$221,516	-$13,354
Program Operations	**$61,458**	**$0**	**$62,621**	**$65,630**	**+$3,009**
National Immunization Survey (PHS Evaluation Transfers) (non-add)	*$12,794*	*$0*	*$12,864*	*$12,864*	*$0*
Influenza[1]	**$358,689**	**$0**	**$158,992**	**$159,115**	**+$123**
Pandemic Influenza	$156,046	$0	$156,344	$0	-$156,344
PHSSEF – Pandemic Influenza[1]	$200,000	$0	$0	$156,344	+$156,344
Seasonal Influenza	$2,643	$0	$2,648	$2,771	+$123

[1] In FY 2009, $200 million was appropriated to CDC for Pandemic Influenza in the Supplemental Appropriations Act, 2009 (P.L. 111-32). The FY 2011 Pandemic Influenza request will be financed with transferred resources from the Supplemental Appropriations Act, 2009 (P.L. 111-32). These amounts are included in the FY 2009 and FY 2011 Influenza totals.

IMMUNIZATION AND RESPIRATORY DISEASES

SUMMARY OF THE REQUEST

In FY 2011, CDC's programmatic requirement for Immunization and Respiratory Diseases is $735,807,000, an increase of $17,347,000 above the FY 2010 Omnibus. This amount includes CDC's FY 2011 Immunization and Respiratory Diseases budget request of $579,463,000 and a transfer of $156,344,000 from the balances of the FY 2009 Supplemental Appropriations for Pandemic Influenza in the Public Health and Social Services Emergency Fund (PHSSEF). FY 2011 funds will support: continuation of CDC's efforts to plan, develop, and maintain a public health infrastructure that helps assure high immunization coverage levels; prevention of vaccine-preventable diseases; and control of respiratory and related diseases such as influenza.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Budget Authority	$703,254	$300,000	$705,596	$566,599	-$138,997
PHS Evaluation Transfers	*$12,794*	*$0*	*$12,864*	*$12,864*	*$0*
Subtotal (BA and PHS)	$716,048	$300,000	$718,460	$579,463	-$138,997
PHSSEF – Pandemic Influenza[1]	$200,000	$0	$0	$156,344	+$156,344
Total[1]	$916,048	$300,000	$718,460	$735,807	+$17,347
FTEs	638	0	644	629	-15

[1] In FY 2009, $200 million was appropriated to CDC for Pandemic Influenza in the Supplemental Appropriations Act, 2009 (P.L. 111-32). The FY 2011 Pandemic Influenza request will be financed with transferred resources from the Supplemental Appropriations Act, 2009 (P.L. 111-32). These amounts are included in the FY 2009 and FY 2011 Immunization and Respiratory Diseases totals.

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 317(a), 317(j)(1), 317(k)(1), 319, 319C1, 319E, 319F(2), 327, 340C, 352, 2102(6), 2102(7), 2125, 2126, 2127, Title XXI, Section 1928 of Social Security Act (42 USC 1396s); Immigration and Nationality Act §§ 212 (8 USC Sec. 1182), 232 (8 USC Sec. 1252); Pandemic and All-Hazards Preparedness Act (PAHPA) of 2006

FY 2010 Authorization……Expired/Indefinite

Allocation Method……Direct Federal/Intramural; Competitive Cooperative Agreements/Grants, including Formula Grants; Contracts; and Other

PROGRAM DESCRIPTION

CDC focuses on the prevention of disease, disability, and death of children, adolescents, and adults through immunization and by control of respiratory and related diseases. Childhood vaccination coverage rates are at near record high levels, and as a result, cases of most vaccine-preventable diseases in the United States are at or near record lows. Maintaining and enhancing these program successes in vaccination are critical to prevent recurrent epidemics of diseases that could result in preventable illness, disability, and death. Persons in every age group are also impacted by acute respiratory infections, including pneumonia and influenza. Influenza is a major public health problem in the United States and globally, presenting an ever-evolving threat. FY 2011 funds will advance CDC's priorities as noted below.

- CDC will fully implement vaccine programs and recommendations by 1) providing national communications campaigns and provider education to raise awareness about vaccine recommendations and support informed decision-making; 2) conducting assessments of vaccine impact and effectiveness and enhanced surveillance to document disease trends; 3) monitoring and

evaluating vaccine safety; 4) improving vaccine coverage monitoring; and 5) providing programmatic support to physicians and healthcare facilities to ensure sufficient vaccine financing and distribution, as well as proper vaccine storage and handling; and 6) purchase of recommended vaccines.

- CDC will reduce deaths from vaccine-preventable diseases, pneumonia, influenza, and other severe respiratory diseases by facilitating the use of known interventions, devising sound approaches to monitor impact, and accelerating research to address key gaps.
- CDC will improve preparedness for global threats by strengthening epidemiologic, laboratory, and public health preparedness and response capacity to combat respiratory microbial threats.

CDC's budget request reflects these priorities and highlights three key areas to maintain low incidence of vaccine-preventable disease and control respiratory diseases: Immunization and Vaccine-Preventable Diseases; Influenza (Seasonal, Novel, and Pandemic); and Respiratory and Related Diseases.

The two primary federal programs that support immunization in the United States are the Section 317 Immunization Program and the mandatory Vaccines for Children (VFC) Program. The VFC Program, established by Section 1928 of the Social Security Act in 1994, serves children through 18 years of age who meet one of the following criteria: those without health insurance, those eligible for Medicaid, American Indian and Alaska Native children, and underinsured children who receive care through Federally Qualified Health Centers (FQHCs) or Rural Health Clinics (RHCs). Through VFC, CDC provides funding to 61 state and local public health immunization programs that include all 50 states, six city/urban areas, and five U.S. territories and protectorates. VFC funding supports the purchase of recommended pediatric and adolescent vaccines, development and management of the pediatric vaccine stockpile, and program operations.

In FY 2011, CDC will receive a nonexpenditure transfer of $3,651,354,000 from the Centers for Medicare & Medicaid (CMS) for the VFC Program. The slight reduction in the total VFC obligations for FY 2011 is the net result of increases in vaccine purchase and evaluation activities, as well as decreases mainly in program administrative activities such as Vaccine Tracking System (VTrckS) development costs. The table below reflects the sources of VFC funding and estimates of total VFC obligations.

VFC	FY 2009	FY 2010	FY 2011
Actuals	$3,382.875M	N/A	N/A
Unobligated Balances Brought Forward	N/A	$15.988M	N/A
Nonexpenditure Transfer from CMS	N/A	$3,636.201M	$3,651.354M
Total VFC Obligations	$3,382.875M	$3,652.189M	$3,651.354M

MECHANISMS AND FUNDING HISTORY TABLE

More than 90 percent of the funds CDC receives to support Immunization are provided directly to the 64 Section 317 Immunization Program grantees in the form of federally purchased vaccine and operations grants, while the remaining funds are used to support CDC program operations and accountability, including vaccine coverage monitoring, vaccine impact and effectiveness assessments, vaccine safety, and public awareness and provider education. CDC also provides financial, technical, and direct assistance to state and local health departments to increase capacity to address influenza issues.

Fiscal Year	Section 317
FY 2001	$446,028,000
FY 2002	$493,567,000
FY 2003	$502,765,000
FY 2004	$468,789,000
FY 2005	$493,032,000
FY 2006	$517,199,000
FY 2007	$512,804,000
FY 2008	$527,359,000
FY 2009	$557,359,000
FY 2010	$559,468,000

Fiscal Year	Immunization and Respiratory Diseases
FY 2006	$519,858,000
FY 2007	$585,430,000
FY 2008	$684,634,000
FY 2009*	$716,048,000
FY 2010	$718,460,000

* Amount does not include $200M appropriated for Pandemic Influenza from the PHSSEF nor $300M for Section 317 from the FY 2009 Recovery Act.

Budget Request: Immunization and Vaccine-Preventable Diseases

The Section 317 Immunization Grant Program provides vaccines and the necessary program support to reach underinsured children and adolescents not served by the VFC Program, and as resources allow, provides vaccination services for uninsured and underinsured adults. CDC requests $576,692,000 for the Section 317 Immunization Program in FY 2011, an increase of $17,224,000 above the FY 2010 Omnibus.

The increase in Section 317 funding for FY 2011 will be used to build on the gains made in increasing vaccination coverage achieved with the 2009 Recovery Act funding. The funding will be used for vaccine purchase and state operations with a focus on adult and recently recommended vaccines for adolescents and children. The budget increase will allow CDC to continue making immunization available to more Americans, continue identifying and implementing strategies to increase influenza vaccination coverage among young and school-age children, and continue addressing barriers to access for adolescents and adults, such as increasing the number of providers offering immunization services, and providing immunization in community and alternative venues.

Specifically, FY 2011 funds will be used to support the following activities.

- CDC will improve immunization coverage for all ages by:
  - Increasing the number of providers offering federally-purchased vaccines to eligible adolescents;
  - Increasing access to immunization services for adults and older children by partnering with non-traditional venues, such as pharmacies, retail-based clinics, and school-based settings, to promote and offer vaccinations;
  - Continuing to provide funding and technical assistance to immunization grantees to develop, enhance, and maintain immunization information systems capable of identifying individuals in

need of immunization, measuring vaccination coverage rates, producing reminder and recall notices, and interfacing with electronic medical records;

- Increasing national public awareness and provider knowledge about vaccine-preventable diseases and immunization recommendations using an array of media and culturally-appropriate tools and resources to support informed decision-making about vaccination;
- Improving methods to assess vaccination coverage levels across the lifespan in order to identify groups at risk of vaccine-preventable diseases, monitor racial and ethnic disparities in vaccine coverage, evaluate the effectiveness of programs designed to increase coverage levels, monitor uptake of new vaccines, assess differential impact of vaccine shortages, measure performance by various types of providers, and provide greater understanding of socio-demographic and attitudinal factors associated with vaccination; and
- Supporting the systems required for ordering and distributing all public sector vaccines through the Vaccine Management Business Improvement Project (VMBIP).

- CDC will provide the evidence-base for immunization through surveillance, epidemiology, and laboratory services and research. This effort includes providing technical assistance and expertise for the development of vaccine recommendations and other programmatic decisions, monitoring changes in vaccine-preventable diseases, identifying outbreaks of vaccine-preventable diseases and providing guidance for prevention and control measures in outbreaks, assisting and training state public health laboratories, and providing training to states on surveillance and epidemiology.
- CDC will provide grants to immunization programs to conduct needs assessments and develop plans that will enable health departments to bill private insurance programs for immunization services provided to covered patients. This effort is based on a billing project in Oregon where billing private insurance resulted in a significant savings in Section 317 funds. These savings were used to enhance efforts to vaccinate more high-need individuals, including: hepatitis B birth dose for all children born in Oregon birthing hospitals; hepatitis A and B vaccines for high-risk adults; and Tdap vaccine for adolescents and adults. In addition, the savings from this new billing system allowed Oregon to implement pilot projects for hospital standing orders for pneumococcal and influenza vaccination; hepatitis A and B vaccination at family planning clinics; and influenza vaccine to fill community gaps. Health Department Clinics (HDCs) mainly serve underinsured children with Section 317 or state-purchased vaccines. However, some fully insured children are also seen at HDCs, yet 70 percent of HDCs do not bill these recipients' insurance but use Section 317 instead. Savings from these projects can be used to immunize more children and adults. The National Vaccine Advisory Committee (NVAC) recently recommended that "states and localities develop mechanisms for billing insured children and adolescents served in the public sector". NVAC also recommends that CDC provide support to states and localities by disseminating best practices and providing technical assistance to develop these billing mechanisms. CDC's FY 2011 budget includes $4,847,000 for these activities.

Rationale and Recent Accomplishments: The childhood vaccination program is one of the most successful and cost effective public health tools for preventing disease and death. CDC's immunization programs have achieved substantial reductions in vaccine-preventable diseases through routine immunization of young children. Maintaining and enhancing these successes across the lifespan are critical to preventing unnecessary illness, disability, and death from vaccine-preventable diseases.

COST EFFECTIVENESS OF CHILDHOOD VACCINES

For every $1.00 spent on an individual vaccine:

- Diphtheria-Tetanus-acellular Pertussis (DTaP) saves $27.00
- Measles, Mumps, and Rubella (MMR) saves $26.00
- Perinatal Hepatitis B saves $14.70
- Varicella saves $5.40
- Inactivated Polio (IPV) saves $5.45

For every $1.00 spent:

- Childhood Series (7 vaccines) saves $16.50[1]

[1] Series includes DTaP, Td, Hib, IPV, MMR, Hep B and Varicella
Source: various peer reviewed publications. Direct and indirect savings included.

FY 2010 funding supported the local and state immunization program activities necessary to ensure high immunization coverage levels and low incidence of vaccine-preventable diseases, as well as the purchase of vaccines for underinsured children and adolescents not served by the VFC Program and to uninsured and underinsured adults. FY 2010 funding also supported activities critical to the success of national immunization programs and policies: documenting trends in vaccine-preventable diseases; assessing vaccine effectiveness and impact; and implementing national public awareness campaigns and provider education to support informed vaccine decision-making. CDC's recent accomplishments include those described below.

- Centralized vaccine distribution, a cornerstone of VMBIP, allows CDC to distribute vaccine using a fully integrated, centrally-managed vaccine inventory that provides complete visibility to vaccine in CDC's control and allows tight management as needed for accountability and rationing in times of vaccine shortage. During the recent *Haemophilus influenzae* type b (Hib) vaccine shortage in 2009, centralized distribution allowed CDC to track ordering patterns at the provider level for the first time, enabling proactive management of the national shortage.
- CDC met the target of 90 percent coverage (most recent data available) for all routinely-recommended pediatric vaccines with the exception of pneumococcal conjugate vaccine (PCV7) and the fourth dose of Diphtheria-Tetanus-acellular Pertussis (DTaP) in 2008. Five of the routinely-recommended vaccines exceeded the 90 percent coverage target: Hib, measles-mumps-rubella (MMR), hepatitis B, polio, and varicella.
- CDC expanded the scope of the National Immunization Survey (NIS) to include new vaccine recommendations for young children. The 2008 NIS marks the first time that coverage estimates are routinely reported for the hepatitis B birth dose (55.3 percent) and for the hepatitis A vaccination recommendation (40.4 percent) among children aged 19-35 months of age.
- Vaccination coverage for the three most recently recommended adolescent vaccinations and one childhood vaccination increased from 2007 to 2008: meningococcal conjugate vaccine (MCV4) (from 32.4 percent to 41.8 percent); tetanus, diphtheria, acellular pertussis (Tdap) (from 30.4 percent to 40.8 percent); >1 dose of quadrivalent human papillomavirus vaccine (HPV4) (from 25.1 percent to 37.2 percent); and >2 doses of varicella among those without disease history (from 18.8 percent to 34.1 percent). For the first time, the 2008 NIS-Teen survey included estimates for each of the 50 states and selected local areas.

Health Impact: CDC's efforts have resulted in the reduction of several vaccine-preventable diseases, increased immunization coverage rates, and improved vaccine safety surveillance and research. The reduction in the number of indigenous case targets have been met or exceeded for five out of nine diseases for which there are routinely recommended childhood vaccines (paralytic polio, measles, diphtheria, congenital rubella syndrome, and tetanus). CDC has made significant progress in meeting the performance measure that monitors progress in achieving or sustaining immunization coverage of at least 90 percent in children 19- to

35-months of age with appropriate vaccinations. For the past six years, the 90 percent coverage target has been exceeded for four of the seven routinely recommended childhood vaccines (Hib, MMR, hepatitis B, and polio) and reached the 90 percent target for varicella in 2007. To sustain current high coverage rates and increase coverage rates for vaccines that have not yet reached the 90 percent target, in FY 2011 CDC will provide funding, guidance, and technical assistance to state and local immunization programs for activities such as conducting provider assessments and providing education and training to both public and private immunization providers.

Despite increases in influenza vaccination coverage, the performance targets have not been met. Coverage remains well below the 2010 target of 90 percent coverage. To reach these ambitious targets, in FY 2011 CDC and its partners will continue to aggressively promote vaccination. Efforts will encourage health care providers to recommend influenza vaccine to their patients and will focus on getting health care providers vaccinated, a recommended group with consistently low vaccine coverage. *(Please see outcomes 1.1.1a-1.1.1g, 1.1.2, 1.1.3, 1.1.4, 1.4.1a, 1.4.1b and outputs 1.2.1a-1.2.1g, 1.2.2, 1.3.1a, 1.3.1b, 1.3.2a, 1.3.2b, and 1.A-1.I for specific information.)*

Budget Request: Influenza (Seasonal, Novel, and Pandemic)

In FY 2011, CDC's programmatic requirement for the Influenza Program is $159,115,000, an increase of $123,000 above the FY 2010 Omnibus. This amount includes CDC's FY 2011 Influenza budget request of $2,771,000 and a transfer of $156,344,000 from the balances of the FY 2009 Supplemental Appropriations for Pandemic Influenza in the Public Health and Social Services Emergency Fund (PHSSEF).

CDC's influenza program works to control and prevent influenza infections; minimize domestic and global illness, suffering, and death from seasonal, pandemic, and animal-origin novel influenza; and maintain preparedness for minimizing the illness and death that occurs during influenza pandemics and severe seasons.

Influenza viruses are constantly changing. As new influenza viruses emerge and circulate, CDC responds quickly, as needed, to: 1) detect the threat (via epidemiologic and viral surveillance); 2) control outbreaks (through technical advice and outbreak responses); 3) collect and isolate the virus (via partnerships and state-of-the-art laboratory techniques); 4) develop a vaccine strain; 5) develop policies and guidance; and 6) implement a vaccination campaign. Strengthening any one of these processes uniformly increases our capability to respond to influenza viruses of any origin: human, animal, or novel. For example, a single seasonal influenza test that gives an unsubtypable result could give advance warning of an outbreak of a novel or animal-origin strain of influenza. Laboratorians trained in the technique for one type of flu can be easily supplied with different materials and perform the technique for another type of flu. Building seasonal influenza capacity improves ability to prepare for animal-origin threats, which also helps prepare for pandemic threats—and the same is true in reverse.

Working together with international partners, policy makers, tribal leaders, state and local health departments, the medical community, private sector partners, and other parts of the federal government, CDC will use FY 2011 funds for the following influenza preparedness and response activities.

Surveillance and Epidemiology

- CDC will improve the early detection of novel influenza virus infections and enhance and expand surveillance for seasonal, pandemic, and novel influenza infections. For example, CDC will continue to develop point-of-care diagnostic devices to detect novel influenza viruses. One such test, which was undergoing clinical trial in FY 2009, was the first to detect 2009 H1N1 influenza in the United States.
- CDC will build and maintain surveillance, diagnostic, and clinical capacity by training and supporting state and local health departments to detect and respond to influenza in the United States and around the world. For example, CDC will continue to provide expert consultation and training on molecular virology and risk assessment within CDC and HHS as well as for WHO, the private sector, or other stakeholders and partners.

- Epidemiologic studies will be conducted to understand the burden of influenza, the effectiveness of interventions designed to reduce that burden, and impact of the influenza program.

Laboratory

- CDC will conduct ongoing evaluation of transmission and immune responses to influenza viruses.
- Virus surveillance will be conducted to identify vaccine virus strains, monitor for optimal vaccine match and antiviral resistance, and identify emerging viruses with pandemic potential.
- CDC will conduct public health laboratory studies to develop new diagnostic tests and to better understand the evolution and characteristics of influenza viruses for developing better tools for the prevention and control of influenza.
- CDC will prepare and characterize seasonal, pre-pandemic and pandemic influenza viruses for vaccine manufacturing and support development of cell-based vaccines.

International

- International technical assistance will be provided for outbreak investigations, expansion of laboratory and epidemiologic capacity, and international training, including establishment of National Influenza Center laboratories and surveillance for severe influenza infections at sentinel sites.
- CDC will provide grant support and assist grantees in developing, conducting, and evaluating projects in enhanced surveillance and laboratory capacity for influenza virus detection and control. In FY 2009, CDC's Developing Influenza Surveillance Networks Cooperative Agreement with the Pan American Health Organization (PAHO) provided 22 countries in the region with the purchase of laboratory equipment, reagents, and supplies. The number of laboratories in the region participating in the Global Influenza Surveillance Network has steadily increased, as well as the region's virological surveillance capacity.

Vaccination

- CDC will monitor vaccine doses distributed and administered in order to target communications, education, and community mobilization.
- CDC will strengthen existing systems to monitor seasonal vaccine effectiveness and initiate studies to address identified gaps. CDC will continue measuring effectiveness of influenza vaccines in preventing hospitalizations through the Emerging Infections Program collaboration, and CDC has established a multi-group collaboration that allows understanding the effectiveness of vaccine to prevent healthcare visits. In addition, CDC is tracking the effectiveness of vaccine in preventing influenza among pregnant women.

Communication

- CDC will respond rapidly to emerging influenza-associated issues through development and dissemination of urgent alerts for outbreaks, public health research findings, policy changes, vaccine shortages, and other issues.
- A comprehensive communication strategy will be implemented to improve influenza vaccination coverage by increasing public awareness and provider knowledge about the influenza vaccination recommendations and the benefits and risks of influenza vaccination and the influenza virus.

Community and Medical Countermeasures

- CDC will enhance monitoring of antiviral use, effectiveness, and safety to inform clinician guidance and use of strategic national stockpile assets.
- Infection control recommendations will be improved through studies of influenza transmission and evaluation of personal protective equipment.
- CDC will monitor the use of non-pharmacologic interventions, such as school closures, and evaluate their effectiveness.

Rationale and Recent Accomplishments: FY 2009 appropriated funds for preparedness and response were used to establish a robust laboratory, epidemiology, and response infrastructure which allowed for detection of, and rapid interventions to, the 2009 H1N1 influenza pandemic strain. FY 2009 appropriated funds included funding from the FY 2009 supplemental for H1N1 response.

- Earlier Detection: The first case of 2009 H1N1 infection identified in the United States was detected by an investigational device supported by CDC influenza funds. The second case was found in a child enrolled in a CDC surveillance network along the U.S.-Mexico border supported with CDC influenza funds.
- Earlier Recognition: The first cases were identified as a novel influenza virus at state health departments using a new polymerase chain reaction (PCR) diagnostic test developed as part of pandemic preparedness and deployed for use in seasonal influenza surveillance. CDC influenza funds supported the purchase of equipment and test reagents which were in place at the time the pandemic was recognized. Rapid sequencing at CDC quickly identified a swine-origin virus never reported before.
- Rapid Communication: CDC posted genetic information on the virus on the web within 24 hours of completion, allowing international public health officials to connect the Mexico and Southern California infections as both due to the 2009 H1N1 influenza virus.
- Rapid Response: State and local planning funded by FY 2009 funds allowed officials to implement activities that had been tested during exercises and refined to maximize state responses, including plans for vaccine distribution, administration, and adverse event monitoring. Preparedness planning facilitated by CDC and executed at the federal, state, and local levels was critical in preparing for the 2009 H1N1 response.
- Rapid Vaccine Strain Development: Improved laboratory capability allowed for rapid preparation of viruses shared with vaccine manufacturers in the United States and internationally for making 2009 H1N1 pandemic vaccines. Vaccine candidates for avian influenza were also prepared for pre-pandemic vaccines in FY 2009.
- Coordinated International Response:
    - Established surveillance for severe influenza in sentinel sites and to support new National Influenza Centers in various countries. These assets were invaluable for countries responding to the 2009 H1N1 pandemic.
    - Research platforms were established for studies in nine countries in Asia, Africa, and South America to test new prevention strategies and vaccines, understand how influenza affects diverse populations, establish disease burden estimates, and validate surveillance case definitions.
    - Technical assistance was provided to develop international capacity in 43 countries and WHO Headquarters and Regional Offices.

Health Impact: The efforts of CDC's influenza program are focused on reducing illness, hospitalization, and death from seasonal and pandemic influenza. Expanding influenza surveillance to inform composition of influenza vaccines for maximum effectiveness and to maximize use of influenza vaccines and antiviral

medications are central to this effort. Further efforts to improve influenza surveillance systems domestically and globally will allow earlier detection of the emergence and spread of influenza viruses with pandemic potential. Earlier detection will save lives by allowing the maximum time possible for public health responses including vaccine production. Monitoring burden of disease and vaccine effectiveness in the United States and in resource-poor settings abroad will assist other countries to have evidence-based recommendations on influenza prevention and control measures. CDC's monitoring and evaluation of its international efforts to build capacity will allow it to build on those activities that have been successful and continue to improve pandemic preparedness globally. Rapid sharing of accurate influenza-related information, guidance documents, and use of all forms of communication fosters a convergence of action across all levels of government, the private sector, the entire healthcare sector, faith-based and community-based organizations, and individuals. *(Please see output 1.6.2 for specific information.)*

Budget Request: Respiratory and Related Diseases

CDC collaborates with state and local public health departments, academic institutions, and other domestic and global partners to improve detection, prevention, and control of respiratory and related diseases. CDC supports disease surveillance, provides critical laboratory capacity, ensures capacity to rapidly respond to disease outbreaks, and facilitates use of evidence-based strategies for reducing infections, including the development, introduction, and monitoring of vaccines. These activities also support preparedness for emerging or reemerging infectious diseases.

These activities are supported with funding from the global immunization program, emerging infectious diseases, and Section 317 immunization program budget lines.

FY 2011 funds will be used to achieve the following:

- Diagnose and characterize polio and measles viruses to inform the programmatic direction of the polio eradication campaign and global measles mortality reduction efforts;
- Isolate new rotavirus vaccine strains in developing countries and then transfer the appropriate knowledge and technology needed to develop the vaccines locally in order to reduce rotavirus infection which results in about 600,000 deaths each year, primarily in developing countries;
- Provide outbreak response to respiratory pathogens such as pertussis, Mycoplasma, group A streptococcus, pneumococcus, adenovirus, respiratory syncytial virus, and Legionnaires'disease;
- Enhance epidemiologic and laboratory surveillance for respiratory bacterial pathogens, through activities such as population-based Active Bacterial Core Surveillance system (ABCs) in 10 states (including group A and Group B streptococcus), and detection and monitoring for antibiotic resistance;
- Develop, enhance, and implement programs to prevent or reduce burden of respiratory diseases, including perinatal screening to prevent Group B Streptococcal disease, Get Smart Campaign to reduce antibiotic use in uncomplicated upper respiratory infections, and environmental detection and remediation of Legionellosis; and
- Optimize opportunities to prevent cytomegalovirus (CMV) and respiratory syncytial virus (RSV) through the development of new diagnostic tools, better understanding of the disease burden, and prevention opportunities.

Rationale and Recent Accomplishments: Respiratory and related diseases continue to place a significant burden on the public's health. Vaccines have been an effective tool in reducing the occurrence of some of these diseases and CDC continues to support the development, introduction and monitoring of new vaccines, especially in global communities. Establishing and maintaining disease surveillance for vaccine-preventable diseases is critical for detecting changes in the epidemiology of the diseases, emergence of new strains, and changes in the duration of immunity. As the nation's lead public health agency, CDC continues to be

responsible for ensuring a rapid and effective response to current and emerging infectious disease threats, including respiratory and related diseases. Examples of recent accomplishments are described below.

- ABCs project has demonstrated the sustained impact of pneumococcal conjugate vaccine (PCV7) in reducing the risk of invasive bacterial diseases caused by vaccine serotypes by 99 percent in children targeted by vaccine, and by over 90 percent among older age groups (> 18 years) who are protected by herd immunity.
- Since 2000, the Get Smart Campaign funds states and works with public and private partners to promote appropriate use of antibiotics to treat respiratory infections and to increase awareness in the general public. This work has helped to lead to a reduction in antibiotic use for acute respiratory tract infections among both children and adults. The Campaign has helped to lead to a 17 percent reduction in antibiotic prescriptions for acute respiratory tract infections (ARTIs) in the United States in children <5 from 1995-2006. During the same period, antibiotic prescriptions for ARTIs in those ≥ 5 decreased by 18 percent.
- CDC developed a diagnostic test for novel adenovirus currently being validated by the Department of Defense Lackland Air Force Base Advanced Diagnostic Laboratory and Naval Health Research Center. This work is in response to adenovirus outbreaks in military recruits.
- CDC licensed new rotavirus vaccine candidates and technology to vaccine manufacturers in emerging developing countries, trained scientists from developing countries, and transferred appropriate knowledge and technology needed for ongoing clinical trials. Developing countries, which have the greatest burden of rotavirus disease, face large difficulties in securing the technologies and resources needed to make and use existing vaccines.

Health Impact: Millions of lives have been saved by vaccines, but adults and especially children continue to die from vaccine-preventable diseases in developing countries. There also continue to be deaths in the United States from vaccine-preventable diseases. The global toll of childhood deaths can be reduced by continuing CDC's technical assistance and expertise to support the introductions of new vaccines globally and to guide the direction of the polio eradication and measles mortality reduction campaigns. In the United States, support is needed to continue to assure the safety and effectiveness of vaccines. To reduce the impact of respiratory and related diseases, CDC is improving global and domestic surveillance; rapidly responding to outbreaks; monitoring the impact of vaccines; developing new tests to diagnose and characterize respiratory pathogens; making the new tests available, providing training on them to other public health laboratories; and conducting research to improve current preventive and programmatic measures and develop new measures.

IT INVESTMENTS

VMBIP was initiated to enhance the efficiency and accountability of public sector vaccine ordering, distribution and management systems. VMBIP is partially supported by the Immunization and Vaccine-Preventable Diseases funding, with additional support provided through VFC. A critical component of VMBIP is the development and introduction of a new vaccine management technology system, the Vaccine Tracking System (VTrckS). VTrckS is a Web-based system for provider ordering and automated approvals that will improve operational efficiency and internal controls. It is a comprehensive IT solution that eliminates current legacy system limitations, provides a scalable platform, and facilitates central administration of vaccine management. VTrckS will allow providers to order directly from the Internet, improve internal controls, significantly reduce manual processes, and provide transparency into provider usage patterns improving data analysis capability. This real-time inventory visibility will improve preparedness, allow for a greater focus on public health, and reduce time and resources devoted to managing vaccines and funding. Development of VTrckS Release 1 will begin in January 2010, with implementation beginning in June 2010.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 1.1: Reduce the number of indigenous cases of vaccine-preventable diseases.				
1.1.1: Reduce or maintain the number of indigenous[1] cases at 0 by 2010 for the following: *(Outcome)*				
1.1.1a: Paralytic Polio[2] *(Outcome)*	FY 2008: 0 (all ages) (Met)	0	0	Maintain
1.1.1b: Rubella[2] *(Outcome)*	FY 2008: 8 (all ages) (Met)	0	10	+10
1.1.1c: Measles[2,7] *(Outcome)*	FY 2008: 115 (all ages) (Not Met)	0	100	+100
1.1.1d: Haemophilus influenzae[3] *(Outcome)*	FY 2008: 193 (b + unknown) (children under 5) (Not Met but Improved)	0	0	Maintain
1.1.1e: Diphtheria[4] *(Outcome)*	FY 2008: 0 (persons under 35 years of age) (Exceeded)	0	0	Maintain
1.1.1f: Congenital rubella Syndrome[5,6] *(Outcome)*	FY 2008: 0 (children under one) (Exceeded)	0	0	Maintain
1.1.1g: Tetanus[4] *(Outcome)*	FY 2008: 6 cases (persons under 35 years of age) (Exceeded)	0	0	Maintain
1.1.2: Reduce the number of indigenous cases of mumps in persons of all ages from 666 (1998 baseline) to 0 by 2010.[6,8] *(Outcome)*	FY 2008: 418 (Not Met but Improved)	0	350	+350
1.1.3: Reduce the number of indigenous cases of pertussis among children under 7 years of age. *(Outcome)*	FY 2008: 4,166 (Not Met)	2,000	2,000	Maintain
1.1.4: Reduce or eliminate indigenous cases of Varicella (persons 17 years of age and under)	FY 2007: 582,535 (Baseline)	223,000	200,000	- 23,000
Long Term Objective 1.4: Protect Americans from infectious disease – pneumococcal.				
1.4.1: By 2010, reduce the rates of invasive pneumococcal disease in children under 5 years of age to 46 per 100,000 and in adults 65 years and older to 42 per 100,000 *(Outcome)*				
1.4.1a: Children under 5 years of age *(Outcome)*	FY 2008: 20.9 (Exceeded)	46	35	-11
1.4.1b: Adults 65 years and older *(Outcome)*	FY 2008: 37.6 (Exceeded)	42	35	-7

[1] An indigenous case is defined as a case of measles within a state unrelated to an imported case or with onset occurring more than two generations after an imported case to which it is epidemiologically linked. Any case that cannot be proven as imported or spread from an imported case should be classified as indigenous.
[2] All ages.
[3] Children under five years of age.
[4] Persons under 35 years of age.

[5] Children under one year of age. Result column indicates all cases – indigenous and imported.
[6] Result column indicates all cases – indigenous and imported.
[7] Explanation for change in measles target: Although the United States has maintained measles elimination (defined as the absence of endemic disease transmission) since 2000 when elimination was declared by an expert panel, in 2008, the United States had 140 reported cases of measles, the most reported cases since 1996. Of the 140 cases, 116 were classified as US-acquired. The 2010 target for indigenous measles cases was 0, a target that was unlikely to be achieved due to the large outbreaks of measles occurring in highly traveled developed countries, such as the United Kingdom and Switzerland, and communities of susceptible persons where immunization levels have dropped enough that herd immunity has not been maintained.
[8] Explanation for change in mumps target: Studies conducted during a mumps outbreak in Maine in 2005 and during the large 2006 mumps outbreak showed that 2 doses of mumps or MMR vaccine was 88%-95% effective in preventing mumps with lower effectiveness in settings of high exposure and transmission (i.e. college campuses). Thus, given the effectiveness of 2 doses of mumps vaccine, issue of vaccine hesitancy, and the continued risk of mumps importations meeting the 2010 goal of zero indigenous cases is not feasible. Even, if the United States was successful in achieving elimination of endemic transmission of mumps, importations of mumps will continue into the United States because only 58% of countries around the world use mumps vaccines and it is expected that some spread will occur from these cases. In summary, the reasons for not meeting the different targets may be attributed to various factors such as continuation of importations, increase in the number of vaccine hesitators, the possible issue of waning immunity, and unknown vaccine effectiveness in two-dose vaccinated individuals. Given the continued risk of mumps transmission in the United States, CDC subject matter experts have considered the above mentioned issues when setting the FY 2011 target 2020 goal for mumps.

OUTPUT TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
1.E.1: Make vaccine distribution more efficient and improve availability of vaccine inventory by reducing the number of vaccine inventory depots in the U.S. *(Efficiency)*	FY 2008: 98% reduction (Exceeded)	Maintain 98% reduction in inventory depots	Maintain 98% reduction in inventory depots	Maintain
Long Term Objective 1.2: Ensure that children and adolescents are appropriately vaccinated.				
1.2.1: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: *(Output)*				
1.2.1a: 4 doses DTaP vaccine *(Output)*	FY 2008: 85% (Not Met)	At least 90% coverage	At least 90% coverage	Maintain
1.2.1b: 3 doses Hib vaccine *(Output)*	FY 2008: 91% (Exceeded)	At least 90% coverage	At least 90% coverage	Maintain
1.2.1c: 1 dose MMR vaccine *(Output)*	FY 2008: 92% (Exceeded)	At least 90% coverage	At least 90% coverage	Maintain
1.2.1d: 3 doses hepatitis B vaccine *(Output)*	FY 2008: 94% (Exceeded)	At least 90% coverage	At least 90% coverage	Maintain
1.2.1e: 3 doses polio vaccine *(Output)*	FY 2008: 94% (Exceeded)	At least 90% coverage	At least 90% coverage	Maintain
1.2.1f: 1 dose varicella vaccine *(Output)*	FY 2008: 91% (Exceeded)	At least 90% coverage	At least 90% coverage	Maintain
1.2.1g: 4 doses pneumococcal conjugate vaccine (PCV7) *(Output)*	FY 2008: 80% (Not Met but Improved)	At least 90% coverage	At least 90% coverage	Maintain
1.2.2: Achieve or sustain immunization coverage of at least 90% in adolescents 13 to 15 years of age for 1 dose of Td containing vaccine *(Output)*	FY 2008: 71% (Not Met but Improved)	90% coverage	90% coverage	Maintain

Long Term Objective 1.3: Increase the proportion of adults who are vaccinated annually against influenza and ever vaccinated against pneumococcal disease.				
1.3.1: Increase the rate of influenza and pneumococcal vaccination in persons 65 years of age and older to 90% by 2010. *(Output)*				
1.3.1a: influenza *(Output)*	FY 2008: 67% (Not Met)	90%	90%	Maintain
1.3.1b: pneumococcal *(Output)*	FY 2008: 60% (Not Met but Improved)	90%	90%	Maintain
1.3.2: Increase the rate of vaccination among non-institutionalized high-risk adults aged 18 to 64 years to 60% by 2010 for: *(Output)*				
1.3.2a: influenza *(Output)*	FY 2008: 39% (Not Met but Improved)	60%	60%	Maintain
1.3.2b: pneumococcal *(Output)*	FY 2008: 25% (Not Met but Improved)	60%	60%	Maintain
Long Term Objective 1.5: Improve vaccine safety surveillance.				
1.5.1: Improve capacity to conduct immunization safety studies by increasing the total population of managed care organization members from which the Vaccine Safety Datalink (VSD) data are derived annually to 13 million by 2010. *(Output)*	FY 2008: 9.1 million (Not Met but Improved)	10 million	10 million	Maintain
Long Term Objective 1.6: Protect Americans from infectious diseases – Influenza.				
1.6.2: Increase the percentage of Pandemic Influenza Cooperative Agreement grantees (SLTTs) that meet the standard for surveillance and laboratory capability criteria. *(Output)*	FY 2008: 67% (Exceeded)	80%	90%	Increase

OTHER OUTPUTS

Outputs	Most Recent Result [4]	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
1.A: Number of grantees with 95% of the children participating in fully operational, population-based registries	22	27	32	+5
1.B: Number of grantees achieving 45% coverage for ≥2 doses hepatitis A vaccine (19-35 months of age).[1]	14	21	28	+7
1.C: Number of grantees achieving 65% coverage for 1 birth dose hepatitis B vaccine (19-35 months of age).[1]	25	30	35	+5
1.D: Number of grantees achieving 30% coverage for influenza vaccine (6-23 months of age).[1]	10	18	26	+8
1.E: Number of grantees achieving 25% coverage for ≥3 doses human papillomarivus vaccine (13-17 years of age).[2]	8	16	24	+8

Outputs	Most Recent	FY 2010 Target	FY 2011 Target	FY 2011 +/-
1.F: Number of grantees achieving 45% coverage for ≥1 dose Tdap vaccine (13-17 years of age).[2]	15	22	29	+7
1.G: Number of grantees achieving 45% coverage for ≥1 dose meningococcal conjugate vaccine (13-17 years of age).[2]	15	22	29	+7
1.H: Number of grantees achieving 70% coverage for annual influenza vaccine (65 years of age and older).[3]	37	39	42	+3
1.I: Number of influenza networks established globally.[5]	44 networks	45 networks	45 networks	Maintain
Appropriated Amount ($ in millions)		**$595.3**	**$616.7**	**+$21.4**

[1] National Immunization Survey (2008)
[2] National Immunization Survey-Teen (2008)
[3] Behavioral Risk Factor Surveillance System (2008)
[4] Based on the 50 state grantees and the District of Columbia
[5] The FY 2010 estimate of $35.8 million is the planning amount and does not include any funds that CDC many receive from HHS/OGHA. The FY 2011 estimate of $40.0 million is a draft planning estimate.

GRANTEE TABLES

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION FY 2011 DISCRETIONARY STATE/FORMULA GRANTS Section 317				
State/Territory/Grantee	**FY 2009 Actual**	**FY 2010 Appropriation**	**FY 2011 President's Budget Request**	**FY 2011 +/- FY 2010**
Alabama	$7,373,692	$7,386,962	$7,630,295	$243,333
Alaska	$5,473,299	$5,479,266	$5,815,739	$336,474
Arizona	$8,333,641	$8,350,201	$8,562,487	$212,286
Arkansas	$4,466,141	$4,475,131	$4,584,279	$109,149
California	$48,893,757	$48,980,073	$50,660,812	$1,680,739
Colorado	$7,720,388	$7,735,652	$7,935,439	$199,787
Connecticut	$5,670,751	$5,682,289	$5,815,945	$133,656
Delaware	$1,245,733	$1,249,939	$1,212,239	-$37,700
District of Columbia (DC)	$2,263,004	$2,266,857	$2,350,338	$83,481
Florida	$23,612,118	$23,652,094	$24,532,321	$880,227
Georgia	$10,579,845	$10,600,880	$10,869,962	$269,082
Hawaii	$3,416,959	$3,423,770	$3,509,987	$86,218
Idaho	$3,404,453	$3,410,105	$3,541,532	$131,427
Illinois	$5,603,568	$5,615,504	$5,726,117	$110,613
Indiana	$5,148,727	$5,153,607	$5,499,526	$345,919
Iowa	$4,789,123	$4,798,615	$4,921,605	$122,990
Kansas	$4,576,586	$4,585,328	$4,716,060	$130,732
Kentucky	$4,792,022	$4,802,585	$4,882,863	$80,278
Louisiana	$6,918,787	$6,923,487	$7,462,936	$539,449
Maine	$2,857,588	$2,864,534	$2,886,450	$21,915
Maryland	$5,497,609	$5,511,375	$5,537,332	$25,956
Massachusetts	$8,998,013	$9,013,872	$9,324,233	$310,361
Michigan	$11,855,643	$11,881,301	$12,099,076	$217,775
Minnesota	$7,185,716	$7,201,929	$7,307,346	$105,417
Mississippi	$3,843,292	$3,851,291	$3,934,666	$83,375
Missouri	$6,733,567	$6,743,650	$7,047,525	$303,875
Montana	$1,635,397	$1,638,451	$1,687,993	$49,542
Nebraska	$2,871,086	$2,877,759	$2,912,040	$34,281
Nevada	$3,879,306	$3,887,329	$3,973,524	$86,195
New Hampshire	$3,028,543	$3,033,418	$3,156,480	$123,063
New Jersey	$8,266,220	$8,286,206	$8,353,892	$67,686
New Mexico	$3,715,927	$3,725,014	$3,751,299	$26,284
New York	$13,708,307	$13,742,802	$13,800,800	$57,997

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION FY 2011 DISCRETIONARY STATE/FORMULA GRANTS Section 317				
North Carolina	$12,810,321	$12,834,562	$13,209,671	$375,109
North Dakota	$2,501,139	$2,504,567	$2,630,174	$125,607
Ohio	$15,743,711	$15,767,644	$16,463,762	$696,117
Oklahoma	$5,218,959	$5,230,242	$5,326,585	$96,343
Oregon	$5,889,919	$5,901,424	$6,059,447	$158,023
Pennsylvania	$11,979,476	$12,004,774	$12,250,021	$245,247
Rhode Island	$1,452,538	$1,456,761	$1,440,120	-$16,641
South Carolina	$5,864,964	$5,877,380	$5,996,186	$118,806
South Dakota	$2,698,288	$2,701,163	$2,869,702	$168,539
Tennessee	$6,211,590	$6,221,233	$6,487,850	$266,617
Texas	$27,634,276	$27,690,331	$28,348,470	$658,139
Utah	$4,384,816	$4,393,887	$4,491,206	$97,318
Vermont	$2,524,121	$2,527,973	$2,638,974	$111,000
Virginia	$10,913,922	$10,932,197	$11,347,199	$415,002
Washington	$9,394,443	$9,411,571	$9,712,686	$301,114
West Virginia	$2,832,172	$2,837,213	$2,932,939	$95,727
Wisconsin	$8,554,308	$8,570,140	$8,834,869	$264,729
Wyoming	$1,141,905	$1,144,651	$1,154,572	$9,920
Chicago	$5,574,560	$5,589,845	$5,562,936	-$26,910
Houston	$1,829,392	$1,836,790	$1,732,357	-$104,433
New York City	$12,056,972	$12,082,535	$12,325,273	$242,738
Philadelphia	$2,503,182	$2,509,949	$2,501,725	-$8,224
San Antonio	$2,240,651	$2,247,323	$2,215,312	-$32,010
American Samoa	$568,790	$570,228	$572,370	$2,142
Guam	$836,295	$838,503	$837,883	-$620
Marshall Islands	$2,544,570	$2,548,228	$2,669,160	$120,932
Micronesia	$3,968,048	$3,971,896	$4,235,036	$263,141
Northern Mariana Islands	$595,304	$596,831	$598,198	$1,367
Puerto Rico	$3,775,186	$3,779,818	$3,991,162	$211,344
Republic Of Palau	$676,451	$677,215	$717,739	$40,524
Virgin Islands	$401,703	$402,972	$394,296	-$8,676
Total States/Cities/Territories	**$423,680,777**	**$424,491,122**	**$436,551,016**	**$12,059,894**
Other Adjustments[1]	$72,220,223	$72,355,878	$74,510,984	$2,155,106
Total Resources[2]	**$495,901,000**	**$496,847,000**	**$511,062,000**	**$14,215,000**

[1] Other adjustments include vaccine that is in inventory at the centralized distribution center but has not been ordered by immunization providers, funds for centralized vaccine distribution activities, vaccine data link, PHS evaluation, special projects, and program support services.

[2] FY 2011 request includes travel and contract reductions.

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION FY 2011 MANDATORY STATE/FORMULA GRANTS Vaccines for Children Program (VFC)				
State/Territory/Grantee	**FY 2009 Actual**	**FY 2010 Appropriation[3]**	**FY 2011 President's Budget Request**	**FY 2011 +/- FY 2010**
Alabama	$44,239,475	$48,743,310	$49,049,807	$306,498
Alaska	$11,268,821	$12,508,146	$12,601,256	$93,110
Arizona	$73,806,472	$81,322,220	$81,832,546	$510,326
Arkansas	$36,241,024	$39,934,667	$40,183,466	$248,799
California	$313,738,428	$345,699,483	$347,861,588	$2,162,105
Colorado	$36,105,709	$39,773,626	$40,028,148	$254,522
Connecticut	$28,402,490	$31,282,263	$31,485,596	$203,333
Delaware	$8,079,055	$8,894,245	$8,954,289	$60,044
District of Columbia (DC)	$10,793,065	$11,883,541	$11,962,954	$79,413
Florida	$175,167,952	$193,017,859	$194,222,086	$1,204,227
Georgia	$94,204,664	$103,794,044	$104,447,376	$653,331
Hawaii	$10,935,616	$12,030,832	$12,116,679	$85,847
Idaho	$18,339,267	$20,204,261	$20,332,461	$128,199
Illinois	$83,208,211	$91,678,574	$92,255,450	$576,876
Indiana	$51,630,280	$56,880,799	$57,241,701	$360,902
Iowa	$18,355,349	$20,217,410	$20,348,267	$130,858
Kansas	$20,701,068	$22,802,636	$22,949,356	$146,720
Kentucky	$33,778,482	$37,217,899	$37,451,602	$233,703
Louisiana	$66,600,423	$73,392,818	$73,847,499	$454,681
Maine	$9,187,257	$10,107,902	$10,179,729	$71,827
Maryland	$44,954,207	$49,535,284	$49,844,237	$308,953
Massachusetts	$49,286,698	$54,298,131	$54,643,072	$344,942
Michigan	$70,805,881	$78,009,561	$78,502,772	$493,210
Minnesota	$30,653,596	$33,768,144	$33,983,953	$215,809
Mississippi	$36,640,419	$40,374,139	$40,626,031	$251,892
Missouri	$45,111,994	$49,703,365	$50,016,627	$313,262
Montana	$6,546,067	$7,206,812	$7,255,331	$48,519
Nebraska	$14,390,342	$15,852,774	$15,953,915	$101,141
Nevada	$24,311,127	$26,779,896	$26,951,807	$171,911
New Hampshire	$9,344,405	$10,288,326	$10,357,186	$68,860
New Jersey	$63,994,514	$70,504,898	$70,950,840	$445,942
New Mexico	$31,958,086	$35,205,133	$35,430,149	$225,016
New York	$68,618,311	$75,573,421	$76,065,890	$492,469
North Carolina	$107,478,969	$118,431,581	$119,170,285	$738,704

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION FY 2011 MANDATORY STATE/FORMULA GRANTS Vaccines for Children Program (VFC)				
North Dakota	$4,232,782	$4,659,813	$4,691,307	$31,493
Ohio	$71,944,007	$79,281,260	$79,772,488	$491,228
Oklahoma	$42,082,483	$46,359,209	$46,654,950	$295,741
Oregon	$25,607,672	$28,199,093	$28,385,194	$186,101
Pennsylvania	$66,948,682	$73,742,189	$74,218,423	$476,234
Rhode Island	$13,835,549	$15,239,229	$15,337,792	$98,563
South Carolina	$47,274,306	$52,079,658	$52,411,331	$331,673
South Dakota	$7,681,675	$8,459,873	$8,515,233	$55,361
Tennessee	$57,058,689	$62,869,280	$63,263,651	$394,371
Texas	$338,141,578	$372,614,421	$374,930,321	$2,315,900
Utah	$19,263,061	$21,215,057	$21,353,583	$138,526
Vermont	$6,121,133	$6,733,966	$6,782,133	$48,167
Virginia	$39,503,863	$43,528,844	$43,800,716	$271,872
Washington	$76,497,269	$84,263,667	$84,805,614	$541,947
West Virginia	$15,899,960	$17,516,121	$17,627,698	$111,576
Wisconsin	$39,267,128	$43,263,986	$43,536,459	$272,473
Wyoming	$6,438,581	$7,089,764	$7,136,769	$47,005
Chicago	$41,234,497	$45,419,443	$45,712,346	$292,904
Houston 1	$693,655	$751,391	$763,376	$11,985
New York City	$115,689,853	$127,467,615	$128,269,205	$801,590
Philadelphia	$21,084,984	$23,217,173	$23,371,270	$154,096
San Antonio	$22,667,649	$24,971,883	$25,130,859	$158,975
American Samoa	$941,507	$1,040,599	$1,048,104	$7,505
Guam	$2,166,799	$2,397,580	$2,417,138	$19,558
Northern Mariana Islands	$1,348,467	$1,490,301	$1,501,382	$11,081
Puerto Rico	$45,240,119	$49,840,586	$50,156,936	$316,350
Virgin Islands	$2,033,879	$2,226,344	$2,248,569	$22,226
Total States/Cities/Territories	**$2,879,777,553**	**$3,172,856,343**	**$3,192,946,797**	**$20,090,454**
Other Adjustments[2]	$503,097,447	$479,332,657	$458,407,203	-$20,925,454
Total Resources	**$3,382,875,000**	**$3,652,189,000**	**$3,651,354,000**	**-$835,000**

[1] Funding for Houston only includes funding for operations, not the cost of vaccines. Funding for Texas includes the cost of vaccines for Houston.
[2] Other adjustments include vaccine that is in inventory at the centralized distribution center but has not been ordered by immunization providers, funds for centralized vaccine distribution activities, developing a new centralized vaccine ordering system, pediatric stockpile, influenza stockpile, stockpile storage and rotation, and program support services.
[3] The FY 2010 level for VFC represents estimated total obligations, including $15.988 million in FY 2009 unobligated balances brought forward and $3,636.201 million in transfer from CMS.

PREVENTING HIV/AIDS, VIRAL HEPATITIS, SEXUALLY TRANSMITTED DISEASES, AND TUBERCULOSIS

HIV/AIDS, viral hepatitis, sexually transmitted diseases (STDs), and tuberculosis (TB) are communicable infections that cause significant public health, economic, and social burdens for the nation and global community. These infections are preventable, through effective evidence-based public health interventions and strategies. CDC identifies, develops, implements, and evaluates strategies for prevention of these conditions through strong internal laboratory and research capacity as well as through established partnerships with state and local health departments, community-based organizations, and research universities. Opportunities to integrate effective prevention interventions to address co-occurring epidemics and maximize program effectiveness are emphasized.

EPIDEMIOLOGY

Approximately 1.1 million Americans are living with HIV, and more than 56,000 are newly infected each year. Persons with HIV are living longer because more effective treatments are becoming available. HIV prevention programs have led to a reduction in transmission rates of over 30 percent in the past decade. However, 21 percent of Americans living with HIV are unaware of their infection and unable to take advantage of treatments to preserve their health and that of their partners.

Nearly 1.4 million Americans live with chronic hepatitis B (HBV) infections, and 3.2 million live with chronic hepatitis C (HCV) infections. Many people who are chronically infected with viral hepatitis engage in risky behaviors or do not seek treatment because they are asymptomatic. They therefore do not become aware of their infection until profound liver damage has already occurred. Without timely care, one in four persons with chronic viral hepatitis will die prematurely of liver cirrhosis or liver cancer.

Non-HIV STDs remain a "hidden" epidemic in the United States, with about 19 million new infections each year. Approximately one in four adolescent girls is estimated to have at least one STD, and women are more likely to suffer severe consequences from untreated STDs. For example, untreated Chlamydia and gonorrhea can lead to pelvic inflammatory disease, ectopic pregnancy, and infertility.

TB also causes a significant burden domestically and globally. Effective control efforts have led to the lowest number of U.S. TB cases (12,904) since reporting began in 1953; however, progress has plateaued in recent years. The high global burden of TB disease, widespread development of drug resistant strains, and lack of better tools for TB diagnosis and treatment remain problematic and require increased collaboration with international partners to resolve.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

Certain subpopulations, including racial and ethnic minority populations and men who have sex with men (MSM), remain at increased HIV risk. Over half of new HIV infections are among MSM. African American men are particularly at risk for contracting HIV, with an estimated lifetime risk more than six times that of white men. Approximately one in 12 Asian Americans is living with chronic hepatitis B, and hepatitis B-associated liver cancer is a leading cause of cancer deaths in this population. One in seven African American men aged 40 to 49 is chronically infected with hepatitis C and mortality from hepatitis C is two times higher for African Americans than for whites. STDs mainly affect adolescents and young adults and are the source of some of the most profound racial disparities in health. Over half of TB cases in the United States are among foreign-born persons. A complex set of determinants is related to these disparities. These include stigma related to infection and related risk behaviors; poverty; unemployment; lack of access to health care; and, in the case of hepatitis B and tuberculosis, a high global burden of disease.

ECONOMIC ANALYSIS

Federal spending on HIV care and treatment was estimated to be $12.3 billion in 2009.[3] The direct medical cost associated with HBV and HCV infections has been estimated at $1.8 billion.[4,5] Direct medical costs for Chlamydia, gonorrhea, trichomoniasis, syphilis, HPV, and genital herpes are estimated at over $7.4 billion annually (2008 dollars).[6] Costs for TB treatment vary widely depending on the severity of disease. For drug susceptible TB, costs range from $4,700 to $23,000 per case depending on whether the patient requires hospitalization.[7] CDC estimates that the cost of treating a single case of multi-drug resistant (MDR) TB is $500,000. In 2008, there were 86 cases of MDR TB reported in the United States.

EVIDENCE-BASED INTERVENTIONS

Many evidenced-based interventions are available to decrease incidence and overall burden of these infections, as described below. Laboratory, research, and surveillance activities are used to target these interventions to those most at risk and to monitor program impact.

- Screening and Targeted Testing are essential tools to identify individuals with undiagnosed infections. Individuals can then be referred to treatment and prevention services, as appropriate. Because those who are aware of their infection are much more likely to take steps to protect their partners, this is a powerful intervention to interrupt disease transmission.
- Partner Services are offered to sexual and drug-using contacts of those with HIV or STDs. Contact tracing is used to identify close contacts of persons with active TB in order to screen and provide treatment for latent infection. Partner services and contact tracing have been shown to be cost-effective strategies in interrupting the chain of transmission. For example, partner services is one of the most cost-effective ways of identifying HIV-infected persons and preventing HIV infections.
- Training and Education for Clinicians and Public Health Professionals can help to foster appropriate and culturally-competent provision of services at the clinical and public health level. For example, CDC provides education and medical consultation to healthcare providers to detect and treat TB. This education is particularly important as TB is increasingly rare in the United States, and doctors often fail to recognize it. Reports of missed diagnoses, resulting in poorer health outcomes, multiple healthcare visits, and missed opportunities to interrupt transmission, are common.
- Community and Structural Interventions are effective in contributing to reduced risk of HIV, viral hepatitis, STDs and TB. For example, alterations of the physical space, as well as how it is used, in congregate settings can reduce risk of TB infection. Programs to provide low-cost access to condoms and clean syringes can lead to increased use of both. Communications campaigns that normalize HIV testing and reduced sexual risk-taking have been shown to change attitudes toward these behaviors.

[3] Kaiser Family Foundation. U.S. Federal Funding for HIV/AIDS: The FY 2009 Budget Request. Available at http://www.kff.org/hivaids/upload/7029-041.pdf.
[4] Chesson HW, Blandford JM, Gift TL, Tao G, Irwin KL. "The Estimated Direct Medical Cost of Sexually Transmitted Diseases among American Youth, 2000". Perspect Sex Reprod Health 2004:36(1):11-19.
[5] Lee TA, Veenstra DL, Iloeje UH, Sullivan SD. "Cost of Chronic Hepatitis B Infection in the United States". Journal of Clinical Gastroenterology 2004:38(10 Suppl 3):S144-147.
[6] Chesson HW, Blandford JM, Gift TL, Tao G, Irwin KL. "The Estimated Direct Medical Cost of Sexually Transmitted Diseases among American Youth, 2000". Abstract P075. *2004 National STD Prevention Conference*; 2004 Mar 8-11, Philadelphia, PA.
[7] Estimates from National Business Group on Health and Centers for Disease Control and Prevention. Available at http://www.businessgrouphealth.org/preventive/topics/tuberculosis.cfm.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/- FY 2010
HIV/AIDS, Viral Hepatitis, STD and TB Prevention	$1,006,375	$0	$1,045,382	$1,083,286	+$37,904
Domestic HIV/AIDS Prevention and Research	$691,860	$0	$727,980	$758,540	+$30,560
HIV Prevention by Health Departments	$318,056	$0	$328,887	$343,062	+$14,175
HIV Surveillance	$106,749	$0	$109,455	$109,113	-$342
National/Regional/Local/Community/ Other Organizations	$132,161	$0	$134,793	$135,052	+$259
Enhanced HIV Testing	$53,278	$0	$65,273	$63,680	-$1,593
Improving Program Effectiveness	$81,616	$0	$89,572	$107,633	+$18,061
Viral Hepatitis	$18,316	$0	$19,259	$21,107	+$1,848
Sexually Transmitted Diseases (STDs)	$152,329	$0	$153,875	$160,588	+$6,713
Tuberculosis (TB)	$143,870	$0	$144,268	$143,051	-$1,217

HIV/AIDS, VIRAL HEPATITIS, SEXUALLY TRANSMITTED DISEASES, AND TUBERCULOSIS

SUMMARY OF THE REQUEST

CDC requests $1,083,286,000 for HIV/AIDS, Viral Hepatitis (VH), Sexually Transmitted Diseases (STDs), and Tuberculosis (TB) Prevention in FY 2011, an increase of $37,904,000 above the FY 2010 Omnibus. FY 2011 funds will support CDC's work to prevent and control domestic HIV and AIDS, viral hepatitis, STDs, and TB through prevention interventions, capacity building assistance, evaluation, research, public health surveillance, education, training, financial and technical assistance, and building national and global partnerships. Efforts will be focused on populations most affected, including racial and ethnic minorities, men who have sex with men (MSM) of all races, the foreign born, and young, sexually active adults. The FY 2011 request will reach more MSM and other populations at high risk for HIV, with services to prevent HIV and sexually transmitted infections (STIs), which increase risk of HIV transmission, and to promote the health of those at high risk for HIV acquisition or transmission. CDC will conduct operational research to improve prevention tools (tests, interventions, and surveillance) for high risk populations, especially MSM; expand CDC's program collaboration and service integration efforts to better meet the prevention needs of those most at risk for HIV, STDs, TB and viral hepatitis; and improve the collection and use of data for program planning and monitoring. These efforts will all support the goals outlined for the National HIV/AIDS Strategy and improve the effectiveness of prevention programs.

	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY2010
Budget Authority	$1,006,375	$0	$1,045,382	$1,083,286	+$37,904,000
PHS Evaluation Transfers	$0	$0	$0	$0	$0
Total	$1,006,375	$0	$1,045,382	$1,083,286	+$37,904,000
FTEs	1,288	0	1,301	1,270	-31

AUTHORIZING LEGISLATION

PHSA §§ 301, 306, 307, 308, 310, 311, 317, 317N, 317P(a)(b)(c), 317U, 318, 318A, 318B, 322, 325, 327, 352, 2315, 2320, 2341, Tuskegee Health Benefits: P.L. 103-333, International authorities: Section 213 of the Departments of Labor, HHS, Education & Related Agencies Appropriations Act of 2010 (P.L. 111-117, Division D)

FY 2010 Authorization……..……Expired/Indefinite

Allocation Methods……..……Direct Federal/Intramural; Competitive Grant/Cooperative Agreements; Formula Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION

CDC is the lead federal agency for HIV, viral hepatitis, STD, and TB prevention in the United States. CDC defines the public health burden of these infections, and develops, implements, and evaluates strategies to ameliorate their impact on the public's health. To do this, CDC employs public health surveillance; laboratory, clinical, and epidemiologic research; behavioral and operational research; intervention implementation and capacity building; education and training; and financial assistance in partnership with other institutions in the United States and around the globe. Integration of efforts at the service delivery level is emphasized so as to reduce risk behaviors common to these conditions and provide all recommended preventive services, such as testing, to persons at risk for one or more conditions. Key program goals include:

- Reducing HIV incidence and transmission in the United States by applying a multi-disciplinary approach involving affected communities in program planning;

- Reducing disease, disability and death due to viral hepatitis by preventing infection, increasing knowledge of serostatus, and linking infected persons to care;
- Reducing STDs and their sequelae, including poor reproductive health outcomes, cancer, and increased HIV infection; and
- Eliminating TB in the United States by ensuring treatment to cure those with active disease; identifying and treating close contacts and others with latent TB infection; and developing new tools (tests and treatments) to facilitate accurate, timely diagnoses and completion of therapy.

MECHANISMS AND FUNDING HISTORY

CDC provides financial, technical, and direct assistance to state and local health departments to conduct programs to prevent and control these diseases, and provide surveillance and laboratory support. In addition, CDC awards funds to national, regional and community-based organizations to implement prevention programs and provide evaluation and capacity building assistance. Finally, CDC funds a variety of institutions, including universities, to conduct behavioral, clinical, and operational research as well as training and education programs for providers. Where appropriate, integration of services is encouraged in order to maximize health benefits for affected populations. CDC also provides technical and evaluation support, leadership and program management and oversight, and conducts epidemiologic, behavioral and laboratory and policy studies to address national prevention priorities. The majority of funds are awarded extramurally, 65 to 85 percent, depending on the specific program.

Fiscal Year	Amount
FY 2006	$963,133,000
FY 2007	$1,002,513,000
FY 2008	$1,002,130,000
FY 2009	$1,006,375,000
FY 2010	$1,045,382,000

Budget Request: Increase for HIV/AIDS, Viral Hepatitis, STDs and TB Prevention (+37.904 million)

The FY 2011 Budget Request includes an increase of $37.9 million for three projects to integrate approaches to prevention across the HIV, Viral Hepatitis, STD and TB programs. This section discusses those initiatives; continued activities under the HIV, Viral Hepatitis, STD and TB programs are discussed separately, later in the request. In 2011, CDC will begin a focused initiative to prevent HIV through holistic and integrated approaches to protect the health of gay, bisexual and other MSM. This multi-year effort will support the goals outlined in the National HIV/AIDS Strategy and will focus on preventing new HIV infections, the acquisition of other sexually transmitted infections (STIs), and substance abuse. This effort will build on plans begun in 2008, when CDC provided $4 million in supplemental funding to 51 health departments to re-assess and strengthen their plans to address HIV among MSM in their jurisdictions. It will complement the 2010 expansion of the HIV Expanded Testing Initiative to focus on MSM and injection drug users (IDUs). CDC proposes to support the expansion of effective and evidence-based behavioral and biomedical HIV prevention programs to reduce risk of acquiring and transmitting HIV, viral hepatitis and other STIs. Programs include testing, partner services, and condom promotion, as well as social marketing and new media approaches to effectively communicate risk reduction messages.

Supplemental funding will be provided to a limited number of HIV prevention projects in areas with the highest number of AIDS cases diagnosed among MSM in 2007. These funds will provide for extramural activities and CDC intramural activities such as capacity building, program monitoring, administration, and oversight. Factors influencing targeted areas for extramural activities include: (1) the burden of AIDS among MSM; (2) the expected impact of proposed prevention activities (including the extent to which efforts are focused toward MSM at highest risk of HIV, as well as efforts to address STD risk, substance use, and other factors affecting the sexual health of MSM); (3) the extent to which effective and evidence-based prevention

approaches are used; (4) the ability to reach MSM at highest risk of HIV and STIs; and (5) the ability to monitor and evaluate area HIV prevention efforts for MSM.

The FY 2011 Budget also includes an increase of $10.0 million for program coordination and service integration grants across HIV/AIDS, Viral Hepatitis, STD, and TB prevention activities. An increase of $10.0 million is also requested in the FY 2011 budget for activities to integrate data collected across these syndemic prevention programs to improve program planning and implementation. (The **Improving Program Effectiveness** section of this request contains a description of these two projects.) Increased funding will also supplement the activities of the viral hepatitis coordinators in jurisdictions with high levels of HIV to improve services for those at risk for coinfection. Funds will be used to supplement surveillance to improve risk ascertainment for MSM infected with HBV or HCV, study the incidence of HCV among MSM to develop appropriate screening policies, and develop educational programs to improve viral hepatitis screening and vaccination among MSM. Finally, CDC will implement HIV prevention services in the context of STD prevention programs by developing MSM STD-prevention/control plans within the highest morbidity project areas, as measured by reported syphilis and HIV cases among MSM (the only two reportable infections for which gender of sex partner is collected); conducting operational research to assess effectiveness of partner service approaches in MSM; developing training modules for HRSA-funded community health center providers to enhance STD testing in HIV-infected persons; completing clinical trials that assess rectal/pharyngeal nucleic amplification tests (NAATs); and piloting surveillance projects that enhance collection of gender of sex partner data for males diagnosed with gonorrhea.

Although distinct from MSM, transgender populations are also deeply impacted by HIV (Herbst 2008; Operario, 2008). CDC will also prioritize funding for transgender populations that may include enhanced targeted HIV testing and referral to care services.

Amounts for these initiatives are included in the following subactivities: HIV Prevention with Health Departments ($16.9 million), Improving Program Effectiveness ($20.0 million), Viral Hepatitis ($2.0 million) and STD Prevention ($8.0 million).

Rationale and Recent Accomplishments: The impact of HIV and AIDS continues to be particularly severe among gay, bisexual, and other MSM in the United States. The number of new HIV infections has increased among MSM since the early 1990s, while new HIV infections have been stable or decreasing for all other risk groups. Although MSM of all races/ethnicities are at increased risk, substantial racial/ethnic disparities exist among MSM, with Black and Hispanic MSM bearing the greatest burden of the disease. Young MSM of all races are also at risk. Despite having lower infection rates than older MSM, younger MSM are more likely to have an undiagnosed HIV infection. HIV infection among MSM is associated with a number of factors including STIs, substance use, complacency about HIV, and movement away from consistent condom use to less effective strategies. Recent increases in syphilis, which is associated with a two- to five-fold increased risk of HIV, have been attributed largely to outbreaks among MSM. Higher rates of gonorrhea, which also facilitates HIV acquisition and transmission, have been documented among MSM who are HIV-infected. CDC data published in 2005 suggest that as few as one in five MSM received individual or group-level HIV prevention interventions in the prior year. Additional resources requested in 2011 will expand HIV testing and prevention services to more MSM who need them, will improve monitoring for coinfections among MSM and HIV-infected persons, and will support the development and refinement of intervention services specifically for MSM.

Health Impact: As a result of activities funded herein, the proportion of persons, particularly MSM, who receive effective HIV prevention interventions is expected to increase, leading to reductions in HIV acquisition and transmission. Cost-effective strategies, such as partner services, counseling and testing, and small group interventions, will be implemented. *(Please see outcomes 2.1.1; 2.1.3 and 2.1.4; 2.2.1 and 2.2.2; 2.3.1 and 2.3.2; 2.4.1 through 2.4.3; and 2.7.6; as well as outputs 2.1.6 and 2.A for specific information.)*

Budget Request: Domestic HIV/AIDS Prevention

CDC requests $758,540,000 for Domestic HIV/AIDS Prevention, which reflects an increase of $30,560,000 above the FY 2010 Omnibus. The FY 2011 request includes increased funding to integrate data to improve program performance; support key components of a National HIV/AIDS Strategy (currently under development); and enhance program collaboration and service integration. FY 2011 funds will be used to achieve CDC's goals for prevention including: decreasing annual HIV incidence, the HIV transmission rate, and the prevalence of risk behaviors among persons at risk for acquiring HIV; and increasing the proportion of HIV-infected people in the United States who know they are infected. Addressing the domestic HIV epidemic requires a highly coordinated effort to conduct the following efforts at the federal, state, local and community levels: surveillance; prevention research; capacity building and technical assistance; prevention intervention activities; program evaluation; and policy development. CDC leverages its national leadership and expertise in HIV prevention and its strong relationships with state and local health departments, community-based organizations (CBOs), and other federal health agencies to implement the programs described below. CDC implements projects focused on reducing HIV in communities of color with support from the Minority AIDS Initiative.

HIV Prevention with Health Departments

FY 2011 funds will support CDC's core HIV prevention program, conducted in conjunction with and through state and local health departments in the United States. State and local level community plans are developed with input from infected and affected persons. Common program components include interventions to educate at-risk individuals and reduce risky behaviors; voluntary counseling and testing services; partner services; and prevention services for persons living with HIV, including services intended to prevent perinatal transmission. CDC provides capacity building and technical assistance to health departments to ensure that they have the information, training, and infrastructure support necessary to implement effective programs in their communities. For example, CDC provides guidance in integrating various prevention tools, including needle exchange, as part of comprehensive HIV prevention for injection drug users. CDC support also includes assistance with planning and policy development; integration of HIV services with those for viral hepatitis, STDs, and TB; and evaluation of the HIV prevention efforts.

In 2011, CDC will continue to prioritize efforts to reduce HIV transmission by increasing knowledge of serostatus and by providing prevention services to HIV-infected persons. Described below are specific activities to be funded.

- Sixty-five state and local health departments will receive financial and technical assistance to conduct health education/risk reduction, prevention with positive persons, and partner services. These jurisdictions will also receive support to plan and evaluate programs, provide integrated HIV, viral hepatitis, STD, and TB prevention services when appropriate, and develop policies supportive of prevention efforts. Of these 65, 15 will continue to receive supplemental funding for perinatal prevention efforts.
- All 65 grantees will utilize the Program Evaluation and Monitoring System (PEMS) software to report data on counseling and testing, partner services and other critical prevention efforts. PEMS will provide quantitative data to assess progress toward program implementation goals and program effectiveness.
- CDC will provide technical assistance and training on the implementation and use of newly published (FY 2010) guidelines for community planning and recommendations for HIV testing, counseling, and linkage to health care and preventive services in non-health-care settings.
- FY 2011 funds will also be provided to a limited number of areas with the highest number of AIDS cases diagnosed among MSM in 2007 to support effective intervention efforts among this high-risk population.

Rationale and Recent Accomplishments: Since the beginning of the epidemic, CDC has led national efforts to prevent HIV. CDC produces recommendations and guidelines, such as the recently released guidelines for HIV and STD partner services. HIV incidence has declined from approximately 130,000 cases per year in the mid-1980s to approximately 56,300 cases per year today. Transmission rates have declined by approximately 90 percent since the early 1980s. Racial disparities in HIV/AIDS diagnoses as measured by black:white rate ratios have declined from 11:1 in 2001 to 8.5:1 in 2007. One of the great successes has been in perinatal HIV prevention. Estimated rates have declined more than 95 percent since the peak of perinatal HIV incidence in the early 1990s.

Health Impact: FY 2011 funds will be used to continue to decrease HIV transmission rates, particularly among MSM and communities of color, and to reduce racial and ethnic disparities in new HIV diagnoses. HIV testing will be supported in a number of venues, especially voluntary counseling and testing centers. At least 90 percent of those who test positive will receive their results. Integrated services will be provided as necessary to increase program efficiency and improve the health of at-risk persons. The overall cost of HIV to society will be reduced. *(Please see outcomes 2.1.1 through 2.1.4; 2.2.1 and 2.2.2; 2.3.1 and 2.3.2; 2.4.1 through 2.4.3 as well as outputs 2.1.6 and 2.A for specific information.)*

HIV Surveillance

FY 2011 funds will support HIV and AIDS surveillance nationwide to monitor the course of the epidemic and target prevention efforts. CDC's HIV surveillance program includes HIV and AIDS case reporting, systems to estimate HIV incidence, and surveys to monitor trends in risk behaviors and provision of care. CDC monitors incidence and prevalence of HIV and AIDS by race, risk group, and gender in order to base public health strategies on the best possible understanding of the epidemic and to monitor program impact. Through CDC's National HIV Behavioral Surveillance System, CDC collects behavioral risk data in three different populations at risk for HIV: MSM, injection drug users, and high risk heterosexuals. Surveillance is conducted for these three groups on 12-month rotating cycles.

Specific activities that CDC will undertake in FY 2011 include:

- Providing financial and technical assistance to 65 project areas to conduct and improve HIV/AIDS case surveillance in higher incidence populations (e.g., MSM, African Americans, Latinos) and lower incidence populations (e.g., Asians and Pacific Islanders, Native Americans and Alaska Natives);
- Supporting 22 states to conduct HIV incidence surveillance to more accurately estimate the number of new cases of HIV;
- Continuing to fund 23 areas to conduct surveillance for behavioral risks and clinical outcomes among a nationally representative sample of persons with HIV infection; and
- Supporting 11 grantees to conduct surveillance to detect the presence of drug resistant strains of HIV in the United States. This surveillance is needed to ensure that effective therapies continue to be utilized.

FY 2011 funds will continue these surveillance efforts and address the epidemic in communities of color and MSM of all races and ethnicities.

Rationale and Recent Accomplishments: CDC's comprehensive approach to surveillance provides findings that are critical to successful HIV prevention efforts. In 2008, for example, CDC released new HIV incidence estimates, which provided the clearest picture of the epidemic in the United States to date and improved CDC's ability to focus prevention efforts on those most at risk. Meanwhile, data from all of CDC's surveillance systems and epidemiologic research have revealed that, despite having higher rates of HIV, African American MSM do not engage in risk behaviors more frequently than do white MSM. All states have now adopted CDC's recommendation to conduct confidential, name-based HIV case surveillance. As their reporting systems mature, recently-transitioned states' data are being added to CDC's national HIV

surveillance reports. As a result, HIV case surveillance is rapidly becoming more complete, allowing for a better picture of the epidemic in the United States, and better planning for prevention programs. In 2007, 34 states had mature HIV surveillance systems. This total is expected to rise to 46 states in 2010 and 48 states by 2011.

Health Impact: CDC will continue to produce complete and accurate reports of HIV/AIDS cases in the United States and will publish these data annually. These case data will be supplemented by HIV incidence data, to provide researchers, policymakers, and the public with a more timely representation of the HIV epidemic in the United States. In addition to being used to target prevention programs across the nation, CDC's surveillance data will be available for use to target over $2.0 billion of federal resources through Ryan White HIV/AIDS Treatment Modernization Act (RWHATMA) programs and through Housing Opportunities for Persons with AIDS (HOPWA) programs. *(Please see outcomes 2.E.1, 2.1.1 through 2.1.4; 2.2.1 and 2.2.2.; 2.3.1 through 2.3.2; and 2.4.1 and 2.4.3; and outputs 2.1.5, 2.B, 2.C, and 2.D for specific information.)*

HIV Testing

Under its Expanded HIV Testing Initiative (ETI), which was begun in FY 2007, CDC provides funding to jurisdictions to increase HIV testing opportunities for populations disproportionately affected by HIV, and to increase the proportion of HIV-infected persons who are aware of their infection and linked to appropriate services. In the first cycle of this initiative, FY 2007 through FY 2009, ETI-supported activities were directed primarily toward African Americans. In the second funding cycle of the ETI, which will be recompeted in 2010, the target population will be expanded to include Hispanics/Latinos, and MSM and IDUs of all races and ethnicities. Goals of the ETI include promoting adoption of sustainable, routine screening programs in health-care settings, consistent with CDC's 2006 recommendations; increasing the proportion of HIV-infected persons who are aware of their infection; and ensuring that all persons diagnosed with HIV are linked to care. Increased funding received in 2010 is expected to allow CDC to test approximately 100,000 more persons annually, allowing for phase-in of activities as new cooperative agreements are started.

In FY 2011, CDC will continue to increase individuals' awareness of their serostatus by:

- Supporting up to 30 jurisdictions to implement routine testing in health-care and community settings;
- Continuing to bring to scale HIV testing in those jurisdictions to reach the goal of providing approximately 1.2 million HIV tests in 2011;
- Working with providers, health plans, state Medicaid boards, and other partners to support expanded testing, including reimbursement for HIV screening; and
- Developing operational guidelines to support routine HIV testing in substance abuse treatment centers (in collaboration with SAMHSA), STD clinics, primary care and inpatient hospital settings, and non-health-care settings.

Rationale and Recent Accomplishments: As of March 2009 (18 months into the Expanded HIV Testing Initiative), a cumulative total of 859,852 tests had been conducted in the 25 funded jurisdictions, and 10,853 HIV diagnoses were confirmed, with 6,859 new HIV infections identified. Testing rates accelerated dramatically in the second year of the initiative, with approximately 43% of tests performed in months 13-18. This dramatic progress in testing has occurred as sites were able to address barriers to initiating a new program. By August 2009, 1,333,121 HIV tests had been conducted with 15,701 HIV diagnoses confirmed. Training and technical assistance have been supplied, including 10 strategic planning workshops for emergency departments; training related to HIV screening has been presented for over 40,000 healthcare providers through an interagency agreement with the AIDS Education and Training Centers. To support these services, CDC has developed HIV testing guidance for correctional settings and recommendations for HIV testing in health-care settings, and has worked with insurers and other Federal agencies such as the Veteran's Administration and Center for Medicare and Medicaid Services to increase utilization of the

recommendations. CDC has also supported social marketing to increase HIV testing, with campaigns developed to focus on pregnant women and African Americans. A comprehensive report on the first 18 months of the initiative was submitted to the Appropriations committees in October 2009.

Health Impact: Through the testing initiative, the proportion of persons aware of their HIV infection is expected to increase. Ultimately, this testing effort is expected to improve the health and longevity of HIV-infected persons, and to decrease HIV transmission, as those who are aware they are HIV-infected are more likely to take steps to protect their partners and less likely to transmit infection. *(Please see outcomes 2.1.1 through 2.1.4; 2.2.1 and 2.2.2; 2.4.1 through 2.4.3 and output 2G for specific information.)*

HIV Prevention with National, Regional, Local, Community-based, and Other Organizations

CDC provides financial and technical assistance to community-based organizations (CBOs) to deliver HIV prevention interventions focused on populations disproportionately affected by HIV, particularly communities of color and MSM. CDC also works in concert with national, regional, and other organizations to provide capacity building assistance (CBA) to its directly-funded CBOs, to health departments and to other CBOs across the nation. Areas strengthened through capacity building activities include organizational infrastructure; delivery of prevention interventions and other strategies; program monitoring and evaluation; client recruitment and retention; and community access to, and utilization of, HIV prevention services. In addition, CDC packages interventions for use by CBOs and States, and provides training and evaluation assistance on their use. Many of these efforts are supported through the Minority AIDS Initiative. Community mobilization and social marketing efforts are also supported. CDC's two principal CBO and CBA programs were recompeted in 2009 and 2010. In 2011, CDC will continue to provide financial and technical assistance to grantees and will support other special efforts, including those listed below.

- Over 1,100 agencies, an increase of 120 over the 2009 level, will be trained to implement Diffusion of Effective Behavior Interventions. Future efforts will focus on training new staff, training staff in newly-funded organizations, and providing training to all staff on newly-identified interventions.
- Health departments and CBOs will be trained on 28 interventions (an increase of eight over 2009, and 12 over 2008), that meet CDC's rigorous criteria of effectiveness. These include "d-up!", an intervention developed by and for black MSM, and Modelo de Intervención Psychomédica, developed in Puerto Rico for injection drug users.
- Approximately 145 community-based organizations will continue to be funded to implement evidence-based prevention interventions, particularly interventions for communities of color, including MSM of color.
- CDC will make web-based training for PEMS software available to all directly-funded CBOs in order to improve program monitoring and evaluation.
- The Act Against AIDS (AAA) campaign, a five-year, multi-faceted national communication campaign to refocus national attention on the domestic HIV/AIDS epidemic, reduce HIV incidence in the United States, and mobilize leaders to take steps to prevent AIDS in their own communities will continue to be implemented.
- Financial and technical assistance will continue to be provided to approximately 30 CBA providers across the nation to build the capacity of CBOs and health departments to operate effectively and to provide evidence-based interventions and strategies that can help reduce the burden of HIV infection.

Rationale and Recent Accomplishments: By supporting national, regional, community-based, and similar organizations, CDC ensures that HIV prevention programs reflect local prevention priorities and strengthen local communities' prevention response. CDC promotes collaboration and coordination of efforts among CBOs, health departments, and private agencies, and builds the capacity of these organizations to deliver effective interventions tailored to the communities they serve. CDC also supports 30 CBA providers, to

support minority CBOs' capacity to effectively respond to the epidemic. CDC will sustain these efforts with FY 2011 funding.

Health Impact: National, regional, community-based and other organizations will have increased capacity to deliver effective interventions to prevent risk behaviors, increase knowledge of serostatus, and link HIV-infected persons to care and other critical support services. At least 20 packaged interventions will be disseminated to grantees and others implementing HIV prevention interventions. CBOs and other prevention service providers will have the tools and training to collect key evaluation data and submit these to CDC through PEMS. AAA will leverage CDC assets that include partnership networks, initiatives, and collaborations with private-sector organizations; websites and social media; public service advertising (transit, online, radio, television, print, and outdoor); news media; and interpersonal outreach to disseminate HIV prevention messages.

These efforts are expected to lead to decreases in HIV transmission and increases in health equity, thereby reducing the societal cost of HIV. *(Please see outcomes 2.1.1 through 2.1.4; 2.2.1 and 2.2.2; 2.3.1 and 2.3.2, as well as outputs 2.1.6 and 2.1.8, 2.E, and 2.F for specific information.)*

Improving Program Effectiveness

CDC works to improve the effectiveness of existing HIV prevention programs and to develop new tools for HIV prevention. These efforts include behavioral research to develop, identify, and assess effective interventions; epidemiologic studies; laboratory studies such as those to develop quicker and more sensitive and specific HIV testing algorithms; policy, economic and operations research to improve program implementation including demonstration projects to test new approaches; and programs to incorporate HIV prevention in other disease prevention programs.

In 2011, the following activities will be supported.

- CDC will provide financial and technical assistance to 24 state and local health departments to provide HIV testing to TB patients. This testing is a highly recommended intervention strategy as HIV dramatically increases the risk that someone infected with TB will develop active disease. In 2007, 12 percent of persons age 25-44 diagnosed with TB were also infected with HIV.[1]
- CDC will provide support to 65 state and local health departments for provision of HIV testing and partner services through STD programs. Partner services are one of the most useful prevention strategies, as partners of those diagnosed with HIV are at very high risk of infection.
- CDC will continue to support up to three research studies to assess biomedical interventions, including pre-exposure prophylaxis to prevent HIV infection and infant feeding trials to prevent mother-to-child transmission.
- CDC will continue to publish updates to its *Compendium of Effective Behavioral HIV Prevention Interventions*, to include the latest available research on effective interventions.
- CDC will continue to conduct studies and assessments with a focus on the epidemic in communities of color and MSM of all races and ethnicities.

Expanding CDC's Program Collaboration and Service Integration (PCSI) initiative. Within the HIV totals, CDC will invest an increase of $10,000,000 to enhance program coordination and service integration across HIV, viral hepatitis, STD, and TB. Through PCSI, CDC seeks to make changes in the way prevention services are delivered in order to reach a larger population with more services. PCSI recognizes that common risks for HIV, viral hepatitis, STDs and TB suggest the need for common solutions and enhanced collaboration among related prevention programs. Because these disease conditions share many social,

[1] Data are for those TB cases for which an HIV test result was available.

environmental, behavioral, and biological determinants and are often managed by the same or similar organizations, public health efforts to prevent their occurrence require a syndemic orientation. This orientation provides a way of thinking about public health work that focuses on connections among health-related problems, considers those connections when developing health policies, and aligns public health activities with other avenues of social change to foster conditions in which all people can be healthy. Funding in 2011 will be used to conduct the PCSI activities described below.

- CDC will increase by 10 the number of demonstration projects to promote program collaboration and service integration with prevention programs for viral hepatitis, STDs, and TB. These PCSI projects will also provide further examples of best and promising practices in the field and will be the source of data on program effectiveness.
- CDC will conduct studies of PCSI effectiveness, specifically: a meta-analysis of the literature related to PCSI; mathematical models that can estimate the impact of integration on epidemic trajectories; and an evaluation of demonstration projects.
- CDC will address major gaps in preventive services for co-morbid conditions. In 2011, CDC will fund at least one demonstration project aimed at identifying persons with, or at risk for HIV/HCV coinfection, and developing strategies to protect and improve their health.

Integrating Data to Improve Program Performance. Within the HIV totals, CDC will also invest an increase of $10,000,000 to integrate data to improve program performance. Multiple data systems currently exist to meet the data needs of individual HIV, STD, and TB programs, both at CDC and other agencies. Lessons learned from efforts to integrate data systems at the national and local levels indicate that a critical and fundamental task is improving the use of different data types (program, surveillance, and research) and domains (HIV, TB, STD) in an integrated fashion to improve the public health response. Using data systematically in a more integrated fashion will lead to a better understanding of how to implement integrated data systems. Funds are requested to implement these lessons learned, and support CDC program grantees to improve data quality and integrated data use. These efforts will result in more coordinated use of data, thereby improving the targeting of public health resources and management of client needs. The following activities are proposed for FY 2011.

- Integration of program monitoring across HIV, Viral Hepatitis, STD and TB programs: CDC will assess the potential for program data integration through reporting of similar data elements and will assess methods of creating data linkages. CDC will also assess existing local and NCHHSTP program data systems and data requirements to determine the feasibility of data sharing and integration at an analytical level. Based upon the findings of these assessments, CDC will plan and pilot integrated use of key, core data elements from all NCHHSTP program monitoring systems and provide assistance to selected health departments to develop integrated use of jurisdiction-level data from HIV, STD, TB, and viral hepatitis programs and surveillance.
- Integration of HIV program monitoring: CDC proposes activities that will integrate HIV program monitoring, and increase the utility of resultant data for program improvement.
    - CDC will develop guidance for integrated data use and a pilot project to 1) improve data management and data quality, and 2) strengthen coordination and sharing of data between surveillance and prevention programs, in order to improve HIV prevention activities and reporting at the local level, and data quality for better decision-making at the national level.
    - CDC will work to improve its program data systems to increase the use and reporting of data across prevention programs, reduce grantee burden, and improve program implementation. This effort will include the identification and development of program management tools using real time program data and user-defined reports for local program improvement (for example, improving monitoring and reporting of linkage to medical care for persons who have been

diagnosed with HIV) that will meet a variety of data reporting needs, thereby reducing data reporting burden on CDC grantees.

Some States have created models to link available health information to improve overall outcomes. CDC will investigate these systems and assess their ability to yield valid and timely data while meeting standards for confidentiality and data security. Following the assessments, CDC will fund demonstration projects to identify broadly feasible models. As a result of the above activities, priority data elements will be identified that can be used across programs to inform holistic and integrated program planning across common disease areas. Lessons learned from the pilot project will enable CDC and national partners to determine how integration of data systems would improve program effectiveness. Improving the performance management system for HIV prevention will allow 1) enhanced reporting by including surveillance and other relevant program performance indicators, epidemiologic profiles, and other reports that help grantees monitor and improve prevention activities, and 2) real-time access to data at the local and national levels, which will further enhance CDC's ability to monitor HIV prevention programs and develop national annual HIV prevention progress reports.

Rationale and Recent Accomplishments: There is a great need to identify additional, effective HIV-preventive interventions that can be implemented in the United States, and to tailor/adapt existing effective interventions to meet the needs of other at-risk populations. In 2009, CDC updated its *Compendium of Effective Behavioral HIV Prevention Interventions* to include six new interventions, bringing the total to 69 interventions. Also, in collaboration with the Association of Public Health Laboratories (APHL), CDC has identified a menu of HIV testing algorithms, which can be used to detect and confirm an HIV infection. Animal models of pre-exposure prophylaxis (PrEP) conducted by CDC have demonstrated promise in preventing HIV and led to clinical trials of PrEP supported by CDC, NIH, and others. Denominator data for risk groups have been developed, allowing rates to be calculated for risk groups for the first time.

Integrated services for those at risk for acquiring or transmitting HIV are necessary. Single, categorical services provided to persons with multiple related risks miss significant opportunities to diagnose, treat, and prevent disease. In December 2009, CDC released a white paper, *Program Collaboration and Service Integration: Enhancing the Prevention and Control of HIV/AIDS, Viral Hepatitis, Sexually Transmitted Diseases, and Tuberculosis in the United States*. This white paper defines and articulates a framework for conceptualizing PCSI; identifies how NCHHSTP will work with internal and external stakeholders to accomplish relevant goals; outlines key measures by which progress can be monitored and evaluated; and describes how NCHHSTP will work with partners at national, state, and local levels to advance PCSI.

Integrated program monitoring is also important to more effectively promote the health of those at high risk for multiple infections and to reduce the burden of reporting on CDC's grantees. CDC has developed robust surveillance for HIV, STD and TB prevention and has developed key indicators for performance for its HIV, STD and TB programs. Similarly, other agencies with HIV portfolios have developed program monitoring systems. However, systems to gather data on performance have evolved independently with different data requirements to meet specific program needs at the local and national levels. These different systems complicate service integration and result in data gaps that hamper effective program planning and implementation.

Health Impact: CDC will continue its program of laboratory, behavioral, and operational assessments and research in order to constantly improve and adapt prevention programs to meet current prevention needs. For example, CDC will continue to work with APHL to develop algorithms that are rapid, sensitive and specific, as such algorithms may increase the accuracy and speed with which results are delivered to individuals. CDC will support demonstration projects to identify best practices and will document and disseminate emerging models of best practice. Opportunities to expand integration of HIV and STD screening in high-risk populations will be identified and CDC will expand the network of professionals trained in PCSI strategies. More persons with TB or STDs, who are at risk for HIV, will receive HIV testing through the STD and TB programs. In addition, more persons diagnosed with HIV will be offered partner services, linked to care, and

receive screening for TB, STD, and viral hepatitis. *(Please see outcomes 2.1.1 through 2.1.4; 2.2.1 and 2.2.2; 2.3.1; 2.4.1 and 2.4.3 and output 2.1.7 for specific information.)*

Budget Request: Viral Hepatitis

CDC requests $21,107,000 for Viral Hepatitis which reflects an increase of $1,848,000 above the FY 2010 Omnibus. Additional funds are requested to support a National HIV/AIDS Strategy to prevent HIV and related conditions among MSM. FY 2011 funds will sustain and enhance viral hepatitis work in areas such as epidemiology and surveillance; education, training and program collaboration; policy and program development; and laboratory research. CDC's effort will focus primarily on the most common forms of viral hepatitis in the United States: Hepatitis A (HAV), B (HBV), and C (HCV). CDC aims to decrease morbidity and overall public health burden associated with viral hepatitis with the following portfolio of prevention strategies.

- Epidemiology and Surveillance: CDC helps states investigate and respond to viral hepatitis outbreaks by deploying field investigators and conducting rapid serologic and genetic testing when requested to identify sources of infection and to direct control strategies. CDC also helps states monitor chronic HBV and HCV infections and detect cases of rare or new causes. In FY 2011, CDC will:
  - Provide support for all states, as necessary, for investigation of outbreaks and modes of transmission of viral hepatitis;
  - Conduct vaccination studies to determine the long-term effectiveness of hepatitis A and hepatitis B vaccine, and to assess the role of vaccination to prevent transmission among populations not currently recommended to receive these vaccinations;
  - Fund nine state and local health departments to conduct enhanced viral hepatitis surveillance;
  - Participate in national and multi-state surveys to monitor access to and utilization of prevention services; and
  - Evaluate new HCV screening strategies and test technologies to increase awareness of infection status among persons infected with HCV and referral to prevention and care services.
- Education, Training, and Program Collaboration: CDC supports adult viral hepatitis prevention coordinators in state and local health departments to facilitate the implementation of viral hepatitis prevention and control activities. Working through the coordinators, in FY 2011 CDC will continue:
  - Developing science-based community education campaigns to address health issues among Asian/Pacific Islanders (HBV), and African Americans and Hispanics (HCV);
  - Educating health care providers and public health professionals to improve identification of those at risk for chronic infection;
  - Testing, counseling and referring to care persons chronically infected with hepatitis B and hepatitis C;
  - Identifying resources for hepatitis A and hepatitis B vaccination to improve coverage among vulnerable populations;
  - Updating and implementing the national strategy for prevention and control of HCV; and
  - Utilizing effective strategies to eliminate HBV transmission in the United States, such as identification and referral to care of pregnant women who are HBsAg+, and timely vaccination of their infants and family members. CDC will also continue the Adult Hepatitis B Vaccination Initiative, using section 317 funds to make hepatitis B vaccine available in public health settings serving adults at risk for infection.

Rationale and Recent Accomplishments: CDC tracks hepatitis incidence, investigates outbreaks, and analyzes the unique characteristics of viral strains in order to develop effective evidence-based prevention strategies. CDC possesses the laboratory capacity as well as strong relationships with state and local public health professionals to provide leadership and guidance for a comprehensive national approach. The following activities describe some of CDC's recent accomplishments.

- Through investigations of viral hepatitis outbreaks conducted in collaboration with public health partners, CDC has identified new sources of transmission and developed recommended prevention measures. CDC has also developed new laboratory techniques and implemented automated high throughput technologies to greatly accelerate the pace of these investigations, cutting time for analysis from weeks to days and enabling analysis of many more samples at one time.
- Through the implementation of effective immunization strategies, HAV incidence has decreased approximately 92 percent nationwide since 1995. CDC has issued revised national vaccine recommendations to improve prevention of Hepatitis A.
- Declines in new cases of HBV have occurred among all age groups, but are greatest among children under 15 years of age; 95 percent of new cases are now among adults. Increased vaccination of adults will accelerate progress toward elimination of transmission.
- Ongoing research is providing valuable data to decrease illness and death related to viral hepatitis including how to improve the identification and counseling of persons chronically infected with HBV and HCV, and how to ensure timely referral to appropriate care.
- CDC funding for selected state and local health departments to conduct enhanced viral hepatitis surveillance is providing accurate data about chronic hepatitis B and hepatitis C infections, needed to guide prevention efforts and address health disparities among Asian/Pacific Islanders (HBV), and African Americans and Hispanics (HCV).
- CDC continues to assist states in the detection and investigation of outbreaks of transmission of HBV and HCV in healthcare settings outside of hospitals, including clinics and long term care facilities, and to work with other federal agencies and non-governmental organizations to develop policies and procedures to help protect vulnerable populations (e.g., diabetics in long term care facilities).

Because only a small proportion of those with chronic viral hepatitis infection are aware of their status, priorities for viral hepatitis prevention include identifying those with chronic infection to link them into care and interrupt the chain of transmission, as well as preventing new infections. FY 2011 funds will also be used to monitor for coinfection and improve prevention programs and services for those at risk of HIV coinfection.

Health Impact: CDC will continue to reduce the rates of new cases of hepatitis A and B through the vaccination of infants and at-risk populations; develop and implement targeted strategies to eliminate healthcare-associated transmission of hepatitis B and C; focus on hepatitis B elimination particularly among infants at highest risk for developing chronic hepatitis B infection; reduce health disparities through targeted health education in Asian/Pacific Islander, African American and Hispanic communities; and train the clinical and public health workforce to timely identify those with chronic hepatitis B and hepatitis C infections to ensure that, once identified, chronically infected persons are referred to appropriate care. A focused effort to reach MSM with viral hepatitis screening and vaccination will be initiated. *(Please see outcomes 2.6.1 through 2.6.3 and output 2.6.4 for specific information.)*

Budget Request: Sexually Transmitted Diseases

CDC requests $160,588,000 for Sexually Transmitted Diseases (STDs) which reflects an increase of $6,713,000 above the FY 2010 Omnibus. Additional funds are requested to support a National HIV/AIDS Strategy to prevent HIV and related conditions among MSM. FY 2011 funds will sustain and enhance work

to reduce STDs such as syphilis, human papillomavirus (HPV), gonorrhea, Chlamydia, and herpes simplex 2 (HSV-2).

In FY 2011, CDC will continue to lead two initiatives to reduce infertility caused by STDs, and eliminate syphilis, syphilis-related HIV, and congenital syphilis.

- Infertility Prevention Program: The national Infertility Prevention Program is a partnership between CDC and the HHS Office of Population Affairs that provides funding and technical assistance to state and local STD prevention programs to prevent the spread of Chlamydia and gonorrhea, which, if left untreated, can lead to pelvic inflammatory disease, infertility and ectopic pregnancy in women. Funded programs provide clinical services for young, sexually active women and their sexual partners; support laboratory testing; and develop surveillance and data management systems.
    - CDC will use FY 2011 funds to continue to support 65 state and local STD prevention programs, through the Comprehensive STD Prevention Systems (CSPS) program, and 10 regional infertility programs to limit increases in prevalence of Chlamydia and gonorrhea.
    - CDC will continue to collaborate with nonprofit and private partners such as Partnership for Prevention and the National Chlamydia Coalition to promote the use of prevention services and increase screening rates among adolescents and women.
    - CDC will continue to assist prevention programs with implementation of Expedited Partner Therapy (EPT).2
- Syphilis Elimination: CDC provides additional funding through a component of CSPS to a limited number of jurisdictions, based on a formula that uses reported syphilis cases and rates.
    - CDC will fund approximately 38 areas for targeted syphilis elimination activities in FY 2011, including enhanced screening, partner services, and other evidence-based interventions.3
    - CDC will increase to 80 percent the number of syphilis elimination activities that are monitored using the Evidence-based Action Planning process, which guides the collection of data on target population characteristics, intervention delivery, resource allocation, and program outcomes.

Rationale and Recent Accomplishments: CDC routinely publishes data defining the burden of STDs in the United States and highlights the importance of preventing STDs among young women. These data have informed prevention strategies including HPV vaccination recommendations. Screening for STDs that lead to infertility is cost effective. CDC continues to support screening low-income women in all states as part of a comprehensive STD prevention program. Targeted STD prevention programs have yielded the following successes in reducing disease.

- Between 1988 and 2008, screening programs supported by CDC in HHS Region 10 (serving Alaska, Idaho, Oregon and Washington) have demonstrated a decline in Chlamydia positivity of 54 percent (from 11.1 percent to 6.0 percent) among 15- to 24-year-old women in participating family planning clinics.
- From 1999 to 2008, rates of primary and secondary syphilis among females have declined by 25 percent and rates of congenital syphilis have declined by 28 percent.
- Between 1999 and 2008, the black to white rate ratio of reported primary and secondary syphilis cases decreased by 72 percent.

[2] EPT is the practice of providing treatment to partners of persons diagnosed with a STD without clinical examination or encounter with those partners.
[3] CDC implemented a new funding formula in 2008 to be more responsive to the evolving syphilis epidemic, wide variation in project area funding, and overall level funding. The formula includes a base award for all high morbidity areas plus additional funding on the basis of the project area's proportion of total primary and secondary (P&S) cases in the previous two years. The formula also includes provision for project areas which have decreased morbidity below the threshold to transition their funding over a two-year period after falling below the threshold.

Despite these successes, STDs remain common and costly in the United States. Syphilis, which elevates the risk of HIV by two- to five-fold, persists in some communities, and rates have begun to rise, particularly among men, and are associated with outbreaks among MSM in urban areas. Additional resources requested in 2011 will improve provision of preventive services to MSM in order to prevent HIV and STDs known to increase the risk of HIV.

Health Impact: CDC will continue work to reduce the domestic prevalence of STDs such as Chlamydia, gonorrhea and syphilis, and their sequelae, such as pelvic inflammatory disease, infertility and increased risk of HIV infection. Investment in screening and other prevention strategies will not only avert infections and improve the health outcomes of the nation but will be cost effective because of the high, and increasing, economic burden associated with STDs and their sequelae.[4] *(Please see outcomes 2.7.1 through 2.7.8 and outputs 2K, 2L, and 2M for specific information.)*

Budget Request: Tuberculosis

CDC requests $143,051,000 for Tuberculosis (TB), a decrease of $1,217,000 below the FY 2010 Omnibus which is inclusive of the CDC contract and travel savings (please see page 17 for more information). FY 2011 funds will sustain and enhance work to reduce incidence of TB among U.S.-born persons in the United States. CDC will also continue to provide domestic and international leadership and assistance to prevent, control, and eliminate TB.

State TB control programs are integral to the nation's capability to eliminate TB. CDC provides leadership, advice, and assistance to these state programs and develops guidance and national policy for TB control. CDC conducts applied clinical and epidemiological research that has yielded results to guide future prevention activities. For example, in a recent study, less than half of persons who had accepted treatment failed to complete their recommended course of therapy, demonstrating that shorter treatment regimens and interventions targeting residents of congregate settings, injection drug users and employees of health care facilities would increase overall treatment completion rates. CDC's global partnerships are essential to efforts to prevent new cases of TB from being introduced into the United States. Described below are activities that will be continued with FY 2011 funding.

- State TB Control Programs: State and local health departments receive CDC funding for TB prevention and control efforts. These efforts include financial support for program and laboratory activities, direct assistance (personnel), technical assistance, and funding of four TB regional training and medical consultation centers. CDC also works with state and local TB and public health laboratory advisory committees that represent patients and providers. In FY 2011, CDC will lead the following efforts.
    - CDC will fund 68 health departments, including the 50 states, Washington D.C., dependent areas, and several directly-funded cities, to support evidence-based TB prevention and control activities. Forty-five percent of the funds for this cooperative agreement program will be distributed using a formula that takes into account total morbidity and the difficulty of treating individual cases.
    - CDC will continue its ongoing work with 41 state and local TB advisory committees.
    - CDC will continue to provide technical assistance, including epidemiologic field investigations, to jurisdictions experiencing outbreaks or unusual cases of TB.
    - Fifty states will participate in the TB Genotyping Network to allow health officials to detect outbreaks almost immediately by analyzing fingerprints of individual TB strains from across the nation.

[4] Chesson HW, et al. The estimated direct medical cost of sexually transmitted diseases among American youth, 2000. Perspectives on Sexual and Reproductive Health 2004, 36(1): 11-19. Also: Maciosek, M, et al. Priorities Among Effective Clinical Preventive Services: Results of a Systematic Review and Analysis. American Journal of Preventive Medicine, 2006; (31) 1, 52-61.

- Programmatically relevant Clinical and Epidemiologic TB Research: CDC collaborates through contracts and interagency agreements with the Veteran's Administration and other partners to maintain a consortium for TB clinical trials research. CDC also supports the Tuberculosis Epidemiological Studies Consortium to strengthen TB epidemiological, behavioral, economic, laboratory, and operational research capacity within States, cities, and academic institutions. In FY 2011, CDC will lead the efforts described below.
    - CDC will fund two TB research consortia to continue research in shortened TB drug regimens and improve TB therapy for persons with HIV infection, children with TB, and persons with drug-resistant TB.
    - CDC will continue to execute a number of epidemiologic studies through task orders.
- Global Partnerships: CDC provides leadership and technical assistance in global TB control activities including epidemiologic support for surveys to determine national TB burden, operational research and training, programmatically relevant clinical studies, infection control, surveillance, program and laboratory services development, and monitoring and evaluation. CDC collaborates with U.S. partners to reduce TB in high-burden countries by developing guidelines, recommendations, and policies. In FY 2011, CDC will:
    - Continue its efforts to build program and laboratory capacity for TB control programs in the six Pacific Island jurisdictions by improving coordination at the regional reference laboratory, improving the local capacity to conduct more specific TB diagnostic tests, and improving procedures for specimen shipping; and
    - Continue to provide technical assistance to foreign countries with a high burden of TB and to those having a strategic interest for TB control efforts in the United States, including countries in Latin America, Eastern Europe, Asia, and Africa.

Rationale and Recent Accomplishments: Success in eliminating TB ultimately depends on rapidly identifying TB cases and providing curative treatment; providing appropriate, effective drug regimens; treating patients' close contacts; treating persons with latent infection who are at high risk of developing the disease; maintaining timely and complete local, state, and national TB information systems to monitor elimination efforts; and helping to control the global spread of TB. In 2008, CDC reported the lowest number of U.S. cases (12,904) since reporting began in 1953. Since the 1992 TB resurgence peak in the United States, the number of TB cases reported annually has decreased by 50 percent. In addition, the case rate is the lowest ever, at 4.2 cases per 100,000 population.

Over the past three years, CDC has supported TB control efforts, such as provider training, in more than 35 countries through partnerships with USAID, PEPFAR, WHO, the International Union Against TB and Lung Disease, and other nongovernmental partners. CDC is also a founding member of the Stop TB Partnership, a global effort of more than 500 governmental and non-governmental organizations, housed at the WHO. With funding for TB prevention and control in recent fiscal years, CDC has produced a number of key public health outcomes, for example:

- Thirty states met the definition for low incidence, or less than or equal to 3.5 cases per 100,000 population in 2008;
- TB incidence has continuously declined among U.S.-born populations; and
- The number of TB patients who have been tested for drug resistance has increased.

The FY 2011 funds will sustain these key domestic and international activities that are vital to the nation's capacity to eliminate TB from the United States.

Health Impact: FY 2011 funds will be used to decrease the rate of cases of TB among U.S.-born persons in the United States. Overall, CDC will decrease the rate of cases of TB among U.S.-born persons and increase the proportion of those with TB who receive curative TB treatments provided for TB infection. CDC supports TB prevention on multiple fronts to achieve this goal and lead the nation closer to full elimination of TB. Work with international partners will continue to strengthen global capacity to prevent and control TB and address health disparities and other conditions closely associated with TB, including HIV infection. *(Please see outcomes 2.8.1 through 2.8.4 and outputs 2.O through 2.P for specific information.)*

IT INVESTMENTS

Information technology (IT) resources are an essential component of HIV, viral hepatitis, STD, and TB prevention activities. Investment in IT builds the capacity of CDC and its grantees to gather, store, manipulate, and disseminate valuable data for public health monitoring and program evaluation. Program funds support the operation of IT systems to monitor disease incidence and prevalence nationwide, analyze data for surveillance reports and other publications, monitor program effectiveness, and ensure efficient administration of business and support services.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 2.1: Decrease the annual HIV incidence rate.				
2.1.1: Decrease the annual HIV incidence. *(Outcome)*	FY 2006: 56,300	N/A	N/A	N/A
2.1.2: Decrease the number of pediatric AIDS cases. *(Outcome)*	FY 2007: 28 (Exceeded)	<75	<75	Maintain
2.1.3: Reduce the black:white rate ratio of HIV/AIDS diagnoses. *(Outcome)*	FY 2007: 8.51:1 (Not Met but Improved)	8.2:1	8.2:1	Maintain
2.1.4: Reduce the Hispanic:white rate ratio of HIV/AIDS diagnoses. *(Outcome)*	FY 2007: 3.46:1 (Not Met but Improved)	3.3:1	3.3:1	Maintain
Long Term Objective 2.2: Decrease the rate of HIV transmission by HIV-infected persons.				
2.2.1: Decrease the rate of HIV transmission by HIV-infected persons. *(Outcome)*	FY 2006: 5.0% (Baseline)	N/A	N/A	N/A
2.2.2: Decrease risky sexual and drug using behaviors among persons at risk for transmitting HIV. *(Outcome)*	FY 2008 Baseline: March 2010	TBD	TBD	N/A
Long Term Objective 2.3: Decrease risky sexual and drug using behaviors among persons at risk for acquiring HIV.				
2.3.1: Decrease risky sexual and drug-using behaviors among persons at risk for acquiring HIV. *(Outcome)*				
2.3.1a: MSM *(Outcome)*	FY 2004: 47% (Baseline)	N/A	47%	N/A
2.3.1b: HRH *(Outcome)*	FY 2007: 86% (Baseline)	TBD	N/A	N/A
2.3.1c: IDU *(Outcome)*	FY 2005: 73% (Baseline)	N/A	N/A	N/A
2.3.2: Increase the proportion of persons at risk for HIV who received HIV prevention interventions. (Outcome)				
2.3.2a: MSM *(Outcome)*	FY 2004: 18.9% (Baseline)	N/A	20%	N/A
2.3.2b: HRH *(Outcome)*	FY 2007:12.5% (Baseline)	TBD	N/A	N/A
2.3.2c: IDU *(Outcome)*	FY 2005: 27.4% (Baseline)	N/A	N/A	N/A
Long Term Objective 2.4: Increase the proportion of HIV-infected people in the United States who know they are infected.				
2.4.1: Increase the proportion of HIV-infected people in the United States who know they are infected. *(Outcome)*	FY 2006: 79% (Exceeded)	N/A	N/A	N/A
2.4.2: Increase the proportion of persons with HIV-positive test results from publicly funded counseling and testing sites who receive their test results. *(Outcome)*	FY 2006: 86% (Met)	90%	90%	Maintain
2.4.3: Increase the proportion of people with HIV diagnosed before progression to AIDS. *(Outcome)*	FY 2007: 82.2% (Exceeded)	80%	80%	Maintain

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 2.6: Reduce the rates of viral hepatitis in the United States.				
2.6.1: Reduce the rate of new cases of hepatitis A (per 100,000 population). *(Outcome)*	FY 2007: 1.0/100,000 (Exceeded)	0.9/100,000	0.9/100,000	Maintain
2.6.2: Reduce the rate of new cases of hepatitis B (per 100,000 population). *(Outcome)*	FY 2007: 1.5/100,000 (Exceeded)	1.7/100,000	1.7/100,000	Maintain
2.6.3: Increase the proportion of individuals knowing their hepatitis C virus infection status. *(Outcome)*	FY 2004: 50% (Baseline)	N/A	N/A	N/A
Long Term Objective 2.7: Reduce the rates of non-HIV sexually transmitted diseases (STDs) in the United States.				
2.7.1: Reduce pelvic inflammatory disease in the U.S. *(Outcome)*	FY 2008: 104,000	94,000	89,000	-5,000
2.7.2: Reduce the prevalence of chlamydia among high-risk women under age 25. *(Outcome)*	FY 2008: 12.8% (Not Met but Improved)	12.0%	11.7%	-0.3%
2.7.3: Reduce the prevalence of chlamydia among women under age 25, in publicly funded family planning clinics. *(Outcome)*	FY 2008: 7.4% (Not Met)	7.9%	8.1%	+0.2%
2.7.4: Reduce the incidence of gonorrhea in women aged 15 to 44 (per 100,000 population). *(Outcome)*	FY 2008: 285/100,000 (Not Met but Improved)	288/100,000	288/100,000	Maintain
2.7.5: Eliminate syphilis in the U.S. *(Outcome)*	FY 2008: 4.5/100,000	2.2/100,000	N/A	N/A
2.7.6: Reduce the incidence of P&S syphilis: *(Outcome)*				
2.7.6a: in men (per 100,000 population). *(Outcome)*	FY 2008: 7.6/100,000 (Not Met)	9.4/100,000	10.2/100,000	+0.8/100,000
2.7.6b: in women (per 100,000 population). *(Outcome)*	FY 2008: 1.5/100,000 (Not Met)	2.0/100,000	2.1/100,000	+0.1/100,000
2.7.7: Reduce the incidence of congenital syphilis per 100,000 live births. *(Outcome)*	FY 2008: 10.1/100,000 (Not Met but Improved)	16.2/100,000	17.7/100,000	+1.5/100,000
2.7.8: Reduce the racial disparity of P&S syphilis (reported ratio is black:white). *(Outcome)*	FY 2008: 8.1:1 (Not Met)	9.0:1	9.5:1	+0.5
Long Term Objective 2.8: Decrease the rate of cases of TB among U.S.-born persons in the United States.				
2.8.1: Decrease the rate of cases of TB among U.S.-born persons (per 100,000 population). *(Outcome)*	FY 2008: 2.0 (Not Met but Improved)	1.9	1.9	Maintain
2.8.2: Increase the percentage of TB patients who complete a course of curative TB treatment within 12 months of initiation of treatment (some patients require more than 12 months). *(Outcome)*	FY 2006: 83.5% (Not Met but Improved)	>87.5%	>87.5%	Maintain
2.8.3: Increase the percentage of TB patients with initial positive cultures who also have drug susceptibility results. *(Outcome)*	FY 2008: 93.4% (Not Met)	>95%	>95%	Maintain

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
2.8.4: Increase the percentage of contacts of infectious (Acid-Fast Bacillus (AFB) smear-positive) cases that are placed on treatment for latent TB infection and complete a treatment regimen. *(Outcome)*	FY 2006: 47.2% (Not Met but Improved)	>or = 43%	>or = 43%	Maintain

OUTPUT TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
2.E.1: Increase the efficiency of core HIV/AIDS surveillance as measured by the cost per estimated case of HIV/AIDS diagnosed each year. *(Efficiency)*	FY 2007: $699 (Exceeded)	$570	$525	Maintain
Long Term Objective 2.1: Decrease the annual HIV incidence rate.				
2.1.5: Increase the number of states with mature, name-based HIV surveillance systems. *(Output)*	FY 2008: 37 (Exceeded)	46	48	2
2.1.6: Increase the percentage of HIV prevention program grantees using Program Evaluation and Monitoring System (PEMS) to monitor program implementation. *(Output)*	FY 2008: 95% (Exceeded)	100%	100%	Maintain
2.1.7: Increase the number of evidence-based prevention interventions that are packaged and available for use in the field by prevention program grantees. *(Output)*	FY 2008: 17 (Not Met but Improved)	20	20	Maintain
2.1.8: Increase the number of agencies trained each year to implement Diffusion of Effective Behavior Interventions (DEBIs). *(Output)*	FY 2008: 980 (Not Met)	1100	1100	Maintain
Long Term Objective 2.6: Reduce the rates of viral hepatitis in the United States.				
2.6.4: Increase the number of areas reporting chronic hepatitis C virus infections to CDC to 50 states and New York City and District of Columbia. *(Output)*	FY 2008: 33 (Met)	37	37	Maintain

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
2.A: Areas funded for HIV prevention	FY 2009: 65	65	65	Maintain
2.B: Areas funded for HIV/AIDS surveillance	FY 2009: 64	65	65	Maintain
2.C: Number of areas funded to estimate HIV incidence	FY 2009: 25	22	22	Maintain
2.D: Number of jurisdictions to conduct surveillance drug-resistant strains of HIV	FY 2009: 11	11	11	Maintain
2.E: Number of capacity building assistance providers*	FY 2009: 43	30	30	Maintain
2.F: Number of CBOs funded to support community level interventions**	FY 2009: 155	145	145	Maintain

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
2.G: Number of jurisdictions funded with enhanced testing activities	FY 2009: 25	30	30	Maintain
2.H: Number of States or cities funded for enhanced viral hepatitis surveillance	FY 2009: 7	7	9	+2
2.I: Number of States or cities funded for adult viral hepatitis prevention coordinators	FY 2009: 55	55	55	Maintain
2.J: Number of grantees receiving technical and financial assistance to grantees for STD Prevention	65	65	65	Maintain
2.K: Syphilis Elimination Programs Funded	33	38	TBD***	N/A
2.L: Regional Infertility Programs Funded	10	10	10	Maintain
2.M: STD/HIV Regional Prevention Training Centers Funded	10	10	10	Maintain
2.N: Number of cities, States, and territories provided financial and technical aid to conduct TB prevention and control activities and collect TB surveillance data	68	68	68	Maintain
2.O: Number of research consortia funded	2	2	2	Maintain
2.P: Number of State public health laboratories participating in the TB Genotyping Network	50	50	50	Maintain

* This program was restructured and recompeted in FY 2009. Extensions were provided to some previously funded organizations in 2009.
** This program reflects CDC's main CBO program, which will be recompeted in FY 2010.
*** The number of programs funded annually for this activity is determined by a formula for which some data are not yet available.

CDC-WIDE HIV/AIDS FUNDING

Fiscal Year	Research and Domestic HIV Prevention (Infectious Disease)	Other Domestic HIV Prevention	Global AIDS Program[3]	CDC Wide HIV Total[4]
2001	$653,462,000	$96,199,000	$104,527,000	$854,188,000
2002	$689,169,000	$96,038,000	$168,720,000	$953,927,000
2003[1]	$699,620,000	$93,977,000	$182,569,000	$976,166,000
2004[2]	$667,940,000	$70,032,000	$266,864,000	$1,004,836,000
2005[4]	$662,267,000	$69,438,000	$123,830,000	$855,535,000
2006[5]	$651,657,000	$64,008,000	$122,560,000	$838,225,000
2007	$695,454,000	$62,802,000	$120,985,000	$879,241,000
2008[6]	$691,860,000	$40,000,000	$118,863,000	$850,946,000
2009	$691,860,000	$40,000,000	$118,863,000	$850,946,000
2010	$727,980,000	$40,000,000	$118,979,000	$886,959,000
2011 PB	$758,540,000	$40,000,000	$118,092,000	$916,632,000

[1] Global AIDS amounts include funding for the Prevention of Mother to Child HIV Transmission initiative, which was transferred to the Department of State Office of the Global AIDS Coordinator in FY 2005.

[2] In FY 2004, CDC's budget was restructured to separate actual program costs from the administration and management of those programs. Funding levels are not comparable to those of previous years. Also in that year, funding for the HIV lab activities was moved from the Infectious Disease budget activity to the Research and Domestic HIV Prevention sub-line in the HIV, STD and TB prevention budget activity.

[3] Amount for Global AIDS Program does not include PEPFAR funding.

[4] From FY 2000 to FY 2003 CDC-wide HIV/AIDS funding is comprised of specific activities within the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), and the National Center for Infectious Diseases (NCID). From FY 2004 to FY 2009, CDC-wide HIV/AIDS funding was comprised of activities conducted by NCHHSTP, other parts of CCID, NCCDPHP, and the National Center for Birth Defects and Developmental Disabilities (NCBDDD).

[5] HIV/AIDS Basic Research was moved from the Infectious Disease budget activity to the CDC Research and Domestic HIV Prevention sub-line under HIV/AIDS, Viral Hepatitis, STD, and TB Prevention in FY 2006.

[6] In FY 2010, funds supporting hemophilia/HIV activities in NCBDDDP and for oral health/HIV, BRFSS/HIV, and Safe Motherhood/HIV activities in NCCDPHP have been removed from the HIV-wide table. FY 2008 and FY 2009 figures have been adjusted to become comparable to FY 2010 figures

GRANTEE TABLE

	HIV/AIDS CORE PREVENTION AND SURVEILLANCE PROGRAMS			TB ELIMINATION & LABORATORY PROGRAM	COMPREHENSIVE STD PREVENTION PROGRAM
State/Territory/ Grantee	**FY 2009 Prevention Projects**	**FY 2009 Case Surveillance**	**Total***	**FY 2009 Actual[4]**	**FY 2009 Actual[5]**
Alabama[1,2]	$2,265,081	$916,557	$3,181,638	$1,078,061	$1,924,956
Alaska[1,2]	$1,473,229	$130,010	$1,603,239	$423,497	$427,698
Arizona[1,2]	$3,073,112	$1,014,565	$4,087,677	$1,208,783	$1,461,598
Arkansas[1,2]	$1,760,239	$225,950	$1,986,189	$703,652	$1,154,275
California[1,2]	$13,691,430	$2,433,021	$16,124,451	$7,872,583	$6,000,797
Colorado[1,2]	$4,292,744	$1,123,010	$5,415,754	$528,675	$1,115,882
Connecticut[1,2]	$6,084,123	$914,458	$6,998,581	$611,026	$762,645
Delaware[1,2]	$1,910,703	$250,227	$2,160,930	$292,977	$1,295,831
District of Columbia[1,2]	$6,070,186	$1,559,715	$7,629,901	$782,398	$526,338
Florida[1,2,3]	$19,701,354	$3,699,732	$23,401,086	$7,486,839	$4,624,047
Georgia[1,2]	$7,796,250	$815,551	$8,611,801	$2,643,144	$3,826,959
Hawaii[1,2]	$2,110,153	$217,541	$2,327,694	$873,515	$385,884
Idaho[1,2]	$850,397	$74,000	$924,397	$176,844	$424,253
Illinois[1,2]	$4,166,444	$587,726	$4,754,170	$1,272,324	$2,227,528
Indiana[1,2,3]	$2,300,069	$891,109	$3,191,178	$840,551	$1,471,569
Iowa[1,2]	$1,709,919	$228,112	$1,938,031	$391,826	$771,626
Kansas[1,2]	$1,816,332	$193,735	$2,010,067	$397,590	$841,764
Kentucky[1,2]	$1,980,507	$302,679	$2,283,186	$827,342	$725,587
Louisiana[1,2]	$5,372,128	$1,474,873	$6,847,001	$1,334,664	$2,203,160
Maine[1]	$1,638,019	$106,383	$1,744,402	$181,183	$305,010
Maryland[1,2]	$9,972,847	$1,201,156	$11,174,003	$1,285,615	$1,373,935
Massachusetts[1,2]	$8,864,923	$972,639	$9,837,562	$1,553,501	$1,561,164
Michigan[1,2]	$6,548,152	$1,405,434	$7,953,586	$828,010	$2,698,051
Minnesota[1,2,3]	$3,264,727	$347,746	$3,612,473	$1,013,829	$931,162
Mississippi[1,2,3]	$2,059,952	$475,386	$2,535,338	$959,816	$1,380,749
Missouri[1,2]	$3,842,893	$701,036	$4,543,929	$628,503	$2,177,283
Montana[1,2]	$1,318,830	$75,000	$1,393,830	$182,314	$310,383
Nebraska[1,2]	$1,212,992	$156,924	$1,369,916	$210,957	$458,262
Nevada[1,2,3]	$2,832,606	$486,282	$3,318,888	$553,003	$798,738
New Hampshire[1,2]	$1,344,150	$111,000	$1,455,150	$259,122	$286,417
New Jersey[1,2,3]	$12,331,132	$3,121,810	$15,452,942	$4,455,865	$3,312,443
New Mexico[1,2]	$2,334,793	$285,000	$2,619,793	$363,644	$725,810

	HIV/AIDS CORE PREVENTION AND SURVEILLANCE PROGRAMS			TB ELIMINATION & LABORATORY PROGRAM	COMPREHENSIVE STD PREVENTION PROGRAM
State/Territory/ Grantee	**FY 2009 Prevention Projects**	**FY 2009 Case Surveillance**	**Total***	**FY 2009 Actual[4]**	**FY 2009 Actual[5]**
New York[1,2]	$27,150,405	$2,089,670	$29,240,075	$2,732,636	$3,071,844
North Carolina[1,2]	$4,045,627	$1,025,735	$5,071,362	$1,830,037	$2,986,873
North Dakota[1]	$583,454	$63,329	$646,783	$165,982	$264,085
Ohio[1,2]	$5,222,851	$755,060	$5,977,911	$1,123,550	$3,246,546
Oklahoma[1,2]	$2,511,633	$412,037	$2,923,670	$784,028	$937,697
Oregon[1,2,3]	$2,922,076	$401,828	$3,323,904	$791,223	$1,027,577
Pennsylvania[1,2]	$4,572,653	$671,763	$5,244,416	$816,626	$2,139,706
Rhode Island[1]	$1,702,525	$224,293	$1,926,818	$403,043	$405,601
South Carolina[1,2,3]	$4,432,227	$1,044,763	$5,476,990	$1,263,499	$1,345,605
South Dakota[1,2]	$672,293	$75,001	$747,294	$257,920	$292,269
Tennessee[1,2]	$3,843,632	$825,175	$4,668,807	$1,416,344	$2,358,018
Texas[1,2,3]	$13,248,605	$2,346,608	$15,595,213	$6,998,495	$6,695,485
Utah[1]	$1,122,200	$177,888	$1,300,088	$320,170	$483,117
Vermont[1,2]	$1,517,209	$95,000	$1,612,209	$136,520	$183,669
Virginia[1,2]	$4,868,847	$1,050,880	$5,919,727	$1,243,702	$1,925,210
Washington[1,2,3]	$3,717,778	$1,581,843	$5,299,621	$1,466,950	$2,658,994
West Virginia[1]	$1,488,432	$232,130	$1,720,562	$336,533	$713,660
Wisconsin[1]	$2,875,564	$400,617	$3,276,181	$407,986	$969,352
Wyoming[1,2]	$824,022	$75,000	$899,022	$191,122	$267,928
State Sub-Total	$233,312,449	$40,046,987	$273,359,436	$64,908,019	$80,465,040
Baltimore[1,2]	--	--	--	$577,586	$1,502,604
Chicago[1,2]	$5,287,307	$1,377,514	$6,664,821	$2,011,357	$2,262,415
Detroit[1,2]	--	--	--	$522,118	--
Houston[1,2]	$5,074,744	$1,417,691	$6,492,435	$2,395,293	--
Los Angeles[1,2]	$13,188,739	$2,526,931	$15,715,670	$4,920,856	$4,190,259
New York City[1,2]	$21,751,971	$4,338,409	$26,090,380	$11,078,404	$6,772,905
Philadelphia[1,2]	$6,491,294	$1,130,902	$7,622,196	$963,867	$2,566,718
San Diego[1,2,3]	--	--	--	$1,713,092	--
San Francisco[1,2,3]	$9,146,011	$1,801,725	$10,947,736	$2,799,251	$1,531,819
City Sub-Total	$60,940,066	$12,593,172	$73,533,238	$26,981,824	$18,826,720
American Samoa[1,2]	$182,583	$10,000	$192,583	$97,407	$63,247
Guam[1,2]	$522,960	$25,000	$547,960	$413,273	$117,077

	HIV/AIDS CORE PREVENTION AND SURVEILLANCE PROGRAMS			TB ELIMINATION & LABORATORY PROGRAM	COMPREHENSIVE STD PREVENTION PROGRAM
State/Territory/ Grantee	**FY 2009 Prevention Projects**	**FY 2009 Case Surveillance**	**Total***	**FY 2009 Actual[4]**	**FY 2009 Actual[5]**
Marshall Islands[1]	$128,241	$18,042	$146,283	$127,375	$136,934
Micronesia[1]	$184,876	$18,130	$203,006	$172,655	$56,683
Northern Marianas[1,2,3,6]	$170,548	--	$170,548	$338,104	$119,789
Palau[1,2]	$246,706	$22,090	$268,796	$127,835	$43,609
Puerto Rico[1,2]	$4,162,575	$650,924	$4,813,499	$795,474	$1,452,406
Virgin Islands[1]	$589,914	$140,371	$730,285	$71,164	$193,222
Territory Sub-Total	$6,188,403	$884,557	$7,072,960	$2,143,287	$2,182,967
Total States/Cities/ Territories	$300,440,918	$53,524,716	$353,965,634	$94,033,130	$ 101,474,728

* Amounts reflect new funding only. In addition, grantees received a total of $7.9 million in unobligated funds.

[1] Grantee received funding from one or more of the following HIV prevention supplements: Direct Assistance ($1,380,127), Perinatal Prevention ($5,703,353), Supplement for Testing Activities ($4,900,000).

[2] Grantee received funding from one or more of the following HIV surveillance supplements: Incidence Surveillance ($12,897,456), Epidemiologic and Evaluation Technical Assistance ($1,796,697), Rapid Testing ($3,450,709), Variant, Atypical, & Resistance HIV Surveillance (VARHS; $2,229,612), Name-Based Reporting Conversion ($744,119).

[3] Grantee received funding from one or more of the following TB supplements: Outbreak Support ($773,410), Supplemental Funding ($97,800), Regional Training and Medical Consultation Centers ($5,789,539).

[4] Amounts reflect new funding and include as $9,456,855 in HIV/TB coinfection funds. In addition, grantees received a total of $6,912,202 in unobligated funds, including supplements.

[5] Amounts reflect new funding and include $8,631,530 in HIV/STD coinfection funds. In addition, grantees received a total of $7,982,448 in unobligated funds.

[6] Northern Mariana Islands did not submit an Interim Progress Report requesting HIV case surveillance continuation funding in FY 2009.

PREVENTING AND CONTROLLING EMERGING AND ZOONOTIC INFECTIOUS DISEASES

Each year, infectious diseases claim more than 15 million lives and cause substantial morbidity worldwide. In today's globalized society, the widespread movement of people and goods, rapid urban development, population increases, and other factors have allowed microbes rapid and easy access to new environments and led to a host of emerging and re-emerging infectious diseases. The majority of these diseases are zoonoses, caused by infectious agents that can be transmitted between or are shared by animals and humans. Growing antimicrobial resistance impedes treatment and control efforts for an increasing number of pathogens. CDC works to prevent and control emerging and zoonotic infectious diseases through public health leadership, partnerships, epidemiologic and laboratory studies, and the use of quality systems, standards, and practices.

EPIDEMIOLOGY

During the last several decades, newly recognized pathogens have emerged at alarming rates while other, known pathogens have increased their infectivity, become resistant to treatment, or invaded previously unaffected areas. West Nile virus (WNV), for example, was first reported in the United States only in 1999, but soon spread throughout the continental United States and into Canada and Latin America. Similarly, during 2006-2007, chikunguya (CHIKV) infected at least two million people in the Indian Ocean region – an epidemic that continues today in Southeast Asia – and subsequently produced an epidemic in northern Italy. The mosquitoes that typically transmit this virus are now widely present in the United States. Other emerging vector borne threats in the United States include Lyme disease and eastern equine encephalitis virus, while plaque and dengue are increasing problems in Asia and Africa.

Foodborne disease causes millions of illnesses annually, with over 300,000 hospitalizations and 5,000 deaths. Large outbreaks have been linked to an increasing array of foods. In 2008-2009, a large foodborne outbreak caused by *Salmonella Typhimurium* in domestically produced peanut butter was associated with 714 reported illnesses and nine deaths. Waterborne diseases associated with U.S. public drinking water systems result in an estimated 4.3 to 32.8 million cases of acute gastrointestinal illness each year.

Complicating the prevention and treatment of infectious diseases is the increasing number of drug-resistant organisms. Many infections, including strains of *Staphylococcus aureus*, have developed multiple drug resistance. Hospitals and other healthcare settings contribute to the development of antimicrobial resistance because of their high volumes of susceptible patients, large numbers of infectious agents, and high antimicrobial usage. Efforts to reduce antimicrobial resistance include focusing on reducing healthcare-associated infections (HAIs), among the top 10 causes of death in the United States.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

Infants, young children, and the elderly are often most susceptible to the severe consequences of infectious diseases. In many areas, poverty and inadequate public health infrastructures preclude the availability and use of necessary prevention services such as vector control; water and sanitation treatment; and adequate medical care. There is an increased risk of hospitalizations for respiratory and skin infections among the more than one-third of rural Alaska Natives who have no in-home water or sewage service. Additionally, vulnerable populations such as refugees have an increased burden of infectious diseases because of factors such as disease, malnutrition, and living conditions in their countries of origin or departure. Health issues can seriously impede the ability of refugees to successfully integrate into their new communities, and place additional strains on the U.S. health system.

ECONOMIC ANALYSIS

Infectious diseases are costly to society. For example, the cost of one waterborne *Cryptosporidium* outbreak in 1993 totaled $31.7 million in direct health care expenditures. The World Health Organization (WHO) estimates the health care cost associated with each diarrheal illness to be between $10 and $23 per incident. The costs of medical services for 50,000 incoming refugees are estimated to be approximately $36.0 million.

EVIDENCE-BASED INTERVENTIONS

CDC's surveillance systems have been integral in providing rapid and accurate information which is used to determine the most effective public health recommendations and interventions to prevent and control emerging and zoonotic infectious diseases for populations most at risk. The National Healthcare Safety Network (NHSN) is a surveillance system that assists hospitals in improving the safety of healthcare. From 1997-2007, NHSN-participating hospitals have decreased bloodstream infections by up to 50 percent. The Electronic Disease Notification system used to notify health departments of the arrival of immigrants and refugees with medical conditions requiring follow-up improved CDC's ability to limit further spread of disease. ArboNET, the first national surveillance network that includes data on mosquito-borne viruses from humans, animals, and mosquitoes, is being used by states to respond to outbreaks. CDC worked with state partners and the EPA to convert the national Waterborne Disease and Outbreak reporting system from a paper-based system to electronic reporting through CDC's new National Outbreak Reporting System (NORS). This investment has resulted in a 100 percent increase in waterborne outbreak reports received for the 2007-2008 reporting period. PulseNet is a national network for DNA "fingerprinting" bacterial foodborne pathogens and works in collaboration with public health laboratories in all 50 states, Canada, FDA, and USDA, to facilitate early recognition and investigation of outbreaks.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Zoonotic, Vector-Borne, and Enteric Diseases	$67,978	$0	$76,647	$58,027	-$18,620
Vector-borne Diseases (non-add)	$26,299	$0	$26,717	$0	-$26,717
Lyme Disease (non-add)	N/A	N/A	$8,938	$9,055	+$117
Food Safety (non-add)	$22,520	$0	$26,942	$35,195	+$8,253
Prion Disease (non-add)	$5,388	$0	$5,474	$5,390	-$84
Chronic Fatigue Syndrome (CFS) (non-add)	$4,750	$0	$4,825	$4,598	-$227
Preparedness, Detection, and Control of Infectious Diseases	$157,426	$0	$168,689	$192,075	+$23,386
Emerging Infectious Diseases (non-add)	$130,281	$0	$136,281	$155,898	+$19,617
National Healthcare Safety Network (non-add)	$10,100	$0	$15,150	$27,452	+$12,302

EMERGING AND ZOONOTIC INFECTIOUS DISEASES

SUMMARY OF THE REQUEST

CDC is a world leader in addressing zoonotic and emerging infectious diseases, with activities across CDC that improve understanding of infectious diseases and the best ways to prevent and control disease. CDC requests $58,027,000 for zoonotic, vectorborne, and enteric diseases in FY 2011, a decrease of $18,620,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information). CDC also requests $192,075,000 for preparedness, detection, and control of infectious diseases in FY 2011, an increase of $23,386,000 above the FY 2010 Omnibus. FY 2011 funds will support CDC's work to prevent and control infectious diseases through a range of activities, including: surveillance, outbreak investigation and response, research, support to states for epidemiology and laboratory capacity, and the protection of populations through the use of quality systems, standards and practices. The narrative describes CDC's planned activities for the resources requested for FY 2011. Two items of note related to CDC's budget request for Emerging Zoonotic and Infectious Diseases are that CDC requests $4,598,000 for Chronic Fatigue Syndrome, a decrease of $227,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information); and that no specific funding is included for Vector-borne surveillance, including West Nile virus (WNV).

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Zoonotic, Vector-Borne, and Enteric Diseases	$67,978	$0	$76,647	$58,027	-$18,620
Preparedness, Detection, and Control of Infectious Diseases	$157,426	$0	$168,689	$192,075	+$23,386
FTE's	1,184	0	1,196	1,165	-31

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 311, 317, 317G, 317N, 317P, 317R, 317 S, 318, 319, 319D, 319E, 319F, 319G, 321, 322, 325, 327, 352, 361-369, Immigration and Nationality Act §§ 212 (8 USC Sec. 1182), 232 (8 USC Sec. 1252), 412 (8 USC Sec. 1522), Refugee Health Act §§ 412.

FY 2010 Authorization……..……..Expired/Indefinite

Allocation Methods…….….Direct Federal/Intramural; Contracts; and Competitive Grants/Cooperative Agreements

PROGRAM DESCRIPTION

Infectious diseases remain a major contributor to illness, death, and suffering worldwide as evidenced by the recent H1N1 influenza pandemic. CDC plays a unique and critical role in detection and control of emerging and zoonotic infectious diseases. The complex interplay of environmental, social, biological, and technological factors create unique challenges in the ability to rapidly detect, identify and respond to a new or re-emerging infectious disease threat. Whether naturally occurring or acts of terrorism, the unpredictability of these threats requires a broad and comprehensive approach. The reasons for this lie not only in changes in humans and organisms, but also in changes in animal hosts, vectors, antimicrobial resistance, and the environment. The increasing recognition that human health protection requires attention to the broader ecology is transforming our approach to infectious disease prevention. This approach requires extensive interaction and collaboration among professionals from multiple disciplines, innovative science, cutting edge laboratory and information system technologies, effective use of resources, and well-coordinated strategies, systems, and services.

To strengthen CDC's approach to combating infectious diseases, CDC is integrating two existing national centers: the National Center for Preparedness, Detection, and Control of Infectious Diseases (NCPDCID) and the National Center for Zoonotic, Vector-Borne, and Enteric Diseases (NCZVED) to create the National Center for Emerging and Zoonotic Infectious Diseases (NCEZID). With this integrated approach, CDC will protect domestic and international populations from the spread of infectious diseases by focusing on new and re-emerging infections, zoonotic diseases, antimicrobial resistance, the global migration of populations at risk, and human-environmental interfaces such as food, water and the healthcare setting. Specifically, FY 2011 funds will support advancements in CDC's priorities to:

- Build epidemiology and laboratory capacity, surveillance systems, and networks that share vital information about infectious diseases;
- Reduce the burden of illness cause by foodborne, vector-borne, and zoonotic diseases;
- Expand public health infection control prevention programs to prevent healthcare associated infections and improve healthcare safety and healthcare quality; and
- Protect the health of specific populations including immigrants, refugees, travelers, patients, and healthcare providers; and monitor U.S. and international borders, and places where newly emerging diseases threaten the world population's health.

MECHANISMS AND FUNDING HISTORY TABLE

CDC provides financial, technical, and direct assistance to state and local health departments to conduct programs to prevent and control infectious diseases and provide surveillance and laboratory support. In addition, CDC awards funds to national, state and community-based organizations to implement prevention programs and provide evaluation and capacity building assistance. CDC funds a variety of institutions, including universities, to support epidemiologic, laboratory and prevention research. Where appropriate, integration of services is encouraged in order to maximize resources. CDC also provides technical and evaluation support; leadership and program management; and oversight domestically and globally in preparing and responding to infectious disease outbreaks.

Fiscal Year	NCZVED	NCPDCID
FY 2006	$87,797,000	$124,368,000
FY 2007	$69,052,000	$152,591,000
FY 2008	$67,846,000	$149,925,000
FY 2009	$67,978,000	$157,426,000
FY 2010	$76,647,000	$168,689,000

Budget Request: Building Epidemiology and Laboratory Capacity, Surveillance, and Networks

A strong and well-functioning local, state, and federal public health system is needed to ensure a rapid and effective response to infectious disease threats. While all of CDC's emerging and zoonotic infectious disease programs work to build capacity in different ways, highlighted here are specific capacity building efforts in epidemiology and laboratory capacity, emerging infections, and antimicrobial resistance.

Building Epidemiology and Laboratory Capacity and the Emerging Infections Program

CDC has invested in creating a flexible and adaptable infrastructure to be able to identify and respond to emerging infectious diseases. This infrastructure creates the core capacity needed at the state and local level to detect and control infectious disease threats by building a sufficient and competent workforce, laboratory facilities and capacities, and epidemiologic, statistical, and communication skills. In addition, CDC uses various information systems that support rapid, secure, and accurate information exchange. This infrastructure serves as a foundation for many of the infectious disease activities supported by CDC and enables state and local health departments to build capacity and address infectious diseases in a more coordinated and efficient way.

CDC supports these activities through the Preparedness, Detection and Control of Infectious Diseases and Zoonotic, Vector-borne, and Enteric Diseases budget lines.

FY 2011 funds will be used to support several capacity building activities including those identified below.

The Epidemiology and Laboratory Capacity (ELC) for Infectious Diseases cooperative agreement program builds epidemiology, laboratory, and information system capacities in all 50 states, six local health departments, and two territories to assist frontline state and local programs to monitor, detect, and respond to new and emerging infectious diseases. CDC will:

- Support and enhance state and local ability to detect, prevent, and control a broad spectrum of important infectious diseases including influenza, foodborne disease, vaccine preventable infections, and vector-borne diseases;
- Build infectious disease public health workforce capacity by providing reagents to the states, as well as laboratory support and laboratory training;
- Build and enhance state/local laboratory capacity by providing funding to purchase and maintain state-of-the-art laboratory technology, including equipment for molecular assays such as pulsed field gel electrophoresis (PFGE), reverse transcription-polymerase chain reaction (RT-PCR); and
- Implement cutting-edge information technology solutions that support rapid, secure, and accurate information exchange; diverse types of information; and linking of information among local, state, and federal public health agencies, healthcare facilities, and laboratories.

CDC requests $155,898,000 for emerging infectious diseases in FY 2011, an increase of $19,617,000 above the FY 2010 Omnibus. FY 2011 funding could fund Vector-borne, including West Nile virus (WNV) activities if determined a priority by States and CDC. The Emerging Infections Program (EIP) is a network of 10 state health departments across the U.S. and their collaborators in local health departments, academic institutions, other federal agencies, public health and clinical laboratories, infection control professionals, and healthcare providers. CDC will:

- Continue to serve as a national resource for subject matter expertise and specialized resources for surveillance, prevention, and control of emerging infectious diseases;
- Continue to serve as a centralized data collection source for infectious disease programs to monitor emerging problems, evaluate public health interventions, transfer what is learned to the public health community, and inform policy; and
- Continue conducting over 55 projects on a broad spectrum of infectious diseases, including Active Bacterial Core surveillance (ABCs), active surveillance for unexplained deaths and encephalitis syndrome, Border Infectious Disease Surveillance, FoodNet, Healthcare-Associated Infections, evaluation of vaccines, and surveillance for tickborne diseases.

In addition, core laboratory activities for terrorism preparedness are supported through the CDC's Preparedness and Response Capability budget line. These core activities include CDC's smallpox vaccine research as well as the dissemination of reagents.

Antimicrobial Resistance

CDC implements surveillance, prevention and control, infrastructure and training, and applied research programs to address the emerging threat of antimicrobial resistance. The number of bacteria resistant to antibiotics has increased in the last decade. Nearly all significant bacterial infections in the world are becoming resistant to the most commonly prescribed antibiotic treatments, making antibiotic resistance one of the world's most pressing public health problems. Repeated and improper uses of antibiotics are important causes of the increase in drug-resistant bacteria. Antimicrobial resistance is common in many infections of public health importance domestically and globally including *Staphylococcus aureus*, *Streptococcus*

pneumoniae, malaria, tuberculosis, *Salmonella*, *Shigella*, *Neisseria gonorrhoeae*, HIV, and others. Preventing infections and decreasing inappropriate antibiotic use is the best strategies to control resistance. CDC supports these activities through the Preparedness, Detection, and Control of Infectious Diseases line.

FY2011 funds will prevent the spread of antimicrobial resistance through the activities described below.

- CDC will continue some of its antimicrobial resistance surveillance activities for NARMS (National Antimicrobial Resistance Monitoring System) and other surveillance systems for certain drug-resistant organisms.
- CDC will continue to provide epidemiology and laboratory support for outbreaks of antimicrobial resistant organisms.
- CDC will continue to provide technical assistance for detection and prevention activities related to healthcare, community and veterinary antimicrobial resistance activities.
- CDC will continue to fund the currently ongoing CDC intramural and extramural projects throughout their funding cycle including those that develop prevention strategies for antimicrobial resistance.
- CDC will support the refinement of the U.S. Interagency Task Force on Antimicrobial Resistance action plan, A Public Health Action Plan to Combat Antimicrobial Resistance.

Rationale and Recent Accomplishments: Our nation's public health infrastructure for addressing infectious diseases remains inadequate even as emerging infectious disease threats increase in both number and severity. Emerging infectious disease threats evolve from interrelated and ever-changing social, technological, and biological forces. This requires increased and sustained investments in public health capacities. CDC has made substantial progress, including the accomplishments listed below.

- CDC established definitive ranges for the age- and serotype-specific incidence of invasive pneumococcal disease, which contributed to the Advisory Committee on Immunization Practice's recommendations in 2000 regarding the use of a pneumococcal conjugate vaccine in children. Data collected through Anti Bacterial Core Surveillance (ABCs) also provided a basis for revised recommendations for the prevention of neonatal group B streptococcal disease (GBS), including a change in second-line agents recommended for intrapartum antibiotic prophylaxis.
- *Get Smart: Know When Antibiotics Work* has contributed to a 25 percent reduction in antimicrobial use per outpatient visit for presumed viral infections. More than 959 campaign partners and 166 funded state-based programs collaborate with the *Get Smart* campaign.
- EIP has been instrumental in developing methodology to estimate ranges of 2009 H1N1 cases and related hospitalization and deaths, and defining the rapidly changing epidemiology and growing burden of methicillin resistant *Staphylococcus aureus*.
- Through data collected over the past three years, the EIP Foodborne Diseases Active Surveillance Network (FoodNet) has demonstrated the lack of progress in control of pathogens under surveillance commonly transmitted through food, and is helping federal and state agencies identify gaps in the current food safety system and identify target areas in which to develop and evaluate food safety practices as food moves from the farm to the table.
- ELC currently supports more than 500 full- and part-time public health professionals (laboratorians, epidemiologists, entomologists, information technologists, communication/education specialists, administrators, and support staff).
- Delaware tested over 2,000 respiratory specimens for influenza, a 15-fold increase from when ELC support was initiated.

Health Impact: The ELC, EIP and antimicrobial resistance programs will continue to serve as a foundation for the detection, prevention and control of emerging infections and will enhance CDC's ability to meet its targets related to reducing foodborne illness, HAIs and the spread of antimicrobial resistance in community and healthcare settings, and will reduce the morbidity, mortality, and economic burden of emerging and re-emerging infectious diseases. *(Please see outcome and output measures 4.1.1, 4.A, 4.C, and 4.D for specific information.)*

Budget Request: Preventing Foodborne Illness

On average, there are more than 1,300 foodborne disease outbreaks reported to CDC each year in the United States. CDC plays a critical and unique role in monitoring and investigating bacterial, viral, and parasitic foodborne diseases and advising on food safety issues through the coordination of an integrated national surveillance network. In addition, CDC has been actively engaged in the President's Food Safety Working Group.

CDC supports these activities through the Food Safety and Emerging Infections budget lines.

CDC requests $35,195,000 for food safety in FY 2011, an increase of $8,253,000 above the FY 2010 Omnibus. FY 2011 funds will reduce the public health burden of foodborne illness by improving outbreak detection and response with faster and more comprehensive public health laboratory and epidemiological surveillance and investigations as noted in the activities below.

- CDC will improve state and local capacity to identify and stop outbreaks by expanding the new network of OutbreakNet Sentinel Sites from three to four. These sites will implement, assess, and standardize best methods and new technologies for multistate foodborne outbreak detection and response, which will include tools for rapidly interviewing persons affected by foodborne illness and sharing information with key partners.
- CDC will maintain and support PulseNet capacity for pathogen fingerprinting, cluster identification and cluster assessment at state and national level for the identification and investigation of foodborne outbreaks.
- CDC will support up to three new Council to Improve Foodborne Outbreak Response (CIFOR) projects to improve the speed and accuracy of foodborne disease outbreak detection and investigation, and to help local and state agencies implement the new CIFOR "Guidelines for Foodborne Disease Outbreak Response". In addition, CDC will conduct up to six additional foodborne disease outbreak training courses for public health partners.
- CDC will expand work with state and federal partners to improve surveillance for foodborne illnesses and develop improved models for and reports on the burden and cost of foodborne illnesses and attribution of illnesses to particular food types.
- CDC will develop a "suite" of three interactive electronic applications to better manage multi-jurisdictional outbreak investigations.
- CDC will implement new lines of communication and new approaches for health messaging including networking applications with surveillance data user groups, the food industry, food scientists, educators, regulatory partners, and the public so that rapid information is available in the event of a serious outbreak.

Rationale and Recent Accomplishments: Preventing bacterial, viral, and parasitic foodborne illnesses remains an important component of CDC's efforts to improve the health of Americans. Foodborne disease outbreaks require public health and industry resources to investigate and control the outbreak. CDC's food safety programs produce a significant return on investment. For example a cost-benefit analysis using Colorado data concluded that the Colorado PulseNet system would recover all its costs if it averted as few as five cases

of *E. coli* O157:H7 annually. The cornerstone of CDC's foodborne disease prevention program is building and enhancing collaborative surveillance networks that detect and respond to outbreaks, which in turn provide the information to drive interventions for foodborne diseases prevention. Select accomplishments are listed below.

- In FY2008, CDC consulted with state departments of health on more than 120 foodborne disease outbreaks. This included 84 outbreaks of *Salmonella*, 27 outbreaks of *E. coli* and two outbreaks of botulism. Annually, health officials investigate and report approximately 1,300 foodborne disease outbreaks accounting for over 28,000 illnesses.
- Since 2006, 10 novel food vehicles have been identified as responsible for dispersed, multistate outbreaks. The results of these investigations have led to federal interventions for and industry assessment and correction of breaches in food safety.
- CDC now has more than 300,000 "fingerprints" in the national PulseNet databases for eight pathogens, providing critical historical and background data for accurate cluster detection and assessment.
- CDC, in collaboration with local, state, and federal partners, detected the outbreak and led the investigation of a national outbreak of *Salmonella* due to contaminated peanut butter, leading to the recall of nearly 4000 long shelf life food products and averting potentially thousands of illnesses.
- CDC launched CaliciNet in FY2009, a national electronic surveillance network of local and state public health and food regulatory agency laboratories. This network uses genetic fingerprinting of norovirus which will allow CDC to rapidly identify norovirus outbreaks of national and international significance (e.g., common food source) as well as rapidly identify newly emergent strains of increased virulence.

Health Impact: According to the most recent FoodNet summary reports, none of the Healthy People 2010 targets for reduction of foodborne pathogens were reached in 2008. The lack of recent progress points to gaps in the current food safety system and the need to continue to develop and evaluate food safety practices as food moves from the farm to the table. Investments in food safety will enhance state and local efforts to detect more outbreaks sooner, with faster and more comprehensive laboratory and epidemiological surveillance and initial assessment of possible foodborne illness. Information learned about risk factors and modes of transmission will be used to help prevent future outbreaks and inform regulatory efforts. Data from foodborne diseases and outbreak surveillance provide population-based estimates of foodborne illness in the United States, monitor trends in the burden of foodborne illness, and attribute illness to specific foods and settings, as well as identify emerging resistance transmitted through the food production continuum. In addition, OutbreakNet funding will increase the capacity and speed of foodborne outbreak investigation at the state and federal level, especially for large multijurisdictional outbreaks, and increase the completeness of reporting of key variables in the National Foodborne Outbreak Reporting System (NORS) to 80 percent of reported outbreaks. *(Please see outcome and output measures 3.1.1a, 3.1.1b, 3.1.1c, 3.1.1d, 3.B, 3.C, and 3.E.1 for specific information.)*

Budget Request: Reduce the Burden of Illness Due to Lyme Disease and Special Pathogens

CDC's FY 2011 request supports a range of activities to detect and control infectious diseases such as Lyme disease and existing and emerging highly hazardous disease agents that include a diverse group of RNA viruses collectively known as viral hemorrhagic fevers and hantaviruses. The group of highly hazardous disease agents includes over 35 different viruses such as the agents responsible for Ebola and Marburg hemorrhagic fevers, Lassa fever, Rift Valley fever, Crimean-Congo hemorrhagic fever, Machupo and Junin hemorrhagic fevers, and hantavirus pulmondary syndrome. The majority of these viruses are Select Agents and Category A bioterrorism threat agents. They are highly infectious agents, and require Biosafety Level 3 (BSL 3) or Biosafety Level 4 (BSL 4) laboratory conditions for their safe handling. CDC staff members are trained to respond to global disease outbreaks and to provide assistance for disease detection and control measures. CDC's assistance with outbreak response activities is often requested directly by the Ministry of Health of the affected country, and CDC also partners and collaborates with WHO and non-governmental organizations, to provide diagnostic assistance, expertise for infection control, and to care for individuals infected in outbreaks. In addition, CDC develops, evaluates, and improves the laboratory diagnosis, treatment, and prevention of highly hazardous disease agents – special pathogens – as well as provides epidemiologic management of suspected cases.

Lyme disease is caused by the bacterium Borrelia burgdorferi and is transmitted to humans by the bite of infected blacklegged ticks. CDC currently works on field trials aimed at validating the use of bait box acaricides for tick control and evaluation of natural product insecticides, to control the spread of Lyme disease and plans to work on the development and evaluation of emerging diagnostic methods for Lyme disease in FY 2010. CDC funds both Lyme disease and special pathogen activities through the Zoonotic, Vector-borne and Enteric Diseases lines. The FY 2011 request for Lyme disease and special pathogens includes a request of $9,055,000 for Lyme disease, an increase of $117,000 above the FY 2010 Omnibus. Special pathogen activities are funded through the National Center for Zoonotic, Vector-Borne and Enteric Diseases' discretionary budget.

Funds will support basic and applied laboratory and epidemiologic research conducted at CDC, and in collaboration with partner organizations, to reduce the public health burden of these threats through the activities noted below.

- CDC will develop and evaluate new rodent-bait vaccines for Lyme disease prevention and control.
- CDC will support community-based Lyme disease prevention and control programs in areas of the United States that are the hardest hit by Lyme disease.
- CDC will conduct domestic surveillance, provide technical assistance, and investigate all suspect cases of lymphocytic choriomeningitis virus (LCMV), hantavirus pulmonary syndrome (HPS), and hemorrhagic fever with renal syndrome (HFRS).
- CDC will perform research into the pathogenic mechanisms of hantaviruses and other hemorrhagic fever viruses, and develop sensitive and specific assays for detecting ~35 different viruses.
- CDC will provide global technical assistance to international organizational entities, participate in outbreak responses, and conduct epidemiologic studies on the detection, prevention, and control of viral special pathogens.
- CDC will function as a World Health Organization (WHO) Collaborating Center for Viral Hemorrhagic Fevers to coordinate and enhance global activities.

Rationale and Recent Accomplishments: Accomplishments for Lyme disease and special pathogens are described below.

- CDC tested in 2009 a new botanical insecticide with a novel mode of action it co-discovered; it killed more than 98 percent of Lyme disease ticks in the field.

- CDC responded in 2008 to outbreaks of Rift Valley fever virus in Madagascar, Lujo hemorrhagic fever in South Africa and Zambia, Ebola Reston in the Philippines, Marburg hemorrhagic fever in Uganda, and Ebola Bundibugyo in Uganda.
- CDC responded in 2008 to a case of Marburg viral hemorrhagic fever in a Dutch tourist who had visited Uganda and probably was exposed to bats at caves in that country. CDC assisted the Ministry of Health with an epidemiological assessment of the exposure site and in determining sites with similar risk of exposure to potential reservoirs.
- CDC responded to an investigation in Massachusetts of two transplant recipients that contracted LCMV in 2008 from an infected donor. LCMV was implicated in four fatal cases among transplant recipients in Wisconsin in 2003 and three transplant patients (with one survivor) from Massachusetts and Rhode Island in 2005.

Health Impact: CDC will continue to help ensure that countries have ready access to the support and technical assistance needed to detect and contain global disease threats and develop the expertise and capacity to fulfill their obligations to identify, report, and contain public health threats as outlined in the International Health Regulations. CDC will use data gathered through surveillance systems to mount outbreak responses and to strategically target control efforts *(Please see output and outcome measures 3.A and 3.D for specific information.)*

Budget Request: Expand Public Health Infection Control Prevention Programs

CDC promotes healthcare safety through prevention activities pertaining to healthcare-associated infections (HAIs) and through program activities pertaining to immunization safety, medication safety, and blood, organ and other tissue safety.

Health Care-Associated Infections

CDC's HAI activities promote healthcare quality through the prevention of HAIs, including those caused by pathogens such as Methicillin-resistant *Staphylococcus aureus* (MRSA), *Clostridium difficile*, and multi-drug resistant gram-negative bacteria. It is CDC's goal to eliminate HAIs in all healthcare settings, and CDC has expanded public health activities related to monitoring, response, and applied research. The work by CDC programs on HAI elimination is integral to and supports the goals of the HHS Action Plan to Prevent HAIs. One major component of CDC's HAI work is to support the National Healthcare Safety Network (NHSN). CDC requests $27,452,000 for NHSN in FY 2011, an increase of $12,302,000 above the FY 2010 Omnibus. FY 2011 funds will support expansion of the NHSN by 2,500 hospitals, to approximately 5,000 hospitals. CDC supports these activities through the Preparedness, Detection, and Control of Infectious Diseases, including Emerging Infections, budget line. In FY 2011 CDC plans to conduct the activities described below.

- CDC will support state-based HAI programs to facilitate the expansion of NHSN to 2,500 hospitals and to facilitate the implementation of prevention activities to achieve HHS goals in all healthcare settings by: providing resources and technical expertise to state health departments to achieve HHS HAI targets; continuing development and implementation of prevention tools, campaigns, education, and training in healthcare settings; and by increasing public health workforce capacity to lead HAI outbreak investigations, surveillance and prevention activities at a state and local level.
- CDC will enhance national surveillance of HAIs through the National Healthcare Safety Network (NHSN) by: enhancing performance and expanding technical infrastructure to support electronic reporting; expanding and improving electronic data collection and data analysis for local use of the data to assess regional and national trends; supporting the development and implementation of data validation methods; and accelerating migration to electronic reporting from electronic health records systems (EHRs).

- CDC will continue to support the Prevention Epicenters and additional research networks to address important scientific gaps in HAI prevention. Research will focus on novel strategies for detection and prevention of post-surgical adverse events, bloodstream infections, *Clostridium difficile* infections, infections caused by antimicrobial-resistant organisms, and inappropriate antimicrobial use.
- CDC will continue to respond to requests for assistance from states and healthcare facilities, investigating outbreaks of HAIs, and will continue to produce evidence-based HAI guidelines.
- CDC will continue to work with state health departments and academic institutions to conduct population-based surveillance for MRSA, *C.difficile*, and gram negative bacteria to document disease burden, improve understanding of the epidemiology, and assess prevention measures.
- CDC will continue to maintain critical core laboratory capacities, including acting as a reference laboratory and assessing susceptibility, to support public health activities and respond to environmental and diagnostic needs for new and emerging healthcare-associated pathogens.

Health Care Safety

CDC supports patient safety in health care settings through program activities in immunization safety, medication safety, and blood, organ and other tissue safety. CDC also collaborates with other federal agencies, state health departments, and private sector partners to improve the safety of medication use in the United States. CDC continues to strengthen its efforts in blood, organ, and tissue safety through its involvement in outbreak investigations, collaborations with federal, public, and private partners, and through surveillance activities like the hemovigiliance module in the National Healthcare Safety Network (NHSN), which allows facilities to monitor blood safety and analyze data to inform interventions.

CDC supports these activities through the Preparedness, Detection, and Control of Infectious Diseases, including the Emerging Infections budget line.

FY 2011 funds will enhance efforts to protect patient safety in health care settings through the activities described below.

- Immunization safety: CDC will continue to use and enhance existing vaccine safety monitoring systems, including Vaccine Adverse Event Reporting System (VAERS) and the Vaccine Safety Datalink (VSD) project, to monitor and promote the safety of existing and new vaccines. CDC will begin implementation of the immunization safety scientific agenda as outlined by the National Vaccine Advisory Committee (NVAC).
- Medication safety: CDC will continue to monitor adverse events through the National Electronic Injury Surveillance System – Cooperative Adverse Drug Event Surveillance (NEISS-CADES) and work with public and private partners through initiatives such as PROTECT (Preventing Overdoses and Treatment Errors in Children and Teens) to develop and implement strategies to prevent adverse events associated with medication.
- Blood, organ, and other tissue safety: CDC will fully implement a new hemovigilance module in NHSN. The module's focus is to collect, analyze, and report information on blood-transfusion related adverse events and to improve patient safety through benchmarking.

Rationale and Recent Accomplishments: Improving health care safety results in reduced morbidity and mortality and significant economic benefits. Health care-associated infections (HAI) are a major public health problem in the United States, accounting for 99,000 deaths associated with the infections and billions of additional health care costs annually. Recent research efforts have shown that implementation of CDC HAI prevention recommendations can reduce HAIs by 70 percent, and virtually eliminate some types of infections. Broad implementation of these guidelines will save lives, reduce suffering, and result in health

care cost savings. CDC continues to reduce the occurrence of HAIs and promote the safety and quality of the health care setting. Specific accomplishments include those listed below.

- In the past 10 years, hospitals participating in NHSN have seen a 60 percent decrease in Bloodstream Infection (BSI) and over a six year period has seen a 13 to 19 percent annual decrease in ventilator associated pneumonia. NHSN is used in all 50 states by over 2,300 U.S. Hospitals.
- Data from the EIP (10 states) have shown a 16 percent decrease in rates of invasive MRSA. CDC distributed approximately $4 million to 10 EIP sites to promote further decreases in HAI rates and enhance HAI prevention and surveillance infrastructure to assess the impact of prevention efforts for HAIs, including invasive MRSA, in non-hospital settings.
- A recent investigation led to the discovery of contaminated lots of propofol and the subsequent recall of more than 67,000 units of the drug preventing many patients from exposure to contaminated propofol. CDC is partnering with the Safe Injection Practices Coalition to move prevention efforts forward.
- CDC distributed $35.8 million to 49 states, the District of Columbia, and Puerto Rico to build and sustain state programs to prevent HAIs. CDC is training states and providing prevention and surveillance tools and resources to assist states. CDC funded 12 fellows with CSTE to facilitate start up and implementation of programs.
- CDC enhanced rapid monitoring and the safety of the new H1N1 vaccine through VAERS and VSD to include timely identification of clinically significant adverse events and rapid evaluation of serious adverse events.
- CDC developed and conducted a multi-site pilot of a new module in NHSN to monitor blood – transfusion related adverse events.

Health Impact: FY2011 funds will continue to support surveillance and prevention efforts towards the elimination of HAIs. Specifically we anticipate reductions in HAIs that will support progress towards the five year targets and metrics defined in the HHS HAI Action Plan to Prevent HAIs (targets and metrics outlined below).

- Central-line associated bloodstream infection (CLABSI): CDC will support at least 50 percent reduction in central line-associated bloodstream infections in ICU and ward-located patients.
- Clostridium difficle: CDC will reduce the facility-wide healthcare facility-onset C. difficile LabID event standardized infection ration (SIR) by at least 30 percent from baseline.
- Catheter-associated urinary tract infection (CAUTI): CDC will reduce the CAUTI SIR by at least 25percent from baseline in ICU and other locations.
- Methicillin-resistant staphyloccocus aureus (MRSA): CDC will work towards at least a 50 percent reduction in incidence of healthcare-associated invasive MRSA infections.
- Surgical site infection (SSI): CDC will reduce the admission and readmission SSI SIR by at least 25 percent from baseline. *(Please see outcome and output measures 4.2.1, 4.2.2, and 4.B for specific information.)*

Budget Request: Protecting the Health of Specific Populations

With continued technological advances, the world has experienced a dramatic increase in the volume and speed of intercontinental movement of people, animals, and cargo. More than two million people travel to or through the U.S. by air, sea, or land daily. About half of worldwide international travelers have some kind of health problem while traveling and approximately eight percent of them seek medical attention while abroad or after their return. The U.S. Government offers U.S. resettlement to approximately 70,000 refugees

annually. Before resettlement, most refugees have resided in difficult environments with limited access to medical care and preventive health services leaving them at a significantly increased risk of illness, death and disability from a variety of health problems.

Quarantine and Migration Health System (QMHS)

CDC's global migration and quarantine activities aim to reduce morbidity and mortality caused by infectious diseases among immigrants, refugees, international travelers, and other mobile populations that cross international borders. FY 2011 funds support the following activities to improve and protect the health of vulnerable mobile populations, refugees and immigrants, and to implement regulations necessary to prevent the introduction, transmission, or spread of communicable diseases into the United States.

CDC supports these activities with resources from the CDC Preparedness and Response Capability, Pandemic Influenza, and Emerging Infectious budget lines. For more information, please see the Response and Recovery Operations section of the Building and Sustaining Public Health Preparedness and Response budget request.

- CDC will provide technical and regulatory oversight of health screening and post-arrival health monitoring of immigrant and refugee populations that are undergoing U.S. resettlement to protect and improve their health through:
  - Implementing Tuberculosis (TB) Technical Instructions (TI) to reduce the chance of immigrants and refugees bringing infectious TB into the United States;
  - Providing technical guidance and performing quality assessment reviews to improve the quality of medical examinations of U.S.-bound immigrants and refugees; and
  - Notifying health departments of the arrival of immigrants and refugees with associated health-related issues to ensure prompt post-arrival medical evaluation. CDC provides state and local public health partners with information on high risk populations.
- CDC will characterize risks associated with international travel to develop appropriate guidance by:
  - Utilizing GeoSentinel, an international surveillance network of travel/tropical medicine clinics of all travel-related illnesses, to develop evidence-based recommendations that are shared through a variety of informational channels with health-care providers, the public, and a wide array of travel industry and governmental partners; and
  - Managing the Travelers Health website which is the fifth most frequently visited CDC website with 28 million hits, including four million to the Yellow Book site annually.
- CDC will enhance public health preparedness and effective action to mitigate the impact of infectious disease events by:
  - Providing technical assistance and developing collaborative partnerships with state and local health departments, federal agencies, and international ministries of health;
  - Mapping and modeling geographic hot spots, vulnerable populations, and transportation networks to visualize and analyze translocation patterns to better predict and prevent infectious disease outbreaks;
  - Improving situational awareness of diseases of mutual public health importance to the United States and Mexico, by conducting enhanced sentinel and population-based surveillance for infectious diseases through the Border Infectious Disease Surveillance project;
  - Responding to infectious disease outbreaks in refugee camps around the world; and

- Operating 20 quarantine stations across the United States that serve to limit the introduction and spread of infectious diseases by working with federal, state, and local partners to develop a comprehensive operational plan to manage ill and/or exposed travelers.

- CDC will modernize regulations to ensure swift and appropriate responses to events of public health significance. Through delegated authority, CDC has statutory responsibility for preventing the introduction, transmission, and spread of communicable diseases into the United States (42 U.S.C. § 264).

Rationale and Recent Accomplishments: CDC supports the QMHS to address public health concerns related to vulnerable globally mobile populations. The recent efforts of CDC's QMHS have resulted in the major achievements described below.

- By the end of FY 2009, over 50 percent of immigrants and over 50 percent of refugees bound for the United States were being screened using the revised 2007 TB TIs. CDC performed 184 quality assessment site visits in 41 countries since 1999 to ensure that panel physicians are in compliance with CDC's recommendations when completing medical examinations.
- CDC responded to eight infectious disease outbreaks, including cholera, varicella, and measles that involved thousands of refugees in 12 different refugee camps during FY 2009.
- In FY 2009, CDC trained 9,100 Customs and Border Protections officers for communicable illness detection at borders and increased the number of illnesses reported to CDC in persons arriving to the U.S. to 3,156, allowing CDC to be better able to limit further disease spread from the affected individual to others.
- CDC developed a national travelers' health media campaign with messages for healthy travel posted in over 400 ports with over 80 million exposures.

Health Impact: In FY 2011, the QMHS will strive to significantly impact the public's health by:

- Increasing the proportion of applicants for U.S. immigration screened for TB under the new TB TIs to 60 percent, resulting in a two to threefold increase in TB case detection and estimated annual cost savings to states of at least $2 million;
- Increasing the number of hospitals with Memorandums of Agreement to 185, allowing CDC to quickly isolate someone with a communicable disease (e.g., MDR TB) in a hospital with adequate facilities; and
- Publishing the 2012 edition of the Yellow Book that establishes the standard of care for the practice of travel medicine in the United States. *(For more information, see outcome measures 16.5.1 to 16.5.8, as well as efficiency measure 16.E.4.)*

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 3.1: Protect Americans from infectious diseases – foodborne illnesses.				
3.1.1: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%. *(Outcome)*				
3.1.1a: Campylobacter *(Outcome)*	FY 2008: 12.68 (Exceeded)	12.30	12.18	-0.12
3.1.1b: Escherichia coli O157:H7 *(Outcome)*	FY 2008: 1.12 (Exceeded)	1.00	1.00	Maintain
3.1.1c: Listeria monocytogenes *(Outcome)*	FY 2008: 0.29 (Met)	0.23	0.23	Maintain
3.1.1d: Salmonella species *(Outcome)*	FY 2008: 16.20 (Not Met)	6.80	6.80	Maintain
Long Term Objective 4.1: Reduce the spread of antimicrobial resistance.				
4.1.1: Decrease the number of antibiotic courses prescribed for ear infections in children under 5 years of age per 100 children. *(Outcome)*	FY 2007: 47.5 (Exceeded)	50	49	-1
Long Term Objective 4.2: Protect Americans from death and serious harm caused by medical errors and preventable complications of healthcare.				
4.2.1: Reduce the rate of central line associated bloodstream infections in medical/surgical ICU patients.	FY 2008: 1.4 (Exceeded)	.5	.5	Maintain
4.2.2: The estimated number of cases of invasive MRSA infection.	FY 2007: 94.897	92.272	92.272	Maintain
4.2.3: Reduce the CLABSI standardized infection ratio (SIR)* by 70% from baseline. [1]	FY 2009: SIR 1.0	TBD	TBD	NA

[1] Approved as a developmental measure to replace existing measure 4.2.1; refer to the FY 2011 Online Performance Appendix for detailed explanation.

OUTPUT TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
3.E.1: Enhance detection and control of foodborne outbreaks by increasing the number of foodborne isolates identified, fingerprinted, and electronically submitted to CDC's computerized national database networks with annual level funding. *(Efficiency)*	FY 2009: 37,679 (Exceeded)	35,276 isolates	35,276 isolates	Maintain

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
3.B: Number of countries receiving PulseNet Trainings and Protocols	FY 2008: 15	10	15	5
3.C: Cumulative number of Public Health Laboratories capable of Accessing CaliciNet to detect viral diseases	FY 2008: 13	24	28	4
3.D: Number of Research Programs Involved in Improving the Understanding of Lyme Disease by Examining New Methods for Testing, Prevention, and Control [1]	FY 2008: 3	3	3	0
4.A: Number of state/local health departments, healthcare systems funded for surveillance, prevention, control of antimicrobial resistance	FY 2007: 49	48	20	-28
4.B: Number of sites in the National Healthcare Safety Network to report healthcare based reporting of adverse health events and errors	FY 2007: 1,000	2,500	5,000	2,500
4.C: Number of domestic/global surveillance networks for emerging infectious diseases.	FY 2007: 5	5	5	0
4.D: Number of EIP network sites	FY 2007: 11	10	10	0
4.E: Number of states funded to participate in the Get Smart: Know when Antibiotics Work in the Community program.	FY 2009: 12	12	0	-12
Appropriated Amount ($ Million) [2]	$22.5	$26.6	$52.8M	$26.2

[1] To achieve its Lyme disease goals, CDC will be consolidating multiple cooperative agreements, and will be funding some research through contracts.
[2] The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

GRANTEE TABLE

Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	
State/Territory/Grantee	**FY2009 Actual**
Alabama	$707,007
Alaska	$636,526
Arizona	$1,199,119
Arkansas	$634,431
California	$2,689,813
Colorado	$1,304,227
Connecticut	$507,953
Delaware	$514,231
Florida	$686,136
Georgia	$703,204
Hawaii	$866,827
Idaho	$614,389
Illinois	$899,991
Indiana	$683,742
Iowa	$1,187,832
Kansas	$674,717
Kentucky	$356,157
Louisiana	$1,497,893
Maine	$626,738
Maryland	$776,510
Massachusetts	$1,048,637
Michigan	$1,554,914
Minnesota	$1,031,846
Mississippi	$1,287,272
Missouri	$996,090
Montana	$640,678
Nebraska	$869,550
Nevada	$494,684
New Hampshire	$717,131
New Jersey	$1,035,160
New Mexico	$626,069
New York	$1,267,778
North Carolina	$701,013

Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	
State/Territory/Grantee	**FY2009 Actual**
North Dakota	$686,599
Ohio	$1,057,392
Oklahoma	$470,765
Oregon	$926,214
Pennsylvania	$915,330
Rhode Island	$726,205
South Carolina	$692,624
South Dakota	$807,489
Tennessee	$685,193
Texas	$1,214,118
Utah	$812,447
Vermont	$802,241
Virginia	$983,781
Washington	$983,717
West Virginia	$775,167
Wisconsin	$982,739
Wyoming	$951,315
Chicago	$474,992
Houston	$912,394
Los Angeles County	$742,703
New York City	$1,443,709
Philadelphia	$393,145
Washington DC	$248,940
Palau	$95,842
Puerto Rico	$362,929
Total States/Cities/Territories	**$49,186,255**

HEALTH PROMOTION THROUGH THE LIFESPAN

As a nation, more than 75 percent of our health care spending is on people with chronic conditions. These persistent conditions – the nation's leading causes of death and disability – leave in their wake deaths that could have been prevented, lifelong disability, compromised quality of life, and excessive health care costs.

- In 2005, 133 million Americans – almost one out of every two adults – had at least one chronic illness.[12]
- In 30 years, the number of Americans aged 65 years or older is expected to double, generating a 25 percent increase in health care spending before taking inflation or new technologies into account.[13]

The increase in chronic conditions is the result of many factors. Certain risk factors are uncontrollable, such as genetics, age, and sex. Other risk factors are amenable to change, such as individual lifestyle decisions and social and environmental structures. Several common, health-damaging, but modifiable behaviors—tobacco use, insufficient physical activity, poor eating habits, risky driving behaviors, and alcohol misuse—are responsible for nearly 40 percent of deaths.[14]

CDC works to reduce rates of morbidity, disability, and premature mortality from chronic disease by focusing on prevention, especially among populations at greatest risk for chronic illness. Five strategic priorities guide CDC's work in chronic disease prevention and health promotion. These priorities include:

- ***Promoting Effective Policy*:** Implement evidence-based policy, environmental, and systems change with the greatest impact on health, the broadest reach, and maximum sustainability;
- ***Maintaining Health in the First Place*:** Prevent and delay chronic diseases and their risk factors;
- ***Ensuring Health Equity*:** Eliminate disparities and improve health among populations hardest hit by chronic disease;
- ***Putting Research into Practice*:** Accelerate the translation of scientific findings into broad-scale community practice; and
- ***Developing Public Health Capacity*:** Establish a highly skilled and diverse workforce with the resources and capacity needed to prevent and control chronic disease at the national, state, and local levels.

EPIDEMIOLOGY

Chronic diseases account for more than 70 percent of all deaths in the United States, inflicting disability and suffering, and consuming an estimated three-quarters of the more than $2 trillion our nation now spends on health care each year.[15] Research confirms that the impact of maternal health before conception and throughout pregnancy extends beyond maternal and infant outcomes to influence the way children grow and learn. Furthermore, it is widely acknowledged that behaviors established during childhood are critical to maintaining one's health throughout all stages of life.

- Women of childbearing age suffer from various chronic conditions and are exposed to (or consume) substances that can have an adverse effect on pregnancy outcomes, leading to pregnancy loss, infant death, birth defects, or other complications for mothers and infants. For example, in 2002, approximately 50 percent of adult women aged 18-44 years were overweight or obese, three percent had cardiac disease, three percent were hypertensive, nine percent had diabetes, and one percent had

[12] Wu SY, Green A. Projection of chronic illness prevalence and cost inflation. Santa Monica, CA: RAND Health; 2000
[13] U.S. population projections [Internet]. Suitland, MD: U.S. Census Bureau; 2008.; CDC and the Merck Company Foundation. The state of aging and health in America 2007. Whitehouse Station, NJ: The Merck Company Foundation; 2007.
[14] Danaei G, Ding EL, Mozaffarian D, Taylor B, Rehm J, et al. (2009) The Preventable Causes of Death in the United States: Comparative Risk Assessment of Dietary, Lifestyle, and Metabolic Risk Factors. PLoS Med 6(4): e1000058. doi:10.1371/journal.pmed.1000058
[15] Centers for Medicare and Medicaid Services. Historical National Health Expenditure Data. Online at http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage

thyroid disorder. In 2003, a total of 11 percent of pregnant women smoked during pregnancy, a risk factor for low birthweight, and 10 percent of pregnant women and 55 percent of women at risk for getting pregnant consumed alcohol, a risk for fetal alcohol syndrome.[16]

- Approximately 17 percent of children in America are overweight or obese. Children who are obese in their preschool years are more likely to be obese in adolescence and adulthood and to develop diabetes, hypertension, asthma, and sleep apnea. Nearly 40 percent of obese children become morbidly obese as adults.
- Adolescents struggle with behaviors that will affect their risk of developing chronic diseases in adulthood: one in five high school students are current smokers, more than 25 percent binge drink, almost 80 percent do not eat the recommended five servings of fruits and vegetables a day and only 35 percent participate in at least 60 minutes of physical activity daily.
- Young adults in the U.S. aged 18-to-29 years face a number of health challenges, including increases in obesity and mental health disorders. In adulthood, the burden due to chronic disease accelerates.
- At least 80 percent of older Americans are living with at least one chronic condition, and 50 percent have at least two, leading to limitations in daily activities and reduced quality of life for seniors.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

While no group is immune to the impact of chronic disease, certain groups are disproportionately impacted by these conditions. Low-income Americans and racial and ethnic minorities experience disproportionately higher rates of disease, fewer treatment options, and reduced access to care. For example, African Americans suffer heart disease death rates higher than whites and are more likely to die from cancer than any other racial or ethnic group. Other population subgroups including Hispanic and Vietnamese women have disproportionate rates of cervical cancer, which they contract at twice the rate of white women. American Indians suffer from diabetes at more than twice the rate of the white population. Thirty-six percent of non-Hispanic black adults are obese, compared to 29 percent of Hispanic adults and 24 percent of non-Hispanic white adults.

CDC is committed to eliminating health disparities. One example of CDC's impact can be seen in the Chicago Department of Public Health REACH program. This program utilized a multi-faceted community approach to improve access to diabetes and cardiovascular care and services. The percentage of program participants with diabetes who received annual hemoglobin A1C tests increased from 21 to 96 percent, the percentage who received annual eye exams increased from 22 to 72 percent, and the percentage who received annual foot exams increased from 42 to 72 percent.

ECONOMIC ANALYSIS

Shifting the national health care delivery model from disease treatment toward disease prevention is necessary if health care is to be affordable and sustainable. The economic burden of chronic diseases is significant.

- The annual medical burden of obesity has risen to almost 10 percent of all medical spending, and annual per-capita medical spending for the obese is over 40 percent higher than that for those of normal weight.[17]

[16] US Department of Health and Human Services. Women's health USA. Rockville, MD: US Department of Health and Human Services, Health Resources and Services Administration; 2005. Martin JA, Hamilton BE, Sutton PD, Ventura SJ, Menacker F, Munson ML. Births: final data for 2003. Natl Vital Stat Rep 2005;54:1—116. CDC. Alcohol consumption among women who are pregnant or who might become pregnant---United States, 2002. MMWR 2004;53:1178—81.

[17] Finkelstein EA et al. Annual Medical Spending Attributable To Obesity: Payer-And Service-Specific Estimates. Health Affairs, 28, no. 5 (2009): w822-w831.

- People with diagnosed diabetes have medical expenditures that are about 2.3 times higher than medical expenditures for people without diabetes.[18]

A recent Trust for America's Health analysis found that an investment of $10 per person per year in community-based programs tackling physical inactivity, poor nutrition, and smoking would yield more than $16 billion in medical cost savings annually within 5 years—a remarkable return of $5.60 for every dollar spent, without considering the additional gains in worker productivity, reduced absenteeism at work and school, and enhanced quality of life.[19]

EVIDENCE-BASED INTERVENTIONS

Prevention encompasses health promotion activities that encourage healthy living and limit the initial onset of chronic diseases. These activities include behavioral strategies as well as policy or environmental strategies to improve health outcomes. Widespread use of effective, population-based approaches to increase physical activity and consumption of fruits and vegetables, reduce obesity and tobacco use, and promote recommended screenings can reduce the incidence of various associated chronic conditions, prevent some disabilities, and reduce the severity of others.

- Smoke-free policies are an effective way to protect nonsmokers from secondhand smoke. After New York implemented a state law in 2003 requiring virtually all indoor workplaces and public places (including restaurants and bars) to be smoke-free, average levels of respirable suspended particles (a measure of secondhand smoke levels) declined by 84 percent in 20 hospitality settings.
- Schools play a critical role in promoting the health and safety of young people and helping them establish lifelong healthy behavior patterns. Among school districts in Maine that required a school heath coordinator, 75 percent increased time for regular physical activity for K-8 students; 100 percent implemented policy changes improving school nutrition, such as eliminating soft drinks and other foods of minimal nutritional value from vending machines; and more than $5 million was leveraged for additional physical activity and nutrition programs.
- The WISEWOMAN program provides cardiovascular disease risk factor screenings, healthy lifestyle programs, and health care referral services to uninsured and underinsured women aged 40–64 years. Since WISEWOMAN began in 1995, the program has demonstrated a reduction in participants' overall risk for cardiovascular disease, including a 5.4 percent reduction in 10-year estimated chronic heart disease risk and a 7.6 percent reduction in 5-year estimated cardiovascular disease risk.

[18] American Diabetes Association. Economic Costs of Diabetes in the United States in 2007. Diabetes Care 31(3):596–615, 2008.
[19] Prevention for a healthier America: investments in disease prevention yield significant savings, stronger communities [Internet]. Washington, D.C.: Trust for America's Health; 2008. Available from: http:// healthyamericans.org/reports/prevention08/ .

PROGRAM ACTIVITIES TABLE:

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Chronic Disease Prevention, Health Promotion, and Genomics	$881,686	$0	$931,292	$937,307	+$6,015
Tobacco	$106,164	$0	$110,704	$107,214	-$3,490
Nutrition, Physical Activity, and Obesity	$44,300	$0	$44,991	$43,663	-$1,328
Healthy Communities	$22,771	$0	$22,823	$22,409	-$414
Racial and Ethnic Approach to Community Health (REACH)	$35,553	$0	$39,644	$38,978	-$666
Big Cities Initiatives	$0	$0	$0	$20,000	+$20,000
School Health	$57,636	$0	$57,645	$61,520	+$3,875
Health Promotion	$28,541	$0	$29,856	$26,724	-$3,132
BRFSS	$7,300	$0	$7,316	$7,179	-$137
Community Health Promotion	$6,453	$0	$6,468	$6,365	-$103
Mind-Body Institute	$1,500	$0	$1,500	$0	-$1,500
Glaucoma	$3,511	$0	$3,519	$3,524	+$5
Visual Screening Education	$3,222	$0	$3,229	$3,234	+$5
Alzheimer's Disease	$1,688	$0	$1,846	$1,813	-$33
Inflammatory Bowel Disease	$684	$0	$686	$0	-$686
Interstitial Cystitis	$658	$0	$660	$0	-$660
Excessive Alcohol Use	$1,500	$0	$2,500	$2,474	-$26
Chronic Kidney Disease	$2,025	$0	$2,132	$2,135	+$3
Prevention Centers	$31,132	$0	$33,675	$33,136	-$539
Heart Disease and Stroke	$54,096	$0	$56,221	$55,064	-$1,157
Delta Health Intervention (non-add)	$3,000	$0	$5,000	$5,008	+$8
Diabetes	$65,847	$0	$65,998	$64,699	-$1,299
Cancer Prevention and Control	$340,300	$0	$370,346	$355,152	-$15,194
Breast and Cervical Cancer	$205,853	$0	$214,850	$210,935	-$3,915
WISEWOMAN - Total (non-add)	$19,528	$0	$20,787	$20,787	$0
Breast Cancer for Young Women	$0	$0	$5,000	$5,006	+$6
Cancer Registries	$46,366	$0	$51,236	$51,303	+$67
Colorectal Cancer	$38,974	$0	$44,532	$44,590	+$58
Comprehensive Cancer	$16,348	$0	$20,693	$20,730	+$37
Johanna's law	$6,791	$0	$6,807	$0	-$6,807
Ovarian Cancer	$5,402	$0	$5,707	$5,714	+$7
Prostate Cancer	$13,245	$0	$13,638	$13,656	+$18
Skin Cancer	$1,876	$0	$2,190	$2,200	+$10
Geraldine Ferraro Cancer Education	$4,666	$0	$4,677	$0	-$4,677
Cancer Survivorship	$779	$0	$1,016	$1,018	+$2
Oral Health	$13,044	$0	$15,000	$14,607	-$393
Safe Motherhood/Infant Health	$44,777	$0	$44,782	$55,643	+$10,861
Pre-Term Birth (non-add)	$2,000	$0	$2,005	$2,008	+$3
SIDS (non-add)	$207	$0	$207	$207	$0
Arthritis and Other Chronic Diseases	$25,245	$0	$27,299	$26,790	-$509
Genomics	$12,280	$0	$12,308	$11,708	-$600

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Preventive Health and Health Services Block Grant	$102,000	$0	$102,034	$102,034	$0

CHRONIC DISEASE PREVENTION, HEALTH PROMOTION AND GENOMICS

SUMMARY OF THE REQUEST

CDC requests $937,307,000 for Chronic Disease Prevention, Health Promotion, and Genomics in FY 2011, an increase of $6,015,000 above the FY 2010 Omnibus. Activities within the program include prevention and control of tobacco use; obesity, heart disease and stroke; diabetes and cancer; promotion of maternal, infant, and adolescent health, healthy personal behaviors; oral and community health; maintaining surveillance systems to track and monitor behavioral risk factors; and integrating genomics into public health research and programs.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011+/ FY 2010
Budget Authority	$881,686	$0	$931,292	$937,307	+$6,015
PHS Evaluation Transfers	$0	$0	$0	$0	$0
Total	$881,686	$0	$931,292	$937,307	+$6,015
FTEs	931	0	941	897	-44

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 317C, 317D, 317H, 317K, 317L, 317M, 330E, 399B-399D, 399F, 399H-399J, 399L 399N , 399W-399Z, 1102, 1501, 1509, 1701, 1702, 1703, 1704, 1706, P.L. 99-474, P.L. 99-252, P.L. 102-493, P.L. 108-377, P.L. 107-260, (P.L. 101-354, P.L. 109-450, P.L. 91-222

FY 2009 Authorization……..……Expired/Indefinite

Allocation Methods……...……..…….....Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; and Contracts

PROGRAM DESCRIPTION

Chronic diseases are among the most prevalent, costly, and preventable of all health problems. CDC's goals for the chronic disease prevention, health promotion and genomics program are to reduce rates of morbidity, disability, and premature mortality from chronic disease, by focusing on prevention, especially among populations at greatest risk of chronic illness. Among persons living with chronic disease, CDC works to prevent complications and improve quality of life. CDC contributes to, and bases its work on, the best available science.

With a focus on the broad range of chronic diseases and their risk factors, CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) works to coordinates the nation's efforts to prevent and control these interrelated health problems. NCCDPHP partners with both public and private sector organizations that address these issues.

CDC's priorities are to implement evidence-based policy, environmental, and systems change with the greatest impact on health, the broadest reach, and maximum sustainability; prevent and delay chronic diseases and their risk factors; eliminate disparities and improve health among populations hardest hit by chronic disease; accelerate the translation of scientific findings into broad-scale community practice; and establish a highly skilled and diverse workforce with the resources and capacity needed to prevent and control chronic disease at the national, state, and local levels.

CDC has shown great success in a number of areas. For example, tobacco smoking among adults decreased 15 percent between 1998 and 2008, and the proportion of the United States population protected by a

comprehensive state or local law that prohibits smoking in workplaces, restaurants and bars increased from 11 percent in 2004 to 41 percent in 2009. Mortality rates for heart disease and stroke, the number one and number three causes of death in the United States, have been decreasing steadily and significantly over the past 20 years.

MECHANISMS AND FUNDING HISTORY TABLE

CDC funding is awarded through 847 grants/cooperative agreements and 168 contracts to a variety of entities, including 61 state and local health and education agencies, 38 territorial and tribal agencies; and 65 national non-governmental organizations.

Fiscal Year	Amount
FY 2006	$833,574,000
FY 2007	$824,762,000
FY 2008	$833,827,000
FY 2009	$881,686,000
FY 2010	$931,292,000

Budget Request: Tobacco

CDC requests $107,214,000 for Tobacco in FY 2011, a decrease of $3,490,000 below the FY 2010 Omnibus which is inclusive of the CDC contract and travel savings (please see page 17 for more information). CDC is the lead Federal agency for tobacco control. The agency provides national leadership for a comprehensive, broad-based approach to reduce tobacco use by:

- Preventing young people from starting to smoke;
- Eliminating exposure to secondhand smoke;
- Promoting quitting among young people and adults; and,
- Identifying and eliminating tobacco-related health disparities.

CDC will continue to support tobacco prevention and control activities through the programs and activities noted below.

- With the $4.5 million increase provided in FY 2010, CDC is focusing efforts on counter-marketing activities to prevent initiation by youth and young adults coming of age and to counter changing tobacco industry tactics to increase sales. Activities will utilize social media technologies that include web, mobile, and other social networking media that effectively reach youth and young adults (e.g., Facebook, YouTube, MySpace, Twitter). Appropriately crafted media campaigns have been shown to be effective in preventing smoking initiation, promoting cessation, and changing social norms.
- Through the National Tobacco Prevention and Control (NTCP) program, CDC will support 58 programs (50 states, seven territories, and the District of Columbia) to prevent initiation of tobacco use among youth and young adults, promote tobacco use cessation among adults and youth, eliminate exposure to secondhand smoke, and identify and eliminate tobacco-related disparities. The primary objective of comprehensive tobacco control programs is to reduce the burden of tobacco-related death and disease through evidence-based population-wide interventions; counter-marketing; policies and regulations; and surveillance and evaluation.
- CDC will fund six national networks to reduce tobacco use among priority populations including African Americans, American Indians/Alaska Natives (AI/AN), Asian Americans/Pacific Islanders, Hispanics/Latinos, lesbian/gay individuals, and persons with low socioeconomic status.

- CDC will fund seven tribal support centers to support AI/AN tribes and tribal organizations to prevent and reduce the use of tobacco and exposure to secondhand smoke, and/or to conduct evaluation and implementation of competent, culturally relevant tobacco control and prevention strategies for use with broader AI/AN populations.
- CDC will support smoking cessation services in 49 states and the District of Columbia by funding states to maintain or enhance existing state based quitlines to help smokers quit. In addition to funding, CDC translates cutting-edge science into service delivery guidance to states, serves as a coordination hub for states and partners to share resources and tools and to optimize regional and national wide efforts for quitline users, and promotes quitline services to increase calls to quitlines.
- CDC will continue to provide technical assistance to the FDA's new Center for Tobacco Products as provisions of the Family Smoking Prevention and Tobacco Control Act of 2009 take effect. In collaboration with FDA, CDC is currently and will continue to provide technical assistance and laboratory support to FDA as they build capacity and will conduct surveillance to monitor the impact of tobacco regulation.

Rationale and Recent Accomplishments: Tobacco use is the single most preventable cause of disease, disability, and death in the United States. Each year, an estimated 443,000 people die prematurely from smoking or exposure to secondhand smoke, and another 8.6 million have a serious illness caused by smoking. Coupled with this enormous health toll is the significant economic burden of tobacco use, which is responsible for more than $96 billion per year in medical expenditures.[20]

Quitting smoking by age 30 eliminates nearly all excess risk associated with smoking, and smokers who quit before age 50 cut in half their risk of dying in the next 15 years. Reducing tobacco use will lead to a dramatic reduction in smoking-related deaths due to heart disease, cancer, and chronic obstructive pulmonary disease (COPD). A reduction in these and other smoking-related diseases, which typically require costly hospitalization, will reduce the burden smoking places annually on Medicare, Medicaid, and private health insurers.

The Surgeon General concluded in 2006 that there is no risk-free level of exposure to secondhand smoke and that eliminating smoking in all indoor areas is the only way to protect the public from the adverse health effects of secondhand smoke. In October 2009, the Institute of Medicine concluded that even brief secondhand smoke exposure could trigger a heart attack and that smoke-free laws prevent heart attacks and save lives.

States that have invested more fully in comprehensive tobacco control programs have seen cigarettes sales drop more than twice as much as in the United States, and smoking prevalence among adults and youth has declined faster as spending for tobacco control increases. Program activities and accomplishments that illustrate the impact of CDC's tobacco prevention and control are described below.

- A 2008 study of the California Tobacco Control Program found that a 15-year investment of approximately $1.8 billion in comprehensive tobacco control yielded a 50:1 return on investment as health care expenditures were reduced in the state by $86 billion over the same time period (1989 to 2004). Moreover, due to program-related reductions in smoking, lung cancer incidence has been declining four times faster in California than in the rest of the nation.
- Through May 2009, the CDC and NCI supported 1-800-QUIT-NOW line has logged more than two million calls. According to the North American Quitline Consortium's *2005 Annual Survey of Quitlines in America,* quitlines have an average utilization rate of 0.99 percent of smokers with an average of $1.77 spent per smoker. Quitlines are among the most cost effective clinical preventive services and are a proven method for increasing successful quit attempts. The Task Force on

[20] CDC. Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses --- United States, 2000--2004. MMWR. 2008, 57(45);1226-1228.

Community Preventive Services recommends cessation interventions that include telephone support based on strong evidence that this intervention increases tobacco cessation.

- Smoke-free policies have been associated with rapid and sizeable reductions in hospital admissions for acute myocardial infarction, or heart attacks. A 2009 article in the *Journal of the American College of Cardiology* estimated that heart attack hospitalizations drop by 17 percent in communities that enact comprehensive smoke-free policies and estimated that if all states were smoke-free, nearly 155,000 heart attacks could be averted annually. As of November 1, 2009, 21 states and the District of Columbia have laws in effect that prohibit smoking in workplaces and public places.
- Raising tobacco excise taxes is one of the most effective strategies to reduce tobacco use. A 10 percent increase in the real price of cigarettes is estimated to reduce adult consumption by nearly 4 percent. On April 1, 2009, the Federal cigarette tax was increased from 39 cents per pack to $1.01 per pack. Of the 17 states for which CDC has data, the call volume to state quitlines increased over 350 percent on the day of the Federal tax increase, when compared to the same day from the previous year. In addition to the Federal increase, 14 states and the District of Columbia have increased their cigarette excise tax as of November 1, 2009.

Health Impact: Through the implementation of CDC's tobacco prevention and control program, CDC aims to decrease the burden of tobacco related death and disease by reducing the consumption of cigarettes, exposure to secondhand smoke, and rates of lung cancer. To measure the program's impact, CDC developed three evaluation measures related to consumption, cotinine (the most specific and preferred biomarker of exposure to secondhand smoke), and lung cancer.

Consumption – CDC aims to reduce per capita cigarette consumption in the United States per adult aged 18 and older. States that have made large investments in comprehensive tobacco control programs have seen cigarette sales drop more than twice as much as in the United States as a whole. National trends in per capita cigarette consumption are strongly correlated with national trends in lung cancer mortality rates and consumption trends are recommended as a primary surveillance indicator for lung cancer control efforts. In 2005, annual per capita cigarette consumption among adults aged 18 and older was 1,716, a more than five percent decrease from 2004. *(Please see measure 5.2.2 in the outcome table for specific information.)*

Cotinine/Secondhand Smoke Exposure – CDC aims to reduce the proportion of children aged three to eleven who are exposed to secondhand smoke from its 2001-2002 baseline of 55 percent to 45 percent by 2020 *(Please see measure 5.6.3 in the outcome table for specific information.)*

The percentage of the U.S. nonsmoking population with detectable serum cotinine declined significantly, from 83.9 percent in 1988-1994 to 46.4 percent in 1999-2004. Similarly, the percentage of the nonsmokers aged 4 years and older with self-reported home secondhand smoke exposure declined from 20.9 percent in 1988-1994 to 10.2 percent in 1999-2004.

Lung Cancer – CDC aims to reduce the age-adjusted annual rate of trachea, bronchus, and lung cancer mortality per 100,000 people. Lung, trachea, and bronchus cancers account for 13 percent of all cancer diagnoses and 29 percent of all cancer deaths; smoking is a primary cause of these cancers. *(See measure 5.2.1 in the outcome table.)*

Budget Request: Nutrition, Physical Activity, and Obesity

CDC requests $43,663,000 for Nutrition, Physical Activity and Obesity in FY 2011, a decrease of $1,328,000 below the FY 2010 Omnibus, which is inclusive of the CDC contract and travel savings (please see page 17 for more information). Funding will allow CDC to support a comprehensive national approach to address obesity and other chronic diseases through improved nutrition and increased physical activity; support 25 cost-effective state-based programs; and implement broad reaching and strategic nutrition and physical activity policies, environmental changes, and campaigns.

CDC partners with states to implement and evaluate policy and environmental strategies to prevent and control obesity. The strategies are designed to improve population-level health across six target areas—increasing breastfeeding, fruit and vegetable consumption, and rates of physical activity, and decreasing sugar-sweetened beverage consumption, television viewing, and high caloric, low nutritional value food consumption. Some examples of state policy and environmental strategies include:

- Increasing access and availability of whole, nutritious foods, such as fresh fruits and vegetables;
- Limiting food and beverage advertising, especially those aimed at children and adolescents;
- Increasing access to and opportunities for recreation;
- Implementing transportation policies that promote active transportation options, such as walking and biking;
- Identifying effective land use and design policies and standards that increase access and opportunities for health eating and active living; and
- Addressing personal safety concerns (as a barrier to physical activity).

In FY 2011, funding will be used by states to:

- Hire staff with expertise in public health nutrition and physical activity;
- Build broad-based coalitions;
- Plan and implement statewide nutrition and physical activity programs;
- Implement population-based strategies with a focus on policy-level change, environmental change, and social marketing; and
- Promote strategies to address the six principal target areas of the program.

In addition to the state-wide programs, CDC will support a range of activities to increase physical activity and improve nutrition in the United States, including an enhanced Nutrition, Physical Activity, and Obesity website, and investment in strategic partnerships to advance obesity related research (National Collaborative on Childhood Obesity with RWJ and NIH (NCCOR)) and best practices (Physical Activity Policy Research Network and the Nutrition and Obesity Policy Research Network).

Rationale and Recent Accomplishments: Poor nutrition, physical inactivity, and unhealthy weight not only increase the risk of many diseases and health conditions, they also have a major economic impact. In 2008, the cost of obesity in the United States was estimated at $147 billion.[21] CDC's Nutrition, Physical Activity, and Obesity (NPAO) program works with state health departments and national partners to reverse these risk factors and promote healthy lifestyles that help to prevent and control obesity and other chronic diseases. Program accomplishments that illustrate the impact of the NPAO program are noted below.

- Since receiving funding from CDC in 2003, New York has made a number of legislative changes aimed at obesity prevention including:
  - A law, passed in 2007, to protect nursing mothers' rights to express breast milk at work and require employers to provide reasonable time and location for employees to do so;
  - An amendment to state education laws requiring body mass index (BMI) and weight status reports on student health appraisals in Kindergarten, 2nd, 4th, 7th, and 10th grades; and,
  - Laws requiring menu labeling in restaurants in five New York City jurisdictions (New York City and Westchester, Rockland, Ulster and Suffolk counties).

[21] Finkelstein EA et al. Annual Medical Spending Attributable To Obesity: Payer-And Service-Specific Estimates; Health Affairs, 28, no. 5 (2009): w822-w831.

- The Georgia Nutrition and Physical Activity Program has piloted several programs that impact individuals and help to improve policies and environments. One such program is Smart Choices, which promotes healthy items in vending machines and concession stands across Georgia parks and recreation facilities. Six sites participated in the initial pilot program, and ten local public health districts have been funded to implement the program in 2009. In 2005, Georgia adopted the Georgia Recreation and Parks Healthy Vending Resolution to provide healthier items for vending machines and concession stands.
- As the lead federal agency for the Fruits & Veggies – More MattersTM campaign, CDC managed and licensed 30 state agencies and licensed the U.S. Navy/U.S. Marines to use the Fruits & Veggies – More MattersTM brand. CDC also provides services to support products promotable (CDC standards on which fruit and vegetable products and recipes may feature the Fruits & Veggies - More Matters™ logo on packaging, on marketing materials, with recipes, and in any other efforts where specific fruit and vegetable products are promoted) and to review licensed states' materials. These efforts have resulted in environmental changes to retail and other store venues that provide consistent messages about fruit and vegetable consumption.
- In July 2009, CDC released the CDC Recommended Community Strategies and Measurements to Prevent Obesity in the United States in July of 2009. CDC expects that 224 communities will begin implementing these strategies and measurements. This will accelerate further development of evidence-based policy and environmental nutrition, physical activity, and obesity strategies.

Health Impact: CDC has a long-term objective to reduce the rate of growth of obesity through nutrition and physical activity interventions. CDC has gathered baseline data for the following measures related to obesity rates and physical activity.

- In FY 2004, CDC reported that the estimated, average age-adjusted, annual rate of increase in obesity rates among adults aged 18 and older was 0.64. In 2009 CDC reported the annual rate of increase was 0.87 percent. Notwithstanding, by FY 2014, CDC aims to reach 0.16. Slowing the rate of growth in obesity rates will concurrently result in (a) stabilizing direct medical care costs (shown to be $147 billion in 2008), and (b) leveling in co-morbid conditions, such as type 2 diabetes, hypertension, and elevated cholesterol *(Please see measure 5.5.2 in the outcome table for specific information.)*
- In FY 2004, CDC reported that 24.4 percent of adults aged 18 and older engage in no leisure-time physical activity. In 2009 CDC reported that the rate had increased to 27.3 percent. Notwithstanding, by FY 2014, CDC aims to lower this number to 21.5 percent. Implementing evidence-based community physical activity intervention (from CDC's Guide to Community Preventive Services) will result in (a) reduced disease incidence (co-morbidities such as hypertension and elevated cholesterol), (b) cost effectiveness (ratios ranged between $14,000 and $69,000 per quality-adjusted life year (QALY)), and (c) provide positive return on investment, compared with other well-accepted preventive strategies *(Please see measure 5.5.1 in the outcome table for specific information.)*

Budget Request: Community Health

CDC requests $81,387,000 for Community Health in FY 2011, an increase of $18,920,000 above the FY 2010 Omnibus, to engage communities and mobilize national networks to focus on chronic disease prevention. Community Health funding will be used to support the programs and initiatives described below.

- CDC requests $20 million to support a new Big Cities initiative, one component of CDC's efforts to strengthen the evidence base and practice of prevention. This program will fund up to ten of the largest cities through competitive cooperative agreements. The goal of the program is to reduce rates of morbidity, disability, and premature mortality due to chronic diseases in these population

centers. CDC will build on major accomplishments from communities funded through the American Recovery and Reinvestment Act (Recovery Act). The Recovery Act communities provide a platform for testing wide-scale application of a focused set of evidence-based policy, environmental, and systems strategies. Best practices and lessons learned from Recovery Act will serve to inform the large cities funded through this initiative.

Large cities have high population density and represent a large proportion of the national population. Consequently, a focused investment in a limited set of large cities is an efficient way to reach large populations. Cities themselves have identified Federal guidance and support as a key to turning the tide in chronic disease. Large cities possess unique regulatory authority and ability to make policy and environmental changes that affect large populations city-wide. These authorities include areas such as urban planning and design, public transportation, city-wide school and daycare policies, purchasing authority over city contracts, building codes, etc. Many cities also manage large-scale city health services such as EMS, city hospitals, and local clinics – representing key opportunities to leverage clinical settings that lie under the direct authority of the city.

Funded big cities will implement evidence-based programs using proven policy, environmental, and systems change strategies to address three public health priorities: tobacco prevention and control; obesity prevention and control (through improved nutrition and physical activity); and chronic disease detection and management. Cities will be provided with a menu of evidence-based actions to implement based on CDC's Guide to Community Preventive Services and other evidence-based reviews. Examples of actions and strategies available to cities include:

- Policy changes affecting the food environment (such as transfat policies, menu labeling, and school breakfast/lunch policies), use of tobacco, planning of urban environments that are supportive of physical activity (such as built environment, transportation planning, and parks and recreation areas), and school physical activity requirements;
- Increased access to physical activity venues, walkable and bikeable communities, fresh food markets, supermarkets/workplaces/schools with healthy foods, and smoke-free environments; and
- Increases in the percent of adults receiving effective clinical preventive services for chronic disease prevention and control; reduced chronic disease outcomes; and, improvements in disease control.

The program will also include the creation of Action Institutes to provide training and technical assistance for teams of community leaders to help them develop community action plans.

- CDC requests $39 million to support the REACH U.S. (Racial and Ethnic Approaches to Community Health) program. REACH U.S. will fund communities to design, implement, evaluate, and disseminate community-driven strategies to eliminate health disparities in key health areas. Program strategies aim to bridge the gaps between the health care system and minority communities; respond to unique social, economic, and cultural circumstances; and change the conditions and risk factors in local communities that have kept racial and ethnic minority groups from improving their health. REACH U.S. target populations include African-Americans, American Indians, Hispanic-Americans, Asian-Americans, Pacific Islanders, and Alaska Natives. Funds will be used to support 50 communities in the manner described below.
  - CDC will support 18 Centers of Excellence in the Elimination of Disparities (CEEDs) which are national expert centers that implement, coordinate, refine, and disseminate programmatic activities. These Centers of Excellence have expertise in working with specific ethnic groups and help to train new communities and disseminate effective strategies. CEEDs will also provide pilot funding, support, local training, and guidance to at least 36 "Legacy Communities" to encourage them to initiate or enhance work towards the elimination of health disparities.

- CDC will support 22 Action Communities (ACs) that implement and evaluate successful practice-based and evidence-based approaches and programs that impact communities as well as cultural and environmental influences related to health disparities. Each AC focuses on one or more racial and ethnic minority population and key health area.
- CDC will support 10 additional communities to enhance their ability to affect policy, systems, and environmental change in order to reduce and eliminate health disparities. These communities will establish a solid foundation and be poised to implement evidence-based strategies within their communities.

The current health focus areas for CEEDs and Action Communities include breast and cervical cancer, cardiovascular disease, diabetes, infant mortality, adult and older adult (50 years and above) immunizations, hepatitis B, and asthma.

- CDC requests $22.4 million for the Healthy Communities Program to support local communities in implementing evidence-based interventions and policy, systems, and environmental changes to achieve the critical local changes necessary to prevent chronic diseases and their risk factors. The program mobilizes community leadership and resources to bring change to the places and organizations that touch people's lives every day – at work sites, schools, community centers, and health care settings – to stem the growth of chronic disease. Special focus is directed toward populations with disproportionate burden of disease and lack of access to preventive services. Funds will be used to support the activities noted below.
  - CDC will fund at least 18 communities (via five year cooperative agreements) through the Strategic Alliance for Health (SAH) program. SAH communities represent a mix of urban, rural, and tribal communities. Funds will be used by communities to develop effective models for local action in communities, worksites, schools, and health care; produce Action Guides on how to implement effective strategies and interventions; and mentor other communities that want to take action and replicate successful strategies.
  - CDC will fund at least 40 new ACHIEVE Communities (Action Communities for Health, Innovation and EnVironmental ChangE). ACHIEVE communities bring together local leaders and stakeholders to build healthier communities by promoting policy and environmental change strategies with a focus on: obesity, diabetes, heart disease, healthy eating, physical activity, and preventing tobacco use. CDC collaborates with five national organizations to extend the reach and impact of the program.

The growing successes of the Healthy Communities Program are being continuously translated into action guides, mentorship networks, and tools for community change. CDC anticipates the cumulative impact of the Healthy Communities Program to reach more than 300 communities by FY 2011.

Rationale and Recent Accomplishments: Communities are essential partners in the effort to effectively address chronic diseases. The scope and impact of chronic disease will require changing the places and organizations that touch people's lives every day—community and municipal planning agencies, community and faith organizations, worksites, health care organizations, housing, and schools. To reverse unfavorable trends in the prevalence and health consequences of chronic diseases, local communities will have to address such issues as affordable and accessible healthy food options, safe places for physical activity, and the need for targeted strategies that address and reduce health disparities.

Program accomplishments that illustrate the impact of the Community Health program are noted below.

- REACH U.S.: By engaging the Latino community in Lawrence, Massachusetts through public health interventions tailored specifically to prevent and control diabetes among this population, the quality of care demonstrably improved among patients at the Greater Lawrence Family Health Center (GLFHC). The proportion of Latinos treated at the facility who reached critical health goals

improved dramatically over a seven-year period: 48 percent reached their blood sugar goal (A1c level less than 7) in 2009, more than three times the rate in 2002; and 61 percent achieved their cholesterol level goal (LDL below 130) in 2009, up from 49 percent in 2002. In addition, the proportion of diabetic patients referred for eye exams increased from 22 to 37 percent, and flu shots among the same population increased from 39 percent in 2002 to 47 percent in 2009. GLFHC now routinely monitors health outcomes for nearly 3,000 Latinos with diabetes.

- Healthy Communities: Since 2004, Alabama's River Region has partnered with the Montgomery Area Community Wellness Coalition to educate the coalition's Wellness Case Management (WCM) program's counselors in chronic disease management. WCM's counselors have been trained to provide one-on-one counseling to uninsured individuals who have diabetes and other chronic diseases as well as assist them in establishing a "medical home" (comprehensive physician-coordinated primary care). Participating hospitals and federally qualified Health Centers have made policy and systems changes to enable the implementation of WCM as an ongoing health service. More than 10,800 uninsured clients have been reached through WCM with successful results: a 2007 study at a participating hospital (Jackson Hospital) found that emergency department visits were reduced by approximately 50 percent for WCM participants.
- Healthy Communities: In Salamanca, NY, within just a few months of Salamanca ACHIEVE's formation in 2008, its leaders educated City and tribal Council members about the public health importance of protecting the public from exposure to environmental tobacco smoke. These efforts resulted in the passing of a city-wide ordinance that bans smoking in parks and playgrounds.

Health Impact: Sustained investments in the nation's big cities will produce the following long-term effects among both adolescents and adults:

- Reduced tobacco use and increased cessation attempts;
- Increased physical activity;
- Increased healthy nutrition (such as consumption of fruits and vegetables, increases in low-fat milk consumption, decreases in sugar-sweetened beverages, and reductions in salt consumption); and
- Reduced the severity and impact of chronic diseases among adults by detecting disease at its earliest, most treatable stages and ensuring appropriate medical management and follow-up.

Outcomes from REACH U.S. are striking, and challenge the conventional notion that health disparities are intractable. Based on data from the REACH risk factor survey, between 2002 and 2006, the program has demonstrated community-level improvements in health outcomes.

- Over a four year period, the cholesterol screening rates for Hispanics of all educational levels in REACH communities have steadily increased. In fact, the screening rate for Hispanics in REACH communities with a high school education, which was previously below the rates for the national Hispanic population, has now surpassed the national rate. Hispanics with less than a high school education in REACH communities now have rates that are approaching that of all Hispanics nationally.

Local communities funded through the Healthy Communities Program have produced positive results, including reducing obesity through community-based interventions; reducing chronic disease risk factors and health care costs; creating healthier school environments; implementing clean indoor air ordinances; and reducing blood sugar levels among diabetes patients. Specific positive results across all funded communities include the following:

- The percentage of adult smokers who were advised to quit by a health care provider increased from 63 percent to 71 percent during 2004-2006; and

- The percentage of adults with diabetes who reported having a foot exam in the past year increased from 71 percent to 77 percent during 2004-2006.

Budget Request: School Health

CDC requests $61,520,000 for School Health in FY 2011, an increase of $3,875,000 above the FY 2010 Omnibus. CDC's School Health program focuses on strengthening the ability of state and local education agencies and schools to address critical health issues, including obesity, asthma, tobacco use, HIV, STDs, and teen pregnancy, by building the capacity of funded partners to support science-based, cost-effective health programming. CDC's School Health program is unique in that its primary partners are education agencies (including schools) and national organizations. School health partners also include state health departments. Key strategies for the program include:

- Collecting, analyzing, and disseminating national, state, and local surveillance data used to develop and monitor school health programs across the nation;
- Supporting research to evaluate the impact of innovative school health strategies;
- Synthesizing research findings to identify effective school health policies and practices and providing technical assistance and professional development to help schools implement these evidence-based policies and practices; and
- Developing and disseminating tools to help schools implement evidence-based health policies and practices.

In FY 2011, CDC will achieve the program's objectives by supporting the activities described below.

- CDC will fund state, local, and territorial education agencies; tribal governments; and national organizations to build the capacity of schools and school districts to implement quality, cost-effective school health. These agencies establish a partnership with their state health agency to focus on reducing chronic disease risk factors such as tobacco use, poor nutrition, and physical inactivity. This funding will stimulate increased professional development for education agency personnel; support expanded partnerships between schools and the community; and promote policy and environmental change to improve health programs delivered in school. Some examples of targeted policy change include:
  - Increasing the number of school districts that require schools to prohibit offering junk foods in vending machines, school stores, canteens, or snack bars;
  - Increasing the number of schools that have policies prohibiting tobacco use on school property, in school vehicles, and at school functions away from school property; and
  - Increasing the number of states that required elementary schools to provide students with regularly scheduled recess.
- CDC will fund state education agencies; the District of Columbia; local education agencies; territorial education agencies and one tribal government to implement effective policies, programs, and practices to avoid, prevent, and reduce sexual risk behaviors that contribute to HIV infection among students. Some examples of targeted policy change include:
  - Increasing the number of schools that address in a required course taught during grades 9-12 the following topics: efficacy of condoms, the importance of using condoms consistently and correctly, and how to obtain condoms;
  - Increasing the number of schools that implement HIV prevention strategies that meet the needs of sexual minority youth; and

- Increasing the percentage of states that require middle and high schools to teach about human sexuality and pregnancy prevention.

- CDC will fund national non-governmental organizations (NGOs) that focus on promoting the health of youth, including CDC funded state, territorial, and large local school district programs, youth serving organizations, and other NGOs. NGOs use the funding to develop relevant state and local policies; provide disease prevention and health promotion programs in schools and community-based organizations; and provide guidance on policies and programs that reduce health disparities.
- CDC will fund Healthy Passages, a unique multi-year study that follows a group of fifth-grade students through age 20 to improve the understanding of what factors help keep children healthy. Results will inform the development of effective policies and programs to improve the health and development of children, adolescents, and adults.
- CDC will collect national data and enable state and local education and health agencies to collect state and local data to monitor priority health risk behaviors and school health programs and policies through the Youth Risk Behavior Surveillance System (YRBSS), the School Health Profiles, and the School Health Policies and Programs Study (SHPPS).
- CDC will provide guidelines and tools for schools. Education agencies use CDC guidelines and tools to assist schools and school districts in implementing evidence-based, effective prevention curricula and instructional practices. To date, these guidelines have addressed tobacco-use prevention, promotion of healthy eating and physical activity, prevention of unintentional injuries and violence, skin cancer prevention, and AIDS education. Currently available tools include the Health Education Curriculum Analysis Tool and the School Health Index.

Rationale and Recent Accomplishments: School health programs play a unique and important role in the lives of young people by improving their health knowledge, attitudes and skills, health behaviors and outcomes, educational outcomes, and social outcomes. To achieve these outcomes, CDC works to reduce the rates of chronic diseases, HIV, other sexually transmitted diseases, and teen pregnancy. Program accomplishments are described below.

- Through ongoing joint efforts of the North Carolina Healthy Schools initiative and the state's Tobacco Free Schools program, the percentage of school districts adopting 100 percent tobacco free schools policies increased from just five percent in 2000 to 100 percent in 2008 —potentially impacting 1.4 million students.
- The Mississippi Department of Education has worked with the CDC and other key partners to improve the health of its youth by implementing a coordinated approach to school health. In just two years Mississippi has substantially improved the nutrition environment in its schools. According to CDC's 2008 School Health Profiles Survey, Mississippi reduced the percentage of secondary schools that allowed students to purchase soda or fruit drinks (other than 100 percent juice) from 78 percent in 2006 to 25 percent in 2008—the greatest progress among all 47 states participating in the survey.
- Arizona mandated a pilot project to evaluate the effects of a high-quality physical education (PE) programs. Pilot schools were required to implement PE strategies aligned with CDC guidance, including 150 minutes of PE per week—with at least 50 percent of students' time spent in moderate or vigorous physical activity. Evaluation results showed that among the four elementary schools piloted during 2007–2008:
  - Physical activity levels increased by 17 percent during the school day and six percent outside of school;
  - Absences decreased by 13 percent; and
  - Standardized test scores remained stable, even with more time spent in PE during the school day.

As a result, in 2009, the state authorized the revision of its PE standards to align them with national standards.

- Florida's Orange County Public Schools (OCPS) HIV prevention program worked with the Florida Department of Health Bureau of HIV/AIDS and the Orange County Health Department to identify four high schools and seven middle schools located in areas disproportionately affected by HIV. OCPS then teamed up with Teen Xpress, a mobile health care provider, to offer free medical and mental health care for at-risk youth in four of the priority schools. For teens with parent permission slips on file, Teen XPress provided confidential pregnancy, STD and HIV testing at the mobile unit. This collaboration resulted in more than 120 youth at high risk receiving tests for HIV.

Health Impact: In FY 2011, CDC aims to reach the following targets.

- CDC will increase the percentage of youth (grades 9 to12) who were active for at least 60 minutes per day for at least five of the preceding seven days to 40 percent. Since the baseline year 2005, this rate decreased from 35.8 to 34.7 percent in 2007, not a statistically significant change. *(See measure 5.6.4 in the outcome table.)*
- CDC will increase the proportion of adolescents (grades 9 to 12) who abstain from sexual intercourse or use condoms if currently sexually active to 89 percent. Since the baseline year 2005, this rate decreased from 87.5 to 86.7 percent in 2007, not a statistically significant change. *(See measure 5.6.2 in the outcome table.)*
- CDC will achieve and maintain the percentage of high school students who are taught about HIV/AIDS prevention in school at 90 percent or greater. Since the baseline year 2005, this rate increased from 87.9 to 89.5 percent in 2007, the most recent year for which data is available. *(See measure 5.6.1 in the outcome table.)*

Scientific reviews have documented that school health programs can have positive impacts on health-risk behaviors, health outcomes, and educational outcomes. Performance goals for assessing school health activities that help reduce risks for chronic diseases include the following measures noted below.

- By 2011, CDC will increase by 10 percent the median percentage of secondary schools across states that do not sell the following foods and beverages anywhere at school outside the school food service program: baked goods and salty snacks that are not low in fat, candy, and soda pop or fruit drinks that are not 100 percent juice. This median percentage increased from 22 percent in 2006 to 46 percent in 2008.
- Efforts to improve the school nutrition environment are working. The CDC's 2008 School Health Profiles survey results showed that among the 34 states that collected data in 2006 and 2008:
  - The median percentage of secondary schools that did not sell soda pop or fruit drinks that are not 100 percent juice increased from 38 percent to 63 percent between those two years, and
  - The median percentage of secondary schools that did not sell candy (chocolate or other candy) or salty snacks not low in fat increased from 46 percent in 2006 to 64 percent in 2008.
- By 2011, CDC will increase by 10 percent the median percentage of secondary schools across states that prohibit tobacco use by students, staff, and visitors in school buildings, at school functions, in school vehicles, on school grounds, and at offsite school events, applicable 24 hours a day 7 days a week. This rate has been relatively flat for the past three data points, most recently 50.7 percent in 2008.
- By 2012, CDC will increase by 10 percent the percentage of elementary and middle schools that require all of their students to take physical education at least three days per week for each entire school year (from 14 to 24 percent in elementary schools, from 15 to 25 percent in middle

schools) and of high schools that require all of their students to take physical education at least three days per week for two entire school years (from 9 to 19 percent).

Budget Request: Behavioral Risk Factor Surveillance System (BRFSS)

CDC requests $7,179,000 for BRFSS in FY 2011, a decrease of $137,000 below the FY 2010 Omnibus, which is inclusive of the CDC contract and travel savings (please see page 17 for more information). The program funds 50 states, the District of Columbia (DC), Puerto Rico, the Virgin Islands, Guam, and Palau, through cooperative agreements, to collect behavioral risk factor data. The BRFSS is a state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. For many states, the BRFSS is the only available source of timely, accurate data on health-related behaviors.

The system is the largest continuously conducted multi-mode surveillance system (i.e., landline phones, cell phones, mail) in the world, with more than 400,000 interviews annually. States are funded to collect ongoing information on behaviors that place health at risk, medical conditions, access to health care, and use of health care services.

BRFSS funding is used to support data collection in the states; State coordinators, project directors, and data collection personnel (e.g. interviewers); data processing services; and data analysis and dissemination.

Rationale and Recent Accomplishments: A wide range of public health officials, researchers, and key decision makers at all levels rely on BRFSS data that are a critical part of public health response to local, state and national health problems. Examples of such data are noted below.

- BRFSS data guided decision-makers about the shortage of influenza vaccine during the 2004-2005 flu season and aided in prioritizing the distribution of limited vaccine supplies. The BRFSS is again being utilized to monitor any outbreaks of influenza-like illness and vaccination coverage in the population during the Novel H1N1 flu outbreak in 2009-2010. Data are being collected and reported on a weekly, bi-weekly, and monthly basis in all states, DC, and select U.S. territories. The resulting data will help public health officials assess the spread of illness and vaccination coverage in real-time, as well as provide information for future influenza epidemic training.
- Secondhand tobacco smoke is a leading environmental trigger of asthma and has been linked to the development of chronic lung disease in children and adults. According to North Carolina's BRFSS, in 2007 there was a higher prevalence of the condition among state employees enrolled in the state health plan than among the general population. Armed with this information, officials with the North Carolina state health department testified at a state legislative hearing on a proposal calling for a ban on smoking in state-owned vehicles. The bill, "Smoke-Free Motor Fleet," took effect on January 1, 2009. It enables state employees with asthma to use state-owned vehicles without risking increased asthma complications. In addition, subsequent BRFSS questions can be used to assess the program's success.
- Recent emergency situations, such as Hurricane Katrina in 2005 and the 2009 H1N1 influenza pandemic in 2009, have demonstrated the critical importance of being prepared for emergency events. New Hampshire's BRFSS identified significant gaps in the state's emergency readiness – only about half of the state's residents had three days worth of water supplies on hand and many who rely on prescription drugs had only limited supplies available. In response to these readiness shortcomings, in fall 2009, New Hampshire launched a campaign to educate the public about the importance of personal preparedness activities.

Health Impact: States and local areas rely upon BRFSS data to identify emerging statewide and local health issues, plan appropriate interventions, effectively target limited resources and evaluate outcomes. In addition, the survey information is used by states and other jurisdictions to support policy, system and environmental

changes that are aimed at improving public health. Many CDC programs use BRFSS data to measure health outcome data, as demonstrated in the long term objective outcome table.

Budget Request: Prevention Research Centers

CDC requests $33,136,000 for Prevention Research Centers in FY 2011, a decrease of $539,000 below the FY 2010 Omnibus, which is inclusive of the CDC contract and travel savings (please see page 17 for more information). CDC will continue funding 35 comprehensive academic health centers as part of a new grant cycle from FY 2009 through FY 2013. CDC will fund two additional academic health centers (from FY 2010 – FY 2013) with the $2.5 million increase provided in the FY 2010 budget. The research centers, located at either schools of public health or medical schools with preventive medicine residency programs, have a rich capacity for the community-based, participatory prevention research needed to drive major community changes that can prevent and control chronic diseases. Collaboration ensures research projects and their findings reach communities and are implemented in real and meaningful ways that can be sustained over time.

Funding will be used to develop, test, and evaluate effective interventions that are then disseminated and used throughout the public health system. These interventions address issues such as nutrition and physical activity to prevent obesity, diabetes, and heart disease; healthy aging; healthy youth development, including prevention of violence and substance abuse; strengthening family and community relationships to support healthy lifestyles; and controlling cancer risk and other health disparities. In FY 2009, grantees were selected in two new award categories (comprehensive and developmental) to sustain progress while also encouraging new research ideas. These additions expand the program's study of the health needs of underserved communities.

CDC will be administering a $10 million project funded through the American Recovery and Reinvestment Act (ARRA) to perform comparative effectiveness research (CER) that compares innovative public health strategies or interventions that assess the impact of policy and environmental interventions. Three to five Prevention Research Centers will be selected for funding, and these recipients are expected to conduct a high quality CER project that will provide reportable results within two years.

Rationale and Recent Accomplishments: The Prevention Research Centers (PRC) program is a unique model of research that bridges the gap between scientific findings and the translation of these into public health practice. The PRC program reaches 41 million people in communities throughout the nation through core research and other projects, according to analysis from the PRC program's national program evaluation, published in Fall 2008. Insight gained and recommendations from the report are being used in the program's strategic planning and future evaluation plans.

Program accomplishments that illustrate the work of the Centers are described below.

- In February 2009, the PRC program launched a Web-based technical assistance tool (www.notontobacco.com) to help public health practitioners implement an evidence-based teen smoking cessation program—Not On Tobacco (N-O-T)—developed by the West Virginia Prevention Research Center. The American Lung Association, which packages and disseminates N-O-T, lacks the resources to reach all settings through traditional means. The Web site reflects best practices from "Research-Based Web Design and Usability Guidelines" of the U.S. Department of Health and Human Services, and the development team includes representatives from academia and the public, private, and non-profit sectors. Usability testing is now being conducted to ensure the Web site serves all audience types. If the Web site proves effective, usable, and useful, other evidence-based programs could benefit from a comparable dissemination tool.
- A 2009 article in the journal, *Progress in Community Health Partnership*, describes the development of the PRC's National Community Committee (NCC), how the committee strengthened the national program's commitment to community-based participatory research (CBPR), the impact the

committee's activities have had on national initiatives, and the lessons learned from supporting a national community approach in a prevention research program. The committee's activities helped ensure community participation at the program's national level and led to involvement in other prevention research initiatives external to the program. The NCC has taken the concept of community partnership to a national level and has changed the way some community members understand their role in research.

Health Impact: The program evaluates effective interventions that are then disseminated and used throughout the public health system. Examples of these interventions are noted below.

- A recent analysis of Medicare enrollees in Enhance Fitness—an evidence-based physical activity program for seniors developed by the University of Washington PRC – showed that people who participate at least once per week had significantly fewer hospitalizations (by 7.9 percent) and lower health care costs (by $1,057) than nonparticipants. CDC's Arthritis program promotes Enhance Fitness as one of the evidence-based physical activity intervention programs that can decrease arthritis pain and disability.
- The Harvard PRC's Planet Health curriculum—a school-based obesity intervention—is highly cost-effective and has proven to produce cost savings.

Budget Request: Heart Disease and Stroke

CDC requests $55,064,000 for Heart Disease and Stroke prevention in FY 2011, a decrease of $1,157,000 below the FY 2010 Omnibus, which is inclusive of the CDC contract and travel savings (please see page 17 for more information). With this funding, CDC will continue to implement science-based heart disease and stroke prevention programs, conduct related research and evaluation activities, create new tools for states and communities, expand partnership initiatives, and address health disparities. CDC heart disease and stroke prevention activities focus on adults and older adults, with special attention given to higher-risk populations. Current priorities include the ABCs of cardiovascular disease (CVD) prevention and control: appropriate low-dose **A**spirin therapy for eligible groups; high **B**lood pressure prevention and control; and high **C**holesterol prevention and control, as well as improving the tracking (surveillance) of CVD in the United States. In FY 2011, the Heart Disease and Stroke program will support the activities noted below.

- CDC will fund 42 State Heart Disease and Stroke Prevention programs (41 states and the District of Columbia) for approximately $35 million to develop state capacity and promote policy and systems changes in healthcare, worksite, and community settings. Program priorities for all states include increasing control of high blood pressure and high cholesterol, improving the public's knowledge of the signs and symptoms of heart attack and stroke and of the importance of calling 9-1-1, improving emergency response, improving quality of heart disease and stroke care, and eliminating health disparities in heart disease and stroke. In addition, the remaining nine non-funded states will also be able to receive technical assistance from CDC.
- CDC will fund the Paul Coverdell National Acute Stroke Registry to measure, track, and improve the quality and delivery of stroke care in six states (GA, MA, MI, MN, NC, and OH). Currently, over 246 hospitals are participating in the Coverdell Registry. Goals include addressing the gaps between clinical practice and clinical guidelines and promoting the growth of quality improvement in stroke care in hospitals and emergency medical services.
- CDC will provide funding and ongoing technical assistance to the Mississippi Delta Health Collaborative to reduce the burden of cardiovascular and other chronic diseases by focusing on the ABCs of Heart Disease and Stroke prevention and control. These communities will work to establish and/or strengthen policies including but not limited to:
    - Increasing the proportion of residents covered by clean in-door air laws and regulations;

- Increasing access to low- and no-cost medication to control high blood pressure and high cholesterol;
- Increasing the social supports to improve adherence to regimens to control high blood pressure and high cholesterol – including lifestyle change and medication; and
- Increasing access to healthier foods including foods free of artificial transfats and low in sodium.

- CDC will engage major food manufacturers and chain restaurants to lower the sodium content of prepared and processed foods, as these are the main contributors of excess sodium in the American diet. CDC will engage public health partners at the national, state, and local level to implement policies that improve the quality of available foods. CDC, with its partners, will track the sodium content of prepared and processed foods as well as the amount of sodium consumed to monitor industry compliance and health outcomes. CDC will continue to expand the scientific literature around dietary sodium to better understand its relationship to high blood pressure and its impact on the public's health. These efforts will build on current sodium reduction activity.
- In 2008, CDC received Congressional language to support an Institute of Medicine study that would examine and make recommendations about various means to reduce dietary sodium intake to levels aligned with the Dietary Guidelines for Americans. This consensus report is currently under way and will 1) describe the state of actions to reduce sodium intake and factors to consider in sodium reduction strategies; 2) recommend actions (with rationale) for public and private stakeholders in order to achieve intake levels consistent with the guidelines; and 3) recommend options for long-term monitoring and identification of research needs. The report is expected in February 2010, and its recommendations will be incorporated into future CDC efforts.
- In FY 2011, CDC will enhance surveillance capacity, building on current efforts to provide an online repository of heart disease and stroke data and trends and working with partners to develop more comprehensive surveillance systems that will help to fill the gaps in existing tracking systems. CDC intends to improve surveillance efforts through such means as oversampling population subgroups in existing surveys, developing and purchasing new datasets, and adding new questions to existing surveys. CDC will link new and existing surveillance sources to provide a more comprehensive statistical documentation of the public health burden of CVD. Having a more complete set of data will allow CDC to better tailor its program efforts to achieve maximum public health impact.
- CDC will continue to engage in a wide range of other activities, including developing and funding registries such as the Cardiac Arrest Registry to Enhance Survival Program (CARES), designed to improve emergency response and quality of care for sudden cardiac arrest. There will be an increased focus on tracking pre-hospital care (EMS) and post-hospital care (rehabilitation). Evidence shows that understanding what happens before and after hospitalization can have a great impact on heart disease and stroke survival and recovery.

WISEWOMAN (Well-Integrated Screening and Evaluation for Women Across the Nation)

In FY 2011, CDC requests $20,787,000, level with the FY 2010 Omnibus to fund the WISEWOMAN program in 19 states and two tribes. With increased funds provided in FY2010, CDC is increasing its financial support to these grantees, thus allowing the programs to expand the services they provide and reach more women in need. WISEWOMAN serves underinsured and uninsured women aged 40-64 years who are enrolled in the National Breast and Cervical Cancer Early Detection Program (NBCCEDP). The WISEWOMAN program is funded through CDC's Breast and Cervical Cancer budget line which also funds the NBCCEDP.

WISEWOMAN is a cardiovascular disease prevention program offered in local clinics and public health departments. The program helps women reduce their risk for heart disease, stroke, and other chronic conditions by providing risk factor screenings, lifestyle interventions, and referrals. Women are screened for high blood pressure, high cholesterol, diabetes, smoking, and other chronic disease risk factors and given referrals to local healthcare providers as needed. Healthy lifestyle counseling and interventions are provided based on their identified risk factors.

Goals and objectives for the WISEWOMAN program include:

- Decreasing heart disease and stroke risk factors within the WISEWOMAN population;
- Maximizing the number of women served through a variety of settings that deliver WISEWOMAN services;
- Sustaining the benefits of the WISEWOMAN program over time at the individual level and also the organizational level (e.g., implementing policies and procedures that reflect a focus on primary prevention and follow national guidelines); and
- Partnering with community-based organizations to help expand the reach of WISEWOMAN services and coordinate patient health care referral.

Rationale and Recent Accomplishments: Public health strategies and policies that promote healthy lifestyles, encourage healthy environments, and offer access to early and affordable detection and treatment are key to reducing the burden of cardiovascular disease in this nation. Recent accomplishments that illustrate CDC's efforts in achieving this goal are noted below.

- CDC has raised visibility of high levels of sodium intake. A CDC study, released in March 2009, was the first study to use national data to show that more than 69 percent of the adults belong to one or more specific populations (middle-aged and older adults, African-Americans, or hypertensives) that should aim to consume no more than 1,500 mg of sodium per day. During 2005-2006, the estimated average intake of sodium for persons in the United States age two years and older was 3,436 mg per day.
- With increased funds provided in FY 2010 funds, CDC is expanding the Mississippi Delta Health Collaborative initiative to include a greater focus on tobacco prevention and control and providing funding for two additional counties in the Delta to strengthen or establish effective policies to prevent heart disease and stroke.
- CDC is working with the American Heart Association to align CDC's Paul Coverdell National Acute Stroke Registry and their Get with the Guidelines Stroke program to improve the quality of stroke care and strengthen stroke surveillance. Since January 2005, the registry has collected approximately 120,000 stroke and transient ischemic attack (TIA) cases. Data shows sustained improvement in seven of ten stroke quality improvement performance measures from January 2005 to March 2009. Adherence to six of these ten performance measures remains above 85 percent.

- North Carolina's Asheville Project was developed to assess the clinical and economic outcomes of a community-based, long-term medication therapy management program for hypertension and high cholesterol, with the original study period being from 2000-2005 (though it continued thereafter). The Asheville Project was effective in reducing participant blood pressure and cholesterol levels and in decreasing the cardiovascular event rate by almost half. Cardiovascular-related medical expenses among participants decreased by 46.5 percent, primarily because of the substantial decrease in hospitalizations, but also because the mean cost per cardiovascular event decreased from $14,343 to $9,931. Total health plan costs rose only 0.1 percent in 2004 and decreased by one percent in 2005. In total, it is estimated that the local health care system and the city of Asheville saved over $6 million in eight years.
- WISEWOMAN has been found to be cost-effective: one study determined that WISEWOMAN extended women's lives at a cost of $4,400 per estimated year of life saved, as opposed to the much higher bypass surgery expense of $26,000 per estimated year of life saved.

Health Impact: In FY 2011, with the efforts of CDC and its partners, it is anticipated that heart disease and stroke mortality rates will continue to decline. CDC also expects that control of high blood pressure will continue to improve and prevalence rates for high cholesterol will be maintained, as evidenced by the following program performance measures.

- In the year 2000, U.S. mortality rates were 187 of every 100,000 people for ischemic heart disease and 61 per 100,000 for stroke; yet by 2006, those rates had dropped to 134.9 per 100,000 for ischemic heart disease and 44 per 100,000 for stroke. It is expected that the 2011 mortality rates will be significantly lower than the targets CDC originally set for the year 2015. In fact, the 2015 targets have already been met. *(See measure 5.4.1 in the outcome table.)*
- CDC anticipates that notwithstanding the continuing rise in obesity rates, the nation will be able to maintain a high cholesterol prevalence at or below 17 percent of the adult population. *(See measure 5.4.3 in the outcome table.)*
- CDC expects high blood pressure control to continue to improve – the percentage of hypertensive adults who had their blood pressure controlled improved from 32 percent in 1999-2002 to 44 percent in 2005-2006. However, the 2010 target of 59 percent may be difficult to reach. *(See measure 5.4.2 in the outcome table.)*
- From 2000 to mid-2008, WISEWOMAN reached over 84,000 low-income women across America; provided more than 210,000 lifestyle interventions; and identified 7,674 new cases of previously undiagnosed hypertension, 7,928 new cases of undiagnosed high cholesterol, and 1,140 new cases of undiagnosed diabetes. Among those participants who were re-screened at a one-year follow up, average blood pressure and cholesterol levels had decreased significantly.

Budget Request: Diabetes

CDC requests $64,699,000 for Diabetes in FY 2011, a decrease of $1,299,000 below the FY 2010 Omnibus, which is inclusive of the CDC contract and travel savings (please see page 17 for more information). CDC diabetes prevention and control activities are accomplished through leadership, research, programs, and policies that translate science into practice. The program targets high risk populations through:

- Implementing public health strategies through state-based programs;
- Addressing diabetes burden and complications;
- Translating research; and,
- Providing education and sharing expertise.

In FY 2011, CDC funding will support the activities noted below.

- CDC will fund fifty-nine Diabetes Prevention and Control Programs (DPCP's) in all 50 States, the District of Columbia, and eight territories to coordinate system-wide strategies that work together to reduce burden and prevent complications of diabetes. These programs have demonstrated successes in improving or increasing the utility of diabetes indicators such as: A1c tests, annual foot and eye exams, and annual influenza and pneumococcal immunizations. These preventive services and diagnostic services are important for managing this disease and preventing complications.
- CDC will support the establishment of a Diabetes Training and Technical Assistance Center (DTAC) at the Rollins School of Public Health, Emory University. DTAC will develop a Master Trainer Curriculum to train Lifestyle Interventionists in delivery of the translated, evidence-based Plan4Ward structured lifestyle intervention for diabetes prevention in high risk persons.
- CDC will support the development of a national surveillance system for Chronic Kidney Disease (CKD), a screening demonstration project, cost-effectiveness models and studies of the prognostic significance of various kidney disease measures. CKD affects 13-16 percent of the United States population and may lead to premature death primarily from cardiovascular disease or progression to end stage renal disease (ESRD). Diabetes and hypertension are the most common causes of ESRD in the United States, accounting for over 70 percent of all cases. This program will reduce the development of complications in these high risk groups and help to prevent the development and progression of both CKD and ESRD.
- CDC will support the coordination of a diverse set of clinical epidemiology, health services research, and translation research studies to prioritize public health interventions. For example, CDC, in collaboration with the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), will continue to support SEARCH for Diabetes in Youth, a 10 year comprehensive study designed to clarify the impact of type 2 diabetes in youth. SEARCH has shown that nutritional intake in adolescents with diabetes is poor and does not follow current recommendations. Recommendations for total dietary fat intake are met by only 10 percent of youth with diabetes and recommendations for saturated fat intake by only seven percent.
- CDC will fund 17 tribes and tribal organizations through the Native Diabetes Wellness Program. CDC will continue to work with community and national partners to eliminate the gaps in health equity for American Indian and Alaska Native (AI/AN) communities. The program has developed interventions based on knowledge about traditional and local foods and sustainable ecological approaches that include policy changes, such as school-menu and vending-machine options, communitywide health promotion messages, and the extension of walking trails, traditional foods gardens, gathering and hunting, social support and storytelling.

Rationale and Recent Accomplishments: Nearly 24 million Americans (8 percent) now have diabetes, one in three children are at risk of developing diabetes during their lifetime and there are nearly 6 million people with diabetes who do not know they have the disease. Average medical expenditures among people with diabetes are 2.3 times higher than those without diabetes. A substantial proportion of these costs are hospitalizations resulting from complications. The costly and deadly complications of diabetes can be limited by improving the health services and self-care of people with diabetes; and by implementing structured lifestyle intervention programs.

CDC's diabetes activities are based on the prevailing science which demonstrates that type 2 diabetes and many of the serious diabetes-related complications, such as blindness, kidney failure, and lower-limb amputations, can be prevented. Program accomplishments illustrating this fact are described below.

- Through education of providers and patients, the New Jersey DPCP has increased the number of persons with diabetes who receive recommended A1c tests, flu and pneumococcal vaccinations, eye exams, and foot exams. The percentage of people with diabetes receiving:
  - Two or more A1c tests/year increased from 71.7 percent in 2001 to 76.4 percent in 2008;
  - Annual flu vaccinations increased from 49.1 percent in 1997 to 53.1 percent in 2008;
  - Pneumococcal immunizations increased from 21.4 percent in 1997 to 38.4 percent in 2008; and
  - Annual eye exams and annual foot exams increased from 64.7 percent in 1998 to 75.8 percent in 2008 and from 63.8 percent in 1998 to 68.1 percent in 2007, respectively.
- From FY 2005-2009, CDC funded five pilot projects in California, Massachusetts, Michigan, Minnesota and Washington, to develop and disseminate diabetes primary prevention interventions that focus on people with prediabetes who are at risk for developing diabetes. The Michigan project collaborated with the Lenawee WISEWOMAN project to focus on integrating glucose screening into local WISEWOMAN programs, identifying those with prediabetes, and providing lifestyle intervention counseling. Between October 1, 2006 and March 30, 2008, blood glucose tests were completed for 286 clients, of which 73 were identified with prediabetes and 17 previously not diagnosed were identified with diabetes. Those identified as prediabetes participated in a modified version of the Diabetes Primary Prevention intervention curriculum.
- In 2009, the Native Diabetes Wellness Program continued to disseminate the award winning "Eagle Books" series to educate youth – through storytelling – in ways to promote health and prevent diabetes in their communities. "Eagle Books" community outreach activities are taking place in American Indian and Alaska Native communities throughout the country. Over two million books have been distributed to tribes, tribal organizations, Head Start Programs, libraries, schools, and individual homes. The books are included in the Diabetes Education in Tribal Schools K–4 curriculum. Outcome measures from the Diabetes Education in Tribal Schools curriculum pilot indicated that, out of a sample of over 1500 students and their teachers, over 90 percent liked the books and would use them to promote health messages.
- Tribal organizations from Alaska to North and South Carolina have been implementing activities recommended in CDC's Community Strategies to Prevent Obesity into already established outcome measures. Sites are already reporting increases in gardening and farmers market activities. For example, Standing Rock Sioux Tribe has planted an additional 100+ community and family gardens throughout the reservations this year alone.

Health Impact: Glucose control is one important pathophysiologic factor in the beginning of End Stage Renal Disease (ESRD) and other complications from diabetes. As A1c measurement is the best indicator of glucose control, the annual measure of A1c relates closely to the likelihood of achieving the long term measure of controlling the rate of ESRD and other complications among persons with diabetes.

CDC's efforts intend to impact the lives of people with diabetes through the outcome measures described below.

- CDC aims to increase the age-adjusted percentage of persons with diabetes age 18+ who receive an A1c test at least two times per year to 75 percent. The rates for this measure have risen from 64 percent in 2005 to 69 percent in 2008. As the number of people with diabetes continues to increase, and as those with diabetes live longer, the targets for this measure will be increasingly challenging to meet. *(Please see outcome 5.3.2 for specific information.)*
- CDC aims to maintain the age-adjusted rate of incidence of End-Stage Renal Disease (ESRD) per 100,000 diabetic population at no higher than its baseline rate (231.7 per 100,000 diabetic population in 2002). The current rate of ESRD is 205. 7 per 100,000 diabetic population. Since the

1990's there have been steady declines in this population; however, as those with diabetes live longer, the incidence of ESRD is likely to increase. Therefore, CDC aims to maintain the rate at no higher than baseline rate. *(Please see outcome 5.3.1 for specific information.)*

Budget Request: Cancer Prevention and Control

CDC requests $355,152,000 for Cancer Prevention and Control in FY 2011, a decrease of $15,194,000 below the FY 2010 Omnibus, which is inclusive of the CDC contract and travel savings (please see page 17 for more information). Funding will support CDC's work with partners, including state, tribal, and territorial health agencies, voluntary and professional organizations, academia, other federal agencies, and the private sector. CDC's cancer prevention and control activities will focus on population-based approaches to risk reduction, early detection, increasing access to high quality cancer care, quality of life for cancer survivors, and reducing or eliminating health disparities in cancer health outcomes. In addition to national cancer control programs focusing on breast, cervical, and colorectal cancers, CDC supports education, awareness and research activities aimed at reducing morbidity and mortality from gynecological cancers, including ovarian cancer, skin, prostate and hematological cancers.

In FY 2011, CDC funding will be used to support the programs noted below.

- CDC requests $210.9 million for the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) to support 50 states, the District of Columbia, and 12 American Indian/Alaska Native tribes or tribal organizations to provide clinical screening and diagnostic services to medically underserved women. Sixty percent of funds are used for clinical services and the remaining 40 percent are for public health infrastructure to support an effective screening program that includes public awareness and education; outreach and recruitment; professional development; quality assurance and quality improvement; tracking, surveillance, and evaluation.
- Funds will be used by the NBCCEDP to provide clinical breast examinations, mammograms, pelvic examinations, and Pap tests, as well as diagnostic follow-up for women with abnormal screening results. Individuals diagnosed with cancer are referred to treatment and other resources by the state Medicaid program. Alternative resources for treatment are identified for clients diagnosed with cancer who are not eligible for treatment in the state Medicaid program.

  Note: The WISEWOMAN program is funded out of the Breast and Cervical Cancer budget activity but programmatic activities occur within the Heart Disease and Stroke Prevention program.
- CDC requests $51.3 million for the National Program of Cancer Registries (NPCR) to collect population-based data on the occurrence of cancer; the type, extent, and location of the cancer; and the type of initial treatment. NPCR provides U.S. population level data (for 96 percent of the population) as well as state and county level cancer incidence data that are not available from any other source. Together with the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) program, 100 percent of the U.S. population is covered. In collaboration with other agencies, cancer registry data are provided to the public, researchers, and state and local public health officials through a variety of different internet sites. Funds will be used to:
  - Support central cancer registries in 45 states, the District of Columbia, Puerto Rico, and the U.S. Pacific Island Jurisdictions to collect, manage, and analyze data about cancer cases, and evaluate specific cancer registry data items, such as race and ethnicity, stage-at-diagnosis, treatment, and follow-up data for improvements in quality;
  - Develop methods and implementation for in-patient facility and physician office electronic reporting for cancer cases;
  - Continue special data linkages with the Indian Health Service Administrative Database to help registries more accurately describe the burden of cancer among Native Americans;

- Expand linkages with other data systems such as the NBCCEDP programs to facilitate evaluation of treatment received by women diagnosed within the NBCCEDP, and the National Death Index (NDI) to evaluate cancer survival among many different populations and geographic locations;
- Produce the United States Cancer Statistics and associated data products for diagnosis years 1999-2008; and
- Continue working to increase the data available for pediatric cancers and improve on the quality and accessibility of the data.

- CDC requests $44.6 million for CDC's Colorectal Cancer program to conduct the activities described below.
  - CDC will continue to fund colorectal cancer screening programs in 22 states and four tribes or tribal organizations. Additionally, increased funding in FY 2010 enabled CDC to fund up to four additional programs and partners, as well as provide additional support to a portion of existing grantees to extend the reach of this program. The program's population-based approach will increase colorectal cancer screening rates among the US population aged 50 and older, as well as increase awareness of the importance of routine screening. The program establishes and integrates evidence-based colorectal cancer screening programs with existing CRC screening programs and/or other chronic disease programs in order to increase population-based CRC screening rates to at least 80 percent by the end of the five year program period (2014). CDC is leading national efforts to accelerate screening rates through strategic partnerships, policies, media and systems change; increase the number of eligible individuals screened through existing health service delivery systems; and promote population-level intervention efforts.
  - CDC will support 16 states to implement specific colorectal cancer strategies identified in their statewide cancer control plans through the National Comprehensive Cancer Control Program.
  - CDC will continue to support Screen for Life: National Colorectal Cancer Action Campaign to inform men and women aged 50 and over about the importance of colorectal cancer screening.
  - CDC will support applied research on methods to reduce disparities in the use of colorectal cancer screening, ways to increase screening use, measure cost-effectiveness and improve the quality of screening services.
- CDC requests $20.7 million for the National Comprehensive Cancer Control Program to support 50 states, the District of Columbia, seven tribes and tribal organizations, and seven U.S. territories to establish state/tribal/territorial cancer coalitions for planning, implementing, and evaluating comprehensive cancer control (CCC) plans that offer a blueprint for coordinated action by CCC coalitions. Comprehensive cancer control is an integrated and coordinated approach to reducing cancer incidence, morbidity, and mortality through prevention, early detection, treatment, rehabilitation, and palliation. All programs now have a cancer control plan. Funds will be used to support the activities described below.
  - CDC will conduct research and surveillance activities that will develop and evaluate comprehensive approaches to cancer prevention and control. Results will guide interventions designed to address cross-cutting issues (such as health disparities and survivorship) at state, tribal, and territorial levels.
  - CDC will assist states in determining the probable costs of implementing their cancer plans and in defining strategies to obtain necessary resources to sustain efforts and continue implementation of CCC priority plan strategies.
  - CDC will develop specific program performance measures that reflect the outcomes being achieved through CCC, such as policy development and evidence-based interventions.

- CDC will evaluate components of state cancer plans and report on selected topics and issues covered by the plans.
- FY 2011 funding will be used to expand the program's activities focusing on a primary prevention through policy change if preliminary findings show this to be a successful approach to cancer control.

- CDC requests $13.7 million for the Prostate Cancer program to support research, education and awareness activities necessary to meet the program's goal of reducing prostate cancer morbidity and mortality. Funding will be used to support the activities described below.
  - CDC will expand population-based research about prostate cancer screening and treatment outcomes to determine the most effective interventions to reduce prostate cancer mortality.
  - CDC will enhance prostate cancer data in cancer registries on race and ethnicity, state of prostate cancer at the time of diagnosis and quality of care.
  - CDC will continue to develop materials that explore how best to promote and communicate information related to prostate cancer.
  - CDC will fund projects that specifically address prostate cancer in 10 states through the Comprehensive Cancer Control Program. Projects will provide education and training to help foster dialogue between patient and physician and to help men age 50 and older make informed decisions about prostate cancer screening. Projects will help expand research about prostate cancer screening and treatment options.

The FY 2011 request does not provide direct funding for the Geraldine Ferraro Cancer Education Program and Johanna's Law. CDC will continue to support awareness and education activities related to gynecologic and hematologic cancers through other budget activities including the Comprehensive Cancer Control Program and ovarian cancer initiatives. The hematologic and Johanna's Law programs have established connections with CDC and state efforts in comprehensive cancer control and will continue to benefit from the work of state comprehensive cancer control coalitions to raise public awareness of these cancers. CDC also continues to support ongoing studies related to gynecological cancers including those related to physician awareness of gynecological cancers, women's perception of risk of ovarian cancer and assessing the burden of HPV-associated cancers in the United States.

Rationale and Recent Accomplishments: CDC's Cancer Prevention and Control activities help contribute to the decline in morbidity and mortality of certain cancers; monitor, assess, and report on cancer trends; deliver clinical screening services; and increase education and awareness for those burdened with a variety of cancers.

Program accomplishments that illustrate the impact of CDC's various cancer programs are noted below.

- The NBCCEDP has contributed to the notable decline in breast and cervical cancer deaths by providing access to screening services, increasing awareness and education, and inherently changing health-seeking behaviors in women for whom screening services are not otherwise available or accessible. Data collected routinely from grantees is used to conduct special studies on the impact, cost and effectiveness of the breast and cervical cancer program.
- In FY 2008, the NBCCEDP screened 302,350 women for breast cancer with mammography and found 4,002 breast cancers, and screened 321,750 women for cervical cancer with the Pap test and found 5,386 cervical cancers and high-grade precancerous lesions. With increased funding provided in FY 2010, the NBCCEDP anticipates reaching an additional 10,500 women.
- In 2008, 93 percent of women with abnormal mammograms received complete diagnostic follow-up, and 88 percent of those were diagnosed within 60 days of the screen. Of those diagnosed with

cancer, 97 percent initiated treatment through the program, and 93 percent of those initiated treatment within 60 days of diagnosis. Ninety percent of women with abnormal Pap tests also received complete diagnostic follow-up, and 67 percent of those were diagnosed within 60 days of the screen. Of those diagnosed with cancer or high grade precancerous lesions, 90 percent initiated treatment through the program, and 87 percent of those diagnosed with invasive cervical cancer initiated treatment within 60 days of diagnosis.

- CDC collaborates with the American Cancer Society, the North American Association of Central Cancer Registries, and the National Cancer Institute to produce the Annual Report to the Nation that provides an update on cancer incidence (new cases) and death rates in the US. The 2008 report showed that, for the first time in the history of the report, both incidence and death rates for all cancers combined are decreasing for both men and women.
- CDC's Colorectal Cancer Screening Demonstration program (funded in five states from FY 2005-FY 2009) screened approximately 5,149 men and women; 18 individuals were diagnosed with cancer, with treatment initiated; and 787 individuals had pre-cancerous polyps removed, representing 787 cancers prevented.
- CDC's Screen for Life campaign has developed, produced, and disseminated print, radio, and television public service announcements in English and Spanish, as well as new and updated patient education materials, such as posters, fact sheets and brochures to increase awareness among adults aged 50 and older that colorectal cancer is the second leading cancer killer in the US; increase awareness of the benefits of being screened for colorectal cancer; and help motivate patients to talk to their doctor and get screened for colorectal cancer. In June 2009, the campaign ranked 23rd out of 557 public service campaigns tracked by Neilsen Media Research, placing it in the top 4.1 percent of campaigns monitored nationwide.
- As part of the state's Comprehensive Cancer Control program initiative, the Tennessee General Assembly passed smoke-free workplace legislation which prohibits smoking in any enclosed area where the public is invited or permitted (with some minor exceptions) in 2006. Tennessee's tobacco tax was also increased by 42 cents. New statistics show that adult smoking rates in Tennessee dropped from 26.8 percent in 2006 to 22.6 percent in 2007. High school student smoking rates fell from 26.3 percent to 25.5 percent in the same time period, and middle school smoking rates dropped from 16.6 percent to 9.7 percent.
- In FY 2010, CDC anticipates funding up to 12 CCC programs to demonstrate the effectiveness of focusing on primary prevention through policy change, as well as supporting the development of a National Cancer Plan.

Health Impact: CDC intends to achieve the outcomes described below for its funded cancer programs.

- CDC-funded breast and cervical cancer programs aim to increase the percentage of program eligible women age 40 and above who have had a mammogram within the previous two years. Increased mammography screening significantly reduces breast cancer mortality. In FY 2006, the percentage of women age 40 and above who received a mammogram within the previous two years increased from the 2004 baseline of 74.6 percent to 76.6 percent. However, given the recent leveling-off of mammography use since the late 1990s and the increased use of more expensive digital mammography, sustaining rates will be challenging. *(Please see outcome 5.1.2 for specific information.)*
- CDC funded breast cancer programs aim to increase the percentage of women 40 and above diagnosed with breast cancer whose cancer was diagnosed at an in situ or localized stage from 67 percent (FY 2005) to 68 percent in FY 2011 and 69 percent by FY 2015. In recent years, the percentage of new breast cancer cases diagnosed as in situ or localized has remained stable from

2002 through 2005. This stability most likely reflects saturation of mammography use among the majority of the population, and harder to reach women (i.e., those not previously regular users of mammography) must be reached to increase the percent of women diagnosed with breast cancer at an early stage. *(Please see outcome 5.1.3 for specific information.)*

- CDC-funded cervical cancer screening programs aim to decrease the age-adjusted rate of invasive cervical cancer per 100,000 women ages 20 and above screened through the NBCCEDP. In FY 2009, the NBCCEDP screened 321,750 women for cervical cancer and found 5,386 high-grade and invasive cervical lesions – 95 percent of which were diagnosed as precancerous.
- Cancer registries will link registry data to breast and cervical screening registries to monitor and improve time to diagnosis, referral and appropriate treatment among women screening in the NBCCEDP. Registry data will be used to provide reports on incidence of late-stage diagnoses for screening amenable cancers (breast, cervical and colorectal) by state/geographic area to identify areas to target for screening interventions.
- CDC-funded colorectal cancer control programs will conduct population-level focused activities aimed at increasing the national colorectal cancer screening rate of men and women aged 50 and older screened for colorectal cancer according to the recommend guidelines from 64 percent to 69 percent.
- From June 2007 to June 2008, of the 61 Comprehensive Cancer Control (CCC) Programs:
  - Fifty-one programs received non-CDC funding in addition to CDC funding to implement CCC in their state;
  - Forty-six programs have implemented at least one policy change in their state, tribal organization, or territory supporting cancer control policies; and
  - Thirty-seven programs have enacted at least one tobacco control-related policy.

Budget Request: Preventive Health and Health Services Block Grant (PHHSBG)

CDC requests $102,034,000 for the PHHSBG in FY 2011, level with the FY 2010 Omnibus, to fund 61 grantees (50 states, the District of Columbia, two American Indian Tribal organizations, and eight U.S. territories) to identify and use evidence-based guideline and best practices to design and implement effective public health programs in communities across the nation. Funded entities are granted the autonomy and flexibility to prioritize use of funds for the health problems that most adversely their residents. Thirty percent of PHHS Block Grant funds are allocated by states to local communities. The PHHSBG is a source of funding used to support existing state programs, develop and implement new programs, and respond to unexpected emergencies. Programs target major issues such as cardiovascular disease, cancer, diabetes, tuberculosis, emergency medical services, injury and violence, infectious disease, and environmental health.

Rationale and Recent Accomplishments: The PHHSBG is an important resource for States, communities, territories and tribes because it is often the only source of funding available to support programs and activities such as clinical services, preventive screening, laboratory support, outbreak control, training, public education, and program evaluation. The following examples represent programmatic accomplishments of PHHSBG funded entities.

- In Maine, it is estimated that more than 20,000 people are infected with hepatitis C, and alarmingly, more than half do not know they are infected, which contributes to the spread of the disease. The serious health consequences associated with hepatitis C are avoidable through early screening, prevention education, and treatment. With PHHS Block Grant support, Maine provides access to free and convenient hepatitis C screening tests in 18 sites that are integrated into well-established clinics, such as substance abuse treatment facilities. As a result of its screening program, 60 percent of the people who tested positive first learned of their status from the free screening, suggesting that

offering the test free of charge has the potential to limit the spread of the disease. Maine has exceeded the Healthy Maine 2010 goal of identifying 35 percent of the estimated 20,000 Maine residents infected with hepatitis C.

- Asthma affects more than 80,000 Minnesota children, adversely impacting both their school attendance and quality of life. In addition, asthma accounts for $6.4 million in costs stemming from pediatric asthma hospitalizations and emergency department visits. The Minnesota Department of Health's Asthma Program partnered with an independent health care organization to conduct an intervention project called Reducing Environmental Triggers of Asthma (RETA). The project, targeting families with children diagnosed with asthma, decreased or removed allergens in homes by using inexpensive interventions. As a result of the program, days of missed schools decreased from an average of seven missed days to one missed day per year. In addition, 12-month follow-up visits indicated approximately one less hospitalization and two fewer unscheduled office visits per child, an average savings of $1,960 per child after costs of the program. The initiation of the RETA project was supported by the PHHS Block Grant, which then used grant funding from the Environmental Protection Agency. This is an important example of how PHHS Block Grant funding helps leverage other resources to accomplish significant improvements in health.

Health Impact: In 2009, CDC successfully transitioned to a Web-based reporting system known as the Block Grant Management Information System (BGMIS). The new system provides improved accessibility and usability to capture grantees' work plans, success stories demonstrating health outcomes, and compliance review information. Working with states and other stakeholders, CDC is developing a performance measure framework that sustains the flexibility of the Block Grant and facilitates the state's use of these funds for greater public health impact in four areas:

- Achieving health equity;
- Decreasing premature death and disability due to chronic disease and injury by focusing on the leading preventable risk factors;
- Healthy communities; and,
- Addressing emerging health issues and gaps.

In 2010, CDC will expand BGMIS to better collect information on annual progress related to these goals and the core performance measures.

Budget Request: Oral Health

CDC requests $14,607,000 for Oral Health in FY 2011, a decrease of $393,000 below the FY 2010 Omnibus, which is inclusive of the CDC contract and travel savings (please see page 17 for more information), to promote oral health through public health interventions. In FY 2011, CDC will support the activities noted below.

- CDC will fund 16 to 23 states to support capacity-building oral health prevention programs. State progress in expanding coverage of community water fluoridation, increasing the number of high risk children receiving dental sealants, and reducing levels of tooth decay and untreated tooth decay will be measured by state-based surveys. States target schools with a high percentage of students on free and reduced cost meal programs. CDC evaluation efforts will identify the intermediate steps that link program performance measures with long-range health impacts. Lessons learned from the funded states and tools and other resources developed by CDC in collaboration with these states will be aggressively shared with all 50 states, the District of Columbia, and U.S. territories. This is an ongoing activity and the first evaluation report is scheduled to be released in January, 2010.
- CDC will provide technical assistance to all states for oral health surveillance, Community Water Fluoridation (CWF), dental sealant programs, coalition building, partnership development, and

evaluation. CDC will also continue to provide funding to national partners that offer technical assistance to states in the areas of data collection and analysis, program review, evaluation, and policy development, including the Association of State and Territorial Dental Directors, and the Children's Dental Health Project.

- CDC will support the National Oral Health Surveillance System (NOHSS), a Web-based system that enables states to collect a standardized set of oral health indicators designed to help monitor the burden of oral diseases, use of dental care services, and status of community water fluoridation.
- CDC will conduct research in oral health to enhance the effectiveness of interventions to prevent oral diseases by reviewing scientific evidence, studying the cost-effectiveness of interventions, identifying the most efficient ways to deliver them through programs, and demonstrating their impact in terms of disease prevention and control. CDC will also help health departments collect, interpret, and share oral health data for use in targeting limited resources to people with the greatest needs and monitor progress in meeting state and national Healthy People objectives.

Rationale and Recent Accomplishments: Tooth decay remains the most common chronic disease among children, affecting more than one-fourth of United States children aged two to five, and about 60 percent of adolescents aged 12 to 19 years. Tooth decay remains a substantial problem throughout life—about one-fourth of adult Americans and one-third of children from low-income families suffer from untreated decay.

In 2001, The Task Force on Community Preventive Services strongly recommended two practices to prevent tooth decay and dental caries: community water fluoridation (CWF) and school-based or linked sealant delivery programs. CDC actively reviews the science related to CFW and provides recommendations on optimal fluoride levels to prevent tooth decay. CDC also provides recommendations to states on these levels. The cost and health benefits of having Community Water Fluoridation are noted below.

- The best evidence indicates that water fluoridation reduces tooth decay by 18 to 40 percent and it is safe.[22]
- A multivariate analysis of Louisiana Medicaid claims data found that preschoolers living in fluoridated communities had treatment costs that were $36.28 lower than their counterparts living in non-fluoridated communities.[23]

In addition, there is strong evidence from the Task Force on Community Preventive Services that sealants decrease dental caries in children. Some of the benefits of School-Based Sealant Programs (SBSPs) are included below.

- Sealants have been proven to be cost saving. One study found that sealing a tooth reduced total dental costs over 10 years from $68.10 to $54.60.[24]
- Children receiving dental sealants in school-based programs have 60 percent fewer new decayed pit and fissure surfaces in back teeth for up to two to five years after a single application.[25]

Program activities and accomplishments that demonstrate how CDC is achieving its goals to promote oral health are noted below.

[22] Truman BI, Gooch BF, Sulemana I, Gift H, Horowitz AM, Evans CA Jr, Griffin S, Carande-Kulis VG, and the Task Force on Community Preventive Services.. The Guide to Community Preventive Services: Reviews of evidence on interventions to prevent dental caries, oral and pharyngeal cancers, and sports-related craniofacial injuries. Am J Prev Med 2002;23(1 Supp).:21-54

[23] CDC (Griffin SO, Gooch BF, Tomar SL). Fluoridation and costs of Medicaid treatment for dental decay—Louisiana, 1995-1996. MMWR-Morbidity and Mortality Weekly Report 1999; 48(34):753-757.]

[24] (Quinonez RB, Downs SM, Shugars D, Christensen J, Vann WF. Assessing Cost-Effectiveness of Sealant Placement in Children. Journal of Public Health Dentistry 2005; 65(2):82-9.).

[25] (Truman BI, Gooch BF, Sulemana I, Gift H, Horowitz AM, Evans CA Jr, Griffin S, Carande-Kulis VG, and the Task Force on Community Preventive Services.. The Guide to Community Preventive Services: Reviews of evidence on interventions to prevent dental caries, oral and pharyngeal cancers, and sports-related craniofacial injuries. Am J Prev Med 2002;23(1 Supp).:21-54)

- In 2008-2009, CDC worked to decrease the dental caries health disparity by developing methods to track dental sealants provided to low-income children in schools. The SEALS (Sealant Efficiency Assessment for Locals and States) software program is now in use by 15 states and has been successfully used to provide evidence of school program successes to gain increased funding and increased sealant utilization for school-based sealant programs.
- In 2008-2009, CDC collaborated with partner organizations to host an expert panel that developed evidence-based guidelines to establish and strengthen school-based sealant programs (SBSP). The published results will be translated and disseminated for a variety of audiences, including school health personnel, clinical dentists, and dental students, through 2010 which will help to improve the oral health status of school aged youth and/or prevent and reduce dental caries.
- With CDC funding, the New York State Department of Health's Bureau of Dental Health brought together dental and nondental stakeholders to develop a state oral health plan. Five work groups were formed to address the key issues of policy, population-based prevention, access to care, workforce needs, surveillance, and research. Using surveillance data, the work groups identified needs, highlighted the critical dental public health issues in the state, and defined goals and strategies for each issue. They set targets for each objective and identified best and promising practices. The plan was adopted statewide in 2005.
    - The plan has provided a blueprint for action for improving the oral health of all New York residents. It helps stakeholders partner with other groups to promote a common agenda.
    - A statewide oral health coalition has been formed.
    - Oral health indicators were included in the state health department's Prevention Agenda for the Healthiest State.
    - Several organizations, such as Perinatal Networks, Area Health Education Centers, and Rural Health Networks, adopted some of the recommendations in the plan and have advocated for policy changes to promote oral health.

Health Impact: The current Healthy People 2010 goal for oral health is for 75 percent of the nation to have access to fluoridated water and the current level as of 2009 is 72 percent, an increase from 62 percent in 1992. CDC will continue to assist states and communities to extend community water fluoridation and provide recommendations on optimal fluoride levels to states, ultimately to prevent tooth decay and meet the national goal.

Budget Request: Safe Motherhood and Infant Health

CDC requests $55,643,000 for Safe Motherhood and Infant Health in FY 2011, an increase of $10,861,000 above the FY 2010 Omnibus. Of this amount, CDC requests $22.3 million to prevent unintended pregnancies. CDC will continue to work to prevent teen pregnancy as well as assist states with identifying and addressing reproductive and infant health issues through ongoing Safe Motherhood programs. CDC will promote optimal reproductive and infant health and quality of life by informing public policy, health care practice, community practices, and individual behaviors through scientific and programmatic expertise, leadership, and support. CDC will continue to work with partners throughout the nation and internationally to:

- Conduct epidemiologic, behavioral, demographic, and health services research;
- Support national and state-based surveillance systems to monitor trends and investigate health issues;
- Support development of research and programmatic activities within states and other jurisdictions;
- Provide technical assistance, consultation, and training worldwide; and

- Translate research findings into health care practice, public health policy, and health promotion strategies.

Teen Pregnancy Prevention Initiative

Within the funding requested in FY 2011, CDC will provide an increase of $7 million to increase support for the HHS Teen Pregnancy Prevention Initiative through the activities noted below.

- CDC will fund five national organizations, Title X regional training organizations, and 22 State teen pregnancy prevention coalitions to promote the use of evidence-based teen pregnancy prevention programs.
- Funding will be used to help local youth-serving organizations to select, implement, and evaluate science-based programs to prevent teen pregnancy and related sexual risk behaviors.
- Assistance will be provided in creating multi-component, community-wide programs that are consistent with community norms in communities with the greatest rates of teen pregnancy and births.

In FY 2011, CDC will also support the maternal and infant health activities noted below.

- CDC will fund up to 41 Pregnancy Risk Assessment Monitoring System (PRAMS) programs to collect data on women's behaviors and experiences before, during, and immediately after pregnancy. The data gathered helps identify groups of women at high risk for health problems, monitor changes in their health status, and measure progress in improving the health of mothers and infants. With the increased funding provided in FY 2011, CDC will be able to increase support to current states and could support additional states that have indicated interest in participating in the program. Increasing funding to current sites will ensure more timely analysis and use of data to inform state programs and policies. PRAMS currently represents 75 percent of live births in the United States
- CDC will fund Research on Preterm Birth and Infant Mortality to identify women at risk and opportunities for prevention through a broad coalition of partnerships, focusing on both the social and biological factors causing preterm birth along with racial disparities.
- CDC will fund the Maternal and Child Health Epidemiology Program (MCH-EPI) which builds MCH epidemiology and data capacity at the state, local, and tribal levels to effectively use epidemiologic research and scientific information to inform public health policy and action related to the health of women, children, and families. The MCH-EPI program design allows for expertise and assistance with priority projects such as: flu preparedness, infant mortality and morbidity, tobacco cessation in pregnant women, and maternal mortality and morbidity.
- CDC will fund the Sudden Unexpected Infant Death (SUID) Initiative which has undertaken both research and program activities to better understand and prevent Sudden Infant Death Syndrome (SIDS) and SUIDs in the United States.
- CDC will fund the Assisted Reproductive Health Technology (ART) Surveillance Activity to evaluate the efficacy and safety of ART by providing surveillance and research, training, technical assistance, and consultation and collaboration with partners. Clinics that perform Assisted Reproductive Technology (ART) annually are required to provide data for all procedures performed to CDC. CDC is required to publish success rates annually for each clinic (i.e., pregnancy rates).
- CDC will fund the CDC Global Reproductive Health program which is committed to improving the health of women, children, and families throughout the world. CDC's global activities focus on 1) improving infant health; 2) optimizing maternal health; 3) enhancing women's reproductive health; and 4) preventing unintended pregnancy, in all parts of the world, and particularly in developing countries.

Rationale and Recent Accomplishments: Optimal health across a woman's lifespan is a critical component of her quality of life as well as for the health of her family and community. Furthermore, optimal health prior to any pregnancy is an important factor in a positive pregnancy outcome for herself and infant. CDC promotes safe motherhood before, during, and after pregnancy to include the physical, mental, cultural, and socioeconomic aspects that move beyond absence of disease to the well-being of the childbearing woman and her family. Using a science-based approach, CDC promotes sexual and reproductive health through surveillance, research, program implementation, and technical assistance. CDC's unique role complements the activities of other federal agencies, such as the Administration for Children and Families (ACF).

Accomplishments of the Safe Motherhood and Infant Health program are noted below.

- In 2008-2009, studies were added to CDC's collaborative research with Kaiser Northwest, the Massachusetts Department of Public Health, and Boston University to investigate the reasons for the rise in late preterm births and their long term consequences on child cognitive development.
- In 2009, the CDC has initiated a Sudden Unexpected Infant Death Case Registry (SUID-CR) pilot project in collaboration with five states (CO, GA, MI, NJ and NM) which builds upon current and local level Child Death Review efforts aimed at reviewing and ultimately preventing SUID cases. The case registry will provide a more comprehensive source of surveillance data by establishing a surveillance system that links death certificates to child death review data, death scene investigation and pathology data. The SUID-CR will enhance the National Center for Child Death Review (CDR) program and CDR Case Reporting System by including information about the circumstances and characteristics associated with SUID as well as checklists about the types and quality of information available to Child Death Review Teams. The goal is establishing the true burden for unexpected infant deaths and enabling partners to develop interventions aimed at reducing SIDS related deaths.
- The teen birth rate among Hawaiian Asian/Pacific Islanders (A/PI) is more than twice that of the United States A/PI rate (46/1,000 in Hawaii versus 17/1,000 in the US in 2006) and is higher than Hawaii's overall teen birth rate (41/1,000). CDC's Teen Pregnancy Prevention program the Hawaii Youth Services Network (HYSN) is providing ongoing intensive training and technical assistance to youth-serving organizations, Healthy Youth Hawaii. HYSN implemented science-based teen pregnancy prevention programs in 20 public classrooms, two Native Hawaiian charter schools, a residential substance abuse and mental health treatment center for youth, and in after school programs. More than 900 middle school and high school aged youth received science-based teen pregnancy prevention programming in 2007-2008. Evaluation data show improvements in knowledge, attitudes, and intentions related to sexual and reproductive health sustained at 3-month follow-up after program completion.
- As a result of the recommendation that came out of the CDC sponsored 2008 Symposium on Public Health and Infertility, CDC is developing the National Action Plan on Public Health and Infertility which will guide efforts to better understand the proportion of infertility that can be prevented and the contribution of potential causes of infertility, including environmental and occupational hazards, genetic abnormalities, infectious agents, delayed childbearing and certain behaviors, diseases or disorders.

Health Impact: Through its research, surveillance and programmatic activities CDC aims to:

- Reduce the numbers of teen pregnancies;
- Decrease the number of Preterm Births; and,
- Decrease the number of maternal and infant mortalities, and the occurrence of maternal morbidity.

In addition, CDC aims to reduce the existing and persistent racial and ethnic disparities in all of these areas.

Budget Request: Arthritis

CDC requests $26,790,000 for Arthritis in FY 2011, a decrease of $509,000 below the FY 2010 Omnibus, which is inclusive of the CDC contract and travel savings (please see page 17 for more information). CDC's Arthritis program will continue to support state-based programs in 12 states (average award $500,000). CDC will work closely with grantees and on extramural research to improve and increase self-management attitudes and behaviors among persons with arthritis through a systems approach.

In FY 2008, based on recommendations of a national panel of experts, CDC began funding less states but at higher levels in order to address arthritis through broader public health efforts. These efforts include the activities described below.

- CDC will expand the number of evidence-based interventions available for state programs serving people with arthritis to improve the quality of life of those affected by arthritis.
- CDC will expand innovative partnerships at the local, state, and national level in order to increase public awareness and expand the reach of evidence-based programs.
- CDC will continue developing awareness campaigns to inform the public about arthritis and effective interventions and management strategies.
- CDC will work to enable policy and systems change at the state and local level.
- CDC will fund a cooperative agreement with the Arthritis Foundation to increase the amount and quality of information available for people affected by arthritis, and to expand the reach of evidence-based programs, extramural research projects, and health education campaigns for people with arthritis.

Rationale and Recent Accomplishments: Arthritis continues to be the most common cause of disability in the United States. About 46 million U.S. adults have arthritis (21 percent of the U.S. population) with 18.9 million Americans suffering activity limitations because of arthritis. Arthritis results in $81 billion in medical costs each year. Ultimately, CDC's goal is to improve quality of life for people who are affected by arthritis. Some program accomplishments that illustrate CDC's efforts in achieving this goal are described below.

- In April 2009, the CDC, in partnership with the Arthritis Foundation, convened a summit of national experts to elicit guidance and consensus on future public health directions for addressing osteoarthritis, the most common form of arthritis. These experts prioritized recommendations for interventions, policy, and communication efforts in addressing osteoarthritis. The outcomes of the summit are being used to formulate A National Public Health Agenda for Osteoarthritis, positioned to impact public health practice, policy and research related to osteoarthritis over the next three to five years.
- A 2009 CDC study shows that arthritis may be an unrecognized barrier for adults with heart disease attempting to manage their condition through physical activity: 29 percent of people with both conditions are physically inactive compared to 21 percent with heart disease alone. The study found that 57 percent of adults with heart disease also have arthritis. Inactive persons with heart disease who increase physical activity benefit from improved physical function, lowered blood pressure, and reduced blood cholesterol levels. This study was released just a year after findings from the program that more than half of adults with diagnosed diabetes also have arthritis. These reports underscore the importance of addressing the concerns that people with arthritis often have about engaging in physical activity, as a reluctance to exercise may limit their ability to manage their other chronic conditions.
- CDC supports research to learn more about arthritis and effective management strategies. Self-management education programs have been proven to reduce pain and costs, yet not all people with arthritis are able to attend such programs. CDC supported researchers at the University of North

Carolina at Chapel Hill and Stanford University to develop and evaluate programs that can be delivered by mail or online to help make these programs available to everyone who needs them.

Health Impact: The long term goal of the CDC Arthritis Program is to reduce pain and disability and improve quality of life among people affected by arthritis.

By FY 2012, CDC aims to increase the number of adults with doctor-diagnosed arthritis who have had effective, evidence-based arthritis education as an integral part of the management of their condition by more than 380,000 individuals. CDC promotes the use of a number of evidence-based programs to achieve this goal. For example:

- The Arthritis Self-Help Program disseminated by the Arthritis Foundation, teaches people how to manage arthritis and lessen its effects. The program has been shown to reduce pain by 20 percent and physician visits by 40 percent. In addition, a 1995 cost-effectiveness analysis of the program found that the intervention, which cost on average $78 per initial program participant, saved $267 by resulting in fewer doctor visits and by reducing pain over four years.

Budget Request: Genomics

CDC requests $11,708,000 for Genomics in FY 2011, a decrease of $600,000 below the FY 2010 Omnibus, which is inclusive of the CDC contract and travel savings (please see page 17 for more information). CDC's Office of Public Health Genomics is working to improve public health interventions for preventing chronic, infectious, environmental, and occupational diseases, through projects focused on population-based genomic research and surveillance, assessment of the role of family history in determining risk and preventing disease, evaluation of the usefulness of genetic tests for disease prevention and health promotion, and translation of genome-based information and applications into medical and public health practice.

In FY 2011, CDC funding will support the activities described below.

- Translation research, surveillance, policy and education projects – CDC funds five cooperative agreements to advance and implement knowledge about the validity, utility, utilization, and population health impact of genomic interventions, including family history, for improving health and preventing disease.
- *The Genetics for Early Disease Detection and Intervention (GEDDI) initiative* – GEDDI is a CDC-wide collaborative effort to develop a public health approach using clinical, genetic and family history information for early diagnosis of disease leading to improved health outcomes. Key components of this effort are the development of clinical decision support tools and provider and public education about genetic risk factors and symptoms for selected diseases, such as primary immune deficiency syndrome.
- Public health genomics research – CDC funds innovative projects that integrate genomics into public health research and programs. The projects focus on various chronic and infectious diseases, and evidence-based analysis, economic analysis, and other public health strategies.

CDC also supports the translation of genomic discoveries into opportunities for public health and preventive medicine in a manner that maximizes health benefits and minimizes harm to individuals and population through other activities noted below.

- The *Evaluation of Genomic Applications in Practice and Prevention (EGAPP) Initiative* is supported by CDC to establish a systematic, evidence-based process for evaluating the validity and utility of genetic tests that are in transition from research to practice. To date, genomic applications related to breast, ovarian, and colorectal cancer; depression; thrombophilia, cardiovascular disease; and diabetes are being or have been evaluated through EGAPP, building a knowledge base of evidence reviews and recommendation statements. EGAPP forms the foundation for the Genomic Applications in Practice and Prevention Network (GAPPNet) established by CDC and the National

Institutes of Health (NIH) to accelerate and streamline the effective integration of validated genomic knowledge into the practice of medicine and public health, by sponsoring research, evaluating research findings, and disseminating high quality information on candidate genomic applications in practice and prevention.

- *The Human Genome Epidemiology (HuGE) Published Literature Database*, a web-based resource established and continually updated and enhanced by CDC, designed to advance the synthesis, interpretation, and dissemination of population-based data on human genetic variation in health and disease. CDC developed and continually enhances the HuGE Navigator, a suite of on-line applications used to populate the HuGE Published Literature Database, identify candidate genes, search for investigators with a particular research focus, and produce knowledge summaries.
- *The Family History Public Health Initiative* was established by CDC to increase awareness of family history as an important risk factor for common chronic diseases, and to contribute to the evidence base regarding the utility of family history assessment for improving health outcomes. CDC created an innovative prototype tool, Family HealthWare™, which collects family history about health behaviors, screening tests, and a person's family history for six common chronic diseases, and funded a clinical trial using the tool to measure whether family history risk assessment and personal prevention messages influence health behaviors and use of medical services.
- CDC conducts analyses of human genomic data in public health investigations to enhance the agency's ability to assess the effectiveness and side effects of therapeutics and vaccines; characterize environmental exposure more accurately; understand variation in disease outcomes; and refine public health interventions. For example, the *Beyond Gene Discovery (BGD) initiative* was established by CDC to assess population genetic variation in the United States in relation to health and disease, and to develop strategies for using genetic information for disease prevention and health protection.

Rationale and Recent Accomplishments: Genomics plays a part in nine of the ten leading causes of death in the United States, including heart disease, cancer, stroke, chronic lower respiratory diseases, diabetes, and Alzheimer's disease. All human beings are 99.9 percent identical in genetic makeup, but differences in the remaining 0.1 percent may hold important clues about the causes of disease. The study of genomics can help us learn why some people get sick from certain infections, environmental factors and behaviors, while others do not. A better understanding of the interactions between genes and the environment will help us find better ways to improve health and prevent disease.

Recent program accomplishments are noted below.

- In October 2008, the independent, non-federal EGAPP Working Group published their methods for evidence-based review of genetic tests, and as of FY 2009 the group has released four evidence-based recommendation statements; six evidence reviews funded by CDC's EGAPP project have been released by the Agency for Health care Research and Quality (AHRQ) Evidence-based Practice Centers (EPC) and others. Of note, the EGAPP Working Group found sufficient evidence to recommend offering genetic testing for Lynch syndrome to individuals with newly diagnosed colorectal cancer to reduce morbidity and mortality in relatives. This finding has implications for the role of genetic testing for individuals with colorectal cancer identified through national colorectal cancer screening programs and in clinical practice.
- In FY 2009, two publications were issued describing the study methods and results from the CDC-funded Family Healthware™ Impact Trial finding a substantial burden of family-history based risk for these chronic diseases in the adult primary care population studied, and variations in risk perception across chronic diseases, with cancer risk being perceived as higher than other diseases.

- In November 2008, CDC's NHANES Collaborative Genomics Project, a CDC-led collaboration with the National Cancer Institute (NCI) initiated in 2002 in prelude to the Beyond Gene Discovery initiative, published the U.S. population variation in 90 genetic variants of public health significance using samples collected in the third National Health and Nutrition Examination Survey (NHANES III) providing a foundation for understanding how genetic variation contributes to human disease.

Health Impact: In FY 2011, CDC aims to impact health outcomes through the following activities.

- CDC intends to increase the number of individuals who receive evidence-based genomic interventions, and decrease the number of individuals who receive harmful or ineffective genomic interventions, by continually expanding the knowledge base supporting evidence-based practices for genomic applications, through the development and dissemination of new EGAPP evidence based reviews and recommendations. For example, 2005 baseline data from NHIS indicate that at most 13 percent of women who have a family health history suggestive of an increased risk for breast cancer due to *BRCA1* or *BRCA2* mutations had discussed genetic testing with a health professional as recommended by the United States Preventive Services Task Force in 2005. Follow up data will be collected in 2010.
- CDC intends to increase the number of individuals who receive earlier diagnosis and treatment of genetic diseases, such as primary immune deficiency, through the development and dissemination of clinical decision support tools and provider and public education. For example, coinciding with a Jeffrey Modell Foundation physician and public awareness campaign, Jeffrey Modell Center physicians reported a 133 percent annual increase in the number of patients diagnosed with primary immune deficiency, and a 91 percent annual increase in number of patients receiving treatment, as of February 2009.

IT INVESTMENTS

To further CDC's strategic priority on well-being, information technology resources support the collection and aggregation of information about chronic diseases and conditions such as cancer, heart disease, diabetes, pregnancy, and oral health. In addition to these core surveillance systems, IT resources are dedicated to the surveillance of behavioral risk factors. These surveillance systems provide the foundation for many public health activities, allowing CDC and public health partners to identify emerging health problems, measure and monitor trends in disease burden, establish priorities for action, plan programs, and track progress toward meeting public health objectives. The analysis of surveillance data may also reveal health disparities among various population subgroups, allowing CDC to develop targeted interventions in support of its strategic priority on health equity.

CDC dedicates information technology resources to management information systems that contain standardized data about awardees and stated-based programmatic activities. Electronic submission systems for management information improve the quality and comparability of programmatic data provided to CDC. These systems allow CDC to describe and monitor state-based public health programs, and to detect changes in health practices and the effects of these changes. Management information systems may also be used for economic analysis of programs, and to identify best practices and success stories that can be shared among awardees. Examples include the Prevention Health and Health Services (PHHS) Block Grant Management Information System (MIS), the Prevention Research Centers (PRC) MIS, and the Racial and Ethnic Approaches to Community Health (REACH) MIS. Systems such as these promote effective and efficient uses of CDC funding and further develop the network of state-based partners, as outlined in CDC's strategic priority on workforce development.

Some of CDC's IT investments support systems developed to promote policy-level actions. These include software that generates estimates of alcohol-related deaths and Years of Potential Life Lost due to alcohol consumption; the Chronic Disease Cost Calculator; OSH's STATE System, which collects information about state-level legislation on various tobacco related topic areas; and a Legislative Database being developed to

support policy initiatives relevant to nutrition and physical activity. CDC's IT investments also support Congressionally-mandated information collections, such as ingredient and nicotine content reporting for tobacco products, and clinic success rates for assisted reproductive technology.

Other internal IT systems are used within CDC for internal purposes, such as communications and information dissemination (e.g. intranet site development), and project and personnel management. Finally, internet sites are increasingly important modes of information dissemination to the public and public health partners, supporting CDC's strategic priority on research translation.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 5.1: Reduce death and disability due to cancer.				
5.1.1: Reduce the age-adjusted annual rate of breast cancer mortality per 100,000 female population. *(Outcome)*[1]	FY 2004: 24.1	N/A	N/A	N/A
5.1.2: Increase the percentage of women age 40+ who have had a mammogram within the previous two years. *(Outcome)*[2]	FY 2008: 76.7% (Met)	78.0%	N/A	N/A
5.1.3: Percent of women 40 years of age and older diagnosed with breast cancer whose cancer was diagnosed at in situ or localized stage. *(Outcome)*	FY 2006: 69%	68%	68%	Maintain
5.1.4: Decrease the age-adjusted rate of invasive cervical cancer per 100,000 women ages 20+ screened through the NBCCEDP (excludes invasive cervical cancer diagnosed on the initial program screen). *(Outcome)*	FY 2007: 14 (Met)	13	13	Maintain
Long Term Objective 5.2: Reduce death and disability among adults due to tobacco use.				
5.2.1: Reduce the age-adjusted annual rate of trachea, bronchus, and lung cancer mortality per 100,000 population. *(Outcome)*	FY 2006: 51.5	43.3	43.3	Maintain
5.2.2: Reduce per capita cigarette consumption in the U.S. per adult age 18+. *(Outcome)*	FY 2005: 1,716	1,511	NA	NA
Long Term Objective 5.3: Prevent diabetes and its complications.				
5.3.1: Maintain the age-adjusted rate of incidence of End-Stage Renal Disease (ESRD) per 100,000 diabetic population at no higher than its current rate. (Outcome)[3]	FY2007: 205.7	N/A	N/A	N/A
5.3.2: Increase the age-adjusted percentage of persons with diabetes age 18+ who receive an A1c test at least two times per year. *(Outcome)*	FY 2008: 68.5% (Unmet)	75%	75%	Maintain
Long Term Objective 5.4: Reduce death and disability due to heart disease and stroke.				
5.4.1: Reduce the age-adjusted annual rate per 100,000 population of coronary heart-disease and stroke-related deaths. (Outcome)[4]	FY 2006: CHD: 134.9 Stroke 43.6 (Exceeded)	NA	NA	NA
5.4.2: Increase the age-adjusted proportion of persons age 18+ with high blood pressure who have it controlled (<140/90). *(Outcome)*[5]	FY 2006: 44% (Exceeded)	59%	NA	NA

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
5.4.3: Maintain the age-adjusted proportion of persons age 20+ with high total cholesterol (>=240mg/dL) at no higher than its current rate. *(Outcome)*[5]	FY 2006: 16% (Exceeded)	17%	NA	NA
Long Term Objective 5.5: Reduce the rate of growth of obesity through nutrition and physical activity interventions.				
5.5.1: Reduce the age-adjusted percentage of adult's age 18+ who engage in no leisure-time physical activity. *(Outcome)*[6]	FY 2004: 24.36% (Baseline)	N/A	NA	NA
5.5.2: Slow the estimated average age-adjusted annual rate of increase in obesity rates among adults age 18+. *(Outcome)*[7]	FY 2004: 0.64 average increase per year (Baseline)	N/A	NA	NA
Long Term Objective 5.6: Improve youth and adolescent health by helping communities create an environment that fosters a culture of wellness and encourages healthy choices.				
5.6.1: Achieve and maintain the percentage of high school students who are taught about HIV/AIDS prevention in school at 90% or greater. *(Outcome)*[8]	FY 2007: 89.5% (Unmet)	N/A	90%	N/A
5.6.2: Increase the proportion of adolescents (grades 9-12) who abstain from sexual intercourse or use condoms if currently sexually active. *(Outcome)*	FY 2007: 86.7% (Unmet)	N/A	89%	N/A
5.6.3: Reduce the proportion of children aged 3 to 11 who are exposed to second-hand smoke. *(Outcome)* [5]	FY 2006: 50.8%	45.0%	NA	NA
5.6.4: Percentage of youth (grades 9-12) who were active for at least 60 minutes per day for at least five of the preceding seven days. *(Outcome)* [8]	FY 2007: 34.7% (Unmet)	N/A	35.8%	N/A

[1] This is a long-term outcome measure with a 1999 baseline of 26.6 and a 2015 target of 21.3.
[2] CDC does not report in odd years, as the data for this measure is in the Women's Health section of the Behavioral Risk Factor Surveillance System, which is an optional module in odd years.
[3] This is a long-term measure with a 2013 target of 231.7.
[4] This is a long-term measure with 2015 targets of 166 coronary heart disease deaths and 50 stroke-related deaths.
[5] The data source for this measure is NHANES, which provides biennial data (even years).
[6] This is a long-term measure with a 2014 target of 21.5%.
[7] This is a long-term measure with a 2014 target of a 0.16 average increase per year.
[8] The data source for this measure is the Youth Risk Behavior Surveillance System. Surveys are conducted on a biennial basis; therefore, no target is set for FY 2010.

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
5.A: States funded for capacity-building CVD prevention programs (includes DC).	FY 2009: 28	28	28	0
5.B: States funded for basic implementation CVD prevention programs.	FY 2009: 14	14	14	0
5.C: Surveillance and research studies describing the CVD burden and developing effective intervention strategies.	FY 2009: 31	31	35	4
5.D: State health departments funded for ongoing state stroke registries to assess stroke treatment and improve the quality of care for acute stroke patients.	FY 2009: 6	6	6	0
5.G: Number of territories/jurisdiction funded for Diabetes Control Programs	FY 2009: 8	8	8	0
5.H: Number of state based Diabetes Prevention and Control Programs (including DC)	FY 2009: 51	51	51	0
5.I: Health education programs/community interventions targeting minority populations	FY 2009: 16	16	16	0
5.J: Number of childhood diabetes surveillance systems	FY 2009: 6	6	6	0
5.K: Number of pilot projects for the primary prevention of diabetes	FY 2009: 5	5-12	5-12	0
5.L: Programs funded for Comprehensive Cancer Control (includes 7 tribes and tribal organizations, the District of Columbia and 6 U.S. Associated Pacific Islands/territories & Puerto Rico)	FY 2009: 65	65	65	0
5.M: Cancer Registry states/territories with capacity-building programs	FY 2009: 1	1	1	0
5.N: Cancer Registry states/territories with basic implementation programs	FY 2009: 47	47	47	0
5.O: Cancer Registry Programs submitting data to the NPCR Cancer Surveillance System	FY 2009: 48	48	48	0
5.P: Education campaign to promote colorectal cancer screening	FY 2009: 1	1	1	0
5.Q: Colorectal Cancer Control Programs and Partners	FY 2009: 26	≤ 30	≤ 30	+ ≤ 4
5.R: Number of breast and cervical cancer screening programs	FY 2009: 68	68	68	0
5.T: Number of cooperative agreements to national partners and professional societies to promote cancer prevention	FY 2009: 18	17	17	0

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
5.U: WISEWOMAN programs funded to support early detection of chronic diseases and their associated risk factors	FY 2009: 21	21	21	0
5.V: States funded for capacity building arthritis programs	FY 2009: 12	12	12	0
5.W: Number of population-based registries to define and monitor the incidence and prevalence of lupus	FY 2009: 5	5	5	0
5.X: Number of state tobacco prevention and control programs (includes DC)	FY 2009: 51	51	51	0
5.Y: Tobacco Cessation Quitlines – States/ Territories/ Tribes funded to maintain and enhance existing quitlines	FY 2009: 56	56	56	0
5.Z: Number of cooperative agreements for tobacco prevention with key organizations with access to diverse population	FY 2009: 15	15	15	0
5.A.A: Scientific, technical, and public inquiry response on tobacco use	FY 2009: 50,000	50,000	50,000	0
5.A.B: Total state health departments and other organizations (e.g., local health departments) requesting advertising campaign materials through the Media Campaign Resource Center	FY 2009: 250	250	250	0
5.A.C.1: Number of states implementing intervention programs for nutrition/PA/obesity	FY 2009: 25	25	25	0
5.A.C.2: Number of stakeholders attending national meeting to receive technical assistance and tools who report implementing obesity-related policy and environmental strategies	FY 2009: 1127	1,200	1,200	0
5.A.C.3: Number of communities expected to measure their efforts of the 24 recommended strategies and measurements for obesity prevention in the US	FY 2009: 225	300	400	100
5.A.C.4: Development of obesity specific best practices through partner engagement	FY 2009: 0	1	3	2
5.A.D: States and territories funded for conducting surveillance	FY 2009: 55	55	55	0
5.A.E: State education agencies and tribal governments working with state health departments to integrate prevention activities targeting tobacco use, sedentary lifestyles, poor eating habits into school health programs.	FY 2009: 23	33	33	0

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
5.A.F: National Non-Governmental Organizations providing capacity building assistance to education and health agencies, community organizations, and agencies serving youth at highest risk.	FY 2009: 28	28	28	0
5.A.G: State, territory, and local education agencies and tribal governments working with state health departments to implement HIV education prevention in schools.	FY 2009: 73	73	73	0
5.A.H: State and local education agencies, state health agencies, and tribal governments that conduct the Youth Risk Behavior Surveillance System (YRBSS) to collect information on six priority health-risk behaviors.	FY 2009: 78	79	79	0
5.A.I: Guidelines, tools, and resources to assist education agencies, health departments, and community organizations in the implementation of school health programs.	FY 2009: 14	16	17	1
5.A.J: Projects (states, entities, and city) funded for PRAMS	FY 2009: 38	38	40	2
5.A.K: MCH Assignees in States	FY 2009: 12	14	14	0
5.A.L: Teen Pregnancy Prevention (states and national partners funded for science based approaches)	FY 2009: 12	20	27	7
5.A.M: Maternal and Child Health Research Projects	FY 2009: 25	25	25	0
5.A.N: States/territories receiving support for capacity-building oral health prevention programs (e.g., fluoridation, sealants)	FY 2009: 16	16	16	0
5.A.O: Prevention Research Centers with formal collaborative relationships with state and local agencies	FY 2009: 35	35	35	0
5.A.Q: REACH Centers of Excellence	FY 2009:18	18	18	0
5.A.R: REACH Action Communities	FY 2009:22	22	22	0
5.A.S: REACH Legacy Communities	FY 2009:36	36	36	0
5.A.S.1: REACH Planning Grants	N/A	12-15	12-15	0
5.A.T: Healthy Communities (Strategic Alliance for Health) – Communities funded through Local and State Health Departments and Tribes	FY 2009:14	14	14	0

GRANTEE TABLE

State/Local/ Territory/Tribal Grantee	FY 2009 Actual Breast and Cervical Cancer	FY 2009 Actual National Comprehensive Cancer Control Program	FY 2009 Actual Diabetes Prevention and Control Programs	FY 2009 Actual Tobacco	FY 2009 Actual BRFSS	FY 2009 Actual School Health HIV	FY 2009 Actual Preventive Health & Health Services Block Grant
Alabama	$3,060,990	$384,601	$291,564	$1,326,917	$225,722	$270,253	$1,540,081
Alaska	$2,512,294	$255,000	$424,661	$1,155,593	$234,518	$232,651	$332,961
Arizona	$2,258,625	$260,000	$250,017	$1,281,398	$212,174	$285,000	$1,163,758
Arkansas	$2,673,326	$352,828	$464,177	$1,104,566	$221,498	$278,597	$867,115
California	$6,324,811	$0	$1,043,922	$1,873,958	$0	$314,824	$6,730,544
CA Public Health Institute	$0	$656,153	$0	$0	$231,531	$0	$0
Colorado	$3,824,784	$454,999	$507,359	$1,326,312	$235,018	$243,822	$1,203,442
Connecticut	$1,331,455	$355,000	$252,782	$1,079,069	$222,331	$252,831	$1,402,350
Delaware	$1,126,313	$240,000	$386,912	$669,573	$207,413	$249,158	$181,792
District of Columbia	$522,375	$180,000	$261,917	$531,753	$224,692	$292,109	$740,873
Florida	$4,945,692	$290,236	$694,394	$1,873,958	$213,944	$305,713	$2,940,218
Georgia	$4,190,064	$250,000	$369,150	$1,094,478	$203,427	$250,453	$2,983,439
Hawaii	$1,176,054	$255,000	$328,887	$926,456	$229,673	$259,984	$751,610
Idaho	$1,791,835	$305,000	$330,291	$1,141,438	$235,053	$232,386	$360,505
Illinois	$6,074,130	$200,000	$850,153	$1,180,546	$234,014	$318,881	$2,319,446
Indiana	$2,050,000	$255,000	$312,007	$1,037,550	$222,694	$269,169	$1,636,601
Iowa	$2,763,748	$480,593	$229,862	$1,011,630	$235,933	$228,800	$1,064,859
Kansas	$2,358,323	$353,000	$716,078	$1,245,400	$258,596	$257,020	$911,765
Kentucky	$2,329,409	$0	$681,698	$1,139,397	$231,352	$284,250	$1,301,788
University of Kentucky	$0	$363,817	$0	$0	$0	$0	$0
Louisiana	$0	$0	$202,000	$1,101,612	$214,033	$283,703	$2,797,953
Louisiana State University	$1,569,229	$372,237	$0	$0	$0	$0	$0
Maine	$1,811,194	$490,000	$340,473	$964,561	$227,100	$231,948	$859,434
Maryland	$4,574,320	$250,717	$301,588	$1,205,315	$210,382	$276,696	$1,826,029
Massachusetts	$2,669,019	$697,930	$854,983	$1,558,517	$253,851	$294,906	$2,625,825
Michigan	$9,021,463	$606,800	$947,905	$1,668,030	$251,363	$293,241	$3,824,512
Minnesota	$4,581,042	$424,994	$913,246	$1,199,593	$246,489	$220,000	$2,438,794
Mississippi	$2,134,504	$225,000	$292,533	$1,104,566	$266,592	$284,066	$1,403,587
Missouri	$2,928,131	$210,000	$470,322	$1,156,691	$201,730	$247,008	$2,407,490
Montana	$2,209,628	$275,000	$599,533	$963,235	$231,627	$257,566	$636,129
Nebraska	$2,996,376	$285,000	$271,399	$1,240,942	$231,446	$235,928	$1,597,263
Nevada	$2,529,397	$255,000	$344,405	$857,913	$232,674	$273,183	$382,108

State/Local/ Territory/Tribal Grantee	FY 2009 Actual Breast and Cervical Cancer	FY 2009 Actual National Comprehensive Cancer Control Program	FY 2009 Actual Diabetes Prevention and Control Programs	FY 2009 Actual Tobacco	FY 2009 Actual BRFSS	FY 2009 Actual School Health HIV	FY 2009 Actual Preventive Health & Health Services Block Grant
New Hampshire	$1,587,002	$255,000	$294,478	$1,041,719	$248,544	$232,683	$1,368,516
New Jersey	$2,911,333	$481,000	$478,533	$1,274,833	$226,914	$289,526	$2,803,799
New Mexico	$3,402,451	$260,000	$433,792	$1,141,221	$232,674	$282,800	$1,348,302
New York	$8,303,092	$584,979	$986,305	$1,873,958	$225,561	$335,000	$6,676,150
North Carolina	$3,300,000	$633,583	$887,207	$1,672,280	$271,732	$331,233	$2,657,285
North Dakota	$1,456,233	$255,000	$244,261	$1,155,818	$196,443	$235,000	$247,175
Ohio	$4,174,478	$425,000	$734,631	$1,367,009	$225,561	$221,427	$4,384,228
Oklahoma	$1,652,112	$250,000	$244,892	$1,326,840	$226,270	$249,940	$914,484
Oregon	$2,311,302	$463,332	$797,756	$1,094,341	$238,813	$255,234	$706,960
Pennsylvania	$2,444,800	$643,000	$522,169	$1,289,693	$207,547	$304,750	$4,620,272
Rhode Island	1,558,309	$392,246	$758,986	$1,152,248	$206,288	$294,471	$458,783
South Carolina	$3,266,027	$270,000	$666,163	$1,217,810	$234,827	$316,261	$1,194,141
South Dakota	$811,951	$253,345	$257,525	$963,055	$204,823	$270,000	$226,162
Tennessee	$1,210,409	$260,000	$268,653	$1,281,398	$198,151	$289,592	$1,580,945
Texas	$6,647,689	$495,841	$976,813	$1,873,958	$237,452	$331,514	$3,990,969
Utah	$2,125,681	$505,000	$888,327	$1,215,563	$227,691	$0	$928,737
Vermont	$1,113,633	$255,000	$242,247	$1,140,226	$203,026	$244,541	$263,811
Virginia	$2,509,833	$245,000	$372,906	$1,067,226	$210,885	$233,000	$1,981,709
Washington	$4,432,039	$589,700	$974,690	$1,411,385	$235,456	$224,993	$994,706
West Virginia	$4,208,220	$351,474	$916,152	$1,170,999	$209,365	$262,162	$865,960
Wisconsin	$3,352,145	$260,000	$852,883	$1,191,137	$201,810	$289,893	$1,896,411
Wyoming	$662,926	$255,000	$259,503	$1,037,398	$226,969	$223,792	$219,409
Indian Tribes	$7,519,804	$1,645,350	$0	$0	$0	$105,000	$56,651
Baltimore City	$0	$0	$0	$0	$0	$287,993	$0
Broward County, FL	$0	$0	$0	$0	$0	$306,992	$0
Chicago	$0	$0	$0	$0	$0	$339,997	$0
Detroit	$0	$0	$0	$0	$0	$268,959	$0
Houston	$0	$0	$0	$0	$0	$323,856	$0
Los Angeles	$0	$0	$0	$0	$0	$389,544	$0
Memphis City	$0	$0	$0	$0	$0	$284,349	$0
Miami-Dade County, FL	$0	$0	$0	$0	$0	$337,792	$0
New York City	$0	$0	$0	$0	$0	$399,000	$0
Newark, NJ	$0	$0	$0	$0	$0	$250,000	$0
Orange County, FL	$0	$0	$0	$0	$0	$285,433	$0

State/Local/ Territory/Tribal Grantee	FY 2009 Actual Breast and Cervical Cancer	FY 2009 Actual National Comprehensive Cancer Control Program	FY 2009 Actual Diabetes Prevention and Control Programs	FY 2009 Actual Tobacco	FY 2009 Actual BRFSS	FY 2009 Actual School Health HIV	FY 2009 Actual Preventive Health & Health Services Block Grant
Palm Beach County, FL	$0	$0	$0	$0	$0	$283,509	$0
Philadelphia	$0	$0	$0	$0	$0	$288,719	$0
San Diego	$0	$0	$0	$0	$0	$289,226	$0
San Francisco	$0	$0	$0	$0	$0	$272,676	$0
Seattle Public Schools	$0	$0	$0	$0	$0	$289,457	$0
American Samoa	$233,558	$210,000	$58,378	$139,305	$0	$100,998	$51,057
Guam	$355,578	$200,000	$200,000	$206,570	$117,639	$101,800	$210,642
Marshall Islands	$0	$149,646	$86,301	$0	$0	$100,000	$25,477
Micronesia	$0	$475,000	$144,200	$211,403	$0	$0	$62,042
Northern Mariana Islands	$351,541	$200,000	$72,478	$148,650	$0	$102,500	$38,940
Palau	$561,725	$195,000	$73,754	$131,470	$0	$95,000	$20,266
Puerto Rico	$0	$198,000	$238,953	$924,529	$206,259	$38,856	$1,515,121
University of Puerto Rico	$341,618	$0	$0	$0	$0	$0	$0
Virgin Islands	$0	$0	$202,000	$156,990	$188,822	$0	$166,570
Total	**$$159,825,794**	**$21,640,401**	**$27,434,043**	**$63,900,000**	**$12,087,905**	**$19,180,656**	**$91,651,300**

ENHANCING THE POTENTIAL FOR FULL AND PRODUCTIVE LIVING

The health and economic impact of infant and child health issues, bleeding disorders, and disabilities compels CDC to prioritize the promotion of health and well-being across the life-course. Recent estimates suggest that health care expenditures associated with disability were $397.8 billion for 2006 alone, representing over a quarter of adult heath care spending for that year.[26] CDC works to prevent birth defects, improve understanding of developmental disabilities, and promote the health of people with disabilities through surveillance, population-based epidemiology, and prevention efforts.

EPIDEMIOLOGY

Among women who may become pregnant, 69 percent do not take folic acid supplements, and during pregnancy, 11 percent smoke and about 10 percent consume alcohol. These behaviors contribute to poor birth outcomes in the United States where three percent of infants are born with major birth defects, the leading cause of infant mortality. Today, however, many children with birth defects are living longer and into adulthood. Over their lives they may face challenges to maximizing their health, development, and full participation in society. Overall, as children and adolescents mature into adulthood, the number reporting disabilities increases. In 2005, 22 percent of American adults, about 53 million individuals, reported having a disability.

Developmental disabilities affect approximately 13 percent of U.S. children, and can influence language, mobility, and learning. The most common developmental disabilities in the United States are intellectual disabilities, autism, and cerebral palsy. Children do not outgrow these conditions, and may require life-long support.

Bleeding disorders are also significant public health issues that can lead to ongoing health problems and functional limitations. For instance, some studies estimate that as many as two million women suffer from an undiagnosed bleeding disorder. It is estimated that 60 percent of these women, if properly diagnosed, could be treated non-invasively and avoid unnecessary surgical procedures, like hysterectomies.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

While birth defects, developmental disabilities, blood disorders, and disabilities are cross-cutting in our society, certain groups are disproportionately affected. Data from the 2000 U.S. Census indicated that 33 percent of Americans with disabilities were from racial or ethnic minority groups, though these groups comprised only 25 percent of the population. This disparity is compounded by the fact that people with disabilities in general have higher rates of disease, fewer treatment options, more unhealthy behaviors, and less access to quality medical services and health promotion programs than do persons without disabilities.

EVIDENCE-BASED INTERVENTIONS

Effective measures exist to alleviate the health and economic burdens of these conditions. CDC supports states and localities, academic institutions, and other partners to develop best practices and evidence-based priorities. CDC also conducts evaluation and surveillance to collect high-quality data that can inform our efforts to improve health. Noted below are selected examples of best practices supported by CDC.

- MD STARnet is a research network developed to identify those with Duchenne or Becker muscular dystrophy (DBMD) born after 1981 in five locations in the country. The goals of the project are to estimate DBMD national prevalence and gather medical information to identify treatment options.

[26] Anderson, W. L., Armour, B. S., Finkelstein, E. A., & Wiener, J. M. (2010). Estimates of state-level health-care expenditures associated with disability. Public Health Reports, 125(1), 44-51.

- In collaboration with the Iowa and Georgia Public Health Departments, CDC is conducting enhanced surveillance of stillbirths, building on existing birth defects surveillance infrastructures. CDC has published information on the challenges and priorities for stillbirth surveillance to guide future activities.
- CDC entered into an interagency agreement with the National Heart Lung and Blood Institute (NHLBI) to support the Registry and Surveillance System in Hemoglobinopathies (RuSH) project, which is a state-based data system, registry, and biospecimen repository that will provide data to describe the epidemiologic and clinical characteristics of people with hemoglobinopathies.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Birth Defects, Developmental Disabilities, Disability and Health	**$138,022**	**$0**	**$143,368**	**$143,539**	+$171
Birth Defects and Developmental Disabilities	$62,459	$0	$64,697	$65,442	+$745
Birth Defects	$21,123	$0	$21,342	$20,819	-$523
Craniofacial Malformation (non-add)	$1,750	$0	$1,878	$1,882	+$4
Fetal Death (non-add)	$844	$0	$846	$848	+$2
Alveolar Capillary Dysplasia (non-add)	$246	$0	$247	$0	-$247
Fetal Alcohol Syndrome	$10,112	$0	$10,140	$9,990	-$150
Folic Acid	$2,818	$0	$3,126	$3,110	-$16
Infant Health	$8,006	$0	$8,028	$7,696	-$332
Autism	$20,400	$0	$22,061	$23,827	+$1,766
Human Development and Disability	$55,706	$0	$58,759	$57,854	-$905
Disability and Health (includes Child Development Studies)	$13,572	$0	$13,611	$13,361	-$250
Charcot Marie Tooth Disorders	$0	$0	$1,000	$1,002	+$2
Limb Loss	$2,898	$0	$2,906	$2,908	+$2
Tourette Syndrome	$1,744	$0	$1,749	$1,749	$0
Early Hearing Detection and Intervention	$10,858	$0	$10,888	$10,689	-$199
Muscular Dystrophy	$6,274	$0	$6,291	$6,021	-$270
Special Olympics Healthy Athletes	$5,519	$0	$5,534	$5,545	+$11
Paralysis Resource Center (Christopher Reeve)	$5,727	$0	$6,882	$6,886	+$4
Attention Deficit Hyperactivity Disorder	$1,746	$0	$1,751	$1,755	+$4
Fragile X	$1,900	$0	$1,905	$1,909	+$4
Spina Bifida	$5,468	$0	$6,242	$6,029	-$213
Public Health Approach to Blood Disorders	$0	$0	$0	$20,243	+$20,243
Blood Disorders	$19,857	$0	$19,912	$0	-$19,912
Hemophilia	$17,155	$0	$17,203	$0	-$17,203
Thallasemia	$1,860	$0	$1,865	$0	-$1,865
Diamond Blackfan Anemia	$516	$0	$517	$0	-$517
Hemachromatosis	$326	$0	$327	$0	-$327

BIRTH DEFECTS, DEVELOPMENTAL DISABILITIES, DISABILITY AND HEALTH

SUMMARY OF THE REQUEST

CDC requests $143,539,000 for birth defects, developmental disabilities, and disability and health in FY 2011, an increase of $171,000 above the FY 2010 Omnibus. FY 2011 funds will support CDC's work to prevent birth defects and other disabilities, minimize the health impact of birth defects and developmental disabilities, and promote health among all people with disabilities.

The FY 2011 budget request for birth defects, developmental disabilities, and disability and health will support the major activities noted below.

- CDC requests $65,442,000 for birth defects and developmental disabilities in FY 2011, an increase of $745,000 above the FY 2010 Omnibus.
  - The request for birth defects and developmental disabilities includes an increase of $1,766,000 for Autism.
- CDC requests $57,854,000 for human development and disability in FY 2011, a decrease of $905,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information).
  - CDC's request includes a request of $1,002,000 for Charcot Marie Tooth Disorders and $1,749,000 for Tourette Syndrome.
- CDC requests $20,243,000 for a program realignment in FY 2011 that focuses a public health approach to blood disorders.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Budget Authority	$138,022	$0	$143,368	$143,539	+$171
PHS Evaluation Transfers	$0	$0	$0	$0	$0
Total	$138,022	$0	$143,368	$143,539	+$171
FTEs	186	0	187	181	-6

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 317C, 317J, 327, 352, 399G, 399H-J, 399M, 399Q, 1102, 1108
PHSA Title IV
FY 2010 Authorization……Expired/Indefinite

Allocation Method.……...……..Direct Federal/Intramural; Competitive Grants, Cooperative Agreements and Contracts

PROGRAM DESCRIPTION

Fifty-four million people in the United States have a birth defect or disability and the number is rising. CDC has established monitoring and research programs that serve as models for state and local public health departments. CDC coordinates epidemiologic research efforts and provides technical assistance to states on surveillance for birth defects and developmental disabilities. CDC's birth defects and disability prevention activities are conducted in three priority areas: 1) assure child health, 2) improve health of those with a disability, and 3) public health approach to blood disorders.

MECHANISMS AND FUNDING HISTORY TABLE

Ten percent of birth defects, developmental disabilities, and disability and health funds are administered through cooperative agreements with 49 states as well as contracts with NGOs and CBOs. An additional 46 percent of CDC's birth defects and prevention funds are allocated through 139 cooperative agreements with academic research centers, hospitals, and other non-profit organizations. CDC estimates that 44 percent of birth defects and disabilities funding is spent on intramural research, surveillance, personnel, and programmatic costs.

Fiscal Year	Amount
FY 2006	$124,451,000
FY 2007	$122,242,000
FY 2008	$127,366,000
FY 2009	$138,022,000
FY 2010	$143,368,000

Budget Request: Assure Child Health

CDC works to assure child health through a range of activities that address maternal, infant, and child health. Preparation for a healthy life starts before birth, and the health of the expectant mother impacts her child's later health and life outcomes. Research shows that experiences in the earliest years of life play a critical role in a child's ability to grow up healthy and ready to learn.

Good nutrition, healthy pregnancy, safe and nurturing parental relationships, and early intervention boost a child's health and development. FY 2011 funds will support CDC's work to assure child health through the following activities: 1) promote preconception health among women of childbearing age; 2) research and monitor birth defects and developmental disabilities; and, 3) promote early identification and intervention.

The FY 2011 request supports the President's goal to expand support for children, families and communities affected by autism spectrum disorders. CDC's FY 2011 request includes a $1.8 million increase for Autism. The increase will be used to support the education and awareness campaign, "Learn the Signs. Act Early," and to expand monitoring and surveillance. Additional information about CDC's Autism activities is located in the following sections: Research and Monitor Birth Defects and Developmental Disabilities, and Promote Early Identification and Intervention.

Promote Preconception Health

In FY 2011, CDC will continue to support activities that promote preconception care. While not all birth defects and developmental disabilities are preventable, certain high-risk maternal behaviors reduce the chances of having a healthy baby. Two high-risk behaviors—inadequate consumption of folic acid and alcohol use during pregnancy—can lead to spina bifida and fetal alcohol syndrome (FAS), respectively. Evidence indicates that reducing these two high-risk maternal behaviors through work to promote preconception health can effectively decrease preventable birth defects. CDC will work to target folic acid consumption and maternal alcohol use during pregnancy through the activities noted below.

- By September 2011, CDC will issue recommendations on corn masa flour fortification and/or the concentration of folic acid in wheat flour fortification.
- CDC will expand a targeted health education program to promote folic acid consumption in predominantly Hispanic communities to encourage preconception folic acid supplementation among Hispanic women of childbearing age.
- In FY 2011, CDC will implement the Atlanta FAS Surveillance Pilot Project in five Atlanta counties to collect population-based information on the occurrence of FAS and determine the feasibility of collecting these data using existing surveillance infrastructure.

- CDC will fund four states to conduct population-based surveillance of FAS to develop the preliminary population-based prevalence estimates of FAS.

Rationale and Recent Accomplishments: Despite the 26 percent reduction in spina bifida and anencephaly that has occurred since fortification of the cereal grain supply with folic acid in 1998, Hispanic Americans continue to have a higher prevalence of neural tube defects (NTDs). A comprehensive review by "The Community Guide" recommends both fortification of food products and community-wide campaigns to increase folic acid supplement use as effective interventions to reduce the number of pregnancies affected by neural tube defects. CDC's work in preconception health targets this disparity in total folic acid intake, particularly among newly immigrant populations, where the NTD risk is highest. Recent CDC accomplishments in assuring child health include the following activities discussed below.

- In 2009, CDC conducted an analysis, which suggests that fortification would effectively target Mexican American women without substantially increasing folic acid intake among other populations.
- In 2009, CDC released a preliminary analysis that estimates the number of NTDs that may be averted with additional fortification of corn masa flour.

Prenatal alcohol exposure is a leading preventable cause of birth defects and developmental disabilities. In the United States, approximately 12 percent of pregnant women report alcohol use and two percent report binge drinking in the past 30 days. This percentage translates to approximately 480,000 alcohol-exposed pregnancies, roughly 80,000 of which are exposed to binge drinking. Selected information on CDC's recent accomplishments to reduce the number of alcohol-exposed pregnancies is noted below.

- CDC established baseline rates of screening and intervention practices among key healthcare providers, in order to identify women at risk of alcohol-exposed pregnancies.
- CDC implemented the Atlanta FAS Surveillance Pilot Project in five Atlanta counties. As a result, progress was made on developing methodologies to more accurately estimate the prevalence of FAS.

Health Impact: CDC anticipates that the FY 2011 preconception care activities will result in: 1) 0.1 percent decrease in the birth prevalence of folic acid-preventable spina bifida and anencephaly among Hispanics, and 2) 0.5 percent increase in provider-based screening and intervention for FAS among at-risk women of childbearing age. Based on previous fortification efforts, it is anticipated that a 0.1 percent decrease in the birth prevalence of folic acid-preventable spina bifida and anencephaly among Hispanics will result in a decrease in spina-bifida affected births among Hispanic women. *(Please see output 6.C and outcomes 6.1.3-6.1.4 for specific information.)*

Research and Monitor Birth Defects and Developmental Disabilities

Every four and a half minutes a baby is born with a birth defect in the United States, yet the major causes of most birth defects and developmental disabilities remain unknown. With nearly 70 percent of birth defects having unknown causes, CDC uses epidemiologic research to identify risk factors (e.g. genetic, environmental, medical) that contribute to birth defects and developmental disabilities. In FY 2011, funding will support the research and monitoring of birth defects and developmental disabilities as noted below.

- CDC will collect data from eight National Birth Defects Prevention Study (NBDPS) sites on priority birth defects for which there is no currently-known cause and conduct analyses of maternal exposures such as medications used during pregnancy for maternal conditions and occupational exposures.
- CDC will support expedited analyses in the Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) and analysis of biologic and genetic samples in order to research the of causes of autism.

- CDC will complete data collection on 2,500 families for the Study to Explore Early Development (SEED) in the six Centers for Autism and Developmental Disabilities Research and Epidemiology. CDC anticipates the release of SEED data analysis in FY 2012. SEED, the largest study of its kind, will explore a number of priority hypotheses, such as the role of infections and genetic, reproductive, and hormonal factors in Autism Spectrum Disorders (ASD) etiology. The study to help CDC learn more about the characteristics of children with ASDs, factors associated with developmental delays, and how genes and the environment may affect child development.
- CDC will expand the Autism and Developmental Disabilities Monitoring (ADDM) network to 17 sites. This expansion will increase the accuracy of population-based estimates of developmental disabilities as well as increase CDC's ability to monitor the occurrence of developmental disabilities in certain segments of the population. For example, the expansion will allow CDC to more effectively monitor younger children in order to improve ascertainment of autism spectrum disorders at younger ages. Additionally, the site expansion will allow CDC to more effectively monitor other developmental disabilities, such as cerebral palsy.

Rationale and Recent Accomplishments: CDC's birth defects and developmental disabilities monitoring provides reliable, population-based estimates of the number of infants affected by birth defects and school-aged children with developmental disabilities. These estimates are used to track the progress of intervention efforts and to plan for health and educational services. Recently, funds supported a range of successful research and monitoring activities, several of which are noted below.

- In 2009, CDC released the first-ever population-based prevalence estimates for cerebral palsy (surveillance years 2002 and 2004). These estimates will serve as meaningful baselines for understanding cerebral palsy prevalence in the future.
- CDC worked to inform health care providers about the risk of certain birth defects through the dissemination of more than 10 reports from the NBDPS on risk factors for birth defects, such as maternal smoking, obesity, and antidepressant use during pregnancy.
- In 2009, CDC restored three ADDM sites bringing the total number of ADDM sites from 11 to 14. As a result of the site restoration, CDC will be able to evaluate trends over time, across multiple geographic regions of the United States.
- In 2009, CDC released Autism prevalence data for surveillance years 2004 and 2006. These data provide key information on the prevalence of Autism Spectrum Disorders (ASDs) in the U.S. and trends over time.

Health Impact: CDC anticipates that FY 2011 birth defects and developmental disabilities activities will: 1) improve the quality and usability of birth defects monitoring data and 2) increase knowledge of the role of modifiable risk factors for birth defects and a statistically powerful data sample for developmental disabilities research. With the increase in the number of ADDM sites CDC will be available to monitor other developmental disabilities, such as cerebral palsy and that monitor younger children, in order to improve ascertainment of autism spectrum disorders at younger ages. FY 2011 funds will support expedited analyses in the Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) and analysis of biologic and genetic samples in order to determine the of causes of autism. (*Please see outputs 6.B, and 6.D-6.E and objectives 6.1.1- 6.1.2 for specific information.)*

Promote Early Identification and Intervention

In FY 2011 CDC will work to promote early identification and intervention for birth defects and developmental disabilities. The early years of a child's life are crucial for cognitive, social, and emotional development. Children who grow up in environments where their developmental needs are not met are at an increased risk for compromised health, safety, learning and developmental delays. Early detection of developmental issues and appropriate intervention can significantly improve health outcomes in children.

CDC works to maximize all children's potential through: 1) early identification and interventions for children at-risk for developmental problems; 2) implementation of newborn screening to identify children with hearing loss and selected metabolic and genetic disorders; and, 3) awareness and identification of disabilities. Key activities to promote early identification and intervention are described below.

- CDC will continue "Learn the Signs. Act Early," a campaign aimed at increasing awareness of childhood developmental milestones, warning signs of autism and other developmental disabilities, and the importance of early action and intervention on developmental concerns.
- To address the 12,000 babies anticipated to be born with hearing loss in FY 2011, CDC will support state and territory public health departments and universities for the development and implementation of state and territory Early Hearing Detection and Intervention (EHDI) programs and surveillance systems. While the cause of hearing loss for many babies is unknown, and the EDHI program detects hearing loss early so that infants and children with hearing loss are found and receive help (e.g., intervention) as soon as possible.
- The FY 2011 request includes a program elimination of $249,000 for Alveolar Capillary Dysplasia. CDC is gradually implementing a population-based comprehensive approach to address this condition rather than a disorder-specific approach.

Rationale and Recent Accomplishments: Recent studies have estimated that the lifetime cost to care for an individual with an Autism Spectrum Disorder is $3.2 million. In the U.S. 13 percent of children have a developmental disability such as autism, mental retardation or AD/HD. However, less than 50 percent are identified before entering school, by which time significant time delays may have occurred and opportunities for treatment have been missed. CDC has promoted early identification and screening through activities noted below.

- Through the "Learn the Signs. Act Early." campaign, CDC supported the distribution of 171,000 resource kits to more than five million health care professionals, 46 million parents, and 140,000 child care providers. Pediatricians exposed to the campaign are more likely to believe that autism can be diagnosed as early as age 18 months and less likely to encourage a parent to "wait and see" if a developmental concern improves on its own. The campaign is reaching its goal of encouraging target audiences to "Learn the Signs." For example, about one out of two pediatricians and one out of four parents are aware of the campaign. CDC and its partners have distributed more than 203,000 resource kits for parents, health care professionals, child care providers and other early educators.
- Approximately 94 percent of U.S. births in 2007 were screened for hearing loss leading to the detection of approximately 67,659 children who did not pass their screening. Of those not passing, 4,016 were documented to have moderate to profound bilateral hearing loss.
- CDC funded 46 states/territories to develop or enhance a sustainable state-based EHDI tracking and surveillance system and to integrate the EHDI system with other state/territorial screening, tracking, and surveillance programs that identify children with special healthcare needs.

Health Impact: CDC's FY 2011 activities will help ensure that 95 percent of all infants are screened for hearing loss by on month of age. As a result of the "Learn the Signs. Act Early." campaign's education efforts to include allied health professionals and neonatal nurses. *(Please see outcome 6.2.3 for specific information.)*

Budget Request: Improve the Health of People with Disabilities

People with disabilities need health care and health programs to stay well, active, and part of the community. CDC works to increase participation and inclusion of people with disabilities in public health efforts as well as in everyday aspects of life. To accomplish this CDC conducts research on risk factors and measures of health, functioning, and disability and supports States to develop program infrastructure to promote the health

of all individuals with a disability. In FY 2011 funds will be used to improve the health of people with disabilities through the activities noted below.

- In order to ensure that individuals with disabilities are included in state disease prevention, health promotion, and emergency response activities. CDC will fund 16 state disability and health programs. These programs work to ensure that individuals with disabilities are included in state disease prevention, health promotion, and emergency response activities.
- CDC will develop and maintain a health surveillance repository with state specific information on key health indicators (such as obesity and use of preventive services) for people with disabilities. This repository will provide 50 states, DC, and three territories with timely data on comparable health status of people with and without disabilities at the state level on approximately 60 health outcomes.
- Three university projects will be funded by CDC to develop evidence-based health promotion interventions to improve health, and reduce health disparities and secondary conditions among people with disabilities. CDC funded research will address knowledge gaps in promoting health of people with disabilities in areas such as violence against people with disabilities, transition issues from childhood to adult in education and racial and ethnic disparities among people with disabilities.
- In order to address rare disorders (e.g., Duchenne/Becker muscular dystrophy, Fragile X, spina bifida), CDC will fund twenty-five programs. Specific projects will include implementing patient registries to gather clinical data to help depict disease progression, secondary conditions, and health care needs of this population.

Rationale and Recent Accomplishments: People with disabilities experience substantial health disparities compared to people without disabilities. These individuals report higher rates of poor or fair health than those without disabilities; and are more likely to smoke, be obese, and have higher risk of infections. To address these concerns CDC accomplished the following activities noted below.

- Sixteen state-based health programs were funded (at an average award amount of $280,000) to promote the health of people with disabilities and include people with disabilities in disease prevention and emergency response activities. By working with states, CDC will impact the health and quality of life among people with disabilities including reducing the occurrence of complications and chronic diseases in those with disabilities.
- CDC supported nine university projects (at an average award amount of $325,000) to assess emergency preparedness and develop evidence-based health promotion interventions to improve health, reduce health disparities, and prevent secondary conditions among people with disabilities. Recent research findings have highlighted a variety of diverse topics, including assessing the experience of Hurricanes Katrina and Rita on people with disabilities and chronic conditions. Findings indicated significant service disruption and psychological impact including social issues and separation from family.
- CDC funds supported comprehensive health screenings for 22,127 athletes at various Special Olympics events worldwide. Significant findings provided for athletes to receive care in their home communities.
- CDC developed a campaign, “Right to Know,” to promote breast cancer screening for women with physical disabilities. The percentage of women with a disability, aged 40 years or older, who received a mammogram in the last two years has reached 70 percent, the national goal established in Healthy People 2010.

Health Impact: By working with states and academic partners, CDC can impact the health and quality of life among people with disabilities including reducing the occurrence of complications and chronic diseases in those with disabilities. CDC funded research will address knowledge gaps in promoting health of people with

disabilities in areas such as violence against people with disabilities, transition issues from childhood to adult in education and racial and ethnic disparities among people with disabilities (*Please see outputs 6.G, 6.I and outcome 6.2.4 for specific information*).

Budget Request: Public Health Approach to Blood Disorders

CDC's FY 2011 request includes a proposal to realign CDC's Blood Disorders program to address the critical public health challenges associated with blood disorders and related secondary conditions. This realignment will allow CDC to focus its activities on population-based, public health programs targeting the blood disorders with the greatest risk of morbidity and mortality. CDC will utilize a comprehensive and coordinated public health agenda, which includes surveillance and epidemiologic research, laboratory investigation, and prevention research and awareness. FY 2011 resources will support a portfolio of activities that include work to improve access and application of scientific information about blood disorders, increase collaboration between members within the blood disorders and birth defects communities and advance science through surveillance and its application to public health efforts and resource allocation.

This proposed realignment supports initial, ongoing CDC efforts to shift the focus of this program away from its traditional clinical orientation and towards a population-based public health model. This realignment permits CDC to build on its initial steps toward a population-based public health model including:

- Epidemiological Research/Surveillance: Development of a population-based surveillance plan for deep vein thrombosis/pulmonary embolism (DVT/PE) to determine prevalence and burden and the basis for research on risk factors for DVT/PE and effectiveness of prevention efforts.
- Laboratory Investigation: Continued monitoring of blood product safety including a study of inhibitors (antibodies to blood products) which are the number one blood safety issue for these hemophilia patients and result in poor quality of life, increased mortality, and high costs for intensive medical care.
- Prevention Research and Awareness: Continuation of CDC's efforts to develop a national public health framework for the prevention of birth defects and complications from blood disorders.

Rationale and Recent Accomplishments: Millions of Americans have inherited disorders or acquired conditions of the blood that result in adverse health outcomes. In addition to affecting other organs, these conditions may also serve as risk factors for other diseases and, as a consequence, result in an underestimate of the real blood disorder burden to individuals, families, and communities.

Health Impact: FY 2011 funds will support activities that will increase the number of people with blood disorders who participate in the blood safety monitoring system, ensure better population-based estimates for risk factors, and secondary conditions associated with these disorders and prevention research and awareness through the continued development of a public health framework for addressing the prevention of blood disorders and their complications. FY2011 funds will also support the establishment of basic surveillance systems for women at risk for bleeding disorders, DVT/PE, and emerging chronic health conditions associated among hemophilia patients. These basic surveillance systems are critical to accurately establish the burden and prevalence of these diseases, prioritizing research on associated risk factors, and measuring the effectiveness of future prevention efforts (*Please see outputs 6.I and 6.J for specific information*).

IT INVESTMENTS

CDC Centers for Autism: This is an extramural Cooperative Agreement with Michigan State University to develop and maintain various data capture systems for the Study to Explore Early Development (SEED), a multi site case-cohort study that aims to gain information as to the natural history and causes of autism. The Data Coordinating Center at Michigan State also maintains all of the electronic data entered for this study and will produce analytic datasets for study researchers and eventually for the public. It supports the program goal and Congressional mandate for NCBDDD to conduct autism research. CDC PH Monitoring for Birth

Defects, Development Disabilities, Disabilities and Health: This investment is a rollup of several information technology systems for Capital Planning and Investment Control purposes.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Efficiency Measure 6.E.2				
6.E.2: Increase the percentage of cost savings for CCHP as a result of the Public Health Integrated Business Services HPO. (*Efficiency)*	FY 2008: 65.0% (*Exceeded*)	38.0%	39.0%	+1.0%
Long Term Objective 6.1: Prevent birth defects and developmental disabilities.				
6.1.3: Reduce health disparities in the occurrence of folic acid-preventable spina bifida and anencephaly by reducing the birth prevalence of these conditions among Hispanics. (*Outcome*)	FY 2007: 5.7/10,000 (*Not Met*)	4.6	4.5	-0.1
6.1.4: Increase the percentage of health providers who screen women of childbearing age for risk of an alcohol-exposed pregnancy and provide appropriate, evidence-based interventions for those at risk. (*Outcome*)	FY 2009: Yes (*Met*)	Increase provider-based screening and intervention by 2% from baseline	Increase provider-based screening and intervention by 2.5% from baseline.	+0.5%
6.1.5: Improve the quality and usability of birth defects surveillance data. *(Outcome)*	FY 2008: Complete a collaborative multi-state study on the association of birth defects with preterm delivery. Evaluate the association of maternal diabetes and birth defects using a multi-site case control study based on surveillance data. (*Both Met*)	Estimate the prevalence of spina bifida by race and sex among children and adolescents in 10 regions of the U.S. Publish results of collaborative research projects on clubfoot and pyloric stenosis.	Disseminate guidelines for incorporating surveillance of stillbirth into birth defects monitoring systems. Evaluate the feasibility of conducting population-based surveillance for fetal alcohol syndrome.	N/A
Long Term Objective 6.2: Improve the health and quality of life of Americans with disabilities.				
6.2.1: Increase the number of people with blood disorders who participate in the monitoring system by 10% (*Outcome*)	FY 2009: 25,104 (*Exceeded*)	25,607	26,119	+512

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
6.2.2: Identify an effective public health intervention to ameliorate the effects of poverty on the health and well-being of children. (*Outcome*)	FY 2009: Yes (*Met*)	Data collection and analysis for age 5 year	Data collection and analysis for age 5 year	Maintain
6.2.3: Ensure that 95% of all infants are screened for hearing loss by 1 month of age. (*Outcome*)	FY 2006: 92% (*Exceeded*)	95%	95%	Maintain
6.2.4: Increase the mean lifespan of patients with Duchenne and Becker Muscular Dystrophy (DBMD) and carriers by 10% as measured by the Muscular Dystrophy Surveillance, Tracking and Research Network. (*Outcome*)	FY 2008: Yes (*Met*)	Increase the percentage of patients with DBMD who have access to treatments based on national standards of care to 80% as measured by MD STARnet and national or nationally representative data collection methods	Increase the percentage of patients with DBMD who have access to treatments based on national standards of care to 80% as measured by MD STARnet and national or nationally representative data collection methods	Maintain
6.2.5: Reduce the number of infants not passing the hearing screening that are lost to follow up. *(Outcome)*	FY 2007: 44.8%	37%	33%	- 4%

OUTPUT TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 6.1: Prevent birth defects and developmental disabilities.				
6.1.2: Identify and evaluate the role of at least five new factors for birth defects and developmental disabilities. (*Output*)	FY 2009: No (*Not Met*)	Establish large statistically powerful sample for developmental disabilities research	Complete data collection for developmental disabilities research sample	N/A

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
6.A: Number of state-based birth defects surveillance programs	FY 2009: 15	15	14	-1
6.B: Number of Centers for Birth Defects Research and Prevention	FY 2009: 8	8	8	Maintain
6.C: Number of model state-based FASD surveillance systems and regional training centers	FY 2009: 8	4	4	Maintain
6.D: Number of states participating in monitoring for Autism and other Developmental Disabilities (ADDM)	FY 2009: 14	14	17	+3
6.E: Number of states participating in research for Autism and other Developmental Disabilities	FY 2009: 6	6	6	Maintain
6.F: State Tracking/Research projects on Early Hearing Detection and Intervention	FY 2009: 53	46	46	Maintain
6.G: Disability and Health State Programs	FY 2009: 16	16	16	Maintain
6.H: Programs addressing disabling single gene disorders (Fragile X, Muscular Dystrophy)	FY 2009: 19	25	25	Maintain
6.I: Increase by 10% the number of people with blood disorders who participate in the blood safety monitoring system, UDC	FY 2009: 4,350	4,785	5,264	+479
6.J: Establish a pilot surveillance system for DVT/PE in 3-5 sites.	N/A	N/A	≤ 5	+≤ 5

ENSURING QUALITY HEALTH STATISTICS

Reliable, high-quality, and comprehensive data provide the foundation on which to build effective public health programs and are crucial to our Nation's efforts at health reform. Good data are essential for assessing the prevalence and burden of disease, comparing the effectiveness of interventions used to combat disease, developing programs to improve the public's health, and tracking the progress of our efforts. CDC's National Center for Health Statistics (NCHS) is the nation's principal health statistics agency charged with conducting and supporting statistical and epidemiological activities to improve the effectiveness, efficiency, and quality of health and health services in the United States.

CDC provides the core data used by health practitioners and researchers in the public and private sectors, including epidemiologists, biomedical and health services researchers, businesses, public health professionals, physicians, media and advocacy groups, actuaries, and other government agencies. This health data provides the information needed to document the health status of the U.S. population and selected subgroups; monitor trends in health status and health care delivery; identify health behaviors and associated risk factors; identify disparities in health status among various populations; and evaluate the impact and effectiveness of health policies and programs, including associated costs of these programs. This information is essential for policymakers at the national, state and local level to help guide health policy decisions.

EPIDEMIOLOGY

CDC's vital statistics data reliably track the most fundamental indicator of the health of a nation, infant mortality. For example, data published in 2005 comparing U.S. infant mortality rates with those of Europe, show the U.S. ranked 30th globally in infant mortality. The main cause of the high U.S. infant mortality rate when compared to European countries is the high percentage of preterm births. One in eight births in the United States were preterm (less than 37 weeks of gestation) compared to 1 in 18 births in Ireland and Finland, the two countries with the lowest number of preterm births. The fundamental data help to inform policy and decision-makers about the status of our nation's health as well as to identify opportunities for improvement.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

Although usually associated with various racial and ethnic groups, health disparities also affect the uninsured and those on Medicaid, those living in underserved areas, those with special health care needs, children, women, and the elderly. CDC data led to the identification of health disparities as a major health problem by revealing a history of documented disparities in life expectancy, infant mortality, the use of health care services, a variety of risk factors, health insurance coverage, and access to care. For example, CDC data are useful in identifying disparities in health care access and unmet medical needs by insurance status and type of health insurance among insured persons. In 2008, among persons under age 65, seven percent with private insurance had an unmet medical need compared with 31 percent of persons who were uninsured. Among persons under age 65 with private insurance, five percent of persons in traditional health plans had an unmet medical need compared with 11 percent of persons in high deductible health plans.

Through its Healthy People 2010 initiative, the Department of Health and Human Services (HHS) is seeking to eliminate disparities in health care. Every major health report and initiative on racial and ethnic disparities draws heavily on data from CDC, including the annual National Healthcare Disparities Report prepared by the Agency for Healthcare Research and Quality, which provides an overview of racial, ethnic, and socioeconomic disparities in health care.

ECONOMIC ANALYSIS

Data are needed to establish the economic burden of diseases and their associated risk factors, as well as to provide estimates for the cost of a variety of health care services. For example, data from the National Nursing Home Survey has been used to estimate increases in the price of nursing home care. For private payers, annual prices are estimated to have grown by 7.5 percent annually between 1977 and 2004. Prices

paid by Medicaid for nursing home care grew by 6.7 percent annually between 1979 and 2004. Both of these increases are greater than price increases for medical care and for other goods and services (with annual increases of 6.6 percent and 4.4 percent respectively between 1977 and 2004).

In addition, data from the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey have been used to estimate the costs of treatment of many different medical conditions. Recent examples include the cost of treating endometriosis, autism in children, actinic keratosis, gastrointestinal and liver diseases, and urinary tract infections.

The health survey data provided by CDC help to evaluate the impact of clinical and preventive services and research and prevention activities.

EVIDENCE-BASED INTERVENTIONS

Quality data is essential for any public health program to identify health and health-care problems that will be the subject of interventions, as well as to assess the possible effects of interventions, once they have been implemented. For example, CDC data on birth and death rates, prevalence of specific medical conditions, usual source of care, and patterns of clinical management by health care providers help to characterize problems and set priorities for interventions. Follow-up data on clinical management by health care providers along with other data permit tracking and evaluating changes in outcomes.

When early National Health and Nutrition Examination Survey (NHANES) data showed low iron levels, particularly for women of childbearing age, preschool children, and the elderly, the government moved to fortify grain and cereal products with sufficient iron to correct this deficiency. In addition, the Special Supplemental Nutrition Program for Women, Infants and Children established participant selection criteria using NHANES cut-off values. Now, NHANES monitors iron levels in blood as well as diet and nutritional supplements to monitor iron deficiency and ensure that iron overload is not a problem, particularly for older Americans.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Health Statistics	$124,701	0	$138,683	$161,883	+$23,200

HEALTH STATISTICS

SUMMARY OF THE REQUEST

The FY 2011 budget request includes $161,883,000 for Health Statistics, an increase of $23,200,000 above the FY 2010 Omnibus. With this increase, CDC plans to increase support for the National Health Interview Survey (NHIS), the Ambulatory Medical Care Survey (NAMCS), and the National Vital Statistics System to improve CDC's ability to monitor trends in critical health measures, monitor characteristics of health providers, and increase the electronic reporting of birth and death records.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Budget Authority	$0	$0	$0	$0	$0
PHS Evaluation Transfers	$124,701	$0	$138,683	$161,883	+$23,200
Total	$124,701	$0	$138,683	$161,883	+$23,200
FTEs	602	0	607	593	-14

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 307, 308; 1% Evaluation: PHSA § 241 (non-add); (Superseded in the FY 2002 Labor HHS Appropriations Act - Section 206)

FY 2009 Authorization……Expired/Indefinite

Allocation Method…..……..Direct/Federal Intramural, Contracts

PROGRAM DESCRIPTION

As the nation's principal health statistics agency, CDC's National Center for Health Statistics (NCHS) provides data to identify and address health issues and help guide public health and health policy decisions. The goal of CDC's Health Statistics program is to conduct and support statistical and epidemiological activities that will provide the data needed to improve the effectiveness, efficiency, and quality of health services in the U.S. The program works to accomplish this goal by:

- Providing a broad range of high quality data to the nation's health decision makers in a timely fashion;
- Coordinating data collection strategies and efforts through the HHS Data Council, the National Committee on Vital and Health Statistics, and the Interagency Council on Statistical Policy to address specific interests, problems, or needs;
- Collaborating with states, data users in the public and private sectors, and other federal agencies on numerous topics such as, data collection, defining data needs, addressing issues in methodology, survey design, data quality, and confidentiality; and
- Disseminating data to partners and stakeholders through published reports (print and website), pre-tabulated tables with national and state-level data, microdata files and interactive data warehouses such as "VitalStats" and through the Research Data Center, allowing secure access to detailed data.

MECHANISMS AND FUNDING HISTORY TABLE

CDC funding is awarded through 31 interagency agreements (IAA) and 207 contracts to a variety of entities including 57 state and territorial agencies and approximately 150 other federal and non-federal entities. CDC funding is also supplemented through reimbursable agreements and IAAs with numerous federal agencies and partners including multiple institutes within the National Institutes of Health, the Agency for Healthcare Research and Quality, the Health Resources and Services Administration, the Environmental Protection Agency, Bureau of the Census, and the United States Department of Agriculture.

Fiscal Year	Amount
FY 2006	$109,021,000
FY 2007	$107,142,000
FY 2008	$113,636,000
FY 2009	$124,701,000
FY 2010	$138,683,000

Budget Request

In FY 2011, funding for the Health Statistics program will be used to: 1) support and enhance its major surveys and data collection systems; 2) improve data access and dissemination; and 3) improve data collection methodologies. The FY 2011 funding for NCHS will fully fund all surveys and sample sizes at the expanded levels funded in FY 2010 including the purchase of data needed for public health purposes currently collected by vital statistics jurisdictions and collection of 12 months of these data within the calendar year. In addition, the estimated 10 States that have not begun implementation of electronic birth records (EBR) systems will be supported to begin implementing these systems in FY 2011. CDC will also work with States to gradually phase in electronic death records (EDR) systems through a 50-50 match.

Surveys and Data Collection Systems

CDC's health surveys and data collection systems provide critical data that represent the society's health in various areas. The surveys are designed to provide health statistics to support decision making and research on health. In FY 2011, funds will be used to support the following activities described below.

- CDC will expand the National Health Interview Survey (NHIS), which provides information annually on the health status of the U.S. civilian, non-institutionalized population through confidential household interviews. The NHIS is the core of HHS data collection and is the nation's largest household health survey providing data for analysis of broad health trends, as well as the ability to characterize persons with various health problems, determine barriers to care, and compare functional health status, health related behaviors, and risk factors across racial and ethnic populations.

  With an increase of $8.0 million, CDC will increase the sample size of the NHIS from 35,000 households to 43,000 households to allow for state and community estimates for approximately 30 of the largest states and the large metropolitan areas. CDC will enhance NHIS to better monitor trends in critical measures of health status, health risk factors, and health care access and use for states and among priority populations. With this investment, CDC will be able to produce annual estimates for these states and cities on a broad range of health and health care measures. For example, it will be possible to track changes in insurance coverage and health interventions making it possible to identify where prevention efforts and health care can be focused in order to maximize their impacts on population health. At the national level, CDC will be able to obtain some information for smaller racial/ethnic populations such as Asians or Pacific Islanders. Additionally, CDC will be able to combine data across years, making it possible to obtain information for groups defined by multiple characteristics including race/ethnicity, socioeconomic status, and age.

- CDC will continue to conduct the National Health Care Surveys, a family of nationally representative health care provider-based surveys that provide objective, reliable information about the

organizations and providers that supply health care, the services rendered, and the patients they serve. These surveys collect data from providers in physician offices and community health centers, hospital outpatient and emergency departments, and other settings such as long term care facilities and hospital inpatient.

CDC will provide an increase of $3.5 million for the National Ambulatory Medical Care Survey (NAMCS) to increase the number of physicians and patient records which will allow state estimates in a limited number of states if data are combined across two years. This investment will support an increased sample size of approximately 6,800 physicians and 60,000 visit records (an increase from 3,400 physicians and 30,000 visit records in 2010) which will improve CDC's ability to monitor the characteristics of ambulatory care providers and their patients. This investment will greatly improve CDC's ability to track providers' practice patterns, including their adoption and meaningful use of health information technology (HIT), and the characteristics of their patients, including sources of payment (i.e. improving the ability to identify potential care disparities by payment source). By monitoring physicians' practices, CDC will be able to track changes in patterns of care and patient characteristics.

Policy-makers, researchers and planners use Health Care Survey data to profile changes in the use of health care resources; monitor changing patterns of disease; measure the effect of new technologies and policies; and study shifts in the delivery of care across the health care system, variations in treatment patterns and patient outcomes, and other factors that affect cost and access to and quality of care in the United States.

- Through the National Vital Statistics System (NVSS), CDC will collect at least a full 12 months of core birth and death data to provide the nation's official vital statistics data based on the collection and registration of events in 57 jurisdictions, including all 50 States, two cities (DC and New York), and five territories. The NVSS provides the most complete and continuous data available to public health officials at the national, state and local levels, and in the private sector. Data also are used by the U.S. Census Bureau to calculate post-censal population estimates. These data are purchased by NCHS through contracts with the individual jurisdictions which are legally responsible for the registration of vital events – births, deaths, marriages, divorces, and fetal deaths.
- With an increase of $8 million, CDC will provide funding to the estimated 10 states and territories that do not currently have plans to implement the re-engineered web-based EBR system or to adopt the 2003 standard certificate. This will allow the estimated 10 states and territories to take the actions needed to adopt the new systems. In FY 2011, all states will have either already implemented EBRs, or be in the process of developing implementation programs. With the additional CDC funding, assuming cost and implementation schedules are accurate, current projections from states indicate that all states could have EBR systems that utilize the 2003 standard certificate within the next year, or as shortly thereafter as possible.

  With an increase of $3 million, CDC will also begin to gradually phase in EDRs in a limited number of states, using a 50 – 50 cost sharing mechanism. For the state contracts that will go into effect in January, 2011, states will be asked to submit proposals for the initiation or expansion of EDR systems using a 50-50 cost sharing formula. Criteria for selecting states will be developed.
- CDC will continue to conduct the National Health and Nutrition Examination Survey (NHANES) on a nationally representative sample of 5,000 individuals at 15 U.S. sites. NHANES is the only national source of objectively measured health data capable of providing accurate estimates of both diagnosed and undiagnosed medical conditions in the population. Through a combination of personal interviews, standardized physical examinations, diagnostic procedures, and lab tests, NHANES collects data on conditions such as diabetes, high cholesterol, undiagnosed sexually transmitted diseases, obesity, and it provides critical information about the relationship between health behaviors,

genetics, and the environment. The program uses Mobile Examination Centers to travel throughout the country to collect this data annually.

Data Access and Dissemination

CDC data access and dissemination activities are designed to provide information to a wide range of users in formats to meet their needs. In FY 2011, CDC will continue to improve data access and dissemination by:

- Ensuring data are available in more easily accessible forms through published reports (print and website), pre-tabulated tables with national and state-level data, and interactive data warehouses such as "VitalStats";
- Providing detailed charts and tables on health status and its determinants, health care resources, health care utilization, and health insurance and expenditures through publication of *Health, United States*; and
- Providing mechanisms for researchers to access the full range of data collected by NCHS, while protecting the confidentiality of the respondents and records through the Research Data Center.

Data Collection Methodology

Methodology research and dissemination is essential in order to provide accurate data in a timely fashion to meet increasing data requirements. In FY 2011, CDC will continue to improve data collection methodologies by:

- Supporting the redesign of a new sample for the NHIS to ensure it accurately reflects the shifting U.S. population demographics identified in the decennial census using innovative methodologies;
- Developing a range of methods to evaluate and improve question quality through NCHS' Questionnaire Design Research Laboratory; and
- Measuring the impact and implications of cell phone use on telephone surveys and identifying differences between wireless only households (or with no telephone service) and other households.

Rationale and Recent Accomplishments: CDC's Health Statistics program is a unique resource for health information and plays a critical role in public health and the formation of health policy. Data from NCHS systems and surveys are used to track CDC, HHS and Healthy People 2010 goals and help to ensure that program interventions achieve the greatest health impact. Furthermore, the data are readily accessible, via the internet, to policymakers, researchers, private industry and the public to help inform these stakeholders on issues related to health reform. Program accomplishments that illustrate the impact of the data provided by these surveys and systems are noted below.

- NHANES data have been used to monitor total serum cholesterol levels, as well as the extent of recommended screening for high blood cholesterol. Elevated serum total cholesterol is a major and modifiable risk factor for heart disease, the leading cause of death in the United States. Reducing serum cholesterol levels by 10 percent can reduce the number of heart attacks and stroke by 30 percent. Mean serum total cholesterol levels of U.S. adults aged 20 years and older declined from 204 mg/dL in 1999-2000 to 197 mg/dL in 2007-2008; thus the Healthy People 2010 objective to reduce mean serum cholesterol levels among adults to less than 200 mg/dL was met. In addition, in 2005-2006, approximately 65 percent of men and 70 percent of women were screened for high cholesterol within the past five years.
- Data from the National Health Care Surveys are used to track the nation's adoption and use of electronic medical records (EMRs) and other health information technologies. Health information technology such as electronic medical records are thought to be an important tool to improve the quality of health care and to reduce waste caused by duplication of tests and other health care services. Results from a mail survey conducted via the National Ambulatory Medical Care Survey

(NAMCS), from April through August, 2008, show 38.4 percent of the physicians using full or partial EMR systems, not including billing records, in their office-based practices. About 17 percent reported using a system described as basic, and 4 percent used a system described as fully functional. Data from 2007 on ambulatory care indicated that 34.8 percent of office-based physicians reported using full or partial EMR systems. HHS Office of the National Coordinator on Health Information Technology has begun to use NAMCS to monitor physicians' adoption of EMRs and other health information technologies across the nation.

- NHIS provides data on the uninsured population, those with less access to care, those who delay or do not get medical care due to cost, and those less likely to receive preventive services. The data also show the proportion of the population that lacks coverage, and illustrates the shifts in coverage from private to public sources (such as the State Children's Health Insurance Program and Medicaid). In 2008, more than 30 percent of persons under age 65 years of age without insurance coverage delayed or did not get medical care due to cost (unmet medical needs), a six percent increase from 1997-2002. Recently, an increase in unmet medical needs has also been observed for persons under 65 years of age with private coverage. This type of data helps to inform policymakers when considering public health programs such as SCHIP and Medicaid.
- Data from the National Vital Statistics System (NVSS) show that low birthweight and preterm birth rates, key risk factors for infant survival, improved slightly in 2007 for the first time in more than 20 years. Between 2006 – 2007, the rate of preterm births declined slightly from 12.8 to 12.7 percent, and the low birthweight rate declined from 8.3 to 8.2 percent. A recent study using birth and infant death certificates found that more than one-third of all 2005 infant deaths were preterm-related. These measures, along with other indicators of maternal and infant health from birth and death certificates for infants, comprise the "linked file," a unique data set for monitoring progress in achieving health goals for infants, including the reduction of infant mortality and disparities in infant health and development at the national, state, and local level.

Health Impact: The Health Statistics program's success in accomplishing its purpose has been demonstrated by meeting various performance measures. The following indicators help the program measure its ability to provide data that is useful, timely and of high quality.

- Surveys of key data users and policymakers on their satisfaction with NCHS products and data are used to drive program improvements. In FY 2008, CDC established baseline measures for four data user groups: reimbursable customers, data user conference attendees, federal power users and web-based users (not all surveys are conducted annually). CDC conducted a series of informational interviews with federal power users to qualitatively assess their satisfaction with NCHS products and services including data quality, ease of data accessibility and use, professionalism of staff, relevance of data to major health issues, and relevance of data to user needs. The result of the surveys were 100 percent Good or Excellent. Results of the web based survey will be reported in FY 2010. (see measure 7.1.1 in Output Table)
- Providing timely, accurate data is critical to the nation's health decision makers. In FY 2006, the target for the number of months to release of data as measured from the end of data collection to the date of release on the internet was 10 months. CDC exceeded this goal by releasing the data in 9.6 months. (see measure 7.E.1 in Outcome Table)
- Annually, CDC's goal is to produce 15 new improvements and innovations that increase the scope and detail of information provided in *Health, United States*. In FY 2008 *Health, United States* includes four new trend tables and 26 new charts. In addition, the book incorporated major changes in all natality tables to account for the ongoing implementation of the new 2003 birth certificate that is the basis for most of the trend tables on natality. These changes, as well as modifications to selected mortality tables (notably the tables on race and ethnicity that include infant mortality data),

will be ongoing over the next several years until all states have adopted the new birth and death certificates. (see measure 7.1.2 in Output Table)

- Producing data on the Internet in easily accessible forms improves the speed and efficiency with which people access the information. CDC has met its goal of developing at least five new tools, technologies, or web enhancements per year from FY 2003 through FY 2009. CDC exceeded the goal for the number of visits to the website. (see measure 7.1.3 in Output Table)

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
7.E.1: The number of months for release of data as measured by the time from end of data collection to data release on internet (Efficiency and Outcome)	FY 2006: 9.6 (Target Exceeded)	9.6	9.5	-0.1

OUTPUT TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 7.1: Monitor trends in the nation's health through high-quality data systems and deliver timely data to the nation's health decision-makers.				
7.1.1: Percentage of key data users and policy makers, including reimbursable collaborators that are satisfied with data quality and relevance. *(Output)*				
a) Web-based Users	FY 2008: 67.2% Satisfied (Baseline)	Increase from 67.2% to 72.2%	Increase from 72.2% to 77.2%	+5%
b) Federal Power Users	FY 2009: 100% Good or Excellent Met	Maintain 100% Good or Excellent	Maintain 100% Good or Excellent	Maintain
c) Reimbursable customers	FY 2006: 56% Excellent, 35% Good. (Baseline)	NA	Increase Excellent from 56% to 61%	N/A
d) Data User Conference	FY 2006: 38% Excellent, 53% Good (Baseline)	Conduct survey/Increase Excellent from 38% to 43%	NA	N/A
7.1.2: The number of new or revised charts and tables and methodological changes in Health, United States, as a proxy for continuous improvement and innovation in the scope and detail of information. (Output)	FY 2008: 30 (Exceeded)	15	15	Maintain
7.1.3a: Number of improved user tools and technologies and web visits as a proxy for the use of NCHS data: Number of improved user tools and technologies (Output)	FY 2009: 6 (Exceeded)	5	5	Maintain

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
7.1.3b: Number of improved user tools and technologies and web visits as a proxy for the use of NCHS data: Number of web visits(Output)	FY 2009: 7.7 million (Exceeded)	7.5 million	7.5 million	Maintain

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
7.A: Number of key elements of the health care system for which data are collected.	FY 2008: 3	3	3	Maintain
7.B: Number of communities visited by mobile examination centers from the National Health and Nutrition Examination Survey.	FY 2008: 15	15	15	Maintain
7.D: Number of households interviewed in the National Health Interview Survey.	FY 2008: 35,000	35,000	43,000	+8,000
7.E: Number of physicians and visit records surveyed in the National Ambulatory Medical Care Survey	FY 2009: 3,400 physicians; 30,000 visit records	3,400 physicians; 30,000 visit records	6,800 physicians; 60,000 visit records	+3,400 physicians; +30,000 visit records
7.F: Number of states and territories funded to provide electronic birth records (either completely or in part)	FY 2009: 0	0	10	+10

COMMUNICATING FOR HEALTH

Every day, Americans confront situations that involve life-changing decisions about their health. Many of these decisions are made in face-to-face consultations with health care providers; however, many more are made in places such as grocery and drug stores, workplaces, playgrounds, clinics, online, and around the kitchen table. Additionally, people do not deal with one health issue at a time and are often making decisions in a communication environment that is full of misinformation and unhealthful advertising on complex and unfamiliar issues. To make informed decisions and take actions that protect and promote their health, people need information that they can access, understand and use. Yet, two decades of research indicates that much health information is presented in ways that are not understandable by most Americans. CDC provides leadership in science-based health and risk communication and marketing, both domestically and internationally. Through its communication activities, CDC works to ensure that the science produced is developed into meaningful content that is professionally produced, placed on appropriate channels, and is strategically disseminated so it reaches the public, state and local health departments, and partners to promote health and prevent disease.

EPIDEMIOLOGY

Health literacy is the ability to obtain, process, and understand health information and services needed to make critical health decisions. Data from the 2003 National Assessment on Adult Literacy (NAAL) found that only 12 percent of Americans have the health literacy skills they need to effectively manage their health and interact with the health care system, noting that limited health literacy is a population-level problem of enormous proportion, affecting nearly 9 out of 10 English-speaking adults in the United States. Additionally, the NAAL reports the percentage of Americans with limited literacy has not improved significantly in the past 10 years; thus, CDC must ensure that the information, products, and services it provides are accessible and understandable. Health literacy is a strong predictor of individual health and is a major contributor to health disparities according to Healthy People 2010. Without clear information, people are more likely to skip necessary medical tests, end up in the emergency room more often, and have a hard time managing chronic diseases like diabetes. Those with low health literacy are generally 1.5 to three times more likely to experience a poor health outcome.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

Individuals with the greatest health burdens often lack full access to information; communication and technologies; healthcare; and supporting social services. Even the most carefully designed health programs will have limited impact if underserved communities lack access to crucial health professionals, services, and communication channels. Although the majority of people with marginal or low literacy are white native-born Americans, the problem of limited health literacy has been found to be great for older adults, those with limited education, minorities, the poor, and those with limited English proficiency.

ECONOMIC ANALYSIS

The average annual health care costs of persons with low literacy may be four times greater than that of the general population. Nearly half (90 million) of American adults cannot understand basic health information, keeping them from the care they need and costing the health care industry billions of dollars. Research has shown that people with low health literacy make more errors with medications, are less likely to complete treatments, have more trouble with our health care system, and are more likely to be hospitalized. Direct links between health literacy, health outcomes, and health care expenditures have been documented. Using contemporary healthcare expenditure data from the Medical Expenditure Panel Survey (MEPS), and the NAAL survey of U.S. health literacy levels, it is estimated that the annual direct medical cost of low health literacy ranges from $106 billion to $238 billion.[27]

[27] Vernon, J. A., Trujillo, A., Rosenbaum, S., & DeBuono, B. Low health literacy: Implications for national policy. [online]. 2007. [cited 2010 Jan 22]. Available from URL: http://www.gwumc.edu/sphhs/departments/healthpolicy/CHPR/medicaid_publications.cfm

EVIDENCE BASED INTERVENTIONS

Strong evidence supports involving members of the target audience in the design and testing of communication products. This participatory design process results in improved outcomes, including those for people with limited health literacy. Additionally, several studies have demonstrated that using targeted approaches to communication can improve self-management and related health outcomes among patients with limited health literacy. The Guide to Community Preventive Services (Community Guide) engages with CDC programs, its liaisons, and other partners from the very initiation of each review in planning for dissemination of its evidence-based findings and recommendations, and for helping intended users fit the recommendations to their needs and constraints. Some CDC programs and liaisons have collaborated with the Community Guide in undertaking low-cost dissemination and translation strategies at federal, state, and local levels. Many of these recommendations have been translated and implemented at the community level, resulting in a significant public health impact and overall return on investment for Americans.

An opportunity for intervention is noted as 70 percent of adult smokers report that they want to quit, yet cigarette smoking remains the leading preventable cause of death in the United States. The National Tobacco Cessation Collaborative concluded that changes need to be made in the way smokers receive cessation information and resources. New strategies to reach smokers include using real life stories that chronicle quit attempts, enhanced promotional efforts for nicotine replacement products, increased use of communication technologies (such as Personal Digital Assistants), and tailored websites and quitlines.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Health Marketing-Budget Authority	$37,800	$0	$32,338	$60,628	+$28,290
Health Marketing-PHS Evaluation Transfers	$46,780	$0	$47,036	$17,151	-$29,885
Total	$84,580	$0	$79,374	$77,779	$-1,595

HEALTH MARKETING

SUMMARY OF THE REQUEST

CDC requests $77,779,000 for Health Marketing in FY 2011, a decrease of $1,595,000 below the FY 2010 Omnibus which is inclusive of contract and travel savings (Please see page 17 for more information). FY 2011 funds will support CDC's work to ensure scientific discovery reaches health professionals, partners, and the public in ways and on channels that are relevant to their lives. Creating health information that people can access, understand, and act on will improve health behaviors and health outcomes. Of these funds, at least $5.0 million will be allocated to one of CDC's priorities, the Guide to Community Preventive Services, to ensure that recommended interventions demonstrate effectiveness.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Budget Authority	$37,800	$0	$32,338	$60,628	+$28,290
PHS Evaluation Transfers	$46,780	$0	$47,036	$17,151	-$29,885
Total	$84,580	$0	$79,374	$77,779	-$1,595
FTEs	261	0	262	268	+6

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 308, 310, 311, 317, 318, 319, 319A, 327, 352, 391, 1102, 2315, 2341, 2521

FY2010 Authorization……..…….…….....……..…Expired/Indefinite

Allocation Methods…….…….…….....Direct Federal/Intramural, Competitive Grants and Cooperative agreements; Contracts

PROGRAM DESCRIPTION

CDC is a critical link between scientific discovery and the delivery of health information to the public; state and local health departments; and domestic and global partners. The translation of scientific information into messages, interventions, and materials that health professionals can use and the public can understand and act upon proves critical to CDC's success in improving health outcomes and reducing the strain on our overburdened health care system. CDC health marketing efforts focus on four functions described below.

- Through health and risk communication and marketing science, CDC conducts critical formative research to assess the motivations, beliefs, and needs of the public related to various health issues; conducts systematic reviews of health interventions; and, then, develops, translates, and disseminates relevant public health information based on those efforts.
- Through partnerships and strategic alliances, CDC builds public health capacity and expands its reach by using resources, networks, and credibility of partner organizations. Partner organizations rely on CDC for technical guidance across health issues, and CDC relies on these partners for information dissemination in a timely manner.
- Electronic health marketing provides timely delivery of public health information on multiple channels through which the public seeks information. While maintaining CDC's multiple channels for message dissemination, CDC uses social media such as content syndication and widgets so partners can provide consistent and up-to-date CDC information on their websites.

- CDC's Creative Services provide high quality professional production services (i.e writing/editing, graphics, broadcast) that expand the appeal, reach, and credibility of CDC's publications, messages, and materials.

MECHANISMS AND FUNDING HISTORY TABLE:

CDC's Health Marketing activities distribute $21.3 million through 31 contracts and $29.6 million through cooperative agreements, grants, and interagency agreements with federal partners. Extramural funding is distributed to approximately 33 partners including entities such as national non-profit public health partner organizations, commercial vendors, and academic institutions.

Fiscal Year	Amount
FY 2006	$42,515,000
FY 2007	$91,330,000
FY 2008	$92,652,000
FY 2009	$84,580,000
FY 2010	$79,374,000

Budget Request: Health and Risk Communication

CDC provides leadership in science-based health and risk communication and marketing, both domestically and internationally. By consulting and providing technical assistance to programs, Health Communication Science Offices (embedded in each Center), state and local public health professionals, and partners, CDC provides reliable, consistent, science-based health information on multiple channels to accommodate people of various cultures, languages, and abilities. Global communication efforts, funded by Health Marketing, Pandemic Influenza, and Global Health lines, supports capacity building in health and emergency risk communication through engagement with many U.S. and global organizations. The Community Guide provides evidence-based recommendations and findings about public health interventions and policies which can be used to develop public policy, plan programs and services, allocate resources, inform research, and educate health professionals. CDC also produces the Morbidity and Mortality Weekly Report (MMWR), the Agency's primary vehicle for scientific publication of timely, reliable, authoritative, accurate, objective, and useful public health information and recommendations for health professionals and others.

FY 2011 funds will expand Community Guide Services and maintain other health and risk communication efforts through the activities described below.

- CDC will increase the number of Community Guide systematic reviews from an average of five to eight per year to 15 per year. These reviews will include five new evidence-based recommendations and updates to 10 existing recommendations to strengthen the evidence base and practice of prevention.
- FY 2011 funds will be used to provide core health communication capacity to address seasonal and pandemic influenza and other unanticipated threats to public health through communication services, community engagement, and news and electronic media, in addition to assisting journalists, public health publications, state and local health departments, partners, and others to improve the technical accuracy of information and recommended public health interventions essential to mediating the public health threat. Approximately $5.0 million will be allocated to support these activities.
- CDC will increase by 10 percent the number of strategies and consultations within CDC, to state and local health departments, and to partners for health literacy, multilingual translations, cultural marketing practices and the elimination of racial and ethnic disparities in the delivery of CDC information.

- CDC will increase the number of formative research projects, analysis, tools and consultations conducted for CDC programs, state and local public health, and partners to ensure health messages/materials are relevant to the reality of people's experiences and needs.
- CDC will enhance Health Communication Science Offices (HCSOs) by providing support to ensure communications activities at CDC follow evidence-based communication principles.
- CDC will support activities to increase subscriptions to the family of publications that include the MMWR, MMWR Recommendations and Reports, CDC Surveillance Summaries, MMWR Supplements, and the Summary of Notifiable Diseases to 140,000 electronic subscribers.
- CDC will work with the World Health Organization (WHO) to advance the capacity of developing country compliance with the International Health Regulations, which aids in the timely disclosure of newly emerging diseases or threats.
- CDC will enhance emergency communication system capacity and provide risk communication assessment in countries served through CDC's Consolidated Country Offices (CCO), as well as support "All Hazards" coordinators at the CCOs.

Rationale and Recent Accomplishments: Only 12 percent of English-speaking adults in the United States have proficient health literacy skills. Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. Improvements in health literacy are vital to ensure CDC's health information meets people's needs and languages, is disseminated to the right people, and does not produce confusion or apathy. Due to limited capacity in state and local health departments, CDC provides valuable communication science, content, and assistance for them to reach their communities and partners. Health and Risk Communication Accomplishments are noted below.

- During the 2009 H1N1 outbreak, CDC developed and disseminated 44 major guidance documents affecting the diagnosis, treatment, and management of influenza to high-risk populations; and state and local health departments utilized CDC materials to reach vulnerable populations such as immigrant and seasonal farm workers, homeless populations, deaf and blind populations, and families with special needs children.
- CDC continues to maintain an emergency public health education network of over 700 state and local health department contacts who regularly receive health alerts and information updates about Novel H1N1 Influenza.
- CDC has developed a health literacy web-based training for health professionals to improve their understanding of the issue and how they can apply health literacy principles to their work to make health interactions and information more accessible and understandable.
- Multilingual Services provide over 800 translation and interpretation services to/from any language requested to ensure all populations get appropriate health information.
- The Community Guide has produced over 210 evidence-based findings and recommendations resulting in significant health impact and overall return on investment such as the Community Guide's findings on the effectiveness of interventions to increase vaccination coverage which has been incorporated into the recommendations of the Advisory Council on Immunization Practices.
- In FY 2009, health and risk communication training in Central America reached 30 communication specialists representing the Council of Ministers of Health of seven Central American countries. These trainings demonstrate an efficient model for reaching high-level officials in countries of importance to the United States and contribute to improved internal stability and United States good will in the region.

Health Impact: Health marketing investments will enable the development of messages, materials, and interventions that are based on communication science, will resonate with the public, and meet the language needs of the public. Collaboration between CDC, state, local, and global health partners will ensure that the public (both domestically and globally) get accurate and actionable health information at the right time to make the right health and preparedness decisions. Increasing subscriptions to the MMWR publications will ensure that health professionals and others keep up-to-date on various health issues. *(Please see output 9.1.2a for specific information.)*

Budget Request: Partnerships and Strategic Alliances

FY 2011 funds will be used to support critical partnerships and alliances to increase CDC's reach, credibility, access, and resources. CDC distributes approximately $26.3 million through cooperative agreements to 16 national non-governmental public health organizations. These agreements strengthen the nation's public health capacity and infrastructure by improving the quality and performance of public health practice, systems, data, and the workforce. CDC provides trainings, technical assistance, information, and other support for the partners to improve public health. CDC also works with business partners that provide technical assistance to the nation's employers to implement disease and injury prevention strategies in workplaces and in health plans. FY 2011 funds will support the activities below.

- CDC will provide management, oversight, and coordination of the cooperative agreements with 16 core public health partners, the business community, health care organizations, educational institutions and community organizations to support health activities and build health capacity.
- CDC will develop a robust grants management system and evaluation model for partner activities; and will enhance the implementation of a comprehensive portfolio management structure to ensure funds and activities are being used to improve health and build health capacity.
- CDC will support and increase emergency communication activities for partner organizations and will strengthen the emergency alert network to help disseminate information in the wake of natural disasters, pandemic influenza threats and other hazards.
- CDC will increase the total number of subscribers to CDC's Partnership Matters by 10 percent; and increase the number of partners registered with the Partners Portal database in an effort to expand CDC's reach.
- FY2011 funding will support partners in efforts to promote public health through trainings they conduct; guidance they develop and disseminate; and organizational changes and practices they adopt that positively influence the health of their members and stakeholders.

Rationale and Recent Accomplishments: Developing relationships with new partners and strengthening existing relationships are critical to CDC's ability to fulfill its mission of preventing disease as these relationships expand CDC's reach and access; and help reinforce CDC's messages. For example, partners provided invaluable support in confronting the urgent public health threat in managing the spread of H1N1. Some of CDC's recent accomplishments include the following examples.

- CDC established the Emergency Alert Network (EAN), a new e-mail, text, and voice-based system designed for public health emergencies. EAN reaches critical infrastructure sectors including: agriculture; forestry and fishing; manufacturing; retail establishments; schools; health care; banking; and insurance. For the H1N1 outbreak, EAN was used to send public health messages to more than 18,000 businesses in two hours and was also used to disseminate messages during Hurricanes Gustav and Ike.
- With the National Business Group on Health, CDC developed the Purchaser's Guide to Health care Coverage, which is a tool used by employers to translate clinical guidelines and medical evidence by

providing employers with information they need to select, define, and implement preventive medical benefits such as colorectal cancer screening and tobacco use treatment.

- The Association of Public Health Laboratories in conjunction with the National Laboratory Training Network coordinated 246 training courses, training nearly 48,000 participants in FY 2009. Two of the trainings focused on the use of CDC developed assays. Individuals from 23 states were trained to use this assay, thus increasing laboratory capacity which proved critical during the 2009 H1N1 outbreak.
- Through CDC funding, the Council on State and Territorial Epidemiologists worked to describe state and territorial reporting requirements for both infectious and non-infections conditions in all 50 states. This information serves as a searchable database that provides the foundation of reportable public health conditions.
- CDC partnered with the Association of State and Territorial Health Officials (ASTHO) to develop guidance, sponsor workshops, and enhance relationships of state health officials to ensure preparedness for pandemic threats. This planning was well executed during the 2009 H1N1 outbreak, as ASTHO was able to activate an Emergency Operations Center, advise during high-level planning, and deliver on-going technical support.

Health Impact: Building and strengthening partnerships with the public and private sectors will increase CDC's reach, ability to create policy awareness and engagement, and provides new resources and opportunities for promoting health within the partner organizations' members and stakeholders. FY 2011 funding will result in increased number of engaged partners who are educated and motivated about health, are prepared to deal with emergency situations, and are making organizational decisions to positively influence the health of their members and stakeholders. *(Please see output 9.1.2b, c for specific information.)*

Budget Request: Electronic Health Marketing

CDC's communication and marketing activities use a variety of integrated web, electronic, social media and contact center strategies, such as CDC-INFO, to increase the impact of CDC's science. The activities are integrated with CDC's overarching communication strategies to deliver timely public health information and to encourage healthier behaviors. Communication tools point users to CDC.gov or CDC-INFO for additional information on a variety of public health concerns. Whether trying to find out about a food recall, nutrition, or smoking cessation programs, the public turns to CDC and its various communication channels (i.e. CDC-INFO, CDC's Website, social media tools, etc.). The need to position CDC's credible health and safety information through a variety of channels and new media platforms addresses the increasing variety of mediums through which the public seeks information. FY 2011 funds will support Electronic Health Marketing through the activities described below.

- CDC will provide oversight, leadership, and coordination for CDC's web presence (www.cdc.gov), with over 45 million monthly views, and will work to ensure customer satisfaction meets or exceeds 81 percent.
- CDC's National Contact Center (CDC-INFO), a consolidated telephone, email, and fulfillment services center, will provide 450,000 accurate, timely, consistent and science-based health and safety information responses to the general public, healthcare providers, and public health partners, and ensure quality assurance, customer satisfaction, and health impact of the program.
- CDC will disseminate over 5 million publications to inquirers and public health professionals to ensure that those in need of our publications have access to and receive them.
- Through social media channels including podcasts, eCards, widgets, content syndication, mobile technologies, and social media networks, CDC will increase traffic to CDC content outlets by 6 percent to motivate people to make health a part of their daily lives.

- CDC will create, deploy, and evaluate at least five innovative projects where interactive media activities allow CDC scientific programs and findings to reach new audiences, thus, encouraging healthier behaviors.

Rationale and Recent Accomplishments: CDC has been a leader in leveraging technology to promote health. As technology is becoming a major vehicle for communication and people are engaging and looking for information in new and different ways, CDC has ensured that we meet those needs and provide relevant and critical information on the various formats that people use to seek out health information. The high levels of interest and traffic on CDC's website and social media outlets during the H1N1 outbreak highlight the important role that electronic health marketing plays in responding to public health emergencies. Some examples of CDC's accomplishments in this area are noted below.

- Working with FDA, CDC developed a Peanut Recall Widget which received 18.5 million views and was virally embedded on over 20,000 websites. In addition, there were over 280,000 views of CDC Salmonella syndicated content placed on state and local health department Web sites.
- In the spring of 2009, the public viewed information related to novel H1N1 flu information over 90 million times. H1N1 content syndicated by public health partners was viewed over 140,000 times. Over 200,000 users subscribed to CDC email updates for information about H1N1 flu.
- Users downloaded over 600,000 podcasts and viewed H1N1 videos over one million times on CDC's YouTube channel.

Health Impact: FY 2011 funds will be used to increase traffic to many of CDC's information sources, increase user satisfaction of those sources, and produce more multi-media broadcast outputs so that people have access to timely and relevant health information on channels they use. CDC is a leader in utilizing technology to put health information at people's fingertips. Information seeking has changed, and the CDC must have a solid presence on those channels so a lack of CDC's information does not result in negative health behaviors and outcomes. *(Please see output 9.1.1 for specific information).*

Budget Request: Creative Services

CDC's Creative Services provides mechanisms and expertise to better execute agency communication strategies across print, broadcast, web and other electronic channels. The activities drive agency-wide communication and enable CDC to translate scientific findings into usable, timely information for a variety of audiences. Services are provided for the professional development of scientific publications, posters, Power Points, media broadcasts, public service announcements (PSAs), health information, and campaigns. FY 2011 funds will support Creative Services through the activities listed below.

- CDC will fulfill more than 8,500 service requests each year such as, releasing 15 CDC-TV segments, developing more than 50 e-cards and widgets, producing 250 audio and video podcasts, editing more than 300 scientific publications, and designing approximately 2,500 scientific posters and substantive support roles in the production of seminal public health resources such as www.cdc.gov, Health US, Immunization "Pink" Book, and U.S. Stroke Atlas.
- CDC will manage and provide oversight of the Global Health Museum, where CDC connects with visitors and archives CDC's scientific accomplishments.
- With Creative Services' funding for staffing, CDC, in collaboration with Robert Wood Johnson Foundation, will present epidemiology training to teachers and students through Teach Epidemiology Professional Development Workshops, which will work to create interest among high school students in careers in epidemiology and public health.

Rationale and Recent Accomplishments: Recent data from the Gallup organization indicated that CDC was the most trusted Federal Agency and is relied upon for clear and accurate information. CDC's professionally

produced products and materials aid in maintaining that credibility. Evaluation data and user feedback information indicate that resources produced by CDC are used in state and local health departments as patient communication materials, and are used to educate students and the general public on health issues and practices. Many CDC programs rely on the expertise and skills of those in Creative Services to ensure their health information has high quality production. This is a vital service in the Agency which is cross-cutting and efficiently provides writing, editing, graphics, and broadcast services to the entire Agency to move science from the labs to the public who needs the information.

- Since launching in 2007, CDC Podcasts has developed and released more than 500 titles in English and Spanish, and has received 40,000-50,000 downloads each week with a total of more than 3.7 million downloads.
- Within the first year of launch, CDC-TV has garnered more than 9,000 subscribers.
- Graphic services receive 5,000 service requests per year from 1,700 clients across CDC, and writer-editor services receive 2,000 service requests annually from 500 clients across CDC.
- For H1N1, broadcast services supported press conferences, recorded over 38 audio/video PSAs; produced 75 audio/video programs viewed more than 2.5 million times, and enabled CDC to reach more than 80 million people via 173 live media uplinks and press conferences. Graphics services produced tool kits for the public including Colleges and Universities; Child Care, K-12; Business and Industry; and Faith Based Organizations.

Health Impact: Appropriate investment in CDC's Creative Services will provide in-house production and broadcast capabilities that enable CDC to respond immediately to any health threat without needing to rely on external support. This capacity provides CDC with expertise to better execute agency communication strategies across print, broadcast, web, and other electronic channels. These resources underpin all communication efforts within the Agency to turn scientific findings into actions that drive improvement in the public's health.

IT INVESTMENTS

Of specific relevance to Health Information and Technology (HIT) is CDC's ongoing content syndication effort that allows state health departments, local health departments, and other partners and providers to use real-time content feeds from CDC within their own Web sites or electronic products. CDC's content syndication effort, which is being evaluated for use across HHS, has rapidly expanded and it has been utilized for a significant amount of H1N1 content. In addition, CDC has advanced its efforts in mobile technologies and texting to provide real-time messaging and information to CDC's audiences. In FY09, CDC began a successful mobile texting pilot and now has over 15,000 subscribers.

CDC.gov and interactive media activities provide CDC's content/interventions/science where, when, and how users want them and provide for bidirectional exchange with these audiences. A variety of web and interactive media products; such as, widgets, content syndication, e-mail updates, and social media, have provided CDC with expanded ways to reach out to and provide content and information directly to health care providers and consumers. Additional health IT-related activities include 1-800 CDC INFO, CDC's 24/7 contact information center; oversight and management of CDC.gov, web support for Health Information and Services including Health Marketing and MMWR, and IT support for creative services.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long-term Objective 9.1: Improve access to and reach of CDC's scientific health information among key audiences to maximize health impact.				
9.1.1: Provide health information to the public in order to educate, inform and improve health outcomes.				
a. User satisfaction with CDC.gov.	FY 2009: 81% (Target Met)	82%	82%	Maintain
b. Percentage of inquirers making a behavior change as a result of information gained from their experience with CDC-INFO.	FY 2009: 48% of respondents expressed the intention to change behavior; of these, 80% reported that they were already engaging in new behavior (Baseline)	50%/82%	52%/82%	+2%/Maintain
c. Health Behavior impact of CDC.gov.	FY 2009: 68% of users say that they are likely or very likely to make a change based on their experience with CDC.gov (Baseline)	69%	70%	+1%
9.1.2: Provide health information to health professionals and partner organizations (e.g. state and local health departments) in order to educate inform and improve health outcomes (system approaches to health).				
a. Number of subscribers to the Morbidity and Mortality Weekly Report (MMWR)	FY 2009: 96,035 (Baseline)	130,322	154,341	+24,019
b. Number of total subscribers to CDC's Partnership Matters (biweekly email update with information on CDC partnerships, public health initiatives involving partners, personnel changes, reader feedback, and upcoming events and seminars).[1]	FY 2009: 28,000 (Target Exceeded)	30,800	33,880	+3,080
c. Number of Partners registered with the CDC Partner Network (formerly known as the Partners Portal database). (www.cdc.gov/partners)[1]	FY 2009: 732 subscribers (Target Exceeded)	805 subscribers	885 subscribers	+80

[1] FY 2010 and FY 2011 targets adjusted upward in light of FY 2009 performance.

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
9.A: Number of MMWR Publications	FY 2009: 80 (Target Not Met)	90	90	Maintain
9.B: Number of monthly page views to CDC.gov website	FY 2009: 56.8 million Page Views (Target Exceeded)	43 million Page Views per month	45 million Page Views per month	+2 million
9.C: Number of monthly calls placed to 800-CDC-INFO	FY 2009: 66,599 (Target Exceeded)	60,000	55,000	-5,000
9.D: Programs produced for broadcast (for general public) through PHTN, CDC-TV or other channels	FY 2009: 45 (Target Exceeded)	25	28	+3
9.E: User satisfaction with social media products	FY 2009: 84 (Baseline)	84.5	85	+.5
9.F: Total number of calls and e-mail inquiries responded to through CDC-INFO	FY 2009: 537,315	450,000	450,000	Maintain
9.G: Total number of writer/editor jobs completed	FY 2009: 110	105	110	+5
9.H: Total number of graphics jobs completed[1]	FY 2009: 5240	5150	4000	-1150
9.I: Availability of CDC content on social media channels and products	FY 2009: 7	13	21	+8
9:J: Total downloads and views for CDC Broadcast channels and resources: CDC-TV and podcasts.[1]	1.3 million (Target Exceeded)	262,500	95,000	-167,500
9.K: Inquirer satisfaction with CDC-INFO information and service.[2]	FY 2008: 78% (Baseline)	75%	75%	Maintain
Appropriated Amount ($ in Millions)[3]		$79.4	$77.8	-$1.6

[1] Higher FY 2009 results are due to increased activity from H1N1 outbreak response. CDC does not expect such increases will continue, and have set FY 2010 and FY 2011 targets accordingly.
[2] FY 2010 and FY 2011 targets are maintained at 75%, which is a contact industry benchmark standard that is used by the third-party evaluation contractor to measure CDC-INFO's customer satisfaction performance. The FY 2008 baseline is higher than the FY 2010 and FY 2011 targets due to reduced customer satisfaction resulting from a call center closing and increased H1N1 call volume in 2009.
[3] The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

IMPROVING AND TRANSFORMING PUBLIC HEALTH THROUGH INFORMATICS

Public health informatics is the application of information, computer science, and technology to public health practice, research and learning. The application of the principles and practices of public health informatics enables the development and use of interoperable information systems for public health functions, which include biosurveillance, outbreak response, and electronic laboratory reporting. Surveillance is an essential function for programs that promote health and prevent disease, injury and disability. Comprehensive public health surveillance systems require a public health infrastructure with capabilities that allow for the collection, analysis, interpretation, and dissemination of public health information to appropriate local, state and federal jurisdictions. The benefits of a sound and functional public health informatics system are that public health surveillance, monitoring and research, and access to more timely and complete information enable a more appropriate response to routine and emergency events. CDC advances the use of public health informatics and surveillance by working collaboratively with key stakeholders to identify and implement strategies that promote effective information and knowledge sharing between systems. CDC supports information technology investments that are essential to meaningful health care transformation. Examples of these activities include, but are not limited to the following:

- Developing innovative clinical decision support capabilities to mitigate outbreaks though actionable public health alerts that can be distributed to providers at the point of care through Electronic Health Records (EHR) systems;
- Pioneering open source software development to lower costs and increase functionality for federal, state, local and tribal stakeholders;
- Increasing cross-jurisdictional collaboration and data sharing for outbreak management and biosurveillance by enabling participation and addressing privacy/data stewardship challenges through innovative public health grid technologies;
- Protecting sensitive public health data for local, state, and federal organizations through deployment of secure data messaging systems; and
- Providing decision support for rapid analysis, visualization, and reporting of public health data for public health assessments, epidemiologic research, policy planning, and evaluations.

EPIDEMIOLOGY

Public health surveillance research demonstrates that there is a significant gap between the collection of data and the ability to communicate this data into an effective public health response. Public health networks must exist that will connect public health at the local, state and regional level through health departments and health information exchange processes. As information systems become a more critical part of the public health system, the need to have a highly trained and competent public health workforce with a strong knowledge and skill in the effective use of information technology to improve public health is essential.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

The limited ability to share real-time data, case information, and laboratory results at the state, local and regional levels contributes to the health disparities that exist within the U.S. health care system. Surveillance data with respect to urban, suburban and rural areas are essential to the assessment of health trends, the review of public health interventions and the identification and classification of priority groups that are afflicted by a particular disease or illness. The significance of reducing disease burden through public health surveillance and public health informatics cannot be underestimated.

ECONOMIC ANALYSIS

Investment in informatics and surveillance programs at the local, state and national levels is essential to creating a public health surveillance system in which limited resources can be used most effectively; targeted interventions can be applied to those most in need; and public health programs can be designed to identify the health, health risks, and health problems within and among populations. Public health resources are required in order to provide accurate, timely and secure information to guide public health action as evidenced by both the 2003 SARS-CoV outbreak and the 2004 avian influenza epidemic in Asia. Investments in information technology, such as clinical decision support, can help lessen the economic burden associated with disease outbreaks by providing actionable alerts to help health care providers more accurately diagnose and treat diseases during an outbreak.

EVIDENCE-BASED INTERVENTIONS

Improvements in human health occur when scientific discoveries are translated into practical applications. This bench-to-bedside approach enables basic scientists to provide clinicians with the information necessary for their patients while at the same time enabling clinicians to provide scientists with the information to conduct their research investigations.

An example of this type of intervention is the decision support technology currently under development by CDC. This technology will provide physicians and officials with timely decision support for improving vaccination rates and automatically detecting and containing outbreaks of communicable disease.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget	FY 2011 Request +/ FY 2010
Public Health Informatics-Budget Authority	**$45, 324**	**$0**	**$39,717**	**$36,405**	**-$3,312**
Public Health Informatics- PHS Evaluation Transfers	***$24,751***	***$0***	***$30,880***	***$30,880***	***$0***
Total	**$70,075**	**$0**	**$70,597**	**$67,285**	**-$3,312**

PUBLIC HEALTH INFORMATICS

SUMMARY OF THE REQUEST

CDC requests $67,285,000 for Public Health Informatics in FY 2011, a decrease of $3,312,000 below the FY 2010 Omnibus which is inclusive of the CDC contract and travel savings (Please see page 17 for more information). FY 2011 funds will support CDC's work to implement interconnected electronic information solutions in order to accelerate health system transformation and improve public health.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Budget Authority	$45,324	$0	$39,717	$36,405	-$3,312
PHS Evaluation Transfers	$24,751	$0	$30,880	$30,880	$0
Total	$70,075	$0	$70,597	$67,285	-$3,312
FTEs	105	N/A	107	114	+7

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 307, 308, 310, 311, 317, 318, 319, 319A, 327, 352, 391, 1102, 2315, 2341, Clinical Laboratory Improvement Amendments of 1988, § 4 (42 USC Sec. 263a)

FY 2010 Authorization……Expired/Indefinite

Allocation Method……Direct Federal Intramural; Competitive Grants and Cooperative Agreements; Contracts

PROGRAM DESCRIPTION

CDC improves public health by advancing the science of informatics, the discipline of efficiently employing information and computer science and technology in public health practice, research, and learning.

CDC's public health informatics activities will advance the state of information science and apply digital information technologies to aid in the detection and management of diseases and syndromes in individuals and populations. In addition, these activities will strengthen CDC's ability to lead the development, adoption, and integration of sound national and international public health surveillance.

MECHANISMS AND FUNDING HISTORY TABLE

CDC provides operations and project management support for health informatics activities through competitive contracts. CDC also distributes funds for technical support for activities such as message specification and data brokering through an interagency agreement with the General Services Administration (GSA). CDC distributes National Electronic Disease Surveillance System (NEDSS) funds through contract awards with multiple commercial vendors. CDC also distributes Public Health Informatics funds through multiple interagency agreements and multiple grants/cooperative agreements with state public health offices.

Fiscal Year	Amount
FY 2006	$67,369,000
FY 2007	$71,601,000
FY 2008	$70,490,000
FY 2009	$70,075,000
FY 2010	$70,597,000

Budget Request: Informatics

CDC's work in the area of informatics improves electronic information exchange across organizational and jurisdictional boundaries by advancing interoperability through the development and promulgation of requirements, standards, specification and architecture; monitoring and certifying state and local health departments' information exchange capabilities; and providing technical assistance to state and local health departments. CDC will use FY 2011 funds for the activities described below.

- CDC will develop and maintain critical cross-cutting information technology applications such as Epi Info, Electronic Medical Records (EMR) Alerting, Health Information Exchanges (HIEs) and the Public Health Information Network Messaging System (PHIN MS). New versions of these systems will be released by the end of the fiscal year in support of requirements from the Office of the National Coordinator for Health Information Technology (ONC).
- CDC will develop standards-based decision support services to support public health alerting, case detection, and notifiable disease reporting in electronic health records, providing information to clinicians at the point of care. CDC will meet with partners and prioritize decision support activities and work with ONC to develop initial standards and criteria.
- CDC will support and expand public health informatics research and development (R&D) activities in this domain, including the continued maintenance of an agency-wide R&D technology laboratory environment. A programmatic research plan will be developed this fiscal year to direct projects and set priorities for research analysis.
- CDC will leverage its recently developed R&D informatics infrastructure to augment its ability to rapidly develop and test prototype solutions to enhance public health practice. This capability will enable the infrastructure to be made available this fiscal year to support CDC wide research activities.
- CDC will create and maintain national standards for surveillance and messaging functions and actively promote the interest of public health in the development of informatics standards and health information technology initiatives by participating in related standards committees (e.g. Health Information Technology Standards Panel (HITSP), Public Health Data Standards Consortium) and activities. This fiscal year, CDC will collaborate with ONC and national/international standards bodies to ensure that public health needs are addressed in the relevant standards bodies.
- CDC will provide informatics expertise and consultation to external partners. Funding will allow CDC to hold two national public health informatics meetings and provide consultation to all projects on the CDC Director's priority list.
- CDC will coordinate informatics standards, interoperability mechanisms, and public health requirements with national and regional health information exchange and electronic health records (EHR) initiatives by developing guidelines for standards and requirements.
- CDC will develop, support and enhance EHR systems for surveillance. This fiscal year CDC will meet with the leading EHR vendors to develop methods for enhanced routine surveillance automation in collaboration with State health departments.

Rationale and Recent Accomplishments: CDC's work in the area of public health informatics and technology is critical to addressing the growing pressures associated with the development and implementation of interconnected electronic information solutions that are needed to accelerate health system transformation and improve health. FY 2009 accomplishments in public health informatics are noted below.

- CDC accelerated the adoption of HIEs and regional health information organizations (RHIOs) through innovative and promising approaches for integrating clinical care and public health data and reporting methods used to support biosurveillance.

- CDC combined the power of clinical care (individual citizen health) and public health (population health) systems to demonstrate the ability to provide physicians and officials with timely decision support for improving vaccination rates and automatically detecting and containing outbreaks of communicable disease. CDC is currently working to extend the informatics solutions to notifiable disease reporting to make it easier for physicians to determine if a condition meets the public health criteria for reporting.
- CDC demonstrated the proof-of-concept that increased cross-jurisdictional, secure collaboration and data sharing for outbreak management and biosurveillance through the use of innovative grid-computing-based technologies.
- CDC utilized the research and development infrastructure to facilitate the rapid development of technology solutions in areas such as the H1N1 response as well as the testing of public health interoperability with the Nationwide Health Information Network (NHIN) infrastructure initiative.

Health Impact: In FY 2011, CDC will address barriers associated with the sharing of cross-jurisdictional public health informatics and technology data. Through the enhancement of data exchange capabilities, public health information will be collected, stored and shared electronically, which will provide for a timelier and more informed public health response. CDC will track the States' progress with NEDSS/PHIN-compatible systems integration which is an important step in improving the timeliness and completeness of case-related data. CDC will also track the States' ability to send electronic messages to CDC in compliance with published standards using outcome measure 8.1.1 identified at the end of this section.

Budget Request: Surveillance

CDC's surveillance capabilities will strengthen through the application of information technology. CDC's surveillance activities will assure that timely, accurate, reliable and integrated public health surveillance information is easily available and accessible for decision-making efforts to improve population health. CDC will use FY 2011 funds for the following activities noted below.

- CDC will plan, direct, enhance and collaboratively support national surveillance programs and technology initiatives through promulgation of standards, policies, applications, tools and funding.
- CDC and the Council of State and Territorial Epidemiologists (CSTE) will collaborate to design and build the infrastructure of a centralized data repository (also known as a knowledgebase) of state reportable and nationally notifiable conditions. This repository will supply information needed by public health reporters about reporting requirements. In addition, the repository will distribute authoritative data on reportable conditions to improve completeness and timeliness of case-detection and case-reporting to state and local public health departments.
- CDC will work with Laboratory Response Network Results Manager (LRN RM) users and stakeholders to develop enhancements for explained functionality, increased usability, and improved application performance of LRN RM. (LRN RM resources are provided through the CDC Preparedness and Response Capability budget line.)
- CDC will work with LRN member laboratories and Laboratory Information Management System (LIMS) vendors to improve LRN member laboratories' technical capability.
- CDC will increase the emphasis on developing a distributed network of networks to connect public health at the local, state and regional level through health departments and health information exchanges.
- CDC plans to continue reforming and enhancing BioSense in FY 2011. BioSense is a national program intended to improve the nation's capabilities for disease detection, monitoring, and near real-time health situational awareness. More specifically, BioSense enables participating local and

state public health departments to simultaneously share and access existing data from health care organizations, providing a more complete picture of potential and actual health events both locally and across jurisdictional boundaries. CDC will coordinate and collaborate with professional organizations and BioSense system users to ensure that system enhancements are responsive to user needs. There will also be increased emphasis on providing state and local support to develop the infrastructure necessary for national biosurveillance activities. (BioSense is operated as a Public Health Informatics program, but funded through the CDC Preparedness and Response Capability budget line.)

- Extramural activities planned for FY 2011 from BioSense activities include providing incentives for public health data exchanges with regional and national networks (e.g., Health Information Exchanges (HIEs)), funding state and local health departments through the Epidemiology and Lab Cooperative Agreement (ELC), funding Centers of Excellence (COEs), and building State and Local syndromic surveillance capacity by investing in existing efforts.
- CDC will support the development of innovative systems and methods to improve the way data are used to provide information for public health decisions and policy.
- CDC will develop new surveillance systems or improve the capacity and use of existing surveillance systems to evaluate the impact of health reform.
- CDC will develop new surveillance systems or improve the capacity and use of existing surveillance systems for monitoring the social determinants of health.

Rationale and Recent Accomplishments: CDC's work in the application of information technology will improve surveillance through the establishment of public health networks at the state, local and regional level that have the capability to measure the burden of disease; identify populations at high-risk; identify new or emerging health concerns; monitor trends in the burden of disease; provide a basis for epidemiologic research; and serve as a guide to the planning, implementation, and evaluation of programs to prevent and control disease, injury or death. CDC's accomplishments in the area of surveillance from FY 2009 are provided below.

- The CDC-funded Centers of Excellence successfully demonstrated proof of concept in the ability to leverage the BioSense infrastructure to support state notifiable disease reporting in one jurisdiction. However, the goal to achieve an integrated BioSense and notifiable disease reporting infrastructure will require more work and collaboration in order to provide a cost effective solution for disease detection, message exchange, and health monitoring. At the end, this will empower local, state, and federal officials by providing the tools, data and information to develop effective interventions and make timely and informed decisions.
- CDC has collaborated with the International Society for Disease Surveillance (ISDS), the Public Health Informatics Institute, and partners in state and local health departments to rapidly expand an ISDS pilot project for monitoring trends in influenza-like illness among people seeking care in emergency departments, based on aggregated data from existing health department syndromic surveillance systems.
- CDC supported grantees in multiple regions of the United States to develop public health connections with HIEs. HIEs have been developed by health care providers to enable cross-facility integration of information from electronic medical records, which allows for better integration of health care services. HIEs also have tremendous potential for serving as a focal point for obtaining information for public health surveillance and for providing feedback from public health to health care providers.
- CDC and CSTE defined a process and timeliness requirements for how states and territories report cases to CDC of conditions designated as immediately nationally notifiable. This process supports

implementation of the revised International Health Regulations as well as state and federal public health priorities.

- CDC developed a draft standard to support public health case reporting from Electronic Medical Records (EMR) systems and between electronic disease surveillance systems, and demonstrated the ability to leverage a CDC developed application (i.e. National Electronic Disease Surveillance System) to consume electronic case reports in Clinical Document Architecture (CDA).
- CDC responded to over 250 technical assistance requests from state and local health departments in implementing electronic data exchange of laboratory reports and case notifications to CDC. Over 150 local, state, and federal personnel have been trained to use tools and applications in adoption of electronic data exchange of health information, which has helped to build workforce capacity.

Health Impact: In FY 2011, CDC will enhance the nation's public health surveillance infrastructure by supporting the development of innovative systems and methods to improve the way data are used to provide information for public health decisions and policy. CDC will also improve the nation's ability to monitor disease and provide real-time situational awareness through the use of electronic health records and electronic laboratory reports. *(Please see outcome 8.1.1 at the end of this section; and outcomes 16.2.2., 16.3.4, and 16.3.4b listed under the Bioterrorism Preparedness and Response budget request; and output measures 16.2.1 and 16.3.3 listed under the Bioterrorism Preparedness and Response budget request.)*

IT INVESTMENTS

More than 70 percent of the Public Health Informatics budget is spent on health IT investments. The functional outputs of this office include: 1) maintain critical cross-cutting surveillance, epidemiology, and laboratory sciences information technology; 2) create/maintain messaging standards and infrastructure; 3) provide informatics expertise and leadership; 4) coordinate informatics standards and interoperability mechanisms; and 5) develop/support/enhance electronic health records systems for surveillance. All of these activities require significant health IT investments, not only for health IT system development, modernization, and enhancement, but also for the operation and maintenance of these systems.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long term Objective 8.1: Lower barriers to data exchange across jurisdictions for public health surveillance and response.				
8.1.1: Increase the number of States that can send electronic messages to CDC in compliance with published standards.	FY 2008: 0 (Baseline)	10	15	+5

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
A: States actively engaged in ongoing NEDSS/PHIN-compatible systems integration	FY 2008: 42 (Target Exceeded)	45	50	5
B: States developing NEDSS-compatible systems, in deployment, or lie with the NEDSS Base System	FY 2008: 50	50	50	0
Appropriated Amount ($ Million)		**$ 61.2**	**$59.7**	**$-1.5**

ENSURING PROTECTION THROUGH ENVIRONMENTAL HEALTH

The last half century witnessed a dramatic shift in the health burden of the U.S. population from infectious diseases to diseases such as cancer, birth defects, and asthma, many of which are associated with environmental exposures. The nation's built environment changed to an automobile-centered culture, creating unintended health consequences by increasing obesity, fatalities from motor vehicle crashes, and air pollution from motor vehicle emissions. Advances in industrial science and technology led to the development and production of more than seventy-five thousand chemical compounds, now ubiquitous in our air, water, food, and homes. Environmental health encompasses the direct health effects of various chemical, physical, and biological exposures, as well as the effects on health of the broad physical, social, natural, and built environment. Consequently, the public health approach for environmental health includes aspects of housing, urban development, land-use and transportation, industry, access to green space, and agriculture. CDC's National Center for Environmental Health plays a critical role in maintaining and improving the health of the American people through responsive health actions that promote healthy and safe environments.

EPIDEMIOLOGY

According to the World Health Organization, about 24 percent of the disease burden, and about 23 percent of all deaths, globally, can be attributed to environmental factors. Chronic diseases—such as heart disease, cancer, and diabetes—are the leading causes of death and disability in the U.S. For example, 4,000 thousand people die annually from asthma-related causes, and asthma is a contributing factor in another 7,000 deaths annually.

People are exposed to thousands of chemicals through food, air, water, soil, and product use, and little is known about the health consequences. CDC's biomonitoring results suggest widespread exposure in the U.S. population for some industrial chemicals and several perfluorinated compounds. Research studies have demonstrated the health risks associated with lead in the blood, including learning disabilities, impaired visual and motor functioning, and neurological and organ damage. Related examples include the associations between radon gas and lung cancer; asbestos and respiratory cancers; ozone and respiratory effects; and particulate matter and cardio-pulmonary disease.

Annual releases of toxic pollutants into the air amount to over two billion pounds, with a similar amount released into surface water, land, or underground. In 2006, nearly 36 percent of the U.S. population lived in a county where the measured air pollutants exceeded EPA standards. Many air pollutants, such as particulate matter (PM2.5), can exacerbate asthma and cardiovascular disease. In addition, World Health Organization estimates indicate that climate change claimed over 150,000 lives globally in the year 2000. Climate change is expected to lead to further increases in heat-related mortality, flooding, and drought, and has contributed to a global increase in malaria, diarrheal diseases, and dengue.

The built environment includes building and land-use policies, and can impact illness, disability, and injury, and degrade or preserve natural resources. The decisions our nation makes about how it designs communities influence health, through their impact on physical activity, respiratory and cardiac health, and chronic disease risk. Substandard housing can expose inhabitants to lead, mold, vermin, radon, and lack of safety devices. Inaccessible or nonexistent sidewalks and bicycle or walking paths contribute to sedentary habits, contributing to poor health outcomes such as obesity, cardiovascular disease, diabetes, and some cancers. Nearly 18 million Americans live with the health threat of contaminated drinking water supplies, especially in rural areas where septic systems and on-site wastewater systems are prevalent. Each person's risk of developing an environmentally related disease, such as cancer, results from a unique combination of exposure, genes, age, sex, nutrition and lifestyle.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

Low-income and/or minority populations often bear a disproportionate burden of environmental health threats due to increased exposure to hazards, vulnerability resulting from pre-existing conditions, and decreased capacity for recovery after a natural disaster or emergency. For example, children living in older housing are more likely to have elevated blood lead levels than the population of U.S. children as a whole. Low-income households and older homes also often have high concentrations of mouse and cockroach allergens. The larger built environment also affects vulnerable populations. For example, a 2006 Institute of Medicine study revealed disparate rates of food security by race, ethnicity, and income. A growing body of research suggests that maternal exposure to chemicals poses a risk to women's health (asthma, breast cancer, and hormonal imbalances) as well as to fetal and child health and development (miscarriage, birth defects, growth restriction, and motor/cognitive delays).

EVIDENCE-BASED INTERVENTIONS

Implementing effective evidence-based public health interventions and strategies can reduce human exposure to hazardous chemicals and create safe and healthy environments. CDC's public health approach includes utilizing evidence-based strategies to impact environmental health hazards.

- Advance Built Environment and Transportation Policies: The built environment plays a critical role in disease prevention. CDC developed the Health Impact Assessment (HIA) tool to help decision makers identify the likely health impact of planning, development, and policy decisions.
- Expand Climate Change and Health Research and Preparedness Capacity: Although scientific understanding of the effects of climate change is still emerging, there is a pressing need to prepare for potential health risks as well as promote health-supporting adaptation and mitigation strategies. CDC leads efforts to anticipate the health effects of climate change and explore the health effects of possible mitigation strategies, and to take steps to prepare for, respond to, and manage climate-associated health risks.
- Enhance Environmental Public Health Monitoring, Tracking, and Surveillance: Public health tracking systems that capture accurate exposure and outcome data can facilitate public health efforts to prevent and control disease and disability linked to environmental exposures. CDC collects and analyzes data to clarify the relationship between environmental hazards and health effects.
- Standardize and Advance Environmental Laboratory Science: Accurate assessment of human health risks resulting from exposure helps health officials implement and assess public health interventions. Biomonitoring data on the U.S. population establishes reference values that can help determine whether a person or group has an unusually high exposure and directs research priorities.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Environmental Health	**$185,415**	**$0**	**$187,118**	**$182,350**	**-$4,768**
Environmental Health Laboratory	$42,735	$0	$43,346	$41,980	-$1,366
Newborn Screening Quality Assurance Program (non-add)	$6,878	$0	$6,915	$6,755	-$160
Newborn Screening for Severe Combined Immuno Diseases (non-add)	$983	$0	$988	$982	-$6
Environmental Health Activities	$77,299	$0	$78,043	$75,022	-$3,021
Safe Water (non-add)	$7,199	$0	$7,237	$7,001	-$236
Environmental and Health Outcome Tracking Network (non-add)	$31,143	$0	$33,124	$32,548	-$576
Amyotrophic Lateral Sclerosis Registry (non-add)	$5,000	$0	$6,014	$5,795	-$219
Climate Change (non-add)	$7,500	$0	$7,540	$7,567	+$27
Polycythemia Vera (PV) Cluster (non-add)	$5,000	$0	$2,513	$0	-$2,513
International Emergency and Refugee Health (non-add)	$0	$0	$6,262	$6,250	-$12
Built Environment & Health Initiative (non-add)	$0	$0	$0	$4,000	+$4,000
Asthma	$30,760	$0	$30,924	$30,734	-$190
Healthy Homes/Childhood Lead Poisoning	$34,621	$0	$34,805	$34,614	-$191

ENVIRONMENTAL HEALTH

SUMMARY OF THE REQUEST

CDC requests $182,350,000 for environmental health in FY 2011, a decrease of $4,768,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (please see page 17 for more information). FY 2011 funds will support program activities in capacity building assistance, evaluation, research, public health surveillance, education, training, financial, and technical assistance, and building national and global partnerships. The FY 2011 budget request for environmental health will support the major activities noted below.

- CDC requests $41,980,000 for environmental health laboratory in FY 2011, a decrease of $1,366,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information).
- CDC requests $75,022,000 for environmental health activities in FY 2011, a decrease of $3,021,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information).
    - Within the funding requested for environmental health activities in FY 2011, CDC is requesting an increase of $4,000,000 for the built environment and health initiative.
    - Within the funding requested for environmental health activities in FY 2011, CDC will invest $6,250,000 in international emergency and refugee health and $7,567,000 in climate change.
    - CDC's request includes an estimated allocation of $1,700,000 for arctic health, Hanford study, and volcanic emissions activities.
- CDC requests $30,734,000 for asthma in FY 2011, a decrease of $190,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information).
- CDC requests $34,614,000 for healthy homes (formerly childhood lead poisoning) in FY 2011, a decrease of $191,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information).

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Budget Authority	$185,415	$0	$187,118	$182,350	-$4,768
PHS Evaluation Transfers	$0	$0	$0	$0	$0
Total	$185,415	$0	$187,118	$182,350	-$4,768
FTEs	438	0	442	431	-11

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 317A, 317B, 317I, 327, 352, 361, 1102, Housing and Community Development Act, Sec. 1021 (15 U.S.C. 2685), Chemical Weapons Elimination Activities (50 USC Sec. 1512, 50 USC Sec. 1521), Housing and Community Development (Lead Abatement) Act of 1992 (42 USC Sec. 4851 et seq.)
FY 2010 Authorization……..… Expired/Indefinite

Allocation Methods……Direct Federal/Intramural; Competitive Grant/Cooperative Agreements; Contracts; Other

PROGRAM DESCRIPTION

Established in 1980, CDC's National Center for Environmental Health (NCEH) focuses on preventing the avoidable illness, disabilities, and premature death caused by non-infectious, non-occupational environmental related factors. CDC is committed to protecting the health of populations who are particularly vulnerable to certain environmental hazards such as children, the elderly, and people with disabilities. This budget request highlights CDC's programs for environmental health in the areas of human health and the environment, environmental public health services, and environmental health laboratory, and emergency response preparedness.

MECHANISMS AND FUNDING HISTORY TABLE

In 2009, extramural funding accounted for approximately 75 percent of CDC's environmental health budget. CDC funds 62 partners, consisting of all 50 states, eight territories, three cities, and one county to expand its laboratory to respond to chemical terrorism.

Fiscal Year	Amount
FY 2006	$149,161,000
FY 2007	$146,634,000
FY 2008	$154,486,000
FY 2009	$185,415,000
FY 2010	$187,118,000

Budget Request: Human Health and the Environment

CDC conducts epidemiologic studies, research, and surveillance to better understand how the environment affects health. This work translates into interventions to prepare and protect the public from environmentally-related contributors to disease.

Climate Change

In FY 2011, CDC will invest $7,567,000 in climate change activities. This investment will support applied research to fill in gaps in knowledge on the health effects of specific climate change occurrences, fund state and local health departments to address local health issues, increase local and national preparedness for weather-related emergencies related to climate change, communicate with the public about climate change, and promote public health workforce development. CDC will support research in epidemiology, infectious disease ecology, modeling and forecasting, climatology and earth science, and communication science. CDC's FY 2011 resources in climate change will support the activities noted below.

- To identify effective intervention that public health agencies can implement to prepare for the health effects of climate-change, CDC will fund research to identify opportunities for action. Research funded by CDC will include work to: decrease illness and death from heat waves; tailor messages for people with chronic diseases about ways to prevent aggravating existing conditions; prepare and respond to emerging infectious diseases, and evaluate mitigation strategies.
- CDC anticipates supporting up to 13 state and local health departments to build knowledge and response capabilities in their jurisdiction, conduct geographic assessments of the most likely and urgent health risks, and develop preparedness plans for climate-related concerns.

Rationale and Recent Accomplishments: Heat waves cause illness and death. Worsening air pollution aggravates asthma and heart disease. Heavy rain falls and drought increase contamination of drinking water. CDC is leading HHS' efforts to address the health consequences of climate change. Recently, CDC used climate change funds to support the accomplishments noted below.

- In FY 2009, CDC funded 11 states and localities to identify and plan for the health impacts of climate change specific to their jurisdiction, including:
    - Thurston County, Washington, which is integrating aspects of climate change into its all-hazard preparedness plans, including conducting a needs assessment on the impacts on continuity of operations planning for hospitals, health departments, and healthcare provider sites; development and training on mass dispensing operations; and enhancement of medical capacity during increased demand for services and,
    - Imperial County, California, which is developing a climate-focused strategic plan to identify populations that will be most impacted by climate change and outline public health interventions to prevent death and disease expected from climate change events including heat stroke and vector-borne disease.
- In order to reduce preventable deaths during excessive heat events, CDC partnered with the cities of Baltimore and Detroit to bolster Emergency Management plans to more effectively reach their cities' elderly populations. The enhanced plans included a media messaging toolkit, WebPages, heat alerts, public service announcements, and press releases. As a result, Baltimore and Detroit are prepared to communicate with their highest risk populations during the next heat wave.
- CDC worked with the city of Austin to create vulnerability maps based on excessive heat, flood, and ozone exposures to better assist in the city's emergency response capacity in reducing excess deaths. The City of Austin will use these maps to identify the areas at highest risk from potential climate change.

Health Impact: FY 2011 funds will support activities to ensure public health agencies prepare for the health effects of climate change specific to their communities. Geographic and population variation requires tailored response plans in each jurisdiction. Each jurisdiction's preparedness plan needs to include concrete action steps to educate people with chronic diseases about risks and measures they need to take to prevent aggravating their existing conditions; and prevent an increase in the number of people with emerging infectious diseases. (*Please see output 10.G and outcome 10.1.2 for specific information.*)

Environmental Public Health Tracking Program

CDC's FY 2011 request includes resources for the Environmental Public Health Tracking Program. The Environmental Public Health Tracking Program is responsible for developing and maintaining the National Environmental Public Health Tracking Network. The Tracking Network is a dynamic web-based tool that tracks and reports environmental hazards and the health problems that may be related to them. The Tracking Network is unique because, for the first time, environmental data and public health data are available together in a central database. In FY 2011, CDC will support activities to promote the Environmental Health Tracking Program noted below.

- CDC will fund 22 states and New York City to build and maintain local surveillance systems for data on non-infectious health conditions and environmental hazards.
- CDC will support surveillance that will result in up to 15 data-driven public health actions that include analyzing area cancer rates for a concerned citizen; providing data and testimony to inform carbon monoxide detector legislation; and identifying trends of increasing pre-term births in a particular county and notifying county health officials.
- In addition to health agencies, CDC will fund federal partners, universities, and non-governmental organizations to link health and environmental data to clarify the relationship between environmental hazards and the health; support non-federally funded states to conduct environmental health surveillance; and develop indicators for monitoring the public health impact of climate change.

Rationale and Recent Accomplishments: The World Health Organization (WHO) estimates that 13 million deaths annually are due to preventable environmental causes. These environmental causes are hard to identify. The Tracking Network will facilitate efforts to monitor environmental public health trends on national and local levels. Noted below are several key accomplishments of CDC's public health tracking program.

- Increased data access and tools to use these data have allowed states, such as Utah and Massachusetts, to dramatically decrease the time needed to respond to community concerns about the impact of environmental hazards.
- Fifteen states and one city launched state-based networks providing the public information to better understand health trends and environmental status in communities. For example, carbon monoxide poisoning has been a public health concern in Maine for over a decade. The Maine Tracking program used network data to support making carbon monoxide poisoning a reportable condition, and enact a new law requiring carbon monoxide alarms in rental property, new homes, and existing homes when there is a transfer of ownership.
- In FY 2009, CDC funded six additional states to begin building statewide Tracking Networks as components of the National Tracking Network. These states will now be able to conduct environmental public health surveillance, enhance data and methods for using surveillance data, and hire and train environmental public health professionals.
- Since FY 2002, tracking has led to almost 80 public health actions to prevent or control potential adverse health effects from environmental exposures. For example, the New York City Tracking Program determined that lower income households were more likely to suffer injuries from using in-home bug bombs, and less likely to use safer commercial pesticide services. This led to a city-wide effort to reduce the use of bug bombs and promote integrated pest management by licensed pest control professionals. The city now has a pesticide use monitoring and reporting system.

Health Impact: Expected outcomes from CDC's Tracking Network include higher quality environmental and health data on the Tracking Network and expansion of data collection to include pesticides and climate change. This allows policy makers to see data trends to determine if local policies are working or need to be changed (*Please see outcome 10.1.2 for specific information*).

Safe Water

FY 2011 Safe Water funds will support the Clean Water for Health Program, which includes the Environmental Health Specialist Network (EHS-Net) Water Program, to identify, prevent, and reduce exposure to environmental contaminants in water. Environmental conditions greatly influence the relation between water and health. Chemical and biological contaminants threaten people's access to clean and safe water. Public health officials need data to identify vulnerable populations, implement interventions, and target limited funding to reduce the public's exposure to water contaminants. CDC's FY 2011 investment in Safe Water will support the activities noted below.

- CDC will study unregulated water sources to develop interventions that reduce people's exposure to non-infectious waterborne contaminants in drinking water (such as arsenic, uranium, nitrates, disinfection byproducts, and other chemical exposures).
- To identify risks from eating fish and seafood from water sources contaminated with mercury, algal toxins, and persistent organic pollutants (POPs), CDC will study people's fish eating habits, fish and human samples, and water quality of fresh and salt water bodies.
- CDC will create a well water database to identify exposures, assess well monitoring coverage, evaluate regional water issues, and identify and prioritize areas for research.

- To reduce well contamination during flooding, CDC will identify sources of water contamination and develop methods to prevent contamination. In addition, CDC will continue to research the adverse impacts of on-site septic systems on drinking water wells.
- CDC will test water quality and study water use practices to design interventions that reduce the risks to drinking water that are unique to American Indian and Alaska Native populations.
- To prevent people's exposure to algal toxins, CDC will fund states to collect and analyze data that identifies harmful algal blooms.
- CDC will improve identification and prevention of environmental factors contributing to waterborne illness through EHS-Net, a forum of environmental health specialists, epidemiologists, and laboratorians.

Rationale and Recent Accomplishments: An estimated 45 million people in 2007 received water from a source that is not regulated by the EPA. These water sources are not regularly tested before being used for drinking. In addition, many communities do not have access to drinkable water. Selected accomplishments related to CDC's work to ensure safe water are noted below.

- Recently, CDC identified drinking water quality and access issues in Navajo Nation that led to public warnings, clinical follow up, and interventions to improve drinking water for 250,000 people.
- The EHS-Net program recently identified 58 previously unknown water borne disease outbreaks in New York, Tennessee, and Minnesota.
- Based on results of NCEH's exposure assessment, a Paiute Tribe implemented an intervention to reduce arsenic in drinking water for 3,000 residents.

Health Impact: FY 2011 funds will support CDC activities to inform interventions to improve access to clean and safe drinking water, improve waste water systems, and ultimately reduce illness due to exposure to environmental contaminants in water. As a result of FY 2011 funds, health risks associated with exposure to contaminated drinking and natural recreational waters will be identified to inform interventions.

Asthma

CDC's FY 2011 request includes resources for CDC's Asthma Control Program to implement the activities noted below in order to reduce the morbidity and mortality related to asthma.

- CDC will support up to 36 state and local partners to improve monitoring, identifying and tracking of those most affected by asthma, and implementing science-based programs and activities leading to the reduction of asthma.
- CDC will guide state program, monitoring, and evaluation activities and assist in increasing the level of training of health professionals and education of asthma patients and their families (e.g., steps they can take in managing their disease, what steps to take if symptoms worsen.

Rationale and Recent Accomplishments: Asthma is the fourth leading cause of work absenteeism and diminished productivity, resulting in nearly 12 million missed or less productive work days annually. Due to funding allocated to CDC's Asthma Control Program, the hospitalization rate for CDC funded programs implementing asthma control activities was 10 percent lower in 2006 than in 2000. An analysis conducted by the Cochrane Collaboration showed reductions (20-35 percent) where self-management education reduced asthma exacerbations, emergency room visits, unscheduled office visits to the doctor, and days off work or from school.

- Almost 85 percent of funded states are conducting asthma educational activities designed to improve medical practitioner adherence and the proper diagnosis, control, and management of asthma.

- Nearly 70 percent of funded state asthma control programs are conducting a variety of training-based interventions designed to directly educate persons with asthma and their families.

Health Impact: FY 2011 funds will support state, local, and territorial programs to implement asthma control programs and interventions that will prevent and reduce illnesses, injuries, and deaths related to environmental risk factors of asthma, especially in vulnerable populations. CDC anticipates that populations served by CDC-funded state asthma control programs will increase the proportion of those with current asthma who report they have received self–management training by 50 percent in FY 2011. (*Please see outcome 10.2.4 for specific information.*)

Budget Request: Environmental Public Health Services

Environmental Public Health Services protect people from exposure to hazards in the environment. These critical services prevent exposures to health hazards such as contaminated food or water, vector-borne diseases, lead-based paint, and other health hazards in the home.

Built Environment and Health

CDC's Built Environment and Health program supports Healthy Community Design activities. Healthy Community Design is an emerging component of CDC's work to strengthen the evidence base and practice of prevention. The efforts are designed to improve community design and reduce many costly and important chronic diseases and injuries. CDC's FY 2011 request includes an increase of $4,000,000 to support the key built environment and health program activities described below.

- FY 2011 funding will support up to eight state or local health departments to integrate prospective Health Impact Assessments (HIAs) into transportation and community design decision-making and climate change mitigation planning. These assessments will be used to predict the likely health impacts of land use and transportation proposals before construction. The activity will enhance CDC's capacity to collect data, conduct research, and most importantly, provide technical assistance to the broader traditional and non-traditional public health community.
- CDC will leverage existing partnerships to support activities that demonstrate the feasibility of diverse sectors working together to incorporate built design HIAs and concepts into existing CDC grants, where appropriate.
- CDC will support work to promote safer built environments through collaborative partnerships with the Safe Routes to School programs.
- To promote healthier community designs, CDC will support state and local health departments in the creation of policies for building codes, city planning, and road design.
- CDC will begin developing protocols and models for evaluations, research, and surveillance to increase the evidence base for improving health outcomes and healthy community design.

Rationale and Recent Accomplishments: Designing and building healthy communities can improve the quality of life for all people who live, work, worship, learn, and play within their borders—where every person is free to make choices amid a variety of healthy, available, accessible, and affordable options. Healthy community design has the potential to increase physical activity, reduce injuries, and improve environmental health. In Europe, with more developed HIA programs, researchers have found that HIA can be effective at influencing decisions to promote health and for incorporating health into transportation decisions. In 2008, CDC partnered with the Department of Transportation's Non-Motorized Transportation Pilot Program (NTPP) to complete an evaluation of pilot communities and develop health-focused evaluation of projects. CDC funds four ongoing state pilot projects to help utilize HIAs. CDC partnered with a non-profit organization to compile and analyze surveillance information related to bicycling and walking.

Health Impact: FY 2011 funds will support CDC's efforts to determine human health effects associated with environmental exposure. The Built Environment and Health program will contribute to increasing safe, physical activity and thus help to reduce obesity, avoid injuries, and improve environmental health (*Please see output 10.1.2 for specific information.*)

Healthy Homes

CDC's FY 2011 request includes resources to support the Healthy Homes project. CDC's Healthy Homes program uses a holistic approach to address multiple health hazards in homes. Examples of hazards include asthma triggers, threats to drinking water, improper waste water disposal systems, injury hazards, radon, mold, and vectorborne diseases. CDC provides state and local public health professionals with training and tools necessary to address the broad range of housing deficiencies and hazards associated with unhealthy and unsafe homes. In FY 2011, CDC will use program funds to support a range of Healthy Homes program activities noted below.

- CDC will fund a new cooperative agreement for state, local, tribal, and territorial agencies to implement healthy homes programs to address multiple health hazards in homes. This cooperative agreement will provide support for states to improve the public's health by addressing home hazards such as mold damage, improper waste water disposal, and radon exposure.
- To assist these new healthy homes programs, CDC will train an additional 400 state and local workers in the principles of healthy homes to help inspectors identify and remove potential health hazards in houses. Training a cadre of professionals in ways to sustain healthier homes protects the health of the public.
- CDC will implement a new data surveillance system, the Healthy Homes and Lead Poisoning Surveillance System – HHLPSS, to gather important information related to health hazards in homes. This information will help to evaluate the progress of the healthy homes program, and provide needed data for improvements.

Rationale and Recent Accomplishments: The way homes are designed, built, and maintained can affect the safety and health of residents. A growing body of evidence links housing conditions to health outcomes like asthma, lead poisoning, lung cancer, and injuries.

- CDC has trained nearly 6,000 public health workers in the principles of healthy homes. Through this course, public health workers learn about proper ventilation to ensure clean and fresh air to prevent aggravation of lung diseases, moisture control to prevent mold, integrated pest management techniques to prevent diseases spread by rodents and insects, and eliminating safety hazards to prevent falls and burns.
- CDC provided and distributed healthy housing reference materials (e.g., CDC's Healthy Housing Reference Manual and CDC's Healthy Homes Inspection Guide) to all state and local health agencies. In addition, CDC funded Healthy Housing pilot programs in six states designed to help identify best and promising practices for state and local healthy homes programs to follow.
- As a result of CDC's significant contribution to the 2009 Surgeon General's Call to Action, the relationship between health and homes has been highlighted and its visibility as a crucial public health issue has been made clear to the public health community and to the public at large.

Health Impact: FY 2011 funds will support science-based work toward the goal of elimination of lead poisoning as a public health issue. In addition, FY 2011 funds will result in the transformation of CDC's Childhood Lead Poisoning Prevention Program into a comprehensive Healthy Homes program that focuses on reducing exposures to a range of health hazards in homes. CDC will work to reduce the number of children under age six with elevated blood lead levels to an estimated 67,000, which will help to avoid treatment costs for lead-poisoned kids. (*Please see output 10.2.2 for specific information.*)

Workforce, State, and Local Capacity Development

CDC works to promote environmental public health by providing workforce training, supporting accredited academic programs, funding state and local capacity building, and providing scientific advice and expertise. State and local capacity building is supported through grants to underserved communities in 11 states and localities, helping to address their specific environmental public health challenges. In FY 2011, CDC will implement the activities noted below to develop the environmental public health workforce at all levels.

- In order to advance the environmental health workforce's ability to take action during high-stress events, CDC will train at least 240 state and local public health workers to respond to environmental health emergencies.
- CDC will continue the Environmental Health Specialist Network (EHS-Net) to strengthen state capacity to identify and prevent environmental factors contributing to foodborne and waterborne illness and disease outbreaks.
- CDC supports the Environmental Public Health Leadership Institute to train an additional 40 state and local environmental public health workers in systems theory, leadership skills, and modern management techniques that help the students to more effectively address environmental public health issues at the state and local levels.

Rationale and Recent Accomplishments: CDC provided scientific investigation expertise during the 2008 outbreak of E. coli in spinach. The investigation helped to increase awareness of health problems associated with using potentially contaminated water to irrigate or process food. Through the newly launched EHS-Net-water program, more than 100 unreported waterborne disease outbreaks were detected in three states. EHS-Net-supported research identified tomato related risk factors for Salmonella and proved that a northeastern state with strict guidelines for properly cooking beef for children had lowest rates of illness due to E Coli 0157-H7. Through its Environmental Health Training in Emergency Response (EHTER) course, CDC trained more than 750 state and local environmental public health workers in science-based techniques for restoring drinking water, waste water systems, food safety inspections, vectorborne disease prevention efforts, and other critical environmental public health services after disasters. EHTER trainees have used their skills immediately in emergencies such as a train derailment in New York and in Kansas as part of that state's tornado response.

Health Impact: FY 2011 funds will support studies that assess the harmful health effects from environmental hazards, including contaminants in food and water and hazards from vectorborne diseases and to build environmental public health capacity in state and local health departments. These activities will help to reduce food-borne and water-borne disease outbreaks and to avoid vectorborne diseases. (*Please see output 10.1.2 for specific information.*)

Budget Request: Environmental Health Laboratory

CDC's FY 2011 request includes resources for the Environmental Public Health Laboratory Program. Program activities include operating the National Biomonitoring Program, which measures 450 environmental chemicals and nutritional indicators in people's blood and urine, to indicate the amount of a chemical that actually gets into people. Throughout the world, biomonitoring has become the standard for assessing people's exposure to toxic substances as well as for responding to serious environmental public health problems. Biomonitoring data are valuable for a variety of public health purposes, such as identifying relative levels of exposure in the population, particularly in children or other vulnerable groups, and setting priorities for research into the health impacts of chemicals. The program also works to produce precise laboratory measurements. The program studies the best way to measure a chemical of interest and ensures the accuracy of various laboratory tests including newborn screening, those predictive of type I diabetes, blood lead levels, as well as nutritional factors. FY 2011 funds for the Environmental Public Health Laboratory program will support the activities noted below.

- CDC will support three state-based laboratory programs to conduct biomonitoring assessments of chemical exposures among residents.
- CDC will publish the Second National Report on Biochemical Indicators of Diet and Nutrition, which will provide first-time data for several nutritional indicators including omega- and trans-fatty acids.
- CDC will ensure that newborn screening tests in all fifty states are correct by providing training, consultation, guidelines, and proficiency testing through the Newborn Screening Quality Assurance Program.

Rationale and Recent Accomplishments: Exposure to chemicals in the environment and consumer products has piqued public interest in possible health effects from these exposures. For some chemicals, such as lead, research studies provide a good understanding of health risks associated with various levels of exposure. However, for most chemicals, more research is needed to determine whether measured levels of exposure are a cause for health concern. CDC is filling an important data gap by providing the U.S. population's exposure to environmental chemicals. Recent program accomplishments include producing first-time exposure data on the U.S. population for 75 environmental chemicals including acrylamide and various types of arsenic and publishing these data in the National Report on Human Exposure to Environmental Chemicals. These baseline data on the U.S. population is the first step in directing priorities for research on human health effects from exposure. In 2009, CDC supported state-based biomonitoring programs, which provided funding for staff and equipment to allow state public health laboratories to assess human exposure to environmental chemicals.

Health Impact: FY 2011 funds will support assessment of the U.S. population's exposure to environmental chemicals and nutritional indicators. By producing population-based data, segmented by age, sex, and race/ethnicity, CDC will establish or improve upon U.S. population reference ranges that public health officials, doctors, laboratorians, and scientists can consult to determine whether a person's or a group's chemical exposure level or nutritional status is outside of the norm of the U.S. population. This data will also help assess the effectiveness of public health efforts to reduce people's exposure to environmental chemicals and improve the diet and nutritional status of U.S. population. For nutritional indicators, it helps identify inadequate or excess intake that could lead to poor health outcomes. For example, in FY 2011 the data will be used to assess the effectiveness of efforts to continue to reduce children's exposure to lead and reduce the population's exposure to environmental tobacco smoke. (*Please see output 10.1.1 for specific information.*)

Budget Request: Emergency Response Preparedness

FY 2011 activities in radiation studies and preparedness, environmental health surveillance, and all-hazards lab preparedness conducted in the National Center for Environmental Health (NCEH) are supported through funding from public health preparedness and response budget line. More information on these activities can be found in the CDC preparedness and response capability section of the public health preparedness and response budget request.

In FY 2011, emergency response preparedness activities will be conducted in radiation exposure preparedness, environmental health monitoring and surveillance emergency preparedness, and all-hazards preparedness and CDC laboratories. These activities are supported through a combination of funding from environmental health activities and CDC preparedness and response capability budget lines. Public Health chemical laboratory science and chemical and disaster surveillance activities allow CDC to improve public health preparedness and emergency response by enabling the rapid detection and characterization of health threats. This funding also supports chemical surveillance to detect and characterize exposures to hazardous substances, monitor chemical outbreaks to better track illness trends associated with the outbreak and identify appropriate health interventions.

Radiation Studies and Preparedness

FY 2011 resources to support activities in radiation studies and preparedness are allocated from the environmental health activities and the CDC preparedness and response capability budget lines.

Exposures to radiation, whether through terrorist weapons, natural sources, or medical diagnostic procedures and treatments, can be a potentially serious public health problem. FY 2011 funds will support CDC's Radiation Studies Program to identify potentially harmful environmental exposures to ionizing radiation, conduct public health research related to radiation exposures, and work to protect the public's health in the event of a radiological emergency through activities noted below.

- CDC's Radiation Studies Program plans to work with the Office of Terrorism Preparedness and Emergency Response to conduct a pilot program to test states' ability to develop and coordinate a state-wide volunteer registry of radiation experts to provide expertise for state and local health.
- In order to increase overall preparedness, the development of radiation training and effective data collection tools and surveillance systems for nuclear/radiological emergencies will begin.
- CDC will begin a feasibility study of infants who experience diagnostic radiation exposures in order to assess exposures in vulnerable populations.

Additionally, the FY 2011 funds for the Radiation Studies Program will enhance CDC's ability to protect public health from radiological health threats by developing a software tool to analyze laboratory urine bioassay results, evaluate urine bioassay interpretation and associated uncertainties in terrorism scenarios and recommended best practice, and further evaluate potential dose to the infant drinking breast milk from a mother who has internal radioactive contamination.

Rationale and Recent Accomplishments: Between 1980 and 2006, the average radiation dose per individual in the U.S. nearly doubled, primarily due to increased use of radiation in medical diagnostic and interventional procedures. A radiological incident in a major urban area would potentially expose tens of thousands of people to radioactive material, or could even result in hundreds of thousands of casualties. CDC is responsible for leading the public health response during a radiological incident. The Radiation Studies Program houses health physicists, the agency's experts on the health impacts of radiation. These personnel support efforts to train and prepare for a radiological emergency. Recently, CDC improved federal, state, and local ability to respond to a radiological emergency through activities such as providing training to epidemiologists on basic radiation principles and their role in a radiation event; developing surveillance tools and reporting tools; and guiding state and local health officials on how to monitor people for radioactive contamination following a radiological emergency, a key responsibility for public health. These activities help to prepare states for emergencies and other potential health threats stemming from an unplanned radiological incident.

Health Impact: In FY 2011 CDC will work with response staff, state and local public health partners, and emergency services clinicians to strengthen skills and develop procedures for emergency response. In addition, CDC will ensure that state and local jurisdictions maintain readiness for an incident through efforts to address public health issues in communities' emergency preparedness planning (*Please see output 10.H and outcome 10.1.2 specific information*).

Environmental Health Monitoring and Surveillance Emergency Preparedness

FY 2011 resources to support activities in environmental health monitoring and surveillance emergency preparedness are allocated from the CDC preparedness and response capability budget line.

NCEH provides environmental health expertise to health surveillance and monitoring as part of CDC's preparedness efforts. Health monitoring and surveillance identifies chemical threats to a population, monitors trends in environmental exposure, and identifies vulnerable populations during emergency response to natural and man-made disasters. Examples of activities supported by FY 2011 funds are noted below.

- NCEH will continue to use the National Poisoning Data System (NPDS) for the analysis, visualization, and reporting of data from 61 regional poison centers regarding human exposures to hazardous chemicals, toxins, and other substances and their associated health effects.
- NCEH will continue to lead the Disaster Surveillance Work Group (DSWG). This CDC-wide group provides improved coordination of surveillance activities during natural disasters, provides technical assistance to state and local health departments prior to and following a natural disaster, and evaluates and standardizes surveillance tools to improve the timeliness, accuracy, and comparability of disaster surveillance data.

Rationale and Recent Accomplishments: CDC has used the National Poisoning Data System to detect and characterize exposures to hazardous substances and shared these data with federal, state, and local public health officials to improve situational awareness and identify appropriate interventions, as well as to monitor outbreaks to better track spatial and temporal illness trends associated with the outbreak. In addition, leading the DSWG, NCEH coordinated surveillance activities during multiple public health responses to natural disasters such as the 2008-2009 Hurricane Season, 2009 Kentucky Ice Storms, and 2009 American Samoa Tsunami.

All-Hazards Preparedness and CDC Laboratories

FY 2011 resources to support activities in all-hazards preparedness and CDC laboratories are allocated from the CDC preparedness and response capability budget line.

CDC laboratories contribute to all-hazards preparedness by conducting bench research on numerous biothreats and causative agents. In FY 2011, CDC chemical laboratories will continue to maintain immediate response capability, including the Rapid Toxic Screen, and capacity of methods to measure chemical agents in blood and urine to obtain exposure information within 24–36 hours in response to a known or potential event, including support of epidemiologic investigations of known or potential events detected by poison control center surveillance.

Rationale and Recent Accomplishments: CDC is the world leader in measuring exposure to environmental chemicals in blood, serum, and urine. With this capability, CDC responds to approximately 20 requests per year to analyze samples related to chemical emergencies. Working in conjunction with other federal agencies, CDC rapidly identifies the agent, determines who was exposed, and measures the dose in these samples. Today, CDC (along with partners in the state laboratories) can perform high throughput analysis of chemicals identified using the Rapid Toxic Screen. Current capacity is 500 samples in 72 hours. A decade ago, such analyses would have taken nearly eight months to complete.

Health Impact: CDC radiation laboratories will continue to develop rapid analytical methods for the detection of radionuclide exposures to provide data for diagnosis, treatment, and prevention. The analytical methods have special importance for method accuracy, sensitivity, and adequate sample analysis throughput. Work on these analytical methods is in the early stages. The full complement of analytical methods will be a compilation of 12-15 analytical methods, which collectively identify and quantify 22 or more priority radionuclides in people, providing a valuable measure of internal contamination.

IT INVESTMENTS

CDC invests in numerous Information Technology (IT) systems which support strategic and performance outcomes. The IT systems have diverse purpose, scope and composition. The systems provide electronic capabilities for gathering, storing, manipulating and disseminating valuable data for public health monitoring and tracking activities. The investment and use of IT systems are necessary to meet established goals and performance outcomes. The systems track non-infectious diseases and other health effects that may be associated with environmental exposures, maintains and collects standardized data from surveillance systems at the state and national level, and provides these data to develop and evaluate effective public health actions to prevent or control diseases.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 10.2: Prevent or reduce illnesses, injury, and death related to environmental risk factors.				
10.2.2: Number of children under age 6 with elevated blood lead levels. *(Outcome)*	FY 2007: 121,000 *(Not Met but Improved)*	79,000	67,000	-12,000

OUTPUT TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Efficiency Measure 10.E.2				
10.E.2: Maintain the percentage of cost savings each year for CCEHIP as a result of the Public Health Integrated Business Services HPO. *(Efficiency)*	FY 2009: 38%	29%	30%	+1%
Long Term Objective 10.1: Determine human health effects associated with environmental exposures.				
10.1.1: Number of environmental chemicals, including nutritional indicators that are assessed for exposure of the U.S. population. *(Output)*	FY 2009: 323 (*Met*)	323	323	Maintain
10.1.2: Complete studies to determine the harmful health effects from environmental hazards *(Output)*	FY 2009: 25 (*Met*)	25	25	Maintain
10.1.3: Number of laboratory quality standards maintained in certified or participating laboratories for tests such as lipids; newborn screening; those predictive of type 1 diabetes; blood lead, cadmium, and mercury; and nutritional factors. *(Output)*	FY 2009: 967 (*Exceeded*)	974	974	Maintain
Long Term Objective 10.2: Prevent or reduce illnesses, injury, and death related to environmental risk factors.				
10.2.4: Increase the proportion of those with current asthma who report they have received self –management training for asthma in populations served by CDC funded state asthma control programs. *(Output)*	FY 2006: 45%	49%	50%	+1%

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
10.A: New or improved methods developed for measuring environmental chemicals in people	FY 2009: 16	9	9	Maintain
10.B: Laboratory studies conducted to measure levels of environmental chemicals in exposed populations	FY 2009: 52	52	52	Maintain
10.C: Public health actions undertaken (using Environmental Health Tracking data) that prevent or control potential adverse health effects from environmental exposures	FY 2009: 14	15	15	Maintain
10.D: Funded state and local lead and healthy homes programs to reduce exposures to lead and other health hazards in homes	FY 2009: 40	46	46	Maintain
10.E: State, local, and territorial programs funded to develop or implement asthma control plans	FY 2009: 36	36	36	Maintain
10.F: States assisted with screening newborns for preventable diseases	FY 2009: 50	50	50	Maintain
10.G: State and local health departments with comprehensive strategic plans that identify and address the health impacts of climate change.	FY 2009: 11	14	13	-1
10.H: Emergency radiation preparedness toolkits provided to clinicians/ public health workers	FY 2005 – FY 2009: 10,000	1,000	1,000	Maintain
10.I: State or local health departments supported to integrate prospective Health Impact Assessments (HIAs) into transportation and community design and or planning	N/A	4	8	+4

LIVING LIFE TO ITS FULL POTENTIAL THROUGH THE PREVENTION OF INJURIES AND VIOLENCE

As the leading cause of death for the first four decades of life, injuries and violence affect everyone regardless of gender, race, or socioeconomic status. Most events that result in injury and/or death could be prevented if evidence-based strategies and technologies were used. Motor vehicle crashes, child abuse and neglect, debilitating falls, homicide, and drug overdoses occur daily in our communities. The medical costs of treating the short and long-term health consequences that result from injuries and violence are substantial.

EPIDEMIOLOGY

More than 179,000 individuals in the United States die each year as a result of unintentional injuries and violence, and more than 29 million others suffer non-fatal injuries. Injuries can occur throughout the lifespan and their consequences may prevent individuals from living their life to their full potential.

Unintentional injuries, such as drowning, falls, unintentional drug overdoses, and motor vehicle crash related injuries, account for more than 120,000 deaths, over 27 million non-fatal injuries and over one-third of all emergency department (ED) visits each year. Motor vehicle crash related injuries are the leading cause of unintentional injury for all ages. Each year, nearly 9.2 million children under age 19 years are seen in EDs for injuries, and more than 12,000 children die as a result of being injured.

Violence, including harm to others and to oneself, results in more than 51,000 deaths each year. Fatal injuries cost the United States an estimated $1.1 billion, including $33.7 million for hospitalizations, $31.8 million for ED visits, and $13.6 million for other outpatient visits.[28] Many who survive violence are left with permanent physical and emotional scars. An estimated 14 percent of children have experienced some form of child maltreatment, about 10 percent of students report being physically hurt by a boyfriend or girlfriend in the past 12 months; and one in 10 high school girls and one in four college aged women report forced sex at some time in their lives. Violence erodes communities by reducing productivity, decreasing property values, and disrupting social services.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

While injuries impact everyone, certain populations are disproportionately impacted. For example, American Indian and Alaska Natives have an overall injury-related death rate that is twice the U.S. rate for all racial/ethnic populations and have motor vehicle related injury and death rates that are 1.5 to three times higher. For every age group, males have higher rates of injury death than females and have a suicide rate that is four times the rate for females. Homicide rates among African-American males ages 15 to 24 are 62 per 100,000, while the rate for white males in the same age group is only 3.0 per 100,000. Girls, though, are at slightly higher risk than boys of all forms of child maltreatment. Persons living in rural counties also have higher risks of death caused by unintentional injuries.

EVIDENCE-BASED INTERVENTIONS

CDC uses the same scientific approach to preventing injuries and violence that is used to prevent infectious and chronic diseases. This approach defines the problem, uses data to inform and evaluate best practices and assures the wide spread adoption of effective interventions. Surveillance activities, scientific research, and other community assessments are used to target evidence-based interventions, monitor program impact, and continue informing appropriate approaches to prevention.

- Surveillance and Data Analysis: CDC collects injury and violence data through the National Violent Death Reporting System (NVDRS) and makes it available through the Web-based Injury Statistics Query and Reporting System (WISQARS). Recently, a task force in Utah used NVDRS data to

[28] Bergen G , Chen LH, Warner M, Fingerhut LA. Injury in the United States: 2007 Chartbook. Hyattsville, MD: National Center for Health Statistics. 2008.

identify trends and risk factors for prescription drug-related suicides. Utah now implements a number of targeted prevention strategies focused on prescribing practices.

- Applied Research: Injury Data Informs Best Practices: Using data to identify, develop, and evaluate new strategies is essential. As part of the process, CDC identifies promising strategies and pilot tests potential interventions in order to identify which are effective at reducing the burden of injury. For example, 92 percent of participants in the "Stay Active & Independent for Life" program in Washington showed improved strength, balance, or fitness.
- Widespread Adoption of Effective Programs and Policy: Disseminating evidence-based practices is essential to gaining wide spread adoption of prevention strategies. Rigorous evaluation must also be undertaken for program improvement. For example, trauma center admissions have been identified as teachable moments for patients with alcohol problems. In response, a CDC funded Injury Control Research Center developed a screening and brief intervention process that uses brief counseling sessions in the trauma center to identify individuals with alcohol problems. The American College of Surgeons now mandates that all Level One trauma centers use this process and have intervention procedures for those who screen positive.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Injury Prevention and Control	**$145,242**	**$0**	**$148,615**	**$147,570**	**-$1,045**
Intentional Injury	$103,384	$0	$102,648	$100,976	-$1,672
Domestic Violence and Sexual Violence	$31,283	$0	$31,900	$31,380	-$520
Child Maltreatment (non-add)	$7,086	$0	$7,104	$6,989	-$115
Youth Violence Prevention	$21,291	$0	$20,076	$19,751	-$325
Domestic Violence Community Projects	$5,511	$0	$5,525	$5,434	-$91
Rape Prevention	$42,516	$0	$42,623	$41,928	-$695
All Other Intentional Injury	$2,783	$0	$2,524	$2,483	-$41
Unintentional Injury	$38,323	$0	$31,704	$30,847	-$857
Traumatic Brain Injury (TBI)	$6,137	$0	$6,152	$5,985	-$167
All Other Unintentional Injury	$32,186	$0	$25,552	$24,862	-$690
Elderly Falls (non-add)	$0	$0	$2,000	$2,004	+$4
Injury Control Research Centers	$0	$0	$10,719	$10,739	+$20
NVDRS	$3,535	$0	$3,544	$5,008	+$1,464

INJURY PREVENTION AND CONTROL

SUMMARY OF THE REQUEST

CDC requests $147,570,000 for injury prevention and control in FY 2011, a decrease of $1,045,000 below the FY 2010 Omnibus which is inclusive of contract and travel savings (please see page 17 for more information). FY 2011 funds will support CDC's work to prevent and control injuries and violence through a range of activities, including data collection to identify risk and protective factors, evaluation of prevention strategies, and widespread promotion and adoption of prevention approaches based on the best available science.

The FY 2011 budget request for injury prevention and control will support the major activities noted below.

- CDC requests $100,976,000 for intentional injury in FY 2011, a decrease of $1,672,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information).
- CDC requests $30,847,000 for unintentional injury in FY 2011, a decrease of $857,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information).
- CDC requests $10,739,000 for injury control research centers in FY 2011, an increase of $20,000 above the FY 2010 Omnibus.
- CDC requests $5,008,000 for the National Violent Death Reporting System (NVDRS) in FY 2011, an increase of $1,464,000 above the FY 2010 Omnibus.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Budget Authority	$145,242	$0	$148,615	$147,570	-$1,045
PHS Evaluation Transfers	$0	$0	$0	$0	$0
Total	$145,242	$0	$148,615	$147,570	-$1,045
FTEs	166	N/A	168	171	+3

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 3172, 319, 327, 352, 391, 392, 393, 393A, 393B, 393C, 393D, 3942, 394A2, 399P, Traumatic Brain Injury Act of 2008 (P.L. 110-206), Safety of Seniors Act of 2007 (P.L. 110-202); Sec 413 of the Family Violence Prevention and Services Act (42 USC Sec. 10418)

FY 2010 Authorization……Expired/Indefinite

Allocation Method……Direct Federal Intramural; Competitive Cooperative Agreements/Grants, including Formula Grants; and Competitive Contracts

PROGRAM DESCRIPTION

Injuries are the leading cause of death for people ages one to 44 in the United States, affecting all ages, races, ethnicities, and genders. CDC's activities support the prevention of both unintentional injuries and violence. In the area of unintentional injury prevention, CDC works to ensure that all people have safe and healthy homes, places to play, and transportation options by addressing injuries including those resulting from motor vehicle crashes, older adult falls, prescription drug overdoses, childhood drowning and traumatic brain

injuries and responding to blast injuries and other traumatic events. CDC also works to promote safe homes, communities, and relationships by addressing the prevention of violence including intimate partner violence, child maltreatment, youth violence, suicide, and sexual violence.

CDC documents the burden, identifies ways to prevent injuries from occurring, and disseminates interventions grounded in a rigorous science base. CDC also builds state-based injury capacity, tracks and monitors injury trends at state and local levels, identifies and addresses emerging issues, and collaborates with partners to develop programmatic interventions and publicize key research findings. FY 2011 funds will support the activities described above to prevent unintentional injuries and violence. This budget request highlights four key areas of CDC's injury prevention activities: the National Violent Death Reporting System (NVDRS); intimate partner violence (IPV), sexual violence (SV) and child maltreatment prevention; the Public Health Injury Surveillance and Prevention Program; and motor vehicle safety.

MECHANISMS AND FUNDING HISTORY TABLE

CDC awards cooperative agreements to state health departments, academic institutions, domestic violence coalitions, and other entities. CDC awards Public Health Injury Surveillance and Prevention Program funding to 30 states. All 50 states, the District of Columbia, and six territories receive funds for Rape Prevention and Education activities. CDC supports 18 states' participation in the National Violent Death Reporting System. Additionally, CDC supports ten Academic Centers of Excellence in Youth Violence Prevention, 11 Injury Control Research Centers and 14 state domestic violence coalitions. CDC provides funds to universities and other research organizations through grants for investigator initiated peer reviewed research. CDC allocates remaining funds through inter-agency agreement, contracts, intramural research, personnel, technical assistance, and other programmatic oversight.

Fiscal Year	Amount
FY 2006	$138,313,000
FY 2007	$136,118,000
FY 2008	$134,837,000
FY 2009	$145,242,000
FY 2010	$148,615,000

Budget Request: National Violent Death Reporting System (NVDRS)

In FY 2011, CDC will invest $5.0 million to support NVDRS, which gathers and links state-level data from state and local agencies, medical examiners, coroners, police, crime labs, and death certificates to answer questions about trends and patterns of violence. Individually, these sources provide fragmented data that explain violence only in a narrow context. NVDRS provides states with a more accurate and complete understanding of the problem of violent deaths in their state. In FY 2011, NVDRS funds will support the activities noted below.

- CDC's NVDRS resources will support 18 states to collect and report data on violent deaths.
- As a result of proposed $1.5 million funding increase for NVDRS, CDC anticipates funding up to six new states to participate in NVDRS and will support efforts to link all grantees with state vital statistics to enhance the timeliness of data.

Rationale and Recent Accomplishments: The NVDRS system links existing data systems to provide a more comprehensive picture of the violent deaths that occur in a state. Additionally, NVDRS will provide insight into the optimal points for intervention and allow states to design and implement tailored prevention efforts. NVDRS fills the gaps in current data collection that does not always provide the information needed to accurately assess factors associated with violent death. For example, death certificates provide data on the victim but do not provide information on the perpetrator. This information is more commonly found in police reports. CDC anticipates funding 18 states' participation in NVDRS in FY 2010. Recent accomplishments for NVDRS include the following activities noted below.

- CDC has increased data accessibility by developing the WISQARS NVDRS module. WISQARS now provides customizable searches based on factors including demographics, victim/suspect relationship, and method of injury.
- In 2009, CDC added a module to NVDRS to collect data related to Intimate Partner Violence (IPV). This will increase identification of IPV at the state level and identify appropriate interventions.

Health Impact: In FY 2011, funding will ensure that funded states have accurate and comprehensive data on violent deaths. Participating states can use NVDRS data to prioritize program and policy interventions and leverage additional funding to implement programs. For example, analysis of Oregon's NVDRS data found that 37 percent of older adult suicide victims had visited their physician within 30 days of their death. As a result, the health department secured additional funding to expand tailored suicide prevention efforts for older adults in Oregon. (*Please see output 11.A for specific information.*)

Budget Request: Intimate Partner Violence, Sexual Violence, and Child Maltreatment Prevention

Violence affects people in all stages of life. CDC works to prevent IPV, SV, child maltreatment, and other forms of violence before they occur. CDC's FY 2011 funding request includes support for a range of activities to prevent violence including the following activities noted below.

- CDC will support research to identify effective strategies to prevent child maltreatment, publicize and disseminate key findings, and promote safe, stable, nurturing relationships (SSNR). Fostering SSNRs promote a child's healthy development, and in turn reduce their exposure to child maltreatment.
- In order to increase the availability of IPV prevention activities at the community level, CDC will fund 14 Domestic Violence Prevention Enhancement and Leadership Through Alliances (DELTA) grantees. In addition, CDC will evaluate the program's impact in order to improve program effectiveness. DELTA grantees will provide technical assistance, training, and funding to communities to build IPV prevention capacity and increase local access to prevention programs.
- CDC will continue to fund 57 Rape Prevention and Education (RPE) grantees to implement interventions that target the risk factors for SV and provide technical assistance to grantees. RPE awards formula grants to all states and territories for sexual violence prevention programs conducted by rape crisis centers, state sexual assault coalitions, and other public and private nonprofit entities.

Rationale and Recent Accomplishments: In 2007, Child Protective Services (CPS) classified 794,000 children as victims of child abuse or neglect; three quarters of them had no history of prior victimization. Exposure to child maltreatment can lead to increased risk of heart disease, cancer, and drug abuse. Each year, women experience about 4.8 million intimate partner related physical assaults and rapes. Violence can lead to physical injuries and long lasting emotional effects such as low self-esteem, eating disorders, and depression. The direct medical and mental health costs of intimate partner rape, physical assault, and stalking exceed $4.1 billion. Noted below are several accomplishments that resulted from CDC's investment in violence prevention.

- As a result of CDC funding, CDC and grantees have been able to leverage additional funds to increase their investment in violence prevention and to identify effective programs that could be expanded. For example, because of the success of the DELTA program, the Robert Wood Johnson Foundation and the CDC Foundation funded an extension of the program, DELTA PREP, to reach states not currently eligible for DELTA. DELTA PREP funds state level domestic violence coalitions for three years to prevent first-time perpetration and first-time victimization of IPV. This new funding expands the reach of the DELTA program from 14 to 33 states and increases program sustainability. Current DELTA grantees will act as "coaches" for DELTA PREP grantees to accelerate learning and foster a sustainable community of practice.

funded states were more likely to have an established injury program and access to core injury focused data sets than non-Core funded states. Without the Core program, many states would have limited or no ability to respond to injury and violence related issues. Additionally, the comprehensive injury data reporting supported by the Core program provides states with critical information needed to effectively identify and bring attention to the burden of injury, prioritize activities and allocate resources to the leading causes of injury in their state, and understand whether interventions have an impact on injuries and deaths. Recent accomplishments related to the Core program are noted below.

- Core states have used the increased focus on injury at the state level to leverage additional resources for injury prevention that more than doubles the investment made by CDC. For example, the Rhode Island (RI) Department of Health successfully applied for $1.5M in funds from the Substance Abuse and Mental Health Services Administration to institute gate keeping into Rhode Island schools and community based organizations.
- All of CDC's funded Core states have access to hospital discharge data while only 67 percent of non-core funded states have access to this critical information. Hospital discharge data are used to track injury rates, inpatient costs, patient characteristics, and outcomes for specific types of injuries. Lacking access to this data prevents state injury prevention programs from having a clear picture of the burden of injury in their state.
- The South Carolina Department of Health and Environmental Control (DHEC) used data analyzed as part of Core program to guide a DHEC sponsored workgroup's development of a strategic plan for falls prevention and their work with state partners that led to the funding for, and implementation of, the Matter of Balance (MOB) program in select communities.

Health Impact: Core program funding will improve the ability of states to have a positive impact on maximizing health and injury and violence prevention. Data reporting will allow for a more complete picture of the burden of injuries and violence that can inform the decision making process while also measuring the impact of interventions. The potential health impact will differ by state due to differences in capacity, priority issue chosen and the injury burden. Core program funding assures that states will have resources to identify and address these priority issues and begin laying the groundwork to respond accordingly. (*Please see output 11.C for specific information.*)

Budget Request: Motor Vehicle Safety

CDC uses a science-based, public health approach to promoting safe travel and developing recommendations for effective programs and policies in such areas as booster seat and seatbelt use, reducing impaired driving, graduated driver licensing (GDL), preventing bicyclist and pedestrian injuries, and reducing risk levels for American Indian/Alaska Native (AI/AN) and other high risk populations. CDC's motor vehicle safety activities include understanding risk factors, evaluating interventions, and translating research into practice to prevent motor vehicle crash-related injuries and deaths. FY 2011 resources will support a range of efforts listed below.

- In order to promote strong policies at the state level, CDC will continue piloting a GDL planning guide to determine effectiveness in four to six states. GDL programs protect teens by delaying full licensure while allowing new drivers to gain experience under low risk conditions. Although most states have a basic GDL system, state GDL systems need to be more comprehensive (stronger) for maximum effectiveness. CDC developed the GDL Planning Guide to assist states in determining their strengths weaknesses toward implementing and enforcing their state GDL policies and developing action plans to improve their state's GDL policy. If effective, the pilot will be expanded to other states, with priority given to states with weak GDL policies.
- CDC will evaluate a communications campaign to educate parents on safe driving habits for teen drivers. The evaluation will inform revisions to materials and the widespread distribution of

campaign materials. Parents play an important role in implementing GDL systems and for keeping teen drivers safe. The current pilot program uses the best available evidence-based strategies to reach out to parents and educate them on GDL and keeping their teens' safe while on the road. Lessons learned from the pilot will be used to refine the guide to be a more effective tool in communicating with parents of teenage drivers on how to keep their teenagers safe while driving. Once any necessary revisions have been completed CDC plans to make the materials available nationally.

- CDC will fund four AI/AN tribal organizations to tailor, implement, and evaluate known effective interventions to reduce motor vehicle related injuries in their communities.
- In coordination with partner organizations, CDC will develop and distribute tools to practitioners, decision-makers and the public on program and policy strategies to improve motor vehicle safety.

Rationale and Recent Accomplishments: Motor vehicle related injuries are the leading cause of injury related death for people ages one to 34, and nearly five million people sustain injuries that require an emergency department visit each year. Medical expenses for victims of motor vehicle crashes cost the U.S. approximately $32.6 billion in 2000. [30] Seat belts, booster seats, and implementing GDL systems, among others can have a positive effect on reducing motor vehicle crash related deaths. For example, the most comprehensive GDL systems can lead to reductions of 38 to 40 percent in injury crashes for 16-year-old drivers. Additionally, in 2006, child restraints saved an estimated 425 lives of children under the age of five; if use of child restraints had been 100 percent, another 96 lives could have been saved.[1] Recent accomplishments in motor vehicle safety include those listed below.

- The Ho-Chunk Nation implemented effective motor vehicle safety interventions and seat belt use has increased by 72 percent for passengers and 40 percent for child safety seat use.
- CDC developed and pilot tested a communications campaign for parents about safe teen driving. In partnership with the Allstate Foundation and 28 local and national partners the pilot reached more than 870,000 parents through broadcast media, more than 195,000 through print media and more than two million online.
- CDC began pilot testing a GDL Planning Guide in Iowa and New Hampshire. In the Iowa legislature, a GDL bill proposed in 2009 reflects the provisions that the Iowa Teen Driver Coalition, a participant in the pilot program, wanted.

Health Impact: Strategies and tools developed as part of this program will decrease the risk of being involved in a motor vehicle crash and severity of injuries if a motor vehicle crash does occur. For example, raising seat belt use to 100 percent would save 4,000 to 5,000 lives per year. Additionally, if all states implemented strong GDL policies, 175 less 16-year olds would die from motor vehicle crashes each year. (*Please see output 11.D for specific information.*)

IT INVESTMENTS

CDC invests in information technology to improve its tracking and monitoring of both injury trends and of funding expenditures. NEXT, NCIPC's budget tracking tool, tracks and monitors the planning and execution of center projects. WISQARS, NCIPC's web-based data query system, provides customizable information on injury burden to the public. This system will expand to include mapping and cost modules.

[30] Motor Vehicle Occupant Protection Facts, National Highway Transportation Safety Administration. Revised August 2008.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 11.2.1: Achieve reductions in the burden of injuries, disability, or death from intentional and unintentional injuries for people at all life stages.				
11.1.1: Reduce youth homicide rate by 0.1 per 100,000 annually. (*Outcome*)	FY 2005: 9.2 / 100,000 (*Target Not Met*)	8.7 / 100,000	8.7/100,000	Maintain
11.1.2a: Reduce victimization of youth enrolled in grades 9-12 as measured by: a reduction in the lifetime prevalence of unwanted sexual intercourse. (*Outcome*)	FY 2007: 7.8% (*Target Not Met*)	N/A	6.4%	N/A
11.1.2b: Reduce victimization of youth enrolled in grades 9-12 as measured by: the 12-month incidence of dating violence. (*Outcome*)	FY 2007: 9.9% (*Target Not Met*)	N/A	7.7%	N/A
11.1.2c: Reduce victimization of youth enrolled in grades 9-12 as measured by: the 12-month incidence of physical fighting. (*Outcome*)	FY 2007: 35.5% (*Target Not Met, but Improved*)	N/A	28.4%	N/A
11.2.1: Among the states receiving funding from CDC, reduce deaths from residential fires by 0.01 per 100,000 population. (*Outcome*)	FY 2006: 1.15 / 100,000 (*Target Exceeded*)	1.1 / 100,000	N/A	N/A
11.2.2: Achieve an age-adjusted fall fatality rate among persons age 65+ of no more than 69.6 per 100,000. (*Outcome*)	FY 2006: 44.4 (*Target Not Met*)	52.1	54.3	2.2
11.2.3: Decrease the estimated percent increase of age-adjusted fall fatality rates among persons age 65+ years. (*Outcome*)	FY 2006: 0.87% reduction (*Target Not Met but Improved*)	9.56 % reduction	9.66% reduction	0.1%

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
11.A: National Violent Death Reporting System	18	18	≤ 24	≤ 6
11.B: Rape Prevention and Education Grants	57	57	57	Maintain
11.C: Core State Injury Program	30	30	30	Maintain
11.D Graduated Drivers License Policy Pilot Project	2	4	6	+2

GRANTEE TABLE

	Core State Injury Program	National Violent Death Reporting System	Rape Prevention and Education
STATE/TERRITORY	**FY 2009 Actual**	**FY 2009 Actual**	**FY 2009 Actual**
Alabama	$0	$0	$588,281
Alaska	$0	$160,578	$84,721
Arizona	$127,358	$0	$678,385
Arkansas	$0	$0	$354,469
California	$127,358	$0	$4,466,911
Colorado	$257,358	$216,027	$569,032
Connecticut	$127,358	$0	$450,977
Delaware	$0	$0	$105,364
District of Columbia	$0	$0	$77,488
Florida	$127,358	$0	$2,108,792
Georgia	$127,358	$257,561	$1,081,180
Hawaii	$127,358	$0	$161,792
Idaho	$0	$0	$172,640
Illinois	$0	$0	$1,639,134
Indiana	$0	$0	$803,597
Iowa	$0	$0	$387,806
Kansas	$127,358	$0	$356,465
Kentucky	$127,358	$219,561	$534,828
Louisiana	$127,358	$0	$591,143
Maine	$127,358	$0	$170,117
Maryland	$127,358	$251,999	$700,233
Massachusetts	$127,358	$239,398	$839,006
Michigan	$0	$264,182	$1,312,129
Minnesota	$369,362	$0	$650,548
Mississippi	$0	$0	$377,033
Missouri	$0	$0	$739,597
Montana	$0	$0	$120,996
Nebraska	$127,358	$0	$227,637
Nevada	$127,358	$0	$265,495
New Hampshire	$0	$0	$164,956
New Jersey	$0	$200,968	$1,111,202
New Mexico	$127,358	$186,070	$241,838
New York	$127,358	$0	$2,503,488
North Carolina	$0	$257,593	$1,063,099
North Dakota	$0	$0	$86,717
Ohio	$127,358	$273, 727	$1,498,591
Oklahoma	$257358	$207,720	$456,968

	Core State Injury Program	National Violent Death Reporting System	Rape Prevention and Education
STATE/TERRITORY	**FY 2009 Actual**	**FY 2009 Actual**	**FY 2009 Actual**
Oregon	$127,358	$199,322	$453,086
Pennsylvania	$127,358	$0	$1,620,902
Rhode Island	$167,358	$130,966	$140,245
South Carolina	$279,362	$215,930	$530,911
South Dakota	$0	$0	$101,559
Tennessee	$127,358	$0	$752,028
Texas	$0	$0	$2,750,672
Utah	$217,368	$206,786	$296,459
Vermont	$127,358	$0	$82,310
Virginia	$127,358	$242,684	$935,137
Washington	$127,358	$0	$778,999
West Virginia	$0	$0	$240,445
Wisconsin	$127,358	$218,686	$709,086
Wyoming	$0	$0	$67,173
State Sub-Total	$4,604,758	$3,676,031	$37,201,667
America Samoa	$0	$0	$0
Guam	$0	$0	$22,454
Marshall Islands	$0	$0	$8,549
Micronesia	$0	$0	$18,386
Northern Marianas	$0	$0	$11,568
Puerto Rico	$0	$0	$504,162
Palau	$0	$0	$0
Virgin Islands	$0	$0	$18,009
Territory Sub-Total	$0	$0	$583,128
Total States/Territories	**$4,604,758**	**$3,676,031**	**$37,784,795**

IMPROVING OCCUPATIONAL SAFETY AND HEALTH

Workers are exposed to safety and health hazards every day on the job. Unfortunately, as a result, many workers are killed, hurt, or become ill. CDC's National Institute for Occupational Safety and Health (NIOSH) provides national and world leadership to prevent work-related illness, injury and death by gathering information, conducting scientific research, and translating the knowledge gained into products and services.

EPIDEMIOLOGY

More than 145 million people in the United States were employed in the civilian workforce in 2008. These workers spend a quarter of their lifetime and up to half of their waking lives at work or commuting. They also continue to suffer work-related deaths, injuries, and illnesses despite improvements in workplace safety and health over the last several decades. On average, 15 workers in the United States die each day from injuries sustained at work, and 134 die from work-related diseases. In 2008 alone, more than 5,000 U.S. workers died from occupational injuries. Also in 2008, employers in the private sector reported 3.5 million nonfatal work-related injuries and more than 257,000 cases of occupational illness.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

Disparities exist in the rates of work-related illness and injuries and in exposure to occupational hazards, although the full extent is not known due to gaps in surveillance systems. Workers with specific biologic, social, and/or economic characteristics – such as female workers, younger workers, older workers, workers with disabilities, immigrant workers, and migrant and agricultural workers – are more likely to have increased risks of work-related diseases and injuries. Such disparities are described below.

- Older workers: Older workers have been found to take longer to return to work following an injury, illness, or disability, reflecting a decline in recuperative ability of the body that occurs with age. Older workers also show increased adverse health responses to certain types of workplace practices, such as shift work.
- Hispanic and foreign-born workers: For the last decade, fatal work injury rates for Hispanic workers have been consistently higher than the overall national fatality rate. In addition, more than 60 percent of fatally injured Hispanic or Latino workers in 2008 were born outside the United States. This disparity is due, in part, to the disproportionate number of Hispanic immigrants working in high-risk industries such as construction, agriculture, and manufacturing. Language and literacy may also play a role by compromising worker safety and health training.
- Migrant and Agricultural workers: In the United States, approximately 2 million hired farm workers are involved in agricultural work. Most have a very low literacy level, which can significantly impact their ability to read warning labels or understand safety instructions. Occupational risks for these workers primarily include musculoskeletal disorders, eye and skin irritation associated with fertilizers and other chemicals, and skin irritation associated with a lack of access to hand-washing facilities.

ECONOMIC ANALYSIS

Worker deaths, injuries, and diseases translate into tremendous economic costs and may have significant consequences for individual workers and their families. In 2007, employers spent nearly $85 billion on worker's compensation, but this represents only a portion of the total economic burden and does not include cost-shifting to other insurance systems and most costs of work-related disease.[31] In addition, work-related injuries and illnesses can result in temporary or permanent loss of earnings, which may exact a high personal cost for workers and their families.

[31] Sengupta I, Reno V, Burton JF Jr. Worker's compensation: benefits, coverage, and costs, 2007. Washington, DC: National Academy of Social Insurance; 2009.

EVIDENCE-BASED INTERVENTIONS

Despite the continuing burden of work-related disease, injury, and death, substantial progress has been made in improving worker safety. Much of this progress has been based on actions guided by research, the application of evidence-based interventions, and the efforts of occupational safety and health specialists. CDC uses these strategies to improve occupational safety and health.

Conducting Scientific Research: CDC develops evidenced-based interventions to reduce work related death, injury and disease as a result of laboratory and field research. For example, CDC research was instrumental in helping to identify the risk of a severe, work-related lung disease (bronchiolitis obliterans) in workers exposed to vapors from heated butter flavorings in industrial operations. CDC worked with diverse partners to provide a fundamental base of knowledge about the nature of the hazard in popcorn manufacturing plants, identified the factors that contributed to the risk, designed interim exposure control measures in plants, and assessed the effectiveness of those interim controls. CDC has collaborated with partners to disseminate its findings and recommendations for use nationwide.

Moving Research to Practice: To ensure that research has an impact on the lives of workers and their families, CDC works closely with partners to transfer and translate research findings, technologies, and information into highly effective prevention practices and products that can be immediately adopted into the workplace. For instance, CDC, in collaboration with manufacturers, labor, and industry, developed a new personal dust monitor for assessing coal miners' exposure to coal dust in underground coal mines. The monitor provides mine operators with real-time exposure data during a work shift and arms them with information to make decisions to reduce overexposures that might lead, over time, to the development of coal workers' pneumoconiosis or "black lung," a debilitating lung disease.

Training: To address the critical need for a multidisciplinary workforce in occupational safety and health, CDC supports occupational safety and health research and education through university-based research; agricultural disease and injury-related research; and through training. These efforts train occupational health professionals and researchers to help meet the increasing demand for occupational physicians, occupational nurses, industrial hygienists, and safety professionals.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Occupational Safety and Health- Budget Authority	**$268,834**	**$0**	**$281, 447**	**$364,318**	**+$82,871**
Occupational Safety and Health- PHS Evaluation Transfers	***$91,225***	***$0***	***$91,724***	***$91,724***	***+$0***
Education and Research Centers	$23,497	$0	$24,370	$24,460	+$90
Personal Protective Technology	$17,042	$0	$17,218	$16,892	-$326
Pan Flu Preparedness for Healthcare Workers (non-add)	*$3,000*	*$0*	*$3,031*	*$3,042*	*+$11*
Healthier Workforce Center	$4,030	$0	$5,036	$5,055	+$19
National Occupational Research Agenda (NORA)	$111,644	$0	$117,406	$124,528	+$7,122
NORA – Budget Activity	$20,419	$0	$25,682	$32,804	+$7,122
Nano Technology (non-add)	*$0*	*$0*	*$9,500*	*$16,544*	*+$7,044*
NORA – PHS Evaluation Transfers	*$91,225*	*$0*	*$91,724*	*$91,724*	*+$0*
World Trade Center – BA	$70,000	$0	$70,723	$150,137	+$79,414
Mining Research	$50,000	$0	$53,705	$52,736	-$969
Other Occupational Safety and Health Research	$83,846	$0	$84,713	$82,234	-$2,479
Miners Choice (non-add)	*$641*	*$0*	*$648*	$650	*+$2*
National Mesothelioma Registry and Tissue Bank (non-add)	*$1,014*	*$0*	*$1,024*	*$1,028*	*+$4*

OCCUPATIONAL SAFETY AND HEALTH

SUMMARY OF THE REQUEST

CDC requests $456,042,000 for Occupational Safety and Health in FY 2011, an increase of $82,871,000 above the FY 2010 Omnibus. FY 2011 funds will support CDC's research and provide recommendations for the prevention of workplace injury, illness, and death.

Two activities of note in the FY 2011 budget request for occupational safety and health are provided below.

- CDC requests $150,137,000 for the World Trade Center in FY 2011, an increase of $79,414,000 above the FY 2010 Omnibus.
- CDC requests $124,528,000 for the National Occupational Research Agenda in FY 2011, an increase of $7,122,000 above the FY 2010 Omnibus, for nanotechnology activities.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Budget Authority	$268,834	$0	$281,447	$364,318	+$82,871
PHS Evaluation Transfers	$91,225	$0	$91,724	$91,724	$0
Total	$360,059	$0	$373,171	$456,042	+$82,871
FTEs	1,178	0	1,190	1,110	-80

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 307, 310, 311, 317, 317A, 317B, 327, Occupational Safety and Health Act of 1970 (P.L. 91-596), §§ 9, 20-22 (29 USC 657), Federal Mine Safety and Health Act of 1977, P.L. 91-173 as amended by P.L. 95-164, §§ 101, 102, 103, 202, 203,204, 205, 206, 301, 501, 502, 508 and PL 95-239 § 19 (30 USC 904), Federal Fire Prevention and Control Act, § 209, (29U.S.C.671(a)), Radiation Exposure Compensation Act, §§ 6 and 12(42U.S.C.2210), Housing and Community Development Act of 1922 §1021 (15 U.S.C. 2685), Energy Employees Occupational Illness Compensation Program Act (2000) 42 U.S.C. 7384, et. Seq. (as amended), Floyd D. Spence National Defense Authorization Act §§ 3611, 3612, 3623, 3624, 3625, 3626 of P.L. 106-398, National Defense Authorization Act for Fiscal Year 2006, PL 109-163, Toxic Substances Control Act (15 USC 2682), Prohibition of Age Discrimination Act (29 USC 623), Mine Improvement and New Emergency Response Act of 2006 (MINER Act), P.L. 109-236 (29 U.S.C. 671, 30 U.S.C. 963 and 965) §§ 6, 11 and 13

FY 2010 Authorization……...……Expired/Indefinite

Allocation Methods……...……..……Direct Federal/Intramural; Competitive Grant/Cooperative Agreements; Contracts; Other

PROGRAM DESCRIPTION

Despite improvements in workplace safety and health, nearly 15 workers in the United States die each day from injuries sustained at work, and 134 die from work-related diseases. CDC's National Institute for Occupational Safety and Health (NIOSH), established by the Occupational Safety and Health Act of 1970, is the only federal entity responsible for conducting research and making recommendations for the prevention of work-related injury and illness. CDC works to prevent the burden of workplace injury and illness through research, information, education, and training in the field of occupational safety and health (OSH). Funding supports both intramural and extramural research to prevent or reduce work-related injury and illness. CDC

uses funds to provide guidance to and build capacity in the OSH community and support activities required in the Energy Employees Occupational Illness Compensation Program Act (EEOICPA).

EEOICPA is a mandatory federal program that provides compensation to employees or survivors of employees of Department of Energy (DOE) facilities and private contractors who have been diagnosed with a radiation-related cancer, beryllium-related disease, or chronic silicosis as a result of their work in producing or testing nuclear weapons. CDC estimates occupational radiation exposure for certain cancer cases, considers and issues determinations on petitions for adding classes of workers to the Special Exposure Cohort (SEC), and provides administrative support to the Advisory Board on Radiation and Workers Health (ABRWH). CDC conducts dose reconstructions to estimate an employee's occupational exposure to radiation. The Department of Labor uses these estimates in making compensation determinations.

FY 2011 funds will be used to support CDC's Occupational Safety and Health activities in the areas of Surveillance, the National Occupational Research Agenda (NORA), and Research to Practice (R2P).

MECHANISMS AND FUNDING HISTORY

CDC partners with academic institutions to conduct Occupational Safety and Health (OSH) research and funds university-based Education and Research Centers and training programs to train OSH practitioners and scholars. Forty-nine academic institutions partner with CDC and serve as the academic network responsible for the nation's OSH professional training infrastructure. CDC funds 17 university-based ERCs to train occupational safety and health practicing professionals and researchers. CDC also funds 31 Training Project Grants (TPGs) in academic institutions across the country for single discipline graduate training in core OSH fields.

Fiscal Year	Amount
FY 2006	$262,883,000
FY 2007	$315,100,000
FY 2008	$381,954,000
FY 2009	$360,059,000
FY 2010	$373,171,000

Budget Request: Surveillance

Surveillance of work-related deaths, injuries, illnesses, and hazards for the nation is fundamental to CDC's mission in occupational safety and health. CDC's efforts in occupational safety and health surveillance involve conducting field research and investigations, collecting and analyzing data, supporting state agencies to conduct occupational surveillance and associated prevention efforts, and funding and conducting research on surveillance methods. CDC will use FY 2011 funds for the activities described below.

- CDC will respond to requests for assistance through the Health Hazard Evaluation program (HHE) to determine if workers are exposed to hazardous materials or harmful conditions and whether these exposures are affecting worker health. In 2009, CDC completed over 200 Health Hazard Evaluations.
- States will be funded to conduct similar surveillance and targeted investigations of occupational fatalities involving key risks, including falls in construction, machine-related deaths, deaths of foreign-born workers, and deaths associated with expanding energy production industries. CDC will identify and study specific types of work-related deaths in order to disseminate prevention strategies to those who can intervene in the workplace. In addition, CDC will conduct investigations of fire fighter line of duty deaths to develop recommendations that the fire service can take to prevent the more than 100 fire fighter deaths that occur each year.

- The Coal Workers' Health Surveillance Program, which identifies and tracks cases of pneumoconiosis by providing x-rays, autopsies, and training to physicians to read radiographs of pneumoconiosis will continue to enable CDC to protect the health and safety of underground coal miners.
- CDC will continue to improve available data on nonfatal occupational injuries and illnesses, including collecting data from a nationally representative sample of emergency departments and conducting research to better understand the undercounting of these injuries in existing surveillance systems.
- CDC will continue to provide funding to collect data not otherwise available at the national level and to foster data-driven prevention efforts. CDC supports basic occupational safety and health surveillance programs in several states and more advanced surveillance of high-risk priority conditions, including elevated blood lead levels, pesticide exposures, work-related asthma, silicosis, and deaths from injury.

Rationale and Recent Accomplishments: CDC's occupational surveillance efforts are critical to recognizing potential health hazards in industry and developing interventions that will eliminate or reduce the health impact upon workers. Recent accomplishments are described below.

- For more than 15 years, CDC's Adult Blood Lead Epidemiology and Surveillance system has worked with a growing partnership of states to systematically track laboratory reports of adult blood lead levels by industrial sector. CDC is the only federal supporter of occupational surveillance for lead exposure and currently collects data from 40 funded states. This data helps CDC and states prevent lead overexposures in worksites where elevated exposures occur. For example, since 1998 Wisconsin has succeeded in reducing the number of workers with high blood lead levels by 90 percent.
- CDC worked with state partners to develop the first comprehensive report of cases of illnesses associated with exposures to pesticides from "bug bomb" products. The majority of this data was gathered by CDC-funded state surveillance of acute, occupational, pesticide-related illness and injury. As a result of the report, New York removed indoor insect foggers from store shelves to reduce inadvertent poisonings of workers and consumers.
- In FY 2009, CDC responded to requests for assistance and conducted 200 workplace evaluations through the Health Hazard Evaluation program. CDC evaluated the workplace environment and the health of employees by reviewing records and conducting on-site environmental sampling, epidemiologic surveys, and medical testing and made recommendations to reduce workplace hazards. For example, after receiving more than 660 reports of respiratory and eye irritation from patrons and lifeguards at a hotel indoor waterpark resort, an Ohio county health department requested help from CDC. Investigators linked these health effects to exposure to an air contaminant and recommended changes to the ventilation system to prevent such exposures. Subsequently no new cases were reported to the health department.
- CDC conducted investigations of many fire fighter deaths to develop recommendations about steps that the fire service can take to prevent similar deaths. Every year about 105 fire fighters die in the line of duty across the United States. This program has made over 1,000 recommendations arising from over 450 investigations since its inception in 1998.
- CDC surveillance data on childhood injuries on farms has facilitated focused prevention efforts and allowed the tracking of progress to reduce injuries among farm children. Data show strong reductions in both injuries to children working on farms (a 39 percent decrease) and to children living on farms (a 45 percent decrease) between 1998 and 2006.

Health Impact: CDC's occupational safety and health surveillance will help reduce the annual incidence of work related deaths, injuries, and illnesses in the more than 145 million workers in the United States who spend over half of their waking hours at work. Specifically, CDC will use surveillance to target occupational

safety and health research and intervention priorities and measure the success of implemented intervention strategies. *(Please see output 12.1.2 and outcome 12.2.2 for specific information.)*

Budget Request: World Trade Center Program

CDC's request for the WTC Program provides services to help meet the on-going health needs of persons directly exposed to smoke, dust, debris, and psychological trauma associated with the September 11, 2001 WTC attacks. The population of interest includes emergency responders and clean-up workers who took part in the rescue, recovery, cleanup, and restoration activities at the WTC site in New York City (NYC) as well as residents, students, and other community members (non-responders) in the NYC Metropolitan Area who were affected by the attacks. In addition to addressing the health needs of individuals, this program supports scientific reporting to provide a better understanding of the physical and mental health effects arising from the WTC attack. CDC will use FY 2011 funds for the activities described below.

- CDC will provide monitoring and treatment services for mental and physical health conditions related to WTC-exposures to responders in the NYC Metropolitan Area, as well as responders living outside of the NYC Metropolitan Area.
- CDC will provide monitoring and treatment services for mental and physical health conditions related to WTC-exposures to eligible non-responders.
- CDC will gather data through the WTC Health Registry, which has more than 71,000 registrants, to continue to assess the extent and persistence of physical and/or mental health conditions and gaps in treatment.
- CDC will continue to pursue new methods to increase program accountability and fiscal management in FY 2011.

Rationale and Recent Accomplishments: CDC's WTC Program is critical to help meet the on-going and long-term specialty health needs of those associated with exposure to smoke, dust, debris, and psychological trauma from the WTC attacks. In addition, consistent and long-term data collection on the health effects resulting from WTC-related exposures can help determine how best to prevent this type of event from having an impact of this magnitude in the future. Recent accomplishments are described below.

- As of September 30, 2009, the WTC Program has enrolled 55,331 responders in its monitoring and treatment components. Of this population, 44,754 responders received an initial exam and 12,980 were treated for WTC-related health conditions in the past 12 months.
- As of September 30, 2009, a year after receiving federal funding, the non-responder program component had enrolled 4,155 individuals. All of these enrollees had received an initial exam and 2,202 received treatment for WTC-related health conditions in the past 12 months.
- The WTC Health Registry enrolled 71,437 people who lived, worked, or went to school in the NYC vicinity of the WTC disaster or were involved in rescue, recovery, and clean-up efforts. The WTC Health Registry is currently developing the third wave of the survey used to investigate exposure, illness, and recovery trends among the registrants. In addition, the WTC Health Registry uses its large cohort of registrants to provide surveillance and referral services to the non-responder program component and is determining how best to similarly support the responder clinical centers.

Health Impact: Identification of and interventions for health conditions will help reduce morbidity for those impacted by the WTC disaster. Moreover, data gathered from the WTC Program can be used to establish guidelines to save lives and reduce illness and injury during future response efforts.

Budget Request: National Occupational Research Agenda (NORA)

The National Occupational Research Agenda (NORA) was introduced in 1996 as the largest stakeholder-based research agenda in the United States, and has been the research framework guiding OSH research for CDC and the nation for the past ten years. CDC is now in the second decade of NORA and is building on past successes in designing research to address the 21st century workplace. CDC will use FY 2011 funds for the activities described below.

- In order to strengthen occupational and public health infrastructure, CDC will fund agricultural centers as well as agricultural health and safety-related research grants with intervention/prevention programs at the national, state and local levels. CDC will fund research awards in construction to identify problem areas and obstacles to prevention and translate research into practice via partnerships and field studies across a variety of construction trades. For example, CDC is conducting field evaluations for two interventions suggested by stakeholders to improve safety performance – proximity warning devices and internal traffic control plans. CDC is working with these groups to disseminate solutions throughout the industry.
- CDC's Mining Research Program will support technology development, testing, and evaluation to expand the available technologies for disaster prevention and response. Of particular importance are development of improved oxygen supplies, communication and tracking systems for underground coal mines, and the development and installation of refuge alternatives for miners in the event of an explosion or fire.
- Research and other activities will be conducted in the NORA Healthcare and Social Assistance Agenda's five proposed priority areas which include safety and health programs in health care settings, musculoskeletal disorders, hazardous drugs and other chemicals, sharps injuries, and infectious diseases.
- With approximately 7 million dollars, CDC will conduct research to reduce uncertainty about the health effects of nanotechnology, develop an evidence base on risks and controls for workers and ultimately the general population, and develop guidance materials for businesses and government agencies to develop effective risk management programs. CDC will also explore partnerships with other agencies to develop measurement methods.

Rationale and Recent Accomplishments: In 2008, more than 5,000 U.S. workers died from occupational injuries and employers in the private sector reported 3.5 million nonfatal work-related injuries and more than 257,000 cases of occupational illness. Employers spent nearly $85 billion on workers' compensation in 2007, but this represents only a portion of total work-related injury and illness costs borne by employers, workers, and society overall, including cost-shifting to other insurance systems and most costs of work-related illness. Recent accomplishments are noted below.

- CDC initiated the rock fall prevention initiative to identify and publicize best practices for prevention – the use of surface controls. The rock fall injury rate has fallen over the last four years to a level about 25 percent below its former plateau.
- In partnership with private and public sectors, CDC developed and tested a best practices program that reduced slips, trips, and falls by an estimated 25 percent in the five acute care hospitals studied.
- CDC conducted a study of the effects of extended work hours on physician intern health and safety. The findings showed a statistically significant increase of two to five times in the probability of an intern having a crash driving home after an extended shift and the probability of making a serious diagnostic error. These results have prompted a reassessment of shift durations during intern training.
- CDC conducted some of the first nanomaterial field studies and characterized exposure in a variety of workplaces, as well as conducted pioneering toxicological research on nanomaterials that

demonstrated various health effects, including the potential for cancer. CDC's research and guidance is used nationally and internationally and serves as the basis for policies and regulations of governments, corporations, and other organizations. All these efforts contributed to the establishment of a broad array of preventive efforts for workers potentially exposed to nanomaterials.

- CDC research on reproductive hazards in the work place resulted in police departments in four metropolitan cities to now offer no-nose saddles as part of their standard equipment.

Health Impact: Through NORA, CDC will continue to provide guidance to the entire OSH community on moving research findings, technologies, and information into highly effective prevention practices and products that are adopted in the workplace in order to reduce work related injury, illness, and fatalities. *(Please see output 12.1 for specific information.)*

Budget Request: Research to Practice

Research to Practice (R2p) is a way of conducting research to help ensure that it is relevant to our stakeholders and results in the reduction of workplace injuries, illnesses, and fatalities. The two basic tenets of R2p, which are integrated into all CDC projects and programs, are involving partners throughout the entire research process, and conducting research projects that have the greatest potential for impact in the workplace.

All new projects funded under NORA must be consistent with the R2P principles. CDC will use FY 2011 funds for the activities described below.

- CDC will foster partnerships with stakeholders such as employers and their associations, workers and their unions, government agencies, and professional associations, as well as collaborations with researchers and communicators.
- CDC will support Education and Research Centers (ERC) academic and research training for core programs in occupational medicine, occupational health nursing, industrial hygiene, occupational safety, as well as closely related fields such as agricultural safety and health, occupational epidemiology, occupational injury prevention, and health services research in efforts to expand the occupational workforce.
- CDC will support Training Project Grants (TPGs) in academic institutions across the country to provide single-discipline graduate training in select fields including industrial hygiene, occupational health nursing, occupational medicine, occupational safety, and closely related occupational safety and health fields.

Rationale and Recent Accomplishments: The goal of R2P is to reduce illness and injury by increasing the use of CDC-generated knowledge, interventions, and technologies. In order to achieve this, CDC continues to work with partners to focus research on ways to develop effective products, translate research findings into practice, target dissemination efforts, and evaluate and demonstrate the effectiveness of these efforts in improving worker health and safety. Recent accomplishments are listed below.

- A best practices trial was conducted for safely lifting physically dependent residents at six nursing homes and showed a reduction in injuries to nurses. The initial investment of $158,556 for lifting equipment and worker training was recovered in less than three years based on post-intervention savings of $55,000 annually in workers' compensation costs.
- In FY 2009, CDC enabled the availability of products offering the latest technological advancements to ensure emergency responders have access to the latest protective equipment by issuing forty-five (45) approvals for chemical biological radiological nuclear/ self-contained breathing apparatus (CBRN/SCBA), which were also in compliance with the most current National Fire Protection

Association (NFPA) performance standard. Twenty-five (25) of these approvals were new respirator configurations and twenty (20) were for modifications to existing designs.

- The handwipe removal method for toxic metals technology has been co-exclusively licensed and commercialized by MEDTOX and Mk-IX. The kit helps responders, public health officials, remediation workers, and the general public to quickly remove lead from surfaces. Recognition of lead exposure risks is a critical first step in preventing workplace exposures as well as limiting take-home toxics that can result in ingesting of lead during eating, drinking, or smoking. The NIOSH research team that developed this technology received the 2008 Federal Laboratory Consortium Midwest Region's Excellence in Technology Transfer Award. This award is presented in recognition of outstanding work during the transfer of a technology from a Federal Laboratory to another entity.
- CDC and Xavier University in Cincinnati, Ohio collaborated to develop a Masters of Business Administration class titled "Business Value of Safety and Health." The application of economics in occupational safety and health provides a framework to identify economic inefficiencies associated with poor safety and health outcomes and points to the prevention opportunities with the greatest impact. The course emphasizes real-world cases from industries that incorporated occupational safety and health strategies into their respective business models. The course curriculum has been shared with other business schools so that future corporate leaders understand the basic intrinsic business value of health and safety.
- CDC recommendations on mission-based criteria for the protection of responders during emergency medical operations was fully accepted by the National Fire Protection Association and incorporated into the 2008 Standard on Protective Clothing for Emergency Medical Operations. The revised standard permits the certification of additional types of protective clothing that will more closely fit the needs and requirements of emergency responders.

Health Impact: FY 2011 funds will be used to continue to transfer and translate CDC-generated research into the workplace to prevent injury, illness, and fatalities.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 12.2: Promote safe and healthy workplaces through interventions, recommendations and capacity building.				
12.2.2: Reduce the annual incidence of work injuries, illnesses, and fatalities, in targeted sectors:	see submeasures			
a) Reduction of non-fatal injuries among youth ages 15–17.	FY 2009: 4.2/100FTE (Exceeded)	4.2/100FTE	4.2/100FTE	Maintain
b) Reduction of fatal injuries among youth 15–17.	FY 2009: 2.3/100,000 FTE (Exceeded)	2.5/100,000 FTE	2.5/100,000 FTE	Maintain
c) Percentage of active underground coal mines in the U.S. that possesses NIOSH-approved plans to perform x-ray surveillance for pneumoconiosis	FY 2009: 98% (Exceeded)	90%	90%	Maintain
12.2.3: Reduce occupational illness and injury as measured by: A) Percent reductions in respirable coal dust overexposure. B) Percent reduction in fatalities and injuries in roadway construction. C) Percent of firefighters and firs responders' access to chemical, biological, and nuclear respirators.	N/A	N/A	N/A	N/A
12.2.4: Percentage of	see submeasures			
a) Companies employing those with NIOSH training that rank the value added to the organization as good or excellent	N/A	N/A	N/A	N/A
b) Professionals with academic or continuing education training.	N/A	N/A	N/A	N/A

OUTPUT TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Efficiency Measure:				
12.E.2: Reduce consumption of utilities (e.g., gas, electric, water). (Efficiency)	FY 2008: $3.09/sq. ft.	3% reduction	4% reduction	+1% reduction
Long Term Objective 12.1: Conduct research to reduce work-related illnesses and injuries.				
12.1.1: Progress in targeting activities to areas of occupational safety and health (OSH) most relevant to future improvements in workplace protection.	FY 2008: Evaluate relevance of fourth of 1/5 of CDC NIOSH program activities. (Met)	TBD	TBD	N/A

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
12.1.2: Improve the quality and usefulness of tracking information for safety and health professionals and researchers in targeting research and intervention priorities; measure the success of implemented intervention strategies.				
A) Evaluate the role that tracking information had in designing research and intervention projects.	FY 2008: 252 research and intervention projects were based on tracking information (Met)	Evaluate the role that tracking information had in designing research and intervention projects.	Evaluate the role that tracking information had in designing research and intervention projects.	Maintain
B) Identify the role that follow-up tracking information can have in assessing the success of interventions.	FY 2008: 33 intervention projects used tracking information to demonstrate the success of the intervention strategy (Met)	Identify the role that follow-up tracking information can have in assessing the success of interventions.	Identify the role that follow-up tracking information can have in assessing the success of interventions.	Maintain
C) Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3 percent.	FY 2008: 7.4 adults per 100,000 with elevated blood lead levels (Met)	Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	Maintain
12.1.3: Percentage of NIOSH programs that will have completed program-specific outcome measures and targets in conjunction with stakeholders and customers.	FY 2009: 80% (Met)	90%	90%	Maintain
Long Term Objective 12.2: Promote safe and healthy workplaces through interventions, recommendations and capacity building.				
12.2.1: Increase the percentage of CDC NIOSH-trained professionals who enter the field of occupational safety and health after graduation.	FY 2009: 81% (Exceeded)	80%	80%	Maintain

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
12.A: Safety and Health Patent Filings	FY 2009: 5 (Target Met)	5	5	Maintain
12.B: Certification Decisions Issued for Personal Protective Evaluated for Certification	FY 2009: 449 (Target Not Met)	300	300	Maintain
12.C: Estimated Academic Graduates	FY 2009: 429 (Target Not Met)	460	460	Maintain
12.D: Heath Hazard Evaluations/Fatality Assessment and Control Evaluations	FY 2009: 336 (Target Not Met)	350	350	Maintain
12.E: Number of Research Articles Published in Peer-Review Publications	FY 2009: 333 (Target Exceeded)	250	250	Maintain
12.F: Agricultural Centers	FY 2009: 8 (Target Not Met)	9	9	Maintain
12.G: Research Grants	FY 2009: 175 (Target Exceeded)	170	170	Maintain
12.H: Training Grants	FY 2009: 50 (Target Met)	50	50	Maintain
12.I: Number of States Receiving Public Assistance	FY 2009: 42 (Target Exceeded)	35	35	Maintain
Appropriated Amount ($ Million)		**$368.4**	**$299.8**	**-$68.6**

IMPROVING HEALTH FOR PEOPLE WORLDWIDE

The rapid spread of the global AIDS epidemic, combined with longstanding infectious disease challenges and growing concerns about non-communicable diseases and injuries, has elevated global public health as a field of critical importance to the development of low- to middle-income countries. The Millennium Development Goals have further concentrated attention to the link between health and development. In addition, global capacity to identify and mitigate emerging public health threats is ever more critical in today's interconnected world, where threats to health in one region can pose a generalized threat elsewhere in the world in just hours or days. Efforts to build global public health capacity not only help protect local populations in developing countries, but also extend vital protection to the population in the United States and other parts of the world.

As a result, global health is viewed as an integral component of United States government (USG) development assistance today. These factors have helped spur exponential growth in USG investment in global health in the last decade, most notably through the President's Emergency Plan for AIDS Relief (PEPFAR) and the President's Malaria Initiative (PMI), and through investments in CDC's capacity-building partnerships with Ministries of Health. The United States is the largest single donor of health-related foreign assistance, contributing nearly 30 percent of the total in 2007, according to the Kaiser Family Foundation. The Administration has signaled its intent to continue and expand U.S. foreign assistance for global health through a six-year, $63 billion Global Health Initiative announced in May 2009. CDC, along with other HHS agencies, will play a key role in this initiative. With many lives at stake in the United States and around the world, it is more critical than ever that these investments help countries develop their own capacity to address long-term public health challenges. CDC's technical expertise is critical to this effort.

EPIDEMIOLOGY

Health status in developing countries is threatened by an array of infectious diseases and non-communicable diseases, including injuries and violence, often referred to as a "dual burden" of disease. Some of the public health challenges that threaten the developing world are listed below.

- Despite the availability of safe, effective, and often low-cost vaccines, over 24 million children annually lack the basic vaccines recommended by the World Health Organization's (WHO's) Expanded Program on Immunization (EPI).
- According to UNAIDS, 33 million people were living with HIV/AIDS in 2007, of which 67 percent were located in sub-Saharan Africa.
- In endemic countries, malaria causes 250 million illnesses and one million deaths annually, mostly in young children in sub-Saharan Africa.
- More than 900 million people lack access to clean drinking water and 2.5 billion do not have access to sanitation, contributing to the deaths of nearly two million people in the developing world each year.
- Today a billion people, mostly in the developing world, suffer from one or more neglected tropical diseases (NTDs), with a disproportionate impact on poor and rural populations.
- Over 90 percent of the 500,000+ maternal deaths that occur each year take place in developing countries; nine million children die each year of preventable or treatable causes, according to the UN.
- Over 80 percent of the world's 1.1 billion smokers live in developing countries, and tobacco is projected to cause more annual deaths by 2030 than HIV/AIDS, tuberculosis and malaria combined.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

Infectious diseases like malaria, HIV/AIDS, polio, measles, and tuberculosis pose a critical threat to social development and global security and are a significant destabilizing factor in many societies in sub-Saharan Africa and elsewhere. Neglected Tropical Diseases and other infectious disease threats cause tremendous

physical and emotional suffering, hamper worker productivity, and contribute to school absenteeism. HIV/AIDS has had a negative impact on the labor force in high burden countries, producing a slowing of the growth of their labor force and changes to the gender and age distribution of workers. Additionally, some of the hardest hit countries, particularly in sub-Saharan Africa, face a demographic upheaval and a potentially large orphan cohort as HIV/AIDS and associated diseases reduce life expectancy by as much as 30 years in some countries and threaten to kill as much as a quarter of their populations over a decade or less.

Shortages of trained public health professionals exacerbate these challenges in many parts of the world, limiting the ability of the public health sector to identify and mitigate outbreaks of disease and reach vulnerable populations. According to WHO, nearly 60 countries in Africa and Asia face severe shortages of trained health workers. Sub-Saharan Africa has only three percent of the world's health workers, though the region has 11 percent of the world's population and 24 percent of the global burden of disease. Disease-specific interventions, as well as broad-based capacity building and training efforts, are critical to reversing many of the social repercussions of poor health status in developing countries.

ECONOMIC ANALYSIS

The dual challenges of poverty and disease continue to slow economic development in low- and middle-income countries. According to the UN, over 1.4 billion people live on less than $1.25 a day, and 90 million more will be pushed deeper into poverty due to the global economic downturn. In these resource-constrained settings, adequate public health or healthcare infrastructure is often either limited or absent altogether, making it more difficult to prevent and contain threats to health. Disease outbreaks have major economic impacts worldwide, both short and long-term. The 2003 SARS epidemic lasted six months, disrupting travel, trade and the workplace.

In addition to infectious disease outbreaks, ongoing threats like HIV/AIDS, malaria and vaccine-preventable diseases pose a long-term challenge to developing economies. The harsh economic impact of HIV/AIDS has been well documented, given its disproportionate and direct impact on normally productive adults, as well as its indirect impact on family members and extended communities. It is estimated that per capita growth in half of the countries in sub-Saharan Africa is falling by up to 1.2 percent each year as a direct result of AIDS.

Other interventions, such as malaria control and expansion of immunization services, can generate significant economic benefits. Childhood immunization is among the most cost-effective public health interventions available and has been shown to boost developing economies. Economic benefits related to investments in immunization include: a) cost savings to the health system of preventing rather than treating vaccine-preventable diseases; b) improved productivity of households as a result of better health; and, c) general economic gains or returns to investment on immunization.

EVIDENCE-BASED INTERVENTIONS

In order to improve global public health capacity and minimize global health threats, CDC employs a variety of evidenced-based interventions, described below.

- Immunization Services: CDC works with partners to strengthen routine immunization systems, support Supplemental Immunization Activities (SIAs), and strengthen surveillance and laboratory networks for immunization. CDC is fully committed to implementing the U.N. Global Immunization Vision and Strategy (GIVS) 2006-15, which intends to reach more people, introduce new vaccines, integrate a broader array of services in a health systems context, and promote immunization as a means of protecting public health in an era of global interdependence.
- HIV/AIDS Prevention, Treatment, and Care: As a key implementing partner for PEPFAR, CDC works with foreign Ministries of Health to strengthen epidemiology, surveillance, laboratory skills, operations research, and workforce capacity in support of national plans and policies for HIV/AIDS prevention, treatment, and care.

- Malaria Interventions: The President's Malaria Initiative uses lessons learned from more than 50 years of U.S. government programs and research activities to identify best methods to fight malaria: treatment with new artemesinin-based combination therapies (ACTs), transmission reduction through insecticide-treated nets (ITNs) and indoor residual spraying, and preventive treatment for pregnant women. Continued research efforts are needed to develop new strategies and tools for the future.
- Global Preparedness for Emerging Disease Threats: In 2005, all member states of the World Health Organization signed the revised 2005 International Health Regulations (IHR), which directs member states to collaborate with each other to detect, assess, and respond to public health emergencies and maintain certain core capacities. CDC's Global Disease Detection (GDD) Regional Centers strengthen global public health preparedness through surveillance, pandemic influenza preparedness, disease investigations, risk communications, and developing and promoting laboratory capacity.
- Public Health Training and Capacity Building: A trained, highly skilled workforce improves program effectiveness, strengthens local economies, and ultimately helps prevent disease and disability. CDC trains public health professionals globally to build capacity for epidemiology, surveillance, outbreak investigation, communications, and program management. Programs have trained thousands of epidemiologists and public health managers in more than 55 countries over the past three decades.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Global Health	$319,113	$0	$336,124	$351,944	+$15,820
Global AIDS Program	$118,863	$0	$118,979	$118,092	-$887
Global Immunization Program	$143,326	$0	$153,676	$151,792	-$1,884
Polio Eradication	$101,500	$0	$101,800	$101,601	-$1,199
Measles/Other Global	$41,826	$0	$51,876	$51,191	-$685
Global Disease Detection	$33,723	$0	$37,756	$37,805	+$49
Global Malaria Program	$9,396	$0	$9,405	$9,173	-$232
Other Global Health	$13,805	$0	$16,308	$35,082	+$18,774
Health Diplomacy (non-add)	$4,500	$0	$2,000	$2,000	$0
Afghanistan Health Initiative (non-add)	$5,789	$0	$5,789	$5,789	$0

GLOBAL HEALTH

SUMMARY OF THE REQUEST

CDC requests $351,944,000 for global health in FY 2011, an increase of $15,820,000 above the FY 2010 Omnibus. Within the total, an increase of $18,774,000 will build global public health capacity to monitor, prevent and control health threats and to improve life expectancy and years of quality life, especially among mothers and children in the developing world. These funds are critical to build capacity and generate goodwill through partnerships with foreign Ministries of Health. Additionally, the Department of Health and Human Services (HHS) Office of Global Health Affairs is administering the transfer of the programs described below.

- The Afghanistan Health Initiative, funded at $5,789,000, not inclusive of travel and contract reductions, focuses on improving clinical capacity and developing logistics and management capacity of staff at Rabia Balkhi Hospital (RBH), a Ministry of Public Health supported hospital that delivers care to high-risk women at a rate of 13,000 to 14,000 infant deliveries a year.
- The Health Diplomacy Initiative, funded at $2,000,000, not inclusive of travel and contract reductions, channels U.S. government and private sector resources to deliver direct patient care and train local health workers, starting in Central America.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget	FY 2011 Request +/ FY 2010
Budget Authority	$319,113	$0	$336,124	$351,944	+$15,820
PHS Evaluation Transfers	$0	$0	$0	$0	$0
FTEs	141	0	142	236	+94

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 319, 327, 340C, 361-369, 2315, 2341: Foreign Assistance Act of 1961 §§ 104, 627,628: Federal Employee International Organization Service Act § 3: International Health Research Act of 1960 § 5: Agriculture Trade Development and Assistance Act of 1954 § 104: Economy Act: 22 U.S.C. 3968 Foreign Employees Compensation Program: 41 U.S.C. 253 (International Competition Requirement Exception): The U.S. Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003 (P.L.108-25): Tom Lantos and Henry J. Hyde United States Global Leadership Against HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act (P.L.110-293). P.L. 107-116 sec. 215: HR 5656 § 220 FY 2001 Appropriations Bill.

FY 2010 Authorization……Expired/Indefinite

Allocation Methods……Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Direct Contracts; Interagency Agreements

PROGRAM DESCRIPTION

As the lead federal agency for identifying and mitigating global health threats, CDC's global health mission is to increase life expectancy and years of quality life, especially among those at highest risk for premature death, and to increase global preparedness to prevent and control health threats, whether naturally-occurring or man-made. CDC has been engaged in this work for over 50 years. A global mandate that began with malaria, cholera and smallpox extends today into a diverse portfolio of public health challenges, including non-communicable diseases, HIV/AIDS, immunization, polio eradication and measles mortality reduction, pandemic influenza, and public health workforce development. In an increasingly global society, CDC works

to develop and foster collaborations, partnerships, program integration, and resource leveraging among public and private organizations to increase the CDC's global health impact through the following strategies:

- Assisting Ministries of Health to plan, effectively manage, and evaluate health programs;
- Achieving goals adopted by United States Government (USG) programs and international organizations to improve health, including disease eradication and elimination targets;
- Expanding CDC's global health programs that focus on the leading causes of mortality, morbidity and disability, especially chronic disease and injuries;
- Generating and applying new knowledge to achieve health goals; and
- Strengthening health systems and their impact.

CDC coordinates its efforts internally and works with partners around the globe to promote improved health and health diplomacy, and to protect citizens of the United States and of the world. CDC invests in global immunization efforts to reduce deaths and eradicate disease; treats HIV/AIDS and works to prevent new infections; fights global malaria and other parasitic diseases; strengthens global public health preparedness through the Global Disease Detection program; works to improve health of refugee populations; and provides technical assistance to Ministries of Health to improve their public health infrastructure. In FY 2011 CDC also proposes new initiatives in global water, sanitation, and hygiene, and integrated maternal, newborn and child health, and will continue to work to improve maternal and child health in Afghanistan through the Afghanistan Health Initiative.

MECHANISMS AND FUNDING HISTORY TABLE

For most global health programs, CDC uses direct federal/intramural funding and contract funding to support CDC staff and operational costs in Atlanta. CDC uses cooperative agreement mechanisms to support activities within host countries and with nongovernmental partners. A number of programs, including the Global AIDS Program and Global Malaria Program, receive funding through targeted interagency transfers from United States Agency for International Development (USAID) and the State Department (DoS) for specific purposes. CDC leverages appropriated resources for programs that help build global public health capacity with contributions from other USG agencies, private sector partners, and host country contributions.

Fiscal Year	Amount
FY 2006	$379,624,000
FY 2007	$307,497,000
FY 2008	$302,371,000
FY 2009	$319,113,000
FY 2010	$336,124,000

Budget Request: Global Immunization

CDC requests $151,792,000 for global immunization in FY 2011, a decrease of $1,884,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information). CDC's global immunization activities primarily focus on children less than five years of age in developing countries who are at the highest risk for mortality and morbidity from polio, measles, and other vaccine-preventable diseases (VPDs). In collaboration with national and multilateral partners, CDC supports global targets for elimination of VPDs through three main strategies:

- Strengthening routine immunization systems, which not only reduce mortality and morbidity from VPDs, but also build broader public health capacity;
- Supporting Supplemental Immunization Activities (SIAs), which provide vaccines during an outbreak, natural disaster or conflict situation, and help expand immunization services to unreached populations; and

- Strengthening surveillance and laboratory networks, which evaluate the impact of immunization efforts and are essential for documenting the absence of disease in order to certify elimination or eradication.

In FY 2011, CDC will:

- Purchase 240 million doses of oral polio vaccine for use in mass immunization campaigns in Southeast Asia, Africa, and Europe as CDC works toward its target of zero polio-endemic countries in 2011;
- Expand measles vaccination campaigns into high burden countries of South Asia to help reduce the number of global measles-related deaths to less than 73,300 (a decrease from an estimated 733,000 in FY 2000);
- Build in-country capacity for effective immunization program management and evaluation through training and development of information systems to ensure the quality of vaccine-preventable disease surveillance;
- Strengthen routine immunization programs through multilateral partnerships to increase capacity of health systems to improve immunization coverage with the "traditional" EIP vaccines including measles and polio, and to provide access to new and underutilized vaccinations for target populations;
- Provide epidemiologic, laboratory and programmatic support to the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) and provide expertise in virology, diagnostics, and laboratory procedures, serving as a global reference lab for polio, measles, and rubella; and
- Participate in the plan of action for documenting verification of the elimination of measles, rubella and congenital rubella syndrome (CRS) in the Americas with the Pan American Health Organization (PAHO).

Rationale and Recent Accomplishments: CDC supports global immunization initiatives to improve child survival and reduce suffering and deaths associated with VPDs in resource-limited countries. Activities also aim to protect American children from VPDs imported into the United States or acquired abroad, and to reduce domestic medical costs of morbidity and mortality associated with imported VPDs.

- Since 1988, global polio incidence has declined by more than 99 percent, from more than 350,000 cases annually to 1,659 cases in 2008.
    - The 2008 number represents an increase of 27 percent from the 1,310 cases reported in 2007, mostly due to an increase of cases in Nigeria and an outbreak in Sudan.
    - The number of endemic countries has been reduced from 125 in 1988 to four in 2008 (Afghanistan, India, Nigeria, and Pakistan).
    - Pursuant to President Obama's announcement of a new global effort with the Organization of the Islamic Conference (OIC) to eradicate polio (Cairo, June 2009) CDC has redoubled its efforts across the USG with the Department of Health and Human Services (HHS), DoS, and USAID to accomplish this eradication in the remaining polio-endemic countries.
- As of 2008, the efforts of CDC's global measles initiative contributed to a reduction of global measles mortality in all ages by 78 percent, from an estimated 733,000 deaths in 2000 to an estimated 164,000 deaths in 2008.
    - The regional percent reduction in estimated measles mortality reached the 2010 target of 90 percent in the WHO African Region, Eastern Mediterranean Region, and Western Pacific Region,

which accounted for 60, 17, and four percent of the global reduction in measles mortality, respectively.

- As of 2008, out of six WHO regions, only the South East Asian Region did not attain the 90 percent reduction in measles mortality compared to the 2000 estimates: in 2008, it accounted for the majority (77 percent) of estimated measles deaths worldwide.

Health Impact: FY 2011 funds for global immunization will support activities to make progress toward achieving the goals of global polio eradication and 90 percent reduction in cumulative global measles-related mortality compared with 2000 estimates. Investments in global immunization are highly cost-effective. Findings from a 2005 study[32] of the broader economic impact of vaccination show that investment in vaccine-preventable disease mortality reduction can be expected to yield an economic rate of return of 10-20 percent or more, similar to that of primary education. *(For more information, see outcome measures 13.B.1.1 through 13.B.1.3, and 13.B.2.1 through 13.B.2.2, as well as output 13.B.E.1.)*

Budget Request: Global AIDS

CDC requests $118,092,000 for global AIDS in FY 2011, a decrease of $887,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information). In addition to funding requested through the Labor-HHS appropriation, CDC receives support to implement the President's Emergency Plan for AIDS Relief (PEPFAR) through the State Department's Global Health and Child Survival account. In addition, CDC coordinates and leverages its efforts with those of international organizations such as the Global Fund to Fight AIDS, TB, and Malaria, UNAIDS, the World Health Organization, the World Bank, as well as many others.

CDC's Global AIDS Program provides technical leadership and direct assistance to Ministries of Health and other partners in over 70 countries to: expand quality HIV/AIDS care and treatment, and transition these services to local ownership; implement effective HIV/AIDS prevention programs; conduct research on program impact and cost effectiveness; and build sustainable public health information, laboratory, and management systems, and local workforce capacity. These contributions include key program focus areas in maternal and child health as well as health systems strengthening with an emphasis on program and health delivery integration.

In FY 2011, CDC will continue to support core HIV/AIDS activities described below.

- CDC will support the USG PEPFAR five-year targets articulated in PEPFAR reauthorization, including assisting partner countries to:
  - Provide treatment for at least three million people;
  - Prevent 12 million new infections;
  - Care for 12 million people, including five million orphans and vulnerable children;
  - Ensure that at least 80 percent of pregnant women receive Prevention of Mother-to-Child Transmission (PMTCT) services; and
  - Train and retain 140,000 new health workers.
- CDC will building epidemiology, surveillance, and laboratory capacity, and supporting monitoring and evaluation systems that measure HIV prevalence and incidence, behavior change, and population health status.
- CDC will utilize established global platforms and domestic and international technical expertise in order to promote evidence-based, cost-effective HIV/AIDS services.

[32] Bloom DE, Canning D, Weston M. The Value of Vaccination. World Economics 2005; 6(3):15-39.

- CDC will expand quality HIV/AIDS care and transition these services to local ownership.
- CDC will conduct research on program impact and cost effectiveness, including 143 single-country and six multi-country public health evaluations, the results of which will directly improve the quality and cost effectiveness of programs and policies.

Rationale and Recent Accomplishments: Despite tremendous progress in the fight against HIV/AIDS, it is still among the leading causes of death globally, with an estimated 2.7 million new HIV infections every year and more than 5,700 deaths every day. The CDC Global AIDS Program plays a critical role in the PEPFAR initiative, and with the combined efforts of all the implementing agencies, has helped to achieve:

- Antiretroviral treatment for over 2.1 million men, women and children;
- Care to over 10 million people affected by HIV/AIDS, including four million orphans and vulnerable children;
- HIV counseling and testing for approximately 57 million people;
- Tuberculosis treatment for almost 400,000 HIV-infected patients;
- Prevention of Mother-to-Child Transmission (PMTCT) programs preventing some 240,000 infants from being born HIV-positive;
- Provision of approximately 3.7 million training and retraining sessions for health care workers; and
- Partnerships with over 2,600 organizations, of which 86 percent were local.

Other notable CDC GAP accomplishments include:

- Developing a medical laboratory accreditation system, with participation from 13 African countries, in order to strengthen laboratory systems throughout Africa in partnership with WHO;
- Training Ministry of Health (MOH) surveillance officers in 13 countries, including Brazil, Tanzania, India and Papua New Guinea, in Respondent Driven Sampling in order to better reach populations at high risk of HIV transmission; and
- Establishing, together with Kenyan partners, the first Human Resource Information System in sub-Saharan Africa, which collects registration and deployment data on health care workers on a quarterly basis from more than 6,000 health facilities nationwide in order to inform policy decisions.

Health Impact: FY 2011 funds will support HIV/AIDS efforts in partner countries to move toward the multiyear goals of preventing 12 million new HIV infections, treating three million HIV-infected people, and caring for 12 million people infected with or affected by HIV/AIDS. In addition to delaying the onset of AIDS, antiretroviral treatment was recently found to reduce malaria incidence by 75 percent and to significantly reduce maternal mortality among HIV-positive pregnant women. Cost-effective interventions such as PMTCT, peer education, and HIV counseling and testing are at the heart of the Global AIDS Program's approach to service delivery, research, and policy reform. *(For more information, refer to outcome measures 13.A.1.1 through 13.A.1.4, and 13.A.2.1 through 13.A.2.4, as well as outputs 13.A.A through 13.A.D.)*

Budget Request: Global Malaria and Parasitic Diseases

CDC requests $9,173,000 for global malaria in FY 2011, a decrease of $232,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information). CDC contributes to global malaria prevention and control as a key implementing partner for the President's Malaria Initiative (PMI), including assisting with enhancement of vector control, case management, surveillance, monitoring and evaluation, and capacity building, as well as working with Ministries of Health and other partners to conduct essential operations research to develop new tools and strategies to prevent and control

malaria. CDC also conducts activities to monitor malaria among U.S. travelers and visitors. CDC works to prevent and control parasitic diseases, both domestically and internationally, particularly foodborne, waterborne, and bloodborne (non-malaria) parasitic diseases. Funding for these activities comes from multiple sources, including Emerging Infection and Food Safety budget lines.

In addition to ongoing domestic projects, specific global malaria activities to be conducted in FY 2011 include:

- Supporting implementation, monitoring and evaluation activities in 15 African countries as part of the PMI;
- Providing technical assistance annually to approximately 10 malaria-endemic, non-PMI countries;
- Conducting research on long-lasting insecticide-treated nets (LLINs), indoor residual spraying (IRS), malaria in pregnancy (MIP), and case management including diagnosis, treatment and antimalarial drug resistance to inform new strategies and prevention approaches; and
- Assessing new monitoring, evaluation and surveillance strategies, and conducting additional research, including field evaluations, on malaria vaccines.

With regard to prevention and control of other parasitic diseases, CDC offers technical support and expertise in monitoring and evaluation to partners developing or operating Neglected Tropical Disease (NTD) programs, and conducts operational research that helps to define best practices for NTD programs. The NTD programs aim to eliminate these diseases and the suffering they cause, particularly in the poorest populations of the world. Specific global activities to be conducted in FY 2011 through the Emerging Infection budget line include:

- Accelerating control and elimination of several NTDs -- particularly lymphatic filariais, river blindness, trachoma, schistosomiasis, and the soil-transmitted helminthes; and
- Providing technical support to countries and global partners for training, tool development, implementation, monitoring, evaluation, and integration of NTD programs.

Rationale and Recent Accomplishments: CDC's programmatic support, monitoring and evaluation, and operational research activities have been vital to recent achievements, both through PMI and through CDC's direct technical support and assistance for malaria-endemic countries.

- In partnership with USAID, CDC conducted strategic planning with national malaria control programs to intensify interventions in eight new PMI countries and continued to support implementation and evaluation activities in seven others. Notable accomplishments are referenced below.
    - More than 30 million people in 15 African countries have benefited from PMI interventions.
    - Indoor residual spraying (IRS) has been conducted in 15 PMI countries, benefiting more than 24 million people.
    - PMI has distributed more than 8.9 million insecticide-treated mosquito nets (ITNs), supported the re-treatment of more than 1.1 million regular nets, procured more than 2 million treatments with sulfadoxine-pyrimethamine (SP) for intermittent preventive treatment of malaria during pregnancy (IPTp), and distributed more than 18 million treatment courses of highly-effective artemisinin-based combination therapies (ACTs).
    - PMI has trained more than 35,000 health workers in the correct use of ACTs.
- CDC also provides technical support to malaria-endemic countries, such as Tanzania, which CDC helped to evaluate new malaria treatment policies based on rapid diagnostic tests and commercial availability of highly subsidized malaria treatment.

Similarly, CDC's support of program, evaluation and research activities for globally neglected tropical diseases have also contributed to recent achievements:

- In programs receiving CDC technical assistance such as those in American Samoa and Haiti, the prevalence of infections due to NTDs has decreased more than 90 percent in areas under treatment.
- Transmission of onchocerciasis has been eliminated in nearly half of the remaining foci in the Americas and cases of Guinea worm continue to decline dramatically.
- CDC researchers have defined strategies to demonstrate interruption of transmission and have developed simple field-applicable approaches to treat lymphedema.
- CDC has initiated efforts to integrate interventions against NTDs with immunization campaigns and efforts directed against mosquito vectors, such as insecticide treated bed nets (ITNs) and indoor residual spraying (IRS).
- CDC is the only laboratory in the United States that performs diagnosis of free living amebic infections. CDC manages a telediagnosis service that provides real-time assistance to public health laboratories. When used, telediagnosis reduces diagnostic costs by 80 percent.

Health Impact: FY 2011 funds will build technical capacity and provide operational research support to Ministries of Health for malaria control, support malaria control efforts in the United States, and support activities that seek to decrease the rate of all-cause mortality in children under five in PMI target countries. Success will be measured by the number of technical assistance consultations provided, the number of monitoring and evaluation activities accomplished, and progress reached on research projects. Malaria prevention and treatment tools (IRS, ITNs, ACTs, and IPTP) are among the most cost effective interventions available to improve maternal and child survival and health. *(For more information, please refer to outcome measures 13.C.1 through 13.C.3 and outputs 13.B.C. and 13.B.D.)*

Budget Request: Global Disease Detection and Humanitarian Health

CDC requests $37,805,000 for global disease detection in FY 2011, an increase of $49,000 above the FY 2010 Omnibus. Established in 2004, the Global Disease Detection (GDD) program protects the health of Americans and the global community by strengthening global, regional and local public health capacity to rapidly detect and respond to infectious disease outbreaks and threats. The GDD program is comprised of global partner networks, CDC overseas staff in more than 50 countries, the GDD Operations Center, and strategically positioned GDD Regional Centers.

CDC's Humanitarian Health activities are funded through the international emergency and refugee health line, with an FY 2011 request of $6,250,000. CDC reduces morbidity and mortality and improves the health of populations affected by humanitarian emergencies through philanthropic action, operational research, emergency public health policy promotion, and capacity building activities.

In FY 2011, CDC's GDD and Humanitarian Health efforts will continue to provide support and technical assistance needed to detect and contain disease threats and will continue to build public health capacity. It will also continue to provide support for humanitarian emergencies. Some key objectives include:

- Continuing capacity building activities and enhancing achievements to date of seven GDD Regional Centers in Kenya, Thailand, China, Guatemala, Egypt, Kazakhstan, and India;
- Conducting start-up activities at one new GDD Center to be determined in FY 2010 to reduce vulnerabilities and close geographic and technical gaps in detection for new or emerging diseases;
- Providing technical assistance including rapid health and nutrition assessments, public health surveillance, epidemic investigations, disease prevention and control, program evaluation and emergency preparedness; and

- Planning and maintaining partnerships with strategic international, bilateral, and non-governmental relief organizations that encourage data driven public health programming in emergencies.

Rationale and Recent Accomplishments: Activities and investments in global disease detection and humanitarian health have seen substantial results in both collaboration and health, as described below.

- CDC provided rapid response to 466 disease outbreaks and public health emergencies since 2006, including Rift Valley fever (Kenya), the Sichuan earthquake (China), cholera (Thailand), dengue hemorrhagic fever (Guatemala), anthrax (Kazakhstan), and human influenza A (H5N1) (Egypt).
- CDC included 4.3 million persons in surveillance for pneumonia and other syndromes.
- CDC can now identify 149 pathogens locally, up from 11 in 2006, enabling sustainable disease detection capability and expediting the identification of appropriate interventions.
- CDC provided short-term public health training for more than 24,000 participants worldwide on topics such as epidemiology, laboratory, general preparedness, risk communication, and influenza.
- CDC provided emergency technical assistance in over 70 humanitarian assistance missions in FY09.
- CDC conducted baseline assessment of health in post-conflict Sri Lanka to guide critical recovery programs.
- CDC assessed the effectiveness of a new approach to prevent malnutrition in 4 target countries - Somalia, Sudan (South Darfur), Uganda, and Madagascar.

Health Impact: In 2006, CDC developed and implemented a GDD monitoring and evaluation framework that captured a baseline in each of the five key activity areas from which the impact of the Centers will be assessed over time. In 2009, CDC started collecting GDD data on a quarterly basis as part of ongoing efforts to measure progress and assess program impact. GDD will continue to help ensure that countries have ready access to the support and technical assistance needed to detect and contain global disease threats and develop the expertise and capacity to fulfill their obligations to identify, report, and contain public health threats as outlined in the International Health Regulations. *(For more information, please refer to output measure 13.B.B.)*

Budget Request: Other Global Health

CDC requests $35,082,000 for other global health in FY 2011, an increase of $18,774,000 above the FY 2010 Omnibus. Increased resources will be invested in developing critical public health functions that account for high global burden: training and sustaining quality public health workforce; global water, sanitation, and hygiene; and integrated maternal, newborn, and child health.

Field Epidemiology and Laboratory Training and Sustainable Management Development

FY 2011 funds include an increase of $11.7 million to support field epidemiology and laboratory training and sustainable management development. Since 1980 CDC has worked in collaboration with local and international organizations to help MOHs develop Field Epidemiology and (Laboratory) Programs (FE(L)TPs) that build capacity in a range of areas, including epidemiology, outbreak investigation, health surveillance systems, applied research, program evaluation, communications, and program management. CDC generally supports a FE(L)TP program for about five years, with gradual transfer of responsibility and program costs to ensure that the country can sustain the program once CDC staff is no longer present. The Sustainable Management Development Program (SMDP) is a management capacity building program that helps MOHs in developing countries strengthen public health management policies, practices, and systems through competency building, strategic partnerships that leverage technical expertise, and applied research and evaluation.

FY 2011 funding for FE(L)TP and SMDP programs, leveraged with resources from a diverse set of partners, will support the activities described below.

- CDC will develop at least three new country programs and expand capacity at four existing programs, which includes conducting initial needs and feasibility assessments, preparing comprehensive training plans, identifying local and international partners, and recruiting resident technical advisors.
- CDC will conduct intensive planning and early development activities to initiate FE(L)TP in one large province in a country to be determined in partnership with the MOH to serve as a model for FE(L)TP implementation in large countries.
- CDC will create at least one regional network in an area of strategic importance, such as Africa, the Middle East or Central Asia, to provide shared training and capacity building opportunities, staff multi-country outbreak response teams, and help expand the reach of individual country programs.
- CDC will develop training curricula on emerging public health issues in at least two priority disciplines, such as zoonoses, non-communicable diseases, and injury.
- CDC will develop a revised, comprehensive monitoring and evaluation plan, conduct training in monitoring and evaluation, and implement a standard monitoring and evaluation system for all supported programs to report on a complete set of performance indicators.

Rationale and Recent Accomplishments: Through these and other global health programs, CDC provides leadership, strategic direction, and technical support to Ministries of Health to build sustainable public health capacity around the world. Recent accomplishments are listed below.

- Since 1980, CDC has supported the development of 31 FE(L)TPs and similar programs that encompass 42 countries. Of these, 19 programs are now self-sustained. CDC currently provides a Resident Advisor to 12 FE(L)TPs covering 23 countries and provides technical assistance to six mature programs for special projects. Additionally, CDC is supporting the development of 11 new programs that will support 16 countries.
- In 2008, CDC-supported FE(L)TPs had 278 active trainees and 75 graduates. Trainees and graduates conducted 152 outbreak investigations and 144 planned investigations.
- Since 1992, CDC has trained over 375 management trainers from 65 developing countries through the Management for International Public Health (MIPH) course.
- CDC provides active SMDP technical assistance to programs in nine countries and maintains ties to ongoing programs in another eight countries.
- In support of PEPFAR, the SMDP Vietnam program has established three regional management training centers which have trained more than 200 HIV/AIDS health managers to improve the effectiveness of HIV/AIDS-related operations since 2005.

Health Impact: Data indicate that the vast majority of FE(L)TP and SMDP graduates move into leadership positions within the MOH of their own country: For example, approximately 80 percent of all FE(L)TP graduates begin to work directly with the MOH after graduation and roughly the same percentage are currently employed with the MOH today. Their presence results in enhanced, sustainable public health capacity in these countries, which is critical to support the transition of USG global health investments to long-term host country ownership. Quantitative and qualitative evaluation measures linked to performance and sustainability are tracked and monitored by CDC.

Global Water, Sanitation, and Hygiene

FY 2011 funds include an approximate $10 million for a new program in global safe water, sanitation, and hygiene. Worldwide, 884 million people do not have access to an improved water source; many more obtain

drinking water from improved, but microbiologically unsafe, sources. In addition, an estimated 2.5 billion people, half of the developing world, lack access to adequate sanitation. Improved water, sanitation, and hygiene could save the lives of 1.5 million children per year who would otherwise succumb to diarrheal diseases. Worldwide, 149 countries and territories are affected by at least one NTD, leaving hundreds of millions of people suffering from non-diarrheal diseases such as trachoma, schistosomiasis, Guinea worm, and intestinal worms. CDC activities include distribution of the Safe Water System (SWS), a water quality intervention developed by CDC that makes water safe to drink through a simple process of disinfection and safe storage at the point of use (e.g., in the household); development of Water Safety Plans (WSP), an approach to protecting water supplies through proactive assessment and prevention of risks from catchment to consumer; and integration of water supply with point-of-use water purification, sanitation, and hygiene elements.

FY 2011 funding for this new program will be used to improve global access to clean water, sanitation, and hygiene (WASH) by:

- Initiating new SWS programs in three to four selected countries and expanding SWS in four to five current priority countries;
- Conducting operational research and monitoring and evaluation to identify effective methods of integrating WASH activities with NTD and other global health programs;
- Implementing WSP in 10-20 countries in Latin America and the Caribbean to improve health conditions for at least 100,000 residents in over 100 rural communities;
- Providing laboratory support for WASH activities, including improving diagnostic and environmental sampling and testing expertise, and developing and evaluating new methods of sampling, concentrating, and testing environmental samples for indicators of contamination; and
- Expanding efforts to improve quality of water and sanitation interventions in humanitarian emergencies by working with partners to improve monitoring of WASH interventions, conduct operations research on new interventions, and improve surveillance for WASH-related illnesses among refugees, displaced persons, and emergency affected populations.

Rationale and Recent Accomplishments: CDC's approach to water, sanitation, and hygiene programs includes research, training, and technical assistance to improve health by promoting better access to safe drinking water. Recent accomplishments include those described below.

- CDC implemented SWS in more than 20 countries, yielding an estimated 12 billion liters of treated water annually and contributing to a demonstrated 50 percent reduction in diarrheal disease in those areas.
- CDC created an implementation toolkit and implemented WSP projects in six South and Central American countries, which helped reduce the prevalence of diarrhea in children younger than three years of age by 26 percent and increased the percentage of households with year-round access to an improved water source by 97 percent within three to six years of project implementation.
- CDC completed the sixth year of a 10-year study to evaluate the long-term sustainability of proven WASH interventions that have decreased childhood diarrhea by 25 percent.
- CDC reduced Guinea Worm Disease, an extremely painful parasitic infection spread through contaminated drinking water. In 2008, fewer than 5000 cases of Guinea Worm Disease were reported. Most of those cases were from Sudan (78 percent).

Health Impact: Global investment in safe water, sanitation, and hygiene has been shown to produce significant health and economic benefits in developing countries. For example, safe water programs contributed to the reduction of Guinea worm disease cases from an estimated 3.5 million annual cases in the

1980s to fewer than 5,000 in 2008 and elimination of the disease in 14 out of 20 endemic countries. The FY 2011 request will help expand proven technologies to treat and safely store drinking water in homes, identify hazards and solutions to contamination of community water sources, and improve structural and operational water treatment and distribution systems in low- and middle-income countries. Ultimately, these investments will help reduce a broad spectrum of diseases – including diarrheal diseases, hepatitis, neglected tropical diseases and dental caries – and lead to improved quality of life and life expectancy for vulnerable populations around the world. For example, from January to July of 2009, over one million bottles of the Safe Water System water treatment solution were sold in Kenya, resulting in an estimated 513,000 fewer cases of diarrhea.

Global Integrated Maternal, Newborn, and Child Health

FY 2011 funds include $2 million for a new initiative in global maternal, newborn, and child health. Funding for maternal, newborn, and child health (MNCH) will support implementation of country-specific activities with an emphasis on the following:

- Integrating and expanding service delivery programs targeted toward MNCH populations in one country with high burdens of maternal, neonatal, and infant mortality;
- Implementing integrated service delivery programs and building capacity in laboratory, surveillance, and monitoring and evaluation activities, in order to provide a comprehensive package of interventions targeting the pregnancy, delivery, newborn and infancy periods in addition to strengthening the overall health system;
- Providing technical assistance to MOH on laboratory diagnostics, surveillance, logistics, and monitoring and evaluation to ensure that these interventions are fully integrated into MNCH programs; and
- Evaluating the impact of an integrated approach to MNCH health services delivery, using a standard package of services, on maternal, infant and early childhood outcomes.

Rationale and Recent Accomplishments: The FY 2011 estimate for MNCH will establish an evidence base for successful USG programs in integrated MNCH services. A recent *Lancet* study found that integration of MNCH interventions, such as malaria control measures, expanded immunizations, and safe water treatment contributed to a decline in the estimate of preventable child deaths in countries with high infant and under-five mortality rates by a range of 54 percent reduction to 73 percent reduction, depending on each country's specific epidemiologic profile. This shows that progress in high-burden countries can be made toward reducing newborn, infant and child mortality by providing an integrated approach to health care delivery.

Health Impact: Maternal, newborn and child health programs' integration will help reduce infant and under-five mortality rates by over 50 percent from baseline (using latest available mortality data), improve coverage of early access to facility-based antenatal care services, and prevent or properly manage delivery and postpartum complications. Some countries, including Egypt, Bolivia, and Thailand, have been able to halve their maternal mortality rates in under 10 years by improving training, expanding services, and ensuring better management of delivery and post-delivery complications. Investments in maternal and child survival are critical to improving overall health in a country, and have a variety of positive implications for economic and social development.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 13.B.1: Help domestic and international partners achieve World Health Organization's goal of global polio eradication.				
13.B.1.3: Number of countries in the world with endemic wild polio virus. *(Outcome)*	FY 2008: 4 endemic countries (Not Met)	0 endemic countries	0 endemic countries	Maintain
Long Term Objective 13.B.2: Work with global partners to reduce the cumulative global measles-related mortality by 90% compared with 2000 estimates (baseline 777,000 deaths) and to maintain elimination of endemic measles transmission in all 47 countries of the Americas.				
13.B.2.1: Number of global measles-related deaths. *(Outcome)*	FY 2008: 164,000 (Exceeded)	75,000	60,000	-15,000
13.B.2.2: Number of non-import measles cases in all 47 countries of the Americas as a measure of maintaining elimination of endemic measles transmission. *(Outcome)*	FY 2008: 0 (Met)	0	0	Maintain
Long Term Objective 13.C: Decrease the rate of all-cause mortality in children under five in the President's Malaria Initiative target countries.				
13.C.1: Increase the proportion of children under five years old who slept under an insecticide treated net the previous night PMI target countries. *(Outcome)*	FY 2008: 13.1% (Baseline for 3rd group of countries)	N/A	85% (median) in 2006 countries	N/A
13.C.2: Increase the proportion of children under five with fever in the previous two weeks that received treatment with antimalarials within 24 hours of onset of their symptoms in PMI target countries. *(Outcome)*	FY 2008: 29.5% (Baseline for 3rd group of countries)	N/A	85% (median) in 2006 countries	N/A
13.C.3: Increase the proportion of women who have received two or more doses of intermittent preventive treatment during pregnancy (IPTp) among women that have completed a pregnancy in the last two years. *(Outcome)*	FY 2008: 4.9% (Baseline for 3rd group of countries)	N/A	85% (median) in 2006 countries	N/A
Afghan Health Initiative				
Long Term Objective 13.D.1: By 2008, reduce by 20% the number of maternal and neonatal deaths in Afghanistan. The overall purpose of the program is to achieve the long term goal by improving the skills and training of the hospital staff.				
13. D.1.1: The in-hospital mortality rate per 100,000 caesarian sections at Rabia Balkhi Women's Hospital (RBH) in Kabul, Afghanistan. *(Outcome)*	FY 2009: 117 (Target Unmet)	105	100	- 5
13. D.1.5: The rate of fetal deaths occurring during labor or delivery among newborns who weigh at least 2500 grams at birth at Rabia Balkhi Women's Hospital in Kabul, Afghanistan per 1,000 such births. *(Outcome)*	FY 2009: 3.4 (Exceeded)	5.2	4.8	- 0.4
13. D.1.6: The newborn pre-discharge mortality rate for Babies weighing at least 2500 grams at birth at Rabia Balkhi Women's Hospital in Kabul, Afghanistan per 1,000 births. *(Outcome)* [1]	FY 2009: 1.9 (Met)	1.8	N/A	N/A

Afghan Health Initiative				
Long Term Objective 13.D.1: By 2008, reduce by 20% the number of maternal and neonatal deaths in Afghanistan. The overall purpose of the program is to achieve the long term goal by improving the skills and training of the hospital staff.				
13. D.1.7: The percentage of nurse midwives at Rabia Balkhi Women's Hospital (RBH) who meet the selected competency measures of the 37 Afghanistan Standards of Practice. *(Outcome)* [1]	FY 2009: 90% (Not Met but Improved)	95%	N/A	N/A
13. D.1.8: The percentage of women who have a caesarean section delivery who subsequently develop a post-operative infection at Rabia Balkhi Women's Hospital in Kabul, Afghanistan. *(Outcome)*	FY 2009: 4.0% (Target Unmet)	2.2%	2.0%	- 0.2%

[1] Measures proposed for retirement or future modification.

OUTPUT TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 13.A.1: GAP will help implement PEPFAR in 15 focus countries by partnering with other USG agencies to achieve the goals of treating 2 million HIV-infected people and caring for 10 million people infected with or affected by HIV/AIDS by 2008, and preventing 7 million new HIV infections by 2010.				
13.A.1.1: Number of people receiving HIV/AIDS treatment. *(Output)*	FY 2009: 2,329,400 (Not Met but Improved)	3,153,169	TBD	N/A
13.A.1.2: Number of individuals provided with general HIV-related palliative care/basic health care and support during the reporting period, including TB. *(Output)*	FY 2009: 6,855,300 (Not Met but Improved)	8,503,441	TBD	N/A
13.A.1.3: Number of pregnant women receiving PMTCT services, including counseling and testing during the reporting period. *(Output)*	FY 2009: 6,565,800 (Not Met but Improved)	9,789,416	TBD	N/A
13.A.1.4: Number of individuals who received counseling and testing during the reporting period (counseling includes the provision of test results to clients *(Output)*	FY 2009: 18,719,300 (Exceeded)	22,882,305	TBD	N/A
Long Term Objective 13.A.2: The Global AIDS Program will help implement the President's Emergency plan for AIDS Relief in the other bilateral countries by partnering with other USG agencies , international and host country organizations to achieve the goals of preventing new HIV infections, treating HIV-infected people, and caring for people infected with or affected by HIV/AIDS.				
13.A.2.1: Number of individuals receiving antiretroviral therapy at the end of the reporting period (includes PMTCT+ sites). *(Output)*	FY 2009: 155,900 (Exceeded)	133,021 (direct)	TBD	N/A
13.A.2.2: Number of individuals trained to provide laboratory-related activities. *(Output)*	FY 2009: 1,349 (Not Met)	3,411 (direct)	TBD	N/A
13.A.2.3: Number of pregnant women who received HIV counseling and testing for PMTCT and received their test results. *(Output)*	FY 2009: 802,425 (Exceeded)	759,994 (direct)	TBD	N/A

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
13.A.2.4: Number of individuals who received counseling and testing during the reporting period. *(Output)*	FY 2009: 2,506,200 (Exceeded)	2,310,591 (direct)	TBD	N/A
Global Immunization				
13.B.E.1: The portion of the annual budget that directly supports the program purpose in the field. *(Efficiency)*	FY 2009: 93% (Exceeded)	>=90%	>=90%	Maintain
Long Term Objective 13.B.1: Help domestic and international partners achieve World Health Organization's goal of global polio eradication.				
13.B.1.1: Number of doses of oral polio vaccine (OPO) purchased for use in OPV mass immunization campaigns in Asia, Africa, and Europe (1 dose = 1 child reached). *(Output)*	FY 2008: 278.9 million doses (Exceeded)	240 million doses	240 million doses	Maintain
13.B.1.2: Number of children reached with OPV as a result of non-vaccine operational support funding provided to implement OPV mass immunization campaigns in Asia, Africa, and Europe. *(Output)*	FY 2008: 39.6 million children reached (Not Met)	45 million children reached	45 million children reached	Maintain
Afghan Health Initiative				
Long Term Objective 13.D.1: By 2008, reduce by 20% the number of maternal and neonatal deaths in Afghanistan. The overall purpose of the program is to achieve the long term goal by improving the skills and training of the hospital staff.				
13. D.1.2: The percent of trainees enrolled in courses. *(Output)* [1]	FY 2009: 98% (Not Met but Improved)	99%	N/A	N/A
13. D.1.3: The time to hire and deploy essential staff trainers. *(Output)* [1]	FY 2009: 2 mos (Met)	1.5 mos	N/A	N/A
13. D.1.4: The percentage of staff trainers who fulfill the agreed upon in-country contract. *(Output)* [1]	FY 2009: 93% (Not Met but Improved)	95%	N/A	N/A

[1] Measures proposed for retirement or future modification.

OTHER OUTPUTS

Outputs[1,2]	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
13.A.A: Number of individuals receiving HIV/AIDS treatment in the 15 focus countries.	FY 2009: 2,239,400	3,153,169	NA	N/A
13.A.B: Number of focus countries conducting HIV/AIDS surveillance.	FY 2009: 15	15	NA	N/A
13.A.C: Number of non-focus countries conducting HIV/AIDS surveillance.	FY 2009: 16	15	NA	N/A
13.A.D: Number of persons trained in the provision of laboratory-related activities in the PEPFAR Phase I other bilaterials.	FY 2009: 1,349	3,411	NA	N/A
13.B.C: Number of countries receiving technical assistance in malaria control scale-up through the President's Malaria Initiative (PMI).	FY 2009: 15	15	15	0
13.B.D: Number of non-PMI countries receiving technical assistance for malaria research and control activities.	FY 2009: 10	15	15	0
13.B.B: Number of Global Disease Detection "Strategic Partner" countries with disease detection and response interventions.	FY 2009: 6	7	8	1
Appropriated Amounts ($ in millions)		$324.9	$372.2	$47.3

[1] Targets 13.AA-13.AD are set by the US Office of the Global AIDS Coordinator and represent the total USG contribution to achieving the goal. OGAC has not released target numbers for those marked as "TBD" or has not yet established targets for those marked as "NA."
[2] The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

STRONG CAPACITY FOR PROTECTING THE NATION'S HEALTH

As the premier agency for ensuring domestic and global health protection through promotion, prevention, and preparedness, CDC requires a strong foundation and capacity to develop priorities, sustain a healthy and capable workforce, deliver and translate critical health messages to the public, and address vital and recurring physical and informational infrastructure needs. Leadership and agency-wide services directed from within CDC's Office of the Director (OD) enable the agency's programs to accomplish their missions more effectively and ultimately reduce the health and economic consequences of the leading causes of death and disability as well as improve program effectiveness and increase accountability and transparency to the public.

The nation's public health system is vigorous in some places, but weak in many others. Coordinated leadership and strategy and a strong physical and information infrastructure are essential to strengthening CDC's capacity to respond to the nation's many changing public health demands. The success of CDC's program activities is dependent upon functional and safe CDC-controlled space, which houses staff, data centers, laboratory equipment, and other assets. The integrity of CDC's research, personally identifiable information and other highly sensitive information requires continual IT infrastructure modernization and frequent information security upgrades. A sizable and competent public health workforce hinges on opportunities provided through fellowships and training programs that adapt to the ever changing public health needs of the nation and world.

ECONOMIC ANALYSIS

In an environment of scarce resources, rising costs and administrative demands, federal agencies are held to increasingly higher standards for demonstrating cost savings and program effectiveness. Business services support is constantly evaluated for progress in reducing cycle time and cost savings, and increasing overall efficiency that ultimately must render effective public health programs and science. CDC has combined best practices of the business community with those of the public sector to become a more efficient and accountable steward of taxpayer dollars. Continual engagement in business process improvements and efficiencies are expected as new accountability and transparency requirements are identified.

Investing in the public health workforce can transform the health system for the better, saving money and lives by helping prevent disease and prepare for threats before people become sick or injured. The nation will need a robust public health workforce to facilitate the shift from disease care to prevention.

INFRASTRUCTURE

Current systems for information and data are inconsistent across national jurisdictions. In many cases, information systems are outdated or even nonexistent. Modern IT infrastructure tools and services are needed to automate work, substantially increase efficiencies, reduce errors and latency in workflows, and most importantly enable capabilities that are not otherwise possible. Safe and sustainable facilities yield a healthier and more productive workforce. These mission-enabling features are critical to CDC's outbreak investigation, emergency response, disease prevention, and other high impact national responsibilities.

There are not sufficient numbers of public health professionals that have the specific surveillance skills required to meet the need at the state and local levels, and the number of public health professionals continues to decline. The most recent data indicate that one-third of the public health workforce will be eligible to retire within five years; twenty percent of public health professionals within local health departments will be able to retire within two years and eleven percent of state public health positions are currently vacant.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/- FY 2010
Public Health Improvement and Leadership (PHIL)	$209,136	$0	$211,432	$192,916	-$18,516
Leadership and Management (L&M)	$149,332	$0	$149,986	$142,469	-$7,517
Director's Discretionary Fund	$2,948	$0	$3,000	$2,508	-$492
Congressional Projects	$21,997	$0	$20,620	$0	-$20,620
Public Health Workforce Development	$34,859	$0	$37,826	$47,939	+$10,113
Applied Epidemiology Fellowship Training (non-add)	$982	$0	$991	$995	+$4
Health Prevention Corps (non-add)	$0	$0	$0	$10,000	+$10,000
Buildings and Facilities (B&F)	$151,500	$0	$69,150	$0	-$69,150
Business Services Support (BSS)	$359,877	$0	$369,869	$382,152	+$12,283
Public Health Research	$31,000	$0	$31,170	$31,170	$0

PUBLIC HEALTH RESEARCH

SUMMARY OF THE REQUEST

CDC requests $31,170,000 for Public Health Research (PHR) in FY 2011, reflecting level funding with the FY 2010 Omnibus. FY 2011 funds will support key activities aimed at supporting and enhancing research activities within and outside CDC.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
PHS Evaluation Transfers	$31,000	$0	$31,170	$31,170	$0
FTEs	N/A	N/A	N/A	N/A	N/A

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 317, 327

FY 2010 Authorization…….……Expired/Indefinite

Allocation Method…….……..……..……..…… PHS Evaluation Funds/ Federal, Competitive Grant; Contracts

PROGRAM DESCRIPTION

CDC's PHR programs coordinate guidance for best research practices and support innovative cross-cutting research. These programs spur knowledge, tools and interventions that people and communities need to protect their health through health promotion, prevention of diseases, injury and disability, and preparedness for threats at home and abroad.

CDC's PHR research funding opportunity announcements are developed in cooperation with CDC National Centers. As a result, applications received in response to these announcements reflect a wide variety of topics relevant to CDC. Prior to review applications are assigned to the most appropriate National Center and, if funded, are administered by the assigned Center. This budget request highlights the key activities funded through CDC's PHR program.

MECHANISMS AND FUNDING HISTORY TABLE

PHR funds are distributed through competitive grants. In FY 2009, 37 grant applications were funded, including 24 for public health research dissertations and 13 for translation research.

Fiscal Year	Amount
FY 2006	$31,000,000
FY 2007	$31,000,000
FY 2008	$31,000,000
FY 2009	$31,000,000
FY 2010	$31,170,000
FY 2011	$31,170,000

Budget Request: Public Health Research

The FY 2011 request, noted above, will support the development of funding announcements focused on the Director's priorities, peer review to ensure the integrity of CDC extramural research and alignment with accepted practices within HHS, and evaluation and monitoring of extramural research outcomes. Rigorous study is needed to understand the best methods to achieve the effective dissemination, adoption, scaling and

long-term maintenance of effective public health interventions that address the most important causes of U.S. burden. FY 2011 funds will support the activities below.

- CDC will solicit applications that implement and evaluate effective and sustainable translation research strategies for public health interventions, programs, or policies that support public health at the local level. These grants will stimulate research that can lead to improved translation of effective public health interventions that address the known leading causes of morbidity and mortality in the United States. CDC will fund up to 25 translation research awards in FY 2010.
- CDC will support the development of public health researchers through dissertation and mentored research awards. These awards will result in appropriately trained, qualified, and supported public health research investigators. CDC will fund up to 28 dissertation research awards and 20 mentored research awards in FY 2010.
- CDC will initiate a CDC/Morehouse College Collaborative Research Seed Program on Minority Health to provide seed funding for five pilot research projects focused on minority health research. The program will enhance collaborative scientific research and innovation in the area of health disparities and health equity, increase the number and quality of research outputs, and strengthen collaborative interactions between CDC and Morehouse scientists.
- CDC will continue to assess and evaluate the outcomes and impact of funded extramural research this activity will allow CDC to better understand what it has achieved and identify future research topics.

Rationale and Accomplishments: The integrity and quality of CDC's extramural research is critical to achieving effective public health programs and health impact. Central to achieving these outcomes are the development of funding opportunity announcements (FOAs) that target critical and timely public health topics and the use of methods and strategies that assess the outcomes (publications, presentations, tools, training/educational materials) and impact of CDC funded extramural research.

Below are examples of how CDC's investments in translation research are beginning to yield important outputs and accomplishments.

- In FY 2007, CDC developed the first CDC-wide funding announcement on improving public health practice through translation research. The response from the research community was exceptional with 205 applications funding 21 projects at $12.3 million per year for three years. To date, efforts of the principal investigators under these grants have yielded three publications and 31 presentations at local, national and international venues.
- In FY 2008, CDC issued its second CDC-wide FOA on translation research for populations with health disparities. CDC received over 100 applications in response to the funding announcement. Currently, 14 projects are being funded at $5.8 million per year for three years. To date, efforts of the principal investigators under these grants have yielded one publication and five presentations at local, national and international venues.
- In FY 2009, CDC published its third CDC-wide FOA on translation research focused on health promotion, prevention and preparedness. Currently, 13 projects are being funded at $5.5 million per year for three years. Outputs will be available in the next six months.

Achieving greater health impact is dependent upon appropriately trained, qualified, and supported public health research investigators who conduct robust research that leads to evidence based interventions and public health practice in states and local communities. CDC's focus on the career development of qualified investigators is one key component of its strategy to build and strengthen the public health workforce.

- In FY 2004, CDC developed its first mentored research announcement, funding 21 grants at $5.4 million for three years. To date, efforts of the principal investigators under these grants have yielded 62 publications and 44 presentations at local, national and international venues.

- In FY 2007, CDC developed its second mentored research announcement. Twenty grants were funded at $2.9 million for three years. Outputs are expected by September 2010.
- Since 2007, CDC has funded 72 dissertation grants to public health doctoral students. Efforts are ongoing to track how many completed their dissertation and what kind of position (academic/faculty, government/state employment, etc) they now occupy.

Health Impact: CDC's research investments are long-term and provide a means for acquiring knowledge and tools that can be applied in public health settings to improve the health of the population. In FY 2011, CDC will develop and apply metrics to its research portfolios to improve the agency's ability to measure health impact. Outputs will be measured through progress and final reports completed, publications, presentations, patents, media opportunities, formal partnerships developed, networks initiated, training/education provided, tools developed, interventions developed, databases or other information systems developed, and translation activities. Lastly, CDC will adopt a methodology for assessing health impact that will be used to understand if research investments are achieving the desired results.

OUTPUTS TABLE

Key Outputs	**Most Recent Results**	**FY 2010 Target**	**FY 2011 Target**	**FY 2011 +/- FY 2010**
14.A.A: Number of extramural research grants	FY 2009: 102 (Exceeded)	101	100	-1
14.A.B: New awards	FY 2009: 37 (Met)	73	42	-31
14.A.C: Continuation awards	FY 2009: 65 (Exceeded)	28	58	+30
14.A.D: Intramural Collaborative Research Projects	FY 2009: 13 (Unmet)	15	20	+5
Appropriated Amount ($ Million)[1]	$31.0	$31.1	$31.1	$0

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

PUBLIC HEALTH IMPROVEMENT AND LEADERSHIP (PHIL)

SUMMARY OF THE REQUEST

CDC requests $192,916,000 for Public Health Improvement and Leadership (PHIL), in FY 2011, a decrease of $18,516,000 below the FY 2010 Omnibus which is inclusive of the CDC contract and travel savings (Please see page 17 for more information). FY 2011 funds will support personnel costs for leadership, public health workforce development program, and several cross-cutting areas within CDC that ensure more efficient and effective oversight of science and program development.

The FY 2011 request for Public Health Improvement and Leadership will support the major activities noted below.

- CDC requests $142,469,000 for Leadership and Management in FY 2011.
- CDC requests $47,939,000 for Public Health Workforce Development in FY 2011, an increase of $10,113,000 above the FY 2010 Omnibus, which will support CDC's new Health Prevention Corps.
- CDC requests $2,508,000 for the Director's Discretionary Fund in FY 2011.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Budget Authority	$209,136	$0	$211,432	$192,916	-$18,516
FTEs	734	N/A	741	801	+60

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 307, 308, 310, 311, 317, 317(F), 319, 319A, 322, 325, 327, 352, 361 -369, 391, 399(F), 399G, 1102, 2315, 2341: Federal Technology Transfer Act of 1986, (15 U.S.C. 3710): Bayh-Dole Act of 1980, P.L. 96-517: Clinical Laboratory Improvement Amendments of 1988, § 4; Pandemic and All-Hazards Preparedness Act, P.L. 109-417 (S. 3678)

FY 2010 Authorization……..……Expired/Indefinite

Allocation Method…….……...……...……...……Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Contracts

PROGRAM DESCRIPTION

Public Health Improvement and Leadership (PHIL) activities provide executive leadership and oversight to CDC's programs and the public health workforce, ensuring the development of agency strategy and the evaluation of progress toward achieving goals and objectives related to disease prevention and control, including the correlation of these activities to health impact. CDC's leadership and management activities provide science, policy, management and operations, and communications guidance and support to CDC's programs. CDC's public health workforce development activities focus on ensuring a competent, sustainable, and diverse workforce prepared to meet current and emerging health promotion and protection priorities through training services, strategic workforce development services, leadership and management development activities, workforce science and research activities, and fellowship and student programs. The CDC Director's Discretionary Fund provides CDC with the flexibility to fund important cross-cutting internal and external initiatives that are typically not funded elsewhere in CDC's annual budget.

CDC constantly adapts and improves its leadership and management activities to achieve more effective public health programs, better quality science and public health practice, compliance with executive and

statutory requirements, and ultimately a greater impact on America's health. This budget request highlights three key areas: Leadership and Management (L&M), Public Health Workforce Development, and the Director's Discretionary Fund.

MECHANISMS AND FUNDING HISTORY TABLE

Leadership and Management funds are distributed through internal mechanisms and competitive contracts. Funding for Public Health Workforce Development is distributed 69 percent intramurally and 31 percent extramurally.

Fiscal Year	Amount
FY 2006	$264,106,000
FY 2007	$202,559,000
FY 2008	$224,899,000
FY 2009	$209,136,000
FY 2010	$211,432,000
FY 2011	$192,916,000

Budget Request: Leadership and Management

Leadership and Management activities support a range of cross-cutting areas within CDC that advance more efficient, effective science and program development. Leadership and management activities are critical to accomplishing greater health impact while balancing health protection and science needs with available resources. Activities also promote a prepared, diverse and sustainable CDC workforce through the use of best practices and continuous learning. FY 2011 funds will support activities noted below.

- CDC will enhance the effectiveness of public health program, science, and practice through minority health efforts, internal and external partnerships, cooperative agreements with academic institutions, management of intellectual property, communications and issues management, state and local support, and coordination of science-based, practice-oriented standards, policies and laws.
- CDC will continue to fund personnel costs for the agency's leadership to provide direction for CDC's programs.
- CDC will fund important cross-cutting internal and external initiatives that are typically not funded elsewhere within CDC's annual budget through the flexibility afforded by the Director's Discretionary Fund.

Rationale and Recent Accomplishments: As federal agencies are faced with a significant increase in accountability and transparency requirements, CDC's programs depend upon strong leadership and consistent standards that ensure the agency successfully meets its obligations. Leadership and Management funds the expertise and resources necessary for critical strategy, oversight, research, and programmatic guidance and support needed to fulfill statutory and executive requirements while maintaining the integrity of its science and public health programs. Some key accomplishments of CDC's investments in Leadership and Management are described below.

- CDC has expanded and enhanced activities related to scientific vision and leadership in science innovation, research, ethics, and administration to ensure stability and commitment to long-term scientific investments, translating science into practice to achieve its mission.
- CDC maintains the integrity and productivity of scientists by resolving scientific issues, supporting training and information exchange, and providing direction on matters of scientific integrity. CDC participates in national and international initiatives regarding human subject protection in public health research.

- CDC's communications and issues management activities are coordinated across the agency and have improved collaboration with program, policy, and communications professionals to develop multi-faceted strategic responses to issues relevant to the whole agency or enterprise.
- CDC's policy and communications activities in Washington D.C. allow for a presence to represent CDC leadership and programs to Congress, officials from HHS, and Washington, D.C.-based organizations.
- Public health practice ensures coordination and synergy between scientific and practice activities throughout CDC to ensure practice-relevant standards, policies, and legal tools.
- CDC provides leadership, coordination, and assessment for minority health efforts; supports internal and external partnerships; and synthesizes, disseminates, and encourages use of scientific evidence identifying effective interventions to reduce health disparities.

Health Impact: CDC's ability to succeed in its public health mission is affected by a number of competing factors. In the midst of public health emergencies, competition for scarce resources, complicated statutory requirements and deliverables, emerging technologies, and threats to the nation's security, leadership and management is critical to providing focused direction and guidance to CDC's programs. Such direction enables the agency to streamline and prioritize its public health activities so that investments achieve maximum impact.

Budget Request: Public Health Workforce Development

CDC's public health workforce development programs help to ensure a prepared, diverse, sustainable public health workforce through fellowships, training, and program management. These programs prepare the public health workforce to meet current and emerging health challenges by applying best practices in scientific education and promoting an environment of continuous learning.

FY 2011 funds will be used to accomplish the activities below.

- CDC will strengthen fellowship programs to provide opportunities to develop public health skills through service and experiential learning (similar to the medical residency model). Fellows provide service to state/local health departments and play important roles in improving health status and fill critical gaps in key and often emerging disciplines such as epidemiology, informatics, prevention effectiveness (health economics and decision sciences), preventive medicine, and public health management.
- The National Laboratory Training Network (NLTN) will be strengthened to provide cost-effective, cutting-edge training in laboratory sciences to state and local public health workers, preparing them to respond to bioterrorism, infectious disease outbreaks, and other public health threats and emergencies.
- CDC will expand the Career Paths to Public Health Program, a portfolio of educational activities for students from kindergarten through college, designed to introduce these students to public health as a discipline and interest them in public health as a career. A complementary teacher-development component equips science educators to introduce public health in the classroom.
- CDC will provide instructional design services for its programs and accrediting educational activities for continuing education credit for a range of health professionals.

In FY 2011, CDC will initiate the Health Prevention Corps, a new workforce program, to recruit and train new talent for assignments in state and local health departments, which will prepare them for careers in public health and provide the building blocks toward creating a stronger, interdisciplinary workforce. The program will target disciplines with known shortages such as epidemiology, environmental health, and laboratory. FY 2011 funding will be used to establish a management plan for staffing and program administration, convene

stakeholders to establish the program framework, and develop a curriculum for Corps members. CDC will continue collaborating with state and local health departments during the planning phase of the program. This new program will also address retention by requiring professionals to commit to a designated timeframe (as determined by CDC) in State and local health departments as a condition of the fellowship.

Rationale and Recent Accomplishments: One-third of the public health workforce will be eligible to retire within five years and twenty percent of the public health workforce in local health departments will be eligible to retire within two years. CDC's efforts to strengthen the current and future public health workforce is critical for meeting demands and ensuring the availability of highly trained public health workers in epidemiology, informatics, laboratory, management, prevention effectiveness, preventive medicine, and other emerging areas. Recent accomplishments are described below.

- Over the past five years, an average of 81 percent of fellows trained in CDC fellowships have taken positions in public health upon graduation from these programs. In FY 2009, graduates from the fellowships listed below obtained jobs in public health:
    - Public Health Informatics Fellowship Program - two of three fellows (67 percent) obtained jobs at CDC; zero percent in state or local health departments
    - Preventive Medicine Residency and Fellowship - four of six fellows (67 percent) obtained positions at CDC; one of six (17 percent) in state or local health departments
    - Epidemic Intelligence Service – 47 of 65 responding fellows (78 percent) obtained positions at CDC; six of 65 responding fellows (ten percent) in state or local health departments (data based on 65 of 80 EIS graduates who responded to survey)
    - Public Health Prevention Service - 13 of 22 fellows (65 percent) obtained positions at CDC; four of 22 fellows (two percent) in state or local health departments

  Note: Based on past experience, more fellows obtain jobs at CDC than in State/local health departments for several reasons including: 1) non-competitive salaries and hiring freezes in state/local health departments, and 2) the majority of fellows in the Preventive Medicine Residency and Fellowship and Epidemic Intelligence Service are Commissioned Corps Officers and must remain federal employees.
- In FY 2009, EIS officers conducted more than 300 epidemiologic field investigations and responded to 91 requests for CDC's epidemiologic assistance (EPI-AIDS), including 11 international investigations, 19 investigations related to pandemic (H1N1) influenza, and two nationwide investigations of contaminated food products. Responses to disasters including coal ash spill (TN), ice storms (KY), wildfires (CA), and Metrorail crash (DC). Field-based EISOs conducted 282 epidemiologic investigations in their health department's jurisdiction.
- During FY 2009, NLTN provided more than 240 courses and trained more than 45,000 laboratorians via hands-on workshops, seminars, online and computer-based courses, audio conferences, and webcasts.
- CDC provided continuing education accreditation for 239 programs and trained more than 42,366 health professionals

Health Impact: Through FY 2011 funds, CDC will continue to strengthen current fellowship programs, deliver high-quality laboratory training, provide other competency-based training and experiential opportunities, and examine new programs. Key outcomes and outputs will enable CDC to:

- Increase the number of frontline public health workers and other health professionals in state and local health departments to address ongoing and emerging health challenges;

- Prepare public health and clinical laboratorians to respond to public health threats; and
- Enhance the public health workforce ultimately improving the public's health.

(*Please see outcome and output tables below for specific information.*)

OUTCOME TABLE

Measure	Most Recent	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY
Long term Objective 14.D.1: CDC will develop and implement training to provide for an effective, prepared, and sustainable health workforce to meet emerging health challenges.				
14.D.1.1: Maintain the number of recruits who join public health programs in local, state, and federal health departments to participate in training in epidemiology or public health leadership management.	FY 2009: 198 (Unmet)	200	200	Maintain
Long term Objective 14.D.2: Increase the number of frontline public health workers at the state and local level that are competent and prepared to respond to bioterrorism, disease outbreaks, and other public health threats and emergencies; and prepare frontline state and local health departments and laboratories to respond to current and emerging public health threats.				
14.D.2.1: Evaluate the impact of training programs conducted by the NLTN on laboratory practices.	FY 2009: 90% (Exceeded)	More than 65% of public health and clinical laboratorians attending biosecurity and biosafety NLTN courses who reported lacking practices for protection of individuals, security of assets and information, or training/practices or modified current practices as a result of the course	More than 50% of public health and clinical laboratorians attending NLTN Public Health Series hands-on laboratory training updated and improved practices as a result of the course	Maintain

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
14.D.A: Number of new Public Health Informatics fellows annually	FY 2009: 5 (Met)	6	6	Maintain
14.D.B: Number of new Prevention Effectiveness fellows annually	FY 2009: 5 (Met)	5	5	Maintain
14.D.C: Number of new Public Health Prevention Service specialists annually	FY 2009: 25 (Met)	20	20	Maintain
14.D.D: States participating in public health leadership and management training annually	FY 2009: 40 (Met)	40	40	Maintain

BUILDINGS AND FACILITIES

SUMMARY OF THE REQUEST

CDC requests no new funding for Buildings and Facilities in FY 2011, a decrease of $69,150,000 from the FY 2010 Omnibus. In FY 2011, CDC will use carryover balances of approximately $146.6 million, as of October 01, 2009, from the previous appropriation to sustain all existing facilities through repair and improvement projects, as well as continue ongoing construction for CDC's priority infectious and environmental labs and program support buildings.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Budget Authority	$151,500	$0	$69,150	$0	-$69,150
FTEs	N/A	N/A	N/A	N/A	N/A

AUTHORIZING LEGISLATION

PHSA §§ 304 (b)(4), 319D, 321(a)

FY 2010 Authorization……Expired/Indefinite

Allocation Method……Direct Federal/Intramural; Contracts

PROGRAM DESCRIPTION

The Buildings and Facilities (B&F) Program was established over 20 years ago to provide CDC with funding to replace, sustain, improve, and repair existing facilities and to construct new facilities to meet the mission of CDC. The principal B&F activity is mission support, serving approximately 14,995 CDC staff, FTE and non-FTE, who occupy CDC-controlled space.

B&F indirectly supports all program activities that take place in CDC-controlled space such as laboratory research (infectious diseases, environmental health, occupational safety and health, and mine safety), data and information systems support located in CDC-controlled data centers (i.e., Biowatch, FoodNet, etc.), and non-laboratory based public health research.

MECHANISMS AND FUNDING HISTORY TABLE

Buildings and Facilities funds are distributed through competitive bid design and construction contracts and through small business set-asides (8a contracts).

Fiscal Year	Amount
FY 2006	$158,291,000
FY 2007	$134,400,000
FY 2008	$55,022,000
FY 2009	$151,500,000
FY 2010	$69,150,000

Budget Request: Buildings and Facilities

CDC will use available unobligated B&F balances in FY 2010 for all repair and improvement (R&I) sustainment and improvement investments in FY 2011.

- CDC will continue support of the Nationwide Repair and Improvements Program at current levels, which will continue to meet Federal Real Property Council (FRPC) metrics.
- CDC will support all repairs and improvements, including repair projects needed to maintain or improve the condition of CDC's portfolio of assets, improving the energy efficiency of mechanical/electrical/water systems and supporting program mission needs, ensuring secure, healthy and safe facilities.

Rationale and Recent Accomplishments: The Atlanta Facilities Master Plan envisions replacement of existing laboratories and the consolidation of approximately 3,000 professional staff from leased space into secure, CDC-owned space to be constructed on the Roybal and Chamblee Campuses. CDC anticipates meeting the laboratory replacement goal by mid 2010, with the completion of Building 23.

In FY 2010, CDC is continuing with projects already in progress that were funded in part or fully with prior year funding as part of the Atlanta Master Plan. Status updates for the Atlanta Master Plan and Non-Atlanta facilities are provided in the table below.

ATLANTA MASTER PLAN CONSTRUCTION	
Project	**Status**
East Campus Laboratory Consolidation Project – Building 23	Completion is expected in FY 2010.
Epi Office Tower – Building 24, Roybal Campus	The Phase II Design/Build (D/B) contract was awarded for Building 24 in July, 2009, and the building is currently under construction with completion expected in FY 2011.
CDC's Building 106 – Environmental Health Facility (completed in FY 2008)	Building 106 is the most recent Atlanta area project to receive the U.S. Green Building Council (USGBC) for Leadership in Energy and Environmental Design (LEED™) Gold certification demonstrating incorporation of sustainable design feature. The building includes special function spaces such as a data center, and a full service cafeteria as part of the program for this project. An energy recovery system within the mechanical systems is included along with other sustainable design features to provide operational economies. Natural daylight is a common feature within all public spaces throughout the facility.
Buildings 107 and 108	In FY 2009, CDC received partial funding for the design and partial construction of Buildings 107 and 108. This project will house approximately 1,860 mission critical research support staff. Construction of these buildings will help CDC to achieve its Master Plan consolidation objectives. These projects are a part of CDC's projected plan and do not take into account final budget decisions. Building 107 consists of the design and construction of a new 294,800 gross square foot (GSF) office building and a 729 car parking deck that will accommodate approximately 900 personnel from four separate leased facilities. Building 108 consists of the design and construction of a new 285,500 gross square foot (GSF) office building and a 781 car parking deck that will accommodate approximately 962 personnel from four separate leased facilities.
NON-ATLANTA FACILITIES CONSTRUCTION	
Project	Status
Division of Vector-Borne Infectious Diseases (DVBID) Lab Shell Space (Ft. Collins, CO)	This project was fully funded in FY 2007 and received HHS approval in the first quarter of FY 2008. CDC awarded a D/B contract in the fourth quarter of FY 2008 to build out the fourth floor laboratory shell space in the new DVBID Laboratory for occupancy by approximately 50 scientists. The expected completion date for this project is in the third quarter of FY 2010.

The strategies used in the construction of the Atlanta-Based facilities have positively affected a number of the B&F program's goals.

- All of the completed capital projects have met the performance measures for scope, schedule, budget, and quality, helping the program meet or exceed its performance assessment goal of "having greater than or equal to 90 percent of projects" meet/exceed the performance measures.
- The completion of the Emerging Infectious Disease Laboratory and the Environmental Toxicology Laboratory helped the program to meet its performance assessment goal of "having 70 percent of Infectious Diseases Laboratorians and 100 percent of Environmental Health Laboratorians in CDC standard space." Please note that upon completion of the Building 23 Project in 2010, CDC anticipates meeting its performance assessment goal of having 100 percent of Infectious Diseases Laboratorians in standard lab space.

Taxpayer investments in new and existing facilities are protected by the incorporation of sustainable design principles, the effective maintenance and operations to reduce resource consumption (energy, water, and capital), and effectively maintaining the facilities to keep them in good condition. Examples of CDC's sustainable design performance are noted below.

- CDC exceeded its energy reduction target (Energy Management Requirement) by 16.4 percent from FY 2003 to FY 2008.
- CDC exceeded its Water Intensity Reduction Goal with a reduction of water use by 2.4 percent from FY 2007 to FY 2008.

National Repair and Improvements

In accordance with OMB and Federal Real Property Council guidelines, CDC's Nationwide R&I program includes sustaining, improving, and repairing projects needed to maintain or improve the condition of the CDC portfolio of assets; improving the efficiency of mechanical/electrical/water systems, moving CDC towards meeting or exceeding energy reduction goals; supporting program mission needs; and ensuring secure, healthy, and safe facilities.

The R&I program supports "mission critical" and "mission dependent" facilities in accordance with CDC's Sustainment strategy. Repair activities sustain buildings in an "operational status," while improvement funds modify space to bring it into alignment with current codes and reduce "over utilized" space. CDC has implemented HHS-level Federal Real Property Council (FRPC) performance metrics. Daily use of FRPC metrics allows CDC to obtain positive results in its asset management.

FRPC Performance Metrics

Nationwide Repairs and Improvements (R&I) Program		
FRPC Measure	Impact	Explanation
Mission Dependency		
Mission Dependency	Positive	R&I funds will be used for "mission critical" and "mission dependent" facilities in accordance with CDC's Sustainment strategy. Repair funds are used to sustain buildings in an "operational status." Improvement funds are used to modify space to bring it into alignment with current codes and reduce "over utilized" space.
Facility Utilization		
Utilization Status	Positive	R&I funds will be used for "over utilized" and "utilized" facilities in accordance with CDC's sustainment strategy.
Utilization Rate	Positive	R&I funds are used to restore assets to a condition that allows their continued effective designated use, and to improve an asset's functionality or efficiency, thus maintaining or improving the utilization of the asset.

Nationwide Repairs and Improvements (R&I) Program		
FRPC Measure	Impact	Explanation
Facility Condition	Positive	R&I funding will support CDC's sustainment strategy to maintain a portfolio Condition Index (CI) of 90 or better.
Sustainment and Improvement Strategy	Positive	A strategy of capital replacement of non-performing assets along with R&I Funding at current levels will allow CDC to achieve a portfolio – wide CI of "100" over the 2010 – 2020 planning horizon.
Facility Cost		
Operations and Management Cost	Positive	CDC anticipates a positive but unquantified impact on O&M costs resulting from sustainment-level R&I funding. Appropriate R&I and Business Services Support (BSS) funding will ensure that plant and equipment are operated and maintained in accordance with manufacturer's warranties, and will maximize energy and operating efficiencies.

Health Impact: Charged with protecting the public health of the nation, CDC is responsible for ensuring adequate facilities and equipment to carry out the agency's mission. The B&F Program provides CDC with facilities that are safer for both workers and the community, as well as facilities that allow CDC to respond more efficiently to public health emergencies.

As the B&F Program supports the agency's mission, it indirectly affects the health of the community and directly affects the health of the CDC workforce. Through Repair and Maintenance (R&I), the B&F program maintains its buildings to HHS standards and provides CDC employees with a safe and clean environment to work in. Without proper care for CDC's portfolio the buildings would deteriorate and become an unsafe environment for CDC's employees, there by affecting the agency's mission to protect the public's health. Buildings would become health and safety hazards without proper maintenance. The high standards and quality of work that CDC is noted for would be greatly impacted.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Efficiency Measures:				
15.E.3: Reduce Energy and Water consumption. Implement high performance energy and water sustainability requirements.	FY 2009: (E) 20.9%; (W) 4.4% (Exceeded)	(E) 15%; (W) 6% (Meet/Exceed)[2]	(E) 18%; (W) 8% (Meet/Exceed) [2]	(E)+3%;(W)+2% (Meet/Exceed) [2]
15.E.4: Incorporate sustainable practices in building construction, repair, renovation, and modernization projects, according to the Guiding Principles for High Performance and Sustainable Federal Buildings.[1]	FY 2009: 19.4% (Exceeded)	5% (Meet/Exceed) [2]	7% (Meet/Exceed) [2]	+2% (Meet/Exceed) [2]
Long Term Objective 15.2: Execute Earned Value Analysis/Earned Value Management for Project Management.				
15.2.1: Aggregate of scores for capital and repair/improvement projects rated on scope, schedule, and cost.	FY 2009: 1.00±0.09 (Met)	1.00±0.09	1.00±0.09	Maintain
Long Term Objective 15.3: Execute Business and Project Tactics				
15.3.1: Improve CDC's Buildings and Facilities Office's processes and performance as reflected by two Key Performance Indicators - Work Order Closure Rates and Customer Satisfaction - and by three Federal Real Property Council (FRPC) metrics of Utilization, Mission Dependency, and Facility Condition Index for CDC buildings.				
a) Work Order Closure Rates	FY 2009: 89% (Exceeded)	89%	91%	+2%
b) Customer Satisfaction Survey Results	FY 2009: 80% (Met)	80%	85%	+5%
c) Condition Index (based on total CDC owned portfolio)	FY 2009: 90.0 CI (Exceeded)	90.0CI (Meet/Exceed) [2]	90.0CI (Meet/Exceed) [2]	Maintain
d) Mission Dependency	FY 2009: 0% (Exceeded)	5.00% (Meet/Exceed) [2]	2.00% (Meet/Exceed) [2]	-3.00% (Meet/Exceed) [2]
e) Utilization	FY 2009: 2.42%O, 1.51%U (Met)	6.7%O, 5.00%U (Meet/Exceed) [2]	6.7% O, 5.00%U (Meet/Exceed) [2]	Maintain
f) Operating Costs	FY 2009 $11.93/sq. ft. (Not Met)	$10.29/sq. ft.	$10.29/sq. ft.	Maintain

[1] Calculation is based on gross square footage.
[2] "Meet/Exceed" indicates CDC's commitment to meeting or exceeding targets.

The Centers for Disease Control and Prevention, Buildings & Facilities Office
5-Year Facilities Plan: Years 2010 - 2015 (27 Jan 10)

Capital Projects (B&F), Major and Minor Construction					**Projected Costs and Funding Year (millions of $)**								
Project Location, Building Number, Building Name	**Capital Plan**	Project Status*	Project Type/**1**	Project Purpose/**2**	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Est. Total Project Cost
Roybal, B24, Infectious Diseases Research Support Building	2000-2009	Cons	NC	Repl	$55.0	$71.2							$132.3
Chamblee, B107, Research Support Building **3/**	2000-2009	FPAA	NC	LC		$24.4	$19.6		$102.7	$3.5			$130.8
Chamblee, B108, Research Support Building **3/ 6/**	2000-2009	FPAA	NC	LC		$26.4	$19.6		$102.7	$3.5			$132.8
San Juan, PR, Laboratory Expansion	2010-2020	Planned	NC	NP									
NIOSH HERL Laboratory Addition, Morgantown	2010-2020	Planned	NC	NP									
Cincinnati, Laboratory Consolidation	2010-2020	Planned	NC	Repl					$5.0	$125.0	$124.0		$254.0
Chamblee, B112, Environmental Health Laboratory 4/	2010-2020	Planned	NC	NP							$50.0	$50.0	$100.0
Roybal, B25, Infectious Disease Laboratory 4/	2010-2020	Planned	NC	NP								$100.0	$200.3
Roybal, B22, Research Support Building	2010-2020	Planned	NC	LC									
Roybal, B26, Research Support Building	2010-2020	Planned	NC	LC									
Pittsburgh, Consolidated Laboratory	2010-2020	Planned	NC	NP									
Pittsburgh, Transshipment and Visitor Processing Facility	2010-2020	Planned	NC	NP									
Atlanta Area, NCEH COOP Lab	2010-2020	Planned	NC	NP									
Real Property Acquisition Projects (B&F)													
Fairchance, PA, Lake Lynn Laboratory 5/	2000-2009	FPAA	Purch	LC		$4.8							
Morgantown, WV, Security Setback	2010-2020	Planned	Purch	Sec								$13.7	
Sub-Total, Capital Projects (B&F)					$55.0	$122.0	$39.2	$0.0	$210.4	$125.0	$174.0	$163.7	
Nationwide Repair & Improvement (R&I) Program													
Projected Line-Item Projects													
Spokane, NIOSH Laboratory Modernization	2010-2020	FPAA	Mod	Repl/NP		$4.5							
Chamblee, B109 Laboratory Renovation	2010-2020	Planned	Mod	NP									
NIOSH Mine Rescue & Escape Training Lab, PRC	2010-2020	Planned	Mod	NP									
HSPD-12 Cardkey System Conversion, Multiple Campuses	2010-2020	Planned	Equip	Sec					$10.0				
Sub-Total Major (Line-Item) Repair & Improvement Projects						$4.5	$0.0	$0.0	$10.0	$0.0	$0.0	$0.0	
Lump Sum R&I Program (R&I)	Annual		Various	Various		$20.8	$30.0	$0.0	$20.0	$30.0	$30.0	$30.0	
Sub-Total R&I Funding					$0.0	$30.0	$30.0	$0.0	$30.0	$30.0	$30.0	$30.0	
Overseas Facility Planning													
Ft. Collins Laboratory						$1.5							
Total B&F Requirement					$55.0	$153.5	$69.2	$0.0	$240.4	$155.0	$204.0	$193.7	

1/ - **NC** = New Construction incl. Expansion; **Mod** = Asset Modernization/Improvement; **Purch** = Asset/Real Property Purchase; **Rep** = Repair; **Equip** = Equipment Upgrades or Provision
2/ - **NP** = New Program Requirement; **Repl** = Facility-Driven Building Replacement/Modernization; **Sec** = Security Project; **OPS** = Operations Project; **LC** = Lease Consolidation
3/ - Includes in FY2013, $3.5M of optional Program - funded Project (OPS) component - non-B&F funding for AV equipment or similar.
4/ - ETPC is preliminary only; to be verified by PDS prior to budgetary submission
5/ - Subject to specific legislative authority to purchase property. In accordance with OGC opinion, FY09 funding of $4.75M is being used for Lake Lynn Acquisition.
CDC is reapportioning prior year funds of $4.75M to FY09 R&I to achieve required R&I funding level of $30M.
6/ - Prior year recovered funds of $2M associated with Building #24 are being allocated to Building #108
* *All outyear cost projections are in 2008$, and must be adjusted for inflation and other conditions per final PDS-level estimates prior to budget submission.*
* Status: FPAA - Project is in FPAA development or approval phase; Acq - Project is in property acquisition phase; Des - Project is in design phase; Cons - Project is under construction
"**Planned**" = Project Status preliminary projectinos only. Status to be verified by full PDS prior to budgetary submission

Note: Capital or major construction projects must be approved through HHS and OMB prior to commitment of funds.

CDC Buildings and Facilities Carryover By Fiscal Year Project	Carryover From FY2005	Carryover From FY2006	Carryover From FY2007	Carryover From FY2008	Adjusted Carryover FY2009	Projected Carryover FY2010
Roybal, Emerging Infectious Disease Lab, Bldg #18	6,223,910	370,814	0	0	0	0
Roybal, Scientific Communications Center, Bldg #19	382,343	124,221	0	0	0	0
Roybal, Transshipment/Infrastructure Project, Bldg #20	3,827,755	379,990	3,114,959	2,389,908	1,030,045	0
Roybal, Headquarters & Emergency Operations Center, Bldg #21	1,018,264	7,369	0	0	63,665	0
Roybal, Blast-Resistant Glazing, Bldgs 1E, 2, and 16	2,276,624	244,866	0	0	25,805	0
Roybal, Entrance Security Modifications	101,660	3,292	171	0	20,817	0
Chamblee, Secure Entrance/Site work	741,832	463,180	0	0	0	0
Bldgs. #107	0	0	0	0	24,350,000	0
Bldgs. #108	0	0	0	0	26,350,000	0
Chamblee, Parasitic Disease Lab, Bldg #109	5,000	5,000	1,831	0	17,295	0
Roybal, East Campus Consolidated Lab Project, Bldg # 23	172,753,102	244,775,831	39,753,289	37,330,929	10,849,877	0
Chamblee, Environmental Health Facility, Bldg # 106	11,174,345	7,184,200	1,604,303	524,822	518,662	0
Adv Planning for Atlanta Projects in the Five Year Plan/Master plan	200,000	200,000	0	0	0	0
Chamblee, Environmental Toxicology Lab, Bldg # 110	7,934,130	6,594,208	1,251,844	1,201,844	1,219,744	0
All Campuses, Emergency Fire & Life Safety Initiative	1,170,674	648,113	479,853	270,563	270,563	0
Repairs and Improvement	34,151,478	10,080,538	50,438,393	27,195,778	34,130,141	0
CCID Roybal, B24 Epi Tower	0	0	10,671,211	56,507,000	39,777,808	0
Data Center/Recovery Site	8,993,169	6,233,936	817,575	580,927	976,936	0
Cincinnati Lab Consolidation Project	2,284,343	1,683,276	0	0	0	0
Ft. Collins Laboratory	0	0	0	0	572,328	0
Fort Collins, DVBID Replacement Lab	2,043,697	1,044,680	1,117,414	14,793	77,047	0
Ft. Collins, DVBID Shell Space Project	0	0	16,329,669	1,955,406	1,060,149	0
Roybal, Bldg #17	0		16,241	0	0	0
Lake Lynn Laboratory Property Acquisition	0	0	4,700,000	4,750,000	4,750,000	0
Arctic Investigation Program (AIP) Laboratory Renovation Addition	0	0	0	3,524,000	519,737	0
Totals	255,282,326	280,043,514	130,296,753	136,245,970	146,580,619	0

Note: Capital or major construction projects must be approved through HHS and OMB prior to commitment of funds.

BUSINESS SERVICES SUPPORT

SUMMARY OF THE REQUEST

CDC requests $382,152,000 for Business Services Support in FY 2011, an increase of $12,283,000 above the FY 2010 Omnibus. FY 2011 funds will sustain and enhance core operations, improve business processes and systems, strengthen IT infrastructure, and minimize IT security risks.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Budget Authority	$359,877	$0	$369,869	$382,152	+$12,283
FTEs	1,142	0	1,153	1,257	+104

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 307, 308, 310, 311, 317, 317(F), 319, 319A, 319D, 321(a), 322, 325, 327, 352, 361 -369, 391, 399(F), 399G, 1102, 2315, 2341; Federal Technology Transfer Act of 1986; (15 U.S.C. 3710), Bayh-Dole Act of 1980, P.L. 96-517; Clinical Laboratory Improvement Amendments of 1988; § 4 (42 USC Sec. 263a)

FY 2010 Authorization……..……Expired/Indefinite

Allocation Method…….……...……..……Direct/Federal; Contracts

PROGRAM DESCRIPTION

CDC's business services structures and systems are organized to ensure greater transparency and accountability for programmatic dollars through the identification and separation of costs related to business operations and processes into the Business Services Support (BSS) budget activity. This funding provides a broad range of centralized business functions and service areas across all of CDC's programs. Primary BSS functions include rent, utilities, telecommunications and security for CDC employees and other operational areas; facilities operations and maintenance; mandatory services and other CDC centralized costs; business services functions at CDC (i.e. grants management and budget); and information technology (IT) services. These services are essential to CDC program operations and are particularly critical during times of public health outbreaks and emergencies.

CDC has combined best practices of the business community with those of the public sector to become a more efficient and accountable steward of taxpayer dollars. To meet the goal of providing cutting-edge business services, CDC engages in numerous business process improvements and continues to adapt to realize additional benefits from advancements in this area. This budget request highlights the key areas funded by BSS.

MECHANISMS AND FUNDING HISTORY TABLE

Business Services Support funds are distributed through internal mechanisms and competitive contracts.

Fiscal Year	Amount
FY 2006	$317,615,000
FY 2007	$378,289,000
FY 2008	$371,847,000
FY 2009	$359,877,000
FY 2010	$369,869,000
FY 2011	$382,152,000

Budget Request: Business Services Support

CDC's FY 2011 request, as noted above, will sustain and improve the agency's business services in the midst of increasing demands that stem from rising administrative costs outside of CDC's control, threats to the security of public health information, antiquated IT systems, additional requirements associated with Presidential Management priorities and HHS management objectives, and the need for greater support for CDC's expanding programs. To ensure necessary and sufficient business services, CDC is requesting funding to pursue business process improvements and maintain sufficiently robust services to support public health programs across the agency and serve customers nationally and worldwide. The FY 2011 request will allow CDC to accomplish the activities noted below.

- CDC will maintain core facilities operations and maintenance necessary for ensuring the preservation of CDC's capital investments and continuity of operations for CDC's public health programs through:
  - Continuation of CDC's facilities planning functions, including new or expanded facilities, and a major repair and improvement program;
  - Development of services for new, improved, and modified equipment to meet program needs (i.e., building related and installed equipment such as HVAC, bio safety cabinets, chemical fume hoods, walk-in freezers, etc.); and
  - Continuation of CDC's real property and space management activities, including the acquisition and maintenance of leased space, the purchase and disposal of real property, and technical assistance for space planning to meet programmatic needs.
- CDC will improve essential business functions through the modification of its IT infrastructure. This will include migration of older systems to new platforms and software to enhance functionality, integration and security.
- CDC will address current risks and threats from sophisticated electronic attacks by upgrading its cyber security program and capabilities.
- To comply with Homeland Security Presidential Directive 12 (HSPD-12), which aims to create a common identification standard for federal employees and contractors, CDC will continue issuing Personal Identification Verification Cards, or Smart Cards, on an aggressive schedule.

Rationale and Recent Accomplishments: The integrity, confidentiality and operational continuity of CDC's public health science and programs and its reputation as a trusted source for high quality health information and recommendations relies on core operations funded out of BSS. Operations and maintenance resources preserve the full value of CDC's capital investments, which house existing CDC workforce and equipment. Rising administrative and infrastructure costs outside of CDC's control could complicate continuity of operations as well as the placement and safety of CDC's workforce. For example, leases on five major CDC leased buildings in Atlanta, GA are scheduled to expire by 2012 and must be competed on the open market with corollary cost increases for build-out, move and outfitting, affecting hundreds of CDC employees. Investment in business services improvement is critical for achieving improved cycle times on transactions, complying with mandatory regulatory and statutory requirements and providing greater business efficiencies overall. Financial system upgrades and new systems to automate labor-intensive processes such as accounts payable will yield a high rate of return, cost reduction, and error reduction.

CDC's IT infrastructure requires ongoing improvements to achieve sufficient capacity for outbreak investigation, emergency response, disease prevention, and other high impact national responsibilities. Investments in IT modernization reduce the risk for equipment failure, enhance the agency's ability to support newer technologies, increase mobility for CDC's domestic and global workforce, and improve the speed and accuracy of communications.

Continual monitoring and improvement of IT security is vital to the sustainment of CDC's essential business functions. As illustrated in the President's National Cyber-security Initiative, major investments in cyber defense are needed to address constant electronic attacks on federal agencies that are far more sophisticated in recent years. CDC is experiencing hundreds of thousands of electronic scans and probes a day from around the world and is routinely required to remediate unauthorized penetrations and injections of malicious software on CDC computers. The agency maintains highly sensitive information assets of national importance that require a high degree of protection. Moreover, CDC's ability to detect and respond to disease outbreaks and public health emergencies is dependent upon IT and information systems that operate continuously and maintain high scientific integrity. Today's realities require a multi-year investment to re-architect and upgrade the infrastructure to address current and future threats.

Below are examples of recent accomplishments achieved through BSS investments.

- CDC consolidated all common IT infrastructure services, to achieve higher performance at lower cost through the Information Technology Services Office (ITSO). This consolidation reduced operating costs by 38 percent and staff by 26 percent, while increasing service offerings, expanding service hours and locations, improving service levels, and reaching a "best-in-class" customer satisfaction result.
- CDC experienced over 30 percent growth per year in visits to its website, compounded over the last five years and now averaging 13 to 15 million visitors per month. Visits to the CDC website reflect the quality, timeliness, trust, and value of CDC's information to the public. During public heath emergencies, visits to the site spike dramatically as the public seeks emergency-related information.
- CDC became the first Federal civilian agency to successfully implement a High Performing Organization (HPO), an innovative alternative to public-private competition. As a result, the agency was awarded a President's Quality Award (PQA) in 2007, the highest award given to Executive Branch agencies for management excellence. Furthermore, CDC has successfully implemented the Public Health Integrated Business Services (PHIBS) HPO, which includes a wide spectrum of restructuring activities aimed at optimizing the business services such as acquisition support, business information systems support, facilities, funds management assistance, payroll administration, and property management.

Health Impact: Business support services are critical to CDC's ability to effectively accomplish its public health mission. Agency-wide IT infrastructure, information and physical security, financial management and other business services, are essential to program operations and are particularly critical during times of public health outbreaks and emergencies. The success of science and programs relies on the support that achieves efficiently run programs that provide savings in cost and cycle time. As CDC's mission has expanded to address new public health challenges, such as H1N1 flu and global expansion to 50 countries, the demand for business services has significantly increased.

BUILDING AND SUSTAINING PUBLIC HEALTH PREPAREDNESS AND RESPONSE

Being prepared to prevent, respond to, and recover from public health threats can save lives and protect the health and safety of responders and the public. CDC has made preparedness and emergency response a priority, and continues to sustain and enhance systems at the federal, state, and local levels. CDC works under the guidance of the Department of Homeland Security (DHS) National Response Framework (NRF), which establishes the national all-hazards approach to emergency response. DHS planning scenarios indicate the potential incidents for which the nation must prepare, including natural disasters, biological attacks, pandemic influenza, chemical attacks, and radiological/nuclear incidents.

Under the NRF, the U.S. Department of Health and Human Services (HHS) is responsible for coordinating federal assistance to supplement state, tribal, and local resources for public health and medical response. The Assistant Secretary for Preparedness and Response (ASPR) is the principal advisor to the HHS Secretary on public health and medical response and is charged with the coordination of these activities within HHS. CDC is the lead agency for executing public health preparedness and response activities.

CDC's work in preparedness builds upon decades of science developed to promote public health. CDC's activities support a range of programs across the agency and at the state and local levels to help develop the capacities and capabilities to respond to threats. Supporting local agencies is crucial as they are the first to respond during an emergency and must do so rapidly and effectively.

EPIDEMIOLOGY

The effects of public health emergencies vary and can range from local outbreaks to incidents with global ramifications. Severe weather and disease outbreaks occur frequently and are usually resolved locally. In contrast, widespread diseases like pandemic influenza, major weather events, or incidents involving chemical threat agents or nuclear/radiological materials may require national or global resources for response. CDC's Emergency Operations Center activated 44 times from FY 2001 to FY 2009 to support emergency response to events including hurricanes, wildfires, disease outbreaks, and intentional attacks.

Natural disasters: Health risks posed by natural disasters could increase in number and severity with climate change. Natural disasters can have multiple effects on health, including traumatic injuries, mental health effects, or difficulty managing chronic disease because of evacuation or damaged healthcare facilities. In addition, natural disasters can contribute to the transmission of some diseases if water supplies and sewage systems are disrupted, sanitation and hygiene systems are compromised by high demand, or normal public health services are interrupted.

Biological agents: Biological agents include viruses, bacteria, and parasites that can cause illness or death in people, animals, or plants as they spread through the air, water, or food. These naturally occurring agents can be manipulated to cause disease, resistance to current medicines, or permeation into the environment. Both intentional attacks and naturally occurring disease outbreaks have the potential to cause an array of adverse health effects ranging from relatively mild allergic reactions to serious medical conditions and even death.

Chemical agents: Chemical releases can be unintentional, as in the case of an industrial accident, or intentional, as in the case of a terrorist attack using sarin gas. Chemical agents have a range of effects, including acute illness or death, and can also result in delayed effects, such as impaired memory function or lung disease.

Radiological/nuclear incidents: Radiological/nuclear incidents pose a severe health threat. Radiological casualties may include individuals who have received a significant whole-body exposure and those who have inhaled radioactive materials or individuals with wounds contaminated with radioactive materials. If individuals have absorbed large doses, they may have symptoms such as nausea, vomiting, fatigue, weakness, and psychological stress.

VULNERABLE POPULATIONS AT INCREASED RISK

Vulnerable populations, including children, older adults, individuals with disabilities or chronic disease, and pregnant women, may be at increased risk during emergencies. Limited English proficiency or poverty can also reduce people's ability to deal with the challenges posed by emergency responses. The needs of vulnerable populations must be considered to protect against the potentially devastating effects of disasters. In times of public health emergencies, well-designed responses require the integration of multi-disciplinary scientific and medical expertise, good logistical planning, and thoughtful application of laws and policies. These issues are critical since pandemics and other disasters can be profoundly socially divisive and politically sensitive. Furthermore, when vulnerable populations are neglected, severe health consequences have resulted, often imposing a disproportionate burden.

STRATEGIC APPROACH

CDC has developed five strategic objectives from the agency's core public health functions, as presented below. These objectives set the direction for CDC's preparedness programs.

1. Health Monitoring and Surveillance: Integrate and enhance existing surveillance systems at the local, state, national, and international levels to detect, monitor, report, and evaluate public health threats.
2. Epidemiology and Other Assessment Sciences: Support and strengthen human and technological epidemiologic resources to prevent, investigate, mitigate, and control current, emerging, and new public health threats and to conduct research and development that leads to interventions for such threats.
3. Public Health Laboratory Science and Service: Enhance and sustain nationwide and international laboratory capacity to gather, ship, screen, and test samples for public health threats and to conduct research and development that lead to interventions for such threats.
4. Response and Recovery Operations: Assure an integrated, sustainable, nationwide response and recovery capacity to limit morbidity and mortality from public health threats.
5. Public Health System Support: Expand and strengthen integrated, sustained, national foundational and surge capacities capable of reaching all individuals with effective assistance to address public health threats.

PROGRAM ACTIVITIES TABLE*

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Public Health Preparedness and Response (PHPR) L/HHS/Ed Budget Authority Total	**$1,514,657**	**$0**	**$1,549,358**	**$1,464,656**	**-$84,702**
State and Local Preparedness and Response Capability	$746,596	$0	$761,100	$757,793	-$3,307
Public Health Emergency Preparedness Cooperative Agreement *(non-add)*	$700,465	$0	$714,949	$714,738	-$211
Academic Centers for Public Health Preparedness *(non-add)*	$30,000	$0	$30,013	$30,009	-$4
Advance Practice Centers *(non-add)*	$5,261	$0	$5,263	$5,262	-$1
CDC Preparedness and Response Capability	$197,754	$0	$192,509	$183,330	-$9,179
Anthrax	$7,875	$0	$2,600	$0	-$2,600
BioSense *(non-add)*	$34,389	$0	$34,404	$34,362	-$42
Quarantine *(non-add)*	$26,507	$0	$26,518	$26,485	-$33
Strategic National Stockpile	$570,307	$0	$595,749	$523,533	-$72,216
PHSSEF Transfer – (non-add)	$0	$0	$0	$68,515	+$68,515
Total PHPR Funding	**$1,514,657**	**$0**	**$1,549,358**	**$1,533,171**	**-$16,187**

* In FYs 2009 and 2010, funding was appropriated for All Other State & Local Capacity, Upgrading CDC Capacity, and Real-time Lab Reporting budget lines. CDC restructured budget lines associated with PHPR activities in FY 2011. The table above reflects comparable funding for activities that were funded in 2009 + 2010.

PUBLIC HEALTH PREPAREDNESS AND RESPONSE

SUMMARY OF THE REQUEST

CDC requests $1,464,656,000 for public health preparedness and response in FY 2011, a decrease of $84,702,000 below the FY 2010 Omnibus which is inclusive of contract and travel savings (Please see page 17 for more information). With the addition of a transfer of $68,515,000 from the balances of the FY 2009 Supplemental Appropriations for Pandemic Influenza in the Public Health and Social Services Emergency Fund, FY 2011 programmatic resources for the public health preparedness and response will be $1,533,171,000. FY 2011 funds will be used to build and sustain CDC preparedness and response capabilities, provide critical support to state and local health departments, and manage the Strategic National Stockpile.

The FY 2011 budget request includes a decrease of $2,600,000 below the FY 2010 Omnibus for Anthrax due to CDC's elimination of the Anthrax program. During FY 2010, CDC is submitting the Anthrax Vaccine Research Program (AVRP) final report to FDA and will respond to regulatory compliance audits and requests from FDA for additional information, analyses, and laboratory testing. Data from AVRP will be used to ensure the greatest utility of anthrax vaccine stockpile and to maximize anthrax preparedness activities.

The FY 2011 budget request for public health preparedness and response will support the major activities noted below.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 Request +/ FY 2010
Budget Authority	$1,514,657	$0	$1,549,358	1,464,656	-$84,702
PHS Evaluation Transfer	$0	$0	$0	$0	$0
PHSSEF Transfer *(non-add)*	$0	$0	$0	$68,515	+$68,515
Total	$1,514,657	$0	$1,549,358	$1,533,171	-$16,187
FTEs	344	0	347	405	+58

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 311, 317, 319, 319A, 319C-1, 319D, 319F, 319G, 351A, 361-368 (42 USC 262 note), 2801-2811. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pandemic and All Hazards Preparedness Act of 2006.

FY 2010 Authorization……Expired/Indefinite

Allocation Method……Direct; Federal Intramural; Cooperative Agreements, including Formula Grants/Cooperative Agreements; and Contracts

PROGRAM DESCRIPTION

The United States must continually improve the ability of the federal government; state, local, tribal, and territorial governments; and health care systems to prevent, protect against, respond to, and recover from the consequences of public health events, whether man-made or naturally occurring. CDC has made all-hazards public health preparedness and emergency response a priority, and continues to build and enhance preparedness and response systems at the federal, state, and local levels. CDC's Office of Public Health Preparedness and Response (OPHPR) provides strategic direction and allocates preparedness and response resources across CDC, serves as a platform for public health preparedness and response, engages key stakeholders, and reports on progress and challenges in public health preparedness.

This budget request highlights CDC's preparedness work in three key areas: CDC preparedness and response capability, state and local preparedness and response capability, and the Strategic National Stockpile.

MECHANISMS AND FUNDING HISTORY TABLE

Through grants, contracts, and cooperative agreements, CDC provides financial, technical, and direct assistance to support preparedness nationwide in state, local, tribal, and territorial public health departments and accredited schools of public health. In addition, CDC funds a number of intramural activities that directly affect the agency's ability to support and improve the nation's preparedness and response ability.

Fiscal Year	Public Health Preparedness and Response
FY 2006	$1,631,173,000
FY 2007	$1,472,953,000
FY 2008	$1,479,455,000
FY 2009	$1,514,657,000
FY 2010	$1,549,358,000

Fiscal Year	Strategic National Stockpile*
FY 2001	$52,000,000
FY 2002	$645,000,000
FY 2003	$298,050,000
FY 2004	$397,640,000
FY 2005	$466,700,000
FY 2006	$524,339,000
FY 2007	$496,348,000
FY 2008	$551,509,000
FY 2009	$570,307,000
FY 2010	$595,749,000

* 10 year budget history for SNS is included per HHS Guidance.

Budget Request: State and Local Preparedness and Response Capability

CDC requests $757,793,000 for State and Local Response Capability in FY 2011, a decrease of $3,307,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information). CDC offers key leadership, management oversight, financial and technical resources, and scientific consultation to public and private partners to ensure that state, local, territorial and tribal health departments achieve all-hazards preparedness.

In 2002, Congress authorized funding for the Public Health Emergency Preparedness (PHEP) cooperative agreement to support preparedness nationwide in public health departments. Within each funded jurisdiction, state, local, tribal, and/or territorial public health departments work together to improve preparedness. Through the PHEP, CDC provides technical assistance and funding to public health agencies to ensure they can effectively respond to and protect populations from the consequences of infectious disease outbreaks, natural disasters, and biological, chemical, nuclear, and radiological emergencies. The awardees develop activities that align with the Pandemic and All Hazards Preparedness Act's (PAHPA) priorities of national preparedness and response, leadership, organization, and planning; public health security preparedness; and all-hazards medical surge capacity.

The activities themselves cover a broad range, but could include compliance with the Emergency System for Advance Registration of Volunteer Health Professionals guidelines, engaging the State Office for Aging in addressing the needs of the elderly, collaborating with Centers for Public Health Preparedness, and obtaining concurrence by the local health department or by a tribe for the awardees' approaches and priorities.

- The PHEP supports 62 awardees including all 50 states, four cities, and eight territories. Through PHEP funding, state and local public health preparedness is stronger and more integrated with federal, state, local, and tribal governments, the private sector, and NGOs. During FY 2011, CDC will continue to provide technical assistance and resources to state and local public health departments to improve their emergency preparedness and response capabilities. The funding will support additional state and local preparedness resources, including improved laboratory capabilities that will enable the Level I chemical laboratories to sustain response efforts 24/7. The PHEP currently distributes $7.2 million to support 10 Level 1 chemical laboratories.
- As part of the overarching Centers for Public Health Preparedness (CPHP) program, the Preparedness and Emergency Response Learning Centers (PERLC) program is a new 5-year cooperative agreement developed to meet legislative requirements, as stated in section 319F-1(d) of the Public Health Service (PHS) Act (42 USC § 247d-6(d)). The PERLCs are a component of a plan to improve the nation's public health and medical preparedness and response capabilities for emergencies, whether deliberate, accidental or natural. Accredited Schools of Public Health (SPH) will develop and deliver core curricula and training that respond to the needs of state, local and tribal public health authorities, and emphasize essential public health security capabilities. Key objectives to be accomplished in FY 2011 include the following.
    - CDC will establish an academic-based core curricula leading to a master's degree in public health preparedness and response, and develop competency-based training on public health preparedness and response to practitioners;
    - CDC will foster collaboration with state, local, or tribal public health departments to ensure a) public health preparedness and response community needs are defined and analyzed, b) existing training and educational materials are leveraged to meet the identified needs, c) identified needs are met, and d) newly developed materials are evaluated for their impact.
    - CDC will collaborate with CDC-funded Preparedness Emergency Response Research Centers (PERRC) for the purposes of developing and implementing a strategy and platform for translating research findings to enhance training for practitioners.
- The Advanced Practice Centers (APC) are local health agencies that improve and evaluate their own infrastructure for public health emergency preparedness and share promising practices with peer local health agencies. APCs are located in California, Maryland, Massachusetts, Minnesota, New York, Texas, and Washington.

Rationale and Recent Accomplishments: Preparing for public health emergencies requires collaboration. State and local health programs are on the front lines in preparing for public health emergencies, and local response agencies, including public health departments, are usually the first to act during an emergency. The events of September 11, 2001 and the subsequent anthrax attacks both highlighted the importance of public health during emergencies and showed weaknesses in the public health system's ability to respond during a potential crisis.

Recent accomplishments in State and Local Preparedness include the following.

- CDC implemented state and local pandemic influenza operational plans in response to the 2009 H1N1 influenza outbreak, including receipt of antiviral medications from the Strategic National Stockpile and national vaccine campaign planning.

- CDC funded 55 projects in 29 state and local public health departments through a competitive application process in which awardees proposed to implement promising practices or novel approaches to a variety of pandemic influenza preparedness challenges such as public engagement demonstration projects on pandemic influenza; countermeasure and state immunization information systems integration; electronic death reporting; and distribution and dispensing of antiviral drugs to self-isolated or self-quarantined persons as part of a community containment strategy
- CDC awardees achieved evidence-based benchmarks and objective standards required by the PAHPA. Awardees that fail to meet benchmarks and standards face funding penalties. Two examples of benchmarks include testing the notification system twice annually and developing a pandemic influenza plan.
- CDC's APC program recently developed innovative tools and resources that are shared with peer local health agencies through the APC Toolbox, such as "Strategies and Resources for Emergency Preparedness and Response in Rural USA" and "Equity in Emergency Response: Public Health Planning for Vulnerable Populations."

Health Impact: CDC's support of state, local, territorial and tribal public health agencies will strengthen capabilities to prepare and respond to emergencies. CDC will continue to improve its communications with partner laboratorians and epidemiologists to inform them of disease occurrences in a timely manner in order to determine the extent and scope of potential outbreaks and to minimize the effects of these outbreaks. By working to improve the ability to rapidly convene staff to integrate information and prioritize resource allocation CDC will ensure timely and effective coordination within the public health agency and with key response partners during an emergency response. Through systematic testing of response capabilities CDC will provide evidence that planned and implemented corrective actions have been effective in improving response capacity. *(Please see outputs 16.3.6, 16.9.1, 16.9.5.)*

Budget Request: CDC Preparedness and Response Capability

CDC requests $183,330,000 for CDC Preparedness and Response Capability in FY 2011, a decrease of $9,179,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information). CDC Preparedness and Response Capability is comprised of activities across CDC that directly improve preparedness objectives for the following public health functions: Health Monitoring and Surveillance, Epidemiology and Other Assessment Sciences, Public Health Laboratory Science and Service, and Response and Recovery Operations. The related programs collaboratively serve the general public, research scientists, hospitals, and health departments by advancing the nation's capabilities in public health preparedness and response. These functions are briefly described below.

Health Monitoring and Surveillance

To protect and improve health, CDC conducts public health surveillance, the ongoing, systematic collection, analysis, interpretation, and dissemination of data about a health-related event. Health Monitoring and Surveillance activities involve building the strategies, science, and systems to effectively conduct surveillance before, during, and after events. The identification and assessment of health threats is essential to effective emergency response and relies on the systematic collection, analysis, and reporting of health-related information. Public health officers and responders use this information for planning, developing, operating, and evaluating surveillance systems. Specifically, effective biosurveillance requires a system of systems that can collaboratively acquire, analyze, and disseminate public health information to achieve a real-time reporting capability.

- Through the Biosurveillance Coordination Unit (BCU), CDC engages with programs across the agency and with other federal, state, local, tribal, territorial, and private organizations to develop an overarching biosurveillance strategy for human health. The strategy will help focus limited resources on electronic health information exchanges (HIEs), electronic laboratory information exchange,

integrated biosurveillance information, use of unstructured data, global disease detection and collaboration, and the biosurveillance workforce of the future.

- Biosense is funded through the CDC Preparedness and Response Capability budget line, but operated as a public health informatics program. For more information about this program, see the Surveillance section of the Public Health Informatics Budget Request.

  BioSense is a national syndromic surveillance system that monitors the health of the United States population. The program supports a national surveillance network through which healthcare organizations, public health, HIEs, and other national health data sources are able to contribute to the picture of the nation's health by allowing local and state public health departments to simultaneously share and access existing data, which provides a more complete picture of potential and actual health events both locally and across jurisdictional boundaries. The network facilitates rapid disease detection, monitoring, and real-time situational awareness for decision-making in any type of national health emergency.

- The National Poisoning Data System (NPDS) is the only source for national chemical exposure and poisoning surveillance data from Poison Control Centers (PCCs). NPDS operates as a timely surveillance system for the analysis, visualization, and reporting of data from 61 regional PCCs regarding human exposures to hazardous chemicals, toxins, and other substances and their associated health effects. These data support situational awareness and identify appropriate interventions, as well as monitor outbreaks to better track spatial and temporal illness trends associated with outbreaks.

- The Real Time Laboratory Information Exchange equips Laboratory Response Network (LRN) laboratories with tools and processes to securely share electronic data with public health partners in real-time, according to industry standards. As a result, the Information Exchange decreases the time needed to detect and respond to public health threats.

- LRN Results Messenger (RM) is funded through the CDC Preparedness and Response Capability budget line, but operated as a public health informatics program. For more information about this program, see the Surveillance section of the Public Health Informatics Budget Request.

  RM is a software solution created to provide LRN labs with the immediate ability to manage and share standard LRN-specific laboratory data. As a result of a formal feedback process with member laboratories the Laboratory Information Management System Integration (LIMSi) team is developing a "next generation" system that will provide a uniform, secure mechanism for labs to share LRN-related lab results in real-time, expediting a response to possible bioterrorism and chemical terrorism events. The availability of standard, uniform LRN results eliminates the need to compile and analyze lab results received in disparate formats.

- Through the Public Health Information Network (PHIN), CDC works with state and local public health departments to link across jurisdictions (federal, state, and local) and with other first responders to quickly identify health threats, analyze data, communicate alerts, and track the results of public health actions.

- The Early Aberration Reporting System (EARS) expands the ability of public health agencies to recognize health threats. EARS is undergoing a redesign to make it easier for health agencies with limited epidemiological support to monitor health data and interpret the results. The next phase will provide even more statistical analysis functions to allow the user to look at data in different ways, increasing the likelihood of recognizing public health issues earlier.

- CDC's Disaster Surveillance Work Group (DSWG) provides improved coordination of surveillance activities during natural disasters, provides technical assistance to state and local health departments prior to and following a natural disaster, and evaluates and standardizes surveillance tools to improve the timeliness, accuracy, and comparability of disaster surveillance data.

Rationale and Recent Accomplishments: Quickly recognizing and assessing the causes of health threats is crucial to protecting the nation. Public health officials rely on accurate and complete data to detect and estimate the effect of threats and determine the spread of illness. Selected accomplishments are presented below.

- The Biosurveillance Coordination Unit has made significant progress in establishing an overall strategy to guide efforts in establishing the nationwide biosurveillance enterprise. Coordination will improve horizontal and vertical information sharing and enhance biosurveillance capability through shared responsibility within the agency and among other federal, state, and local entities.
    - In 2009, CDC published a draft national strategy that outlines the requirements of a nationwide biosurveillance capability for human health focusing on six priority areas.
    - During 2009-2010, CDC developed a registry of surveillance systems, programs, tools, and collaboratives that will serve as a single trusted source for accurate data on biosurveillance for human health activities.
- BioSense has made progress in enhancing public health capacity at the state and local level to participate in and contribute to a national biosurveillance network.
    - CDC piloted the use of the BioSense Integrator for electronic laboratory reporting from a health care system to the state health department.
    - CDC distributed Epi-X reports with anomaly data pertinent to a jurisdiction, thus facilitating communication and collaboration with state and local health departments and healthcare organizations.
    - CDC has achieved an initial target for the top 50 metropolitan areas to use BioSense, and strives to reduce the time needed from a triggering Biosurveillance event to initiate event specific standard operating procedures.
- CDC has made significant strides to ensure that LRN laboratories are able to exchange critical laboratory results during public health emergencies and, as of November 2009, CDC installed LRN RM in over 160 LRN laboratories including 100 percent of the LRN's public health labs.
- EARS has expanded the ability of public health agencies at the state and local agency to recognize jurisdiction-wide issues. This recognition, while useful to "everyday" public health functions, could be critical to recognizing a covert bioterrorism event.
- The DSWG coordinated surveillance activities during multiple public health responses to natural disasters such as the 2008-2009 Hurricane Season, 2009 Kentucky Ice Storms, and 2009 American Samoa Tsunami.

Health Impact: Awareness of how and where disease or health conditions are occurring is critical to enabling public health officials to detect and respond to public health events. *(Please see measures 16.2.1, 16.2.2, 16.3.3)*

- As more metropolitan areas are trained and experienced in using BioSense, it will take fewer days to initiate the appropriate emergency response procedures. The BioSense program will also enhance or enable shared situational awareness for the public health community and connect existing systems and networks without duplicating them.
- LRN Data Exchange efforts provide LRN laboratories with a common platform for data exchange using consistent data elements and terminology across the LRN
- PHIN will continue to build alliances with state and local public health departments and national partner organizations through relationship management initiatives that will contribute to improved data quality exchange between CDC and other partners.

Epidemiology and Other Assessment Sciences

CDC's epidemiology and other assessment sciences activities build the capabilities needed to identify causes, risk factors, and interventions related to health threats. During an emergency, epidemiological investigations are essential to better understand the health threat and determine how to protect people who are at risk. These activities also support the epidemiology workforce. Epidemiology is the basic science of public health, enabling the determination of the cause and breadth of public health emergencies. CDC continues to focus on improving methods for disease investigation to control the spread of public health threats. Other assessment sciences refer to a broad group of disciplines involved in research to understand and predict how demographic, behavioral, cultural and environmental factors influence health. Related research activities include developing effective interventions and assessing how best to provide health information to the public. Through epidemiology and other assessment sciences, CDC will continue to respond to routine public health problems as well as large scale national emergencies in FY 2011. Key activities are listed below.

- The Preparedness Modeling program will support the creation of a dedicated influenza modeling cell to forecast disease progression and mutation, and will develop a web presence for modeling and analytic activities related to preparedness on the CDC web site. Modeling activities will also support the High Performance Computing and Climate Change projects and support researchers engaged in mathematical and simulation modeling activities that are immediately relevant to policy (e.g., mathematical epidemiology).
- Epi-X is a secure, web-based communications solution which gives public health officials a single source of up-to-the-minute alerts, reports, discussions, and comments on public health events. The network's primary goal is to inform health officials about important public health events, provide information to help them respond to public health emergencies, and encourage professional growth and exchange of information. Additionally, Epi-X allows for discussion of state, local and regional level issues which may not have nationwide impact. This resource is especially useful to issues relating to both US-Canada and US-Mexico border issues. Epi-X also maintains a secure directory of 24 hour contact information for key public health officials for use by other Epi-X users.
- Epidemic Intelligence Service Officer program is funded through the CDC Preparedness and Response Capability budget line, but operated as a Public Health Leadership and Business Services program. For more information about this program, see the Public Health Leadership and Business Services budget request.

  Epidemic Intelligence Service Officers (EISOs) assist in domestic and international investigations including infectious disease outbreaks (such as nationwide foodborne disease outbreaks and pandemic influenza), chronic disease investigations (such as obesity and diabetes), and emergency response (September 11 and hurricanes).

Rationale and Recent Accomplishments: Determining the cause and breadth of public health threats and studying how demographic, behavioral, cultural, and environmental factors influence health is vital to ensuring that the nation is prepared for current and emerging threats. The knowledge gained from epidemiology and other assessment sciences activities allows CDC and public health leaders to make more informed decisions when responding to public health emergencies. These activities also involve research and development of new interventions to mitigate health threats. Recent accomplishments are listed below.

- In FY 2009 the Preparedness Modeling program has provided logistics science expertise in relation to the 2009 H1N1 influenza operational response (mass prophylaxis planning, vaccine supply chain); interpretation of external policy-relevant public health modeling studies; support for non-influenza preparedness modeling activities across CDC (climate change, hurricane); and development of novel decision-support models for efficient use of Public Health Service personnel during disaster activation.

- Epi-X has been an active repository of emergency response reports for information sharing among state and local health professionals. Epi-X has recently launched an improved communication system via Epi-X Forums, which allows for secure communication among users and Epi-X subject matter experts in a near-real-time environment. In FY 2009, almost 2,500 reports of outbreaks, CDC's epidemiologic assistance (EPI-AID), and notification tests have been posted on Epi-X regarding topics such as avian and pandemic influenza, 2009 H1N1 influenza (more than 500 reports), anthrax, plague, tuberculosis, tularemia, imported mumps and measles, and viral hemorrhagic fever.
- Epi-X evaluated the emergency preparedness aspects of Epi-X through announced and unannounced notification testing in all 50 states and three major metropolitan areas, as well as with EIS officers. This included participation in two Emergency Operations Center simulations and a system-wide test of all system users. These tests help ensure that CDC, through Epi-X, can contact the appropriate public health officials in each state, or nationwide, in times of public health emergency. In the FY 2009 system-wide test, 5,590 users were notified in every state and Washington D.C. logged in and viewed the test report within the first hour.
- The EIS program has contributed to significant accomplishments as a result of recent public health emergency responses. EIS officers responded to 91 requests for CDC's epidemiologic assistance (EPI-AIDS), including 11 international investigations, 19 investigations related to pandemic (H1N1) influenza, 2 nationwide investigations of contaminated food products, and 4 responses to disasters including a coal ash spill (TN), ice storms (KY), wildfires (CA), and the Metrorail crash (DC).

Health Impact: Investments in Epidemiology and Other Assessment Sciences improves the collection and analysis of public health data, which informs how public health officials prepare and respond to man-made or naturally occurring events.

- Epi-X strengthens informational awareness and improves public health response by allowing for rapid notification of events to and from users and rapid input of surveillance information from users and others in the field.
- The increased number of investigations by EIS officers and training activities for EIS officers has improved front-line capability to collect and analyze epidemiological data during an emergency response.

Public Health Laboratory Science and Service

Public health laboratories are critical in identifying disease agents, toxins, and other health threats found in tissue, food, or other substances. Rapid detection is essential for the implementation of appropriate control measures. Public health laboratory science and service activities allow CDC to improve public health preparedness and emergency response by enabling the rapid detection and characterization of health threats. These activities span internal or external laboratory research and investigations, support services, and partner laboratory support. Laboratory activities include research, development and validation of new or improved testing methods, and laboratory-based development of countermeasures. The internal and external laboratories serve the general public through the collection and analysis of public health data at the national, state, and local levels and provide for evaluation of, and improvements to, laboratory science activities. Key activities are listed below.

- CDC's Select Agent program regulates the possession, use, and transfer of 51 biological agents and toxins that could pose a severe threat to public health and safety. The Select Agent program works in collaboration with the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS), and the Department of Justice's (DOJ) Criminal Justice Information Services (CJIS). CDC maintains active registrations and inspects 323 entities that possess select agents and toxins in the U.S., including government agencies, academic institutions, and corporations (as of November 2009). In FY 2011, the Select Agent Program will continue to develop and implement the

Select Agent Regulations; inspect entities to ensure compliance with these regulations; and provide guidance to the regulated community.

- CDC Laboratories are funded through the CDC preparedness and response capability; Emerging Infectious; and Zoonotic, Vector-borne, and Enteric-diseases budget lines. For more information on CDC's biological laboratories, see the section of the Emerging and Zoonotic Infectious Disease budget request entitled Building Epidemiology and Laboratory Capacity, Surveillance, and Networks. For more information on CDC's chemical and radiological laboratories, see the section of the environmental health budget request entitled Emergency Response Preparedness.

  CDC laboratories contribute to preparedness by conducting bench research on numerous biothreats and causative agents. Research regarding these potential threats is completed at CDC and translated into public health practice for use in state and local health departments and laboratories. CDC continues to develop and share new methods for measuring, testing, and identifying chemical, biological, and radiological agents that may be associated with public health emergencies. For example, CDC chemical laboratories have the capacity to measure chemical agents in blood and urine to obtain exposure information within 24-36 hours. CDC laboratories research agents that can pose a threat to human health, translate research and technology to share with partners and grantees, and develop and test biomonitoring capabilities for biological, chemical, and radiological agents.

- The Laboratory Response Network (LRN), a network of state, local, federal, and international laboratories, provides rapid testing capacity to respond to biological, chemical, radiological and nuclear terrorism and other public health emergencies. CDC currently supports approximately 160 public health, military, environmental, food, and veterinary laboratories, which are located in all 50 states and several installations abroad. More than 90 percent of LRN laboratories can perform tests for detection of causative agents of anthrax, tularemia, plague, and poisoning from cyanide and heavy metals. Many laboratories can further detect the causative agents of threats such as influenza A/H5 (Asian lineage) virus and poisoning from chemical warfare agents. CDC activities to support the LRN include helping to increase the number of trained laboratory workers in state and local public health facilities, distributing standardized test methods and reagents to local labs, and supporting facility improvements. Facility improvements include upgrading laboratory equipment and support systems through internally managed funds or through cooperative agreements.

  - Laboratory Response Network–Biological responds to acts of biological threats, emerging infectious diseases and other biological public health emergencies. The LRN-B is organized into three laboratory tiers which provide increasing diagnostic capabilities. Sentinel laboratories play a key role in the early detection of biological agents. Reference laboratories are responsible for investigation and/or referral of specimens. National laboratories are responsible for specialized strain characterizations, bioforensics, select agent activity, and handling highly infectious biological agents. In FY 2011, the LRN-B plans to develop and manage collaborative exercises with EPA and state public health laboratories.
  - Through the Laboratory Response Network–Chemical (LRN-C), CDC is working with public health laboratories in states, territories, cities, and counties to assist them in expanding their chemical laboratory capacity to prepare and respond to chemical terrorism incidents or other emergencies involving chemicals. Of the 62 labs in the LRN-C, ten serve as full surge capacity, with the ability to detect toxic chemical agents, toxic industrial chemicals, nerve agents, and mustard agents from samples collected by responders at the affected site. Thirty-seven labs are trained by CDC to analyze cyanide, nerve agents, and toxic metals in human samples. The remaining 15 labs work with local hospitals and first responders to maintain competency in clinical specimen collection, storage, and shipment during a chemical event.

- CDC is planning to establish a radiologic Laboratory Response Network (LRN–R) and ultimately transfer technology to state labs that would serve as surge labs should an incident involving a radiologic/nuclear attack occur. Currently, there is no network of LRN-R laboratories.

Rationale and Recent Accomplishments: Public health laboratories are critical in identifying disease agents, toxins, and other health threats found in tissue, food, or other substances. Rapid detection is essential for the implementation of appropriate control measures. Detecting and characterizing health threats in a timely manner depend on the availability of laboratory resources (including personnel), methods, and quick and accurate data exchange systems.

- CDC's Select Agent program enables valuable research to occur while protecting the health of the researchers and the nation. Recently, CDC developed an additional inspection program to increase the biosecurity of regulated entities. The new program consists of three categories of inspections: 1) unannounced inspections, 2) short (usually 24 hour) notice inspections, and 3) announced verification inspections. Additionally, CDC developed a Performance Improvement Program (PIP) to more rigorously engage with entities needing assistance in complying with the select agent regulations. PIP combines non-routine site visits with the development of a compliance plan by the entity which includes specific goals, milestones, and deadlines to be met to retain their registration with the CDC Select Agent Program.
- CDC trained 63 LRN laboratorians as part of a course focusing on confirmatory identification of the five bacterial biological threat agents. Included were students from Mexico's Instituto Nacional de Diagnostico y Referencia Epidemiologicos (InDRE) laboratory as the LRN expands to include member laboratories internationally.
- CDC developed and managed four collaborative exercises with EPA and state public health laboratories, and coordinated two national surge capacity exercises with 5,000 samples shipped to, analyzed by, and reported by state labs.

Health Impact: In FY 2011, the Public Health Laboratory Science and Service activities will support laboratory partners to promote safety, analysis, and communication. Early detection and identification of agents is necessary to ensure a rapid response. In order to ensure LRN laboratories are able to readily identify biological threat agents, CDC's proficiency testing program provides laboratories with familiarity in working with agents, performing LRN assays using agent-specific testing algorithms, and using available electronic resources to report test results. *(Please see outputs 16.3.1, 16.3.2, 16.4.1.)*

Response and Recovery Operations

When a disaster occurs, CDC strives to provide an effective and timely response to public health threats and mitigates the impact of these threats on the population and the environment. A critical component of the agency's work during an event is coordinating response activities and providing resources to state and local public health departments. Effective response and recovery requires that extensive planning and ongoing operational activities occur. CDC's Response and Recovery Operations is the agency's systematic response to, investigation of, and recovery from public health threats. Accomplishments are achieved through outbreak investigations, emergency response and support, emergency exercises, health hazard evaluations, hazardous substances assessments, risk and emergency communications, and enhanced public health security at U.S. borders and ports of entry. CDC's efforts also focus on ensuring that state and local health departments in conjunction with federal teams can quickly restore public health services, and learn and improve from each event. Key response and recovery activities are noted below.

- Quarantine and Migrational Health Systems is funded through the CDC Preparedness and Response Capability, emerging infectious, and Pandemic Influenza budget lines. For more information about this program, see the section of the Emerging and Zoonotics Infectious Disease budget request entitled Protecting the Health of Specific Populations.

CDC's FY 2011 request supports CDC's Quarantine and Migration Health System (QMHS). CDC's global migration and quarantine activities aim to reduce morbidity and mortality due to infectious diseases among immigrants, refugees, international travelers, and other mobile populations that cross international borders. FY 2011 funds will support activities to implement regulations necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the U.S. and to improve and protect the health of vulnerable mobile populations including refugees and immigrants.

- When a disaster occurs, CDC must respond effectively as a single collective management structure to support international, state, local, tribal, territorial, and private sector partners. A critical component of the agency's response is the technical staffing for the CDC Emergency Operations Center (EOC). The EOC serves as the central public health incident management center for strategy development, information collection, analysis and distribution, and communications during a response. Examples of activities that will contribute to improvement of the agency's emergency preparedness and response activities in FY 2011 include the following.
    - CDC will continue to upgrade information technology capabilities for the development of a Virtual EOC in which emergency responders from across the agency will be able to work via a secure internet network in a virtual meeting space to maintain situational awareness, collaborate with experts to respond to information requests, and to share information for critical decision making.
    - CDC will increase the number of National Incident Management System (NIMS) trained personnel across CDC to include leadership identified to support the national planning scenarios.
    - CDC will increase the frequency of CDC-wide exercises to validate preparedness and response plans.
- CDC's Emergency Communications System (ECS) enables public health professionals to provide information for an individual, stakeholders, or an entire community to ensure that they have health protection guidance and other emergency public health information to make appropriate decisions to protect their health and the well being of others. The ECS includes an agency-wide communication unit comprised of 15 cross-disciplinary teams that ensures consistent, accurate, credible, and actionable information during emergencies. CDC will continue to develop and exercise emergency communications systems, provide ongoing translation services, and support the agency, stakeholders, and constituents in their risk and communication needs. Specifically, CDC will support response and recovery operations in the following ways.
    - CDC will serve as technical advisor to global, state, and local agencies in emergency risk communication and assist in capacity building. Additionally, the agency will provide an integrated, multidimensional and multidisciplinary response to an emergency or event and function as a direct link between the EOC and external partners.
    - CDC will use the recently upgraded Health Alert Network (HAN) notification system to provide health alerts to state and local health departments.

Rationale and Recent Accomplishments: Effective response and recovery requires extensive planning and improvement of ongoing operational activities. Program accomplishments that illustrate the impact of response and recovery operations include the following accomplishments.

- The Quarantine and Migration Health System has achieved a number of accomplishments. These accomplishments include increasing the number of illnesses reported to CDC in persons arriving to the U.S. to 1,677 in FY 2008, which improved CDC's ability to limit further disease spread; screening over 40 percent of immigrants and 50 percent of refugees bound for the U.S. using the revised 2007 TB technical interventions resulting in at least $2 million in cost-savings to states; and

publishing the 2010 Yellow Book that establishes the standard of care for the practice of travel medicine in the U.S.

- CDC supported 50 events, including 33 domestic events, 14 international events, and 3 EOC activations in response to a Salmonella Typhimurium outbreak, the presidential inauguration, and the 2009 H1N1 influenza response.
- CDC supported 907 CDC personnel deployed to the field (801 domestic and 106 international) in support of 85 requests for assistance (72 domestic and 13 international) and coordinated travel for 385 CDC emergency responders, of which 234 were in response to the 2009 H1N1 influenza. These responders received 2,170 pieces of equipment, including telecommunication devices. In FY09, DEO processed and tracked over 765 emergency procurement requests, valued at over $4.13 million—most of which were related to the H1N1 response.
- In FY 2009, ECS was activated for three comprehensive exercises and the following responses: Presidential Inauguration, Midwest Ice Storms, Red River Basin/Midwest Floods, *Salmonella* Typhimurium outbreak in peanut butter, White Powder Incidents, and H1N1 Flu outbreak. Additional accomplishments include the following.
    - CDC trained over 100 new surge staff in basic emergency communication operations, integrated more that 300 non-ECS staff into the Joint Information Center (JIC), distributed critical public health information on a regular (often daily) basis to approximately 3000 partner organizations, designed and managed the CDC H1N1 Website (receiving 168 million page views since April 22, 2009), and
    - CDC provided over 22 health alerts that distributed urgent public health information to communities across the country. HAN messages go to over 5,000 public health entities. When these entities cascade the message throughout their respective membership/distribution lists, the total reach is over a million recipients including hospitals, clinics, health care providers, and local health departments.

Health Impact: The Quarantine and Migration Health System supports activities that help CDC and international partners move closer to the goal of protecting the U.S. population from importation of infectious diseases. CDC will also initiate and execute preliminary actions to improve the agency's ability to respond and strengthen relationships with state and other partners by expanding systems to acquire and deliver timely, credible, and event-specific information to varied organizations and sectors prior to and during response operations. Building skills and capacity to provide emergency management expertise (NIMS trained) throughout CDC will support field operations. Strengthening internal capacity to assist state, local, tribal, and territorial public health agencies in the implementation of response concepts will impact the rapid restoration of essential public health services. ECS activities will increase the strategic integration of traditional and new media to better engage hard-to-reach populations and stakeholders with critical information. *(Please see measures 16.5.1 through 16.5.8, as well as efficiency measure 16.E.4.)*

Budget Request: Strategic National Stockpile

CDC requests $523,533,000 for the Strategic National Stockpile in FY 2011, a decrease of $72,216,000 below the FY 2010 Omnibus, which is inclusive of contract and travel savings (Please see page 17 for more information). With the addition of a transfer of $68,515,000 from the balances of the FY 2009 Supplemental Appropriations for Pandemic Influenza in the Public Health and Social Services Emergency Fund, FY 2011 programmatic resources for the SNS will be $592,048,000. The SNS is a national repository of life-saving pharmaceuticals, medical supplies, Federal Medical Stations (FMS), and equipment available for rapid delivery in the event of a catastrophic health event. CDC manages the science, acquisition, storage, and logistical operations of the SNS national countermeasures inventory for use during a public health emergency. CDC also provides training and technical assistance to support state and local capabilities to receive, stage, store, distribute, and dispense federal medical supplies.

Although CDC's Shelf-Life Extension Program (SLEP) has worked to extend the shelf-life of certain SNS products and, therefore, decrease replacement costs, SLEP is not applicable for all products in the SNS. Furthermore, product replacement costs will increase each fiscal year because additional product will expire. Sustainment of countermeasures in the SNS and a strategic distribution network are critical to maintaining a public health response capability for the nation. FY 2011 resources will support the activities described below.

- CDC will procure the next identified, high priority medical countermeasure need, as determined with the assessment and guidance provided by HHS and the Biomedical Advanced Research and Development Authority (BARDA).
- CDC will continue to purchase, warehouse, and manage medical countermeasures necessary to provide an adequate response during a catastrophic public health event to treat affected populations, prevent additional illness, and provide medical supplies and equipment. The implementation of the PAHPA, Homeland Security Presidential Directive 21, and the BARDA priorities will continue to provide further guidance on future expansions of SNS, management strategies, and emergency support operations.
    - During an emergency, the first line of support when the threat is unknown or ill-defined lies with 12-hour Push Packages—so called because they can be delivered anywhere in the U.S. within 12 hours of the federal decision to deploy. If the nature of a public health emergency is well-defined, CDC's SNS can ship Managed Inventory supplies. Managed Inventory is maintained at facilities managed by SNS or the manufacturer, enabling the delivery of customized pharmaceuticals, supplies, and equipment specific to the suspected or confirmed threat. CDC can deliver Managed Inventory within 24 to 36 hours of the federal decision to deploy.
- Funding will provide for one SNS aircraft for public health emergencies. This aircraft will be used to transport CDC personnel to a site of a public health emergency to help receive and distribute SNS assets. CDC has made significant progress in advancing the ability of states to operate independently or with more limited technical assistance from CDC. Therefore, one aircraft will fully support SNS missions.
- FMS will continue to build, kit, and sustain additional units to complete the long term goal of providing 120 sets. This type of emergency response support and forward deployment strategies will contribute to mitigating the potential effects of a public health emergency.

The Cities Readiness Initiative (CRI)[33] is designed to increase bioterrorism preparedness by improving dispensing strategies and capabilities in 72 metropolitan statistical areas, covering about 55 percent of the nation's population and funding at least one city in every state. Critical to protecting public health, CRI aids state and local officials to develop and test their ability to dispense prophylaxis to 100 percent of the identified population within 48 hours of a federal decision to deploy SNS assets. CRI metropolitan statistical areas receive funding from the PHEP cooperative agreement through the states to support this goal.

- In FY 2011, CDC will continue to explore non-traditional methods of distribution and dispensing of countermeasures to the population within 48 hours to include public-private collaborations, and the implementation of the closed Point of Dispensing (POD) concept. This concept involves distributing countermeasures to a specific business or governmental entity for dispensing to their employees. Such alternate methods relieve the projected demand on open, public PODs. To further strengthen the CRI program, CDC will continue to apply core infrastructure standards and require drills designed to test state and local SNS preparedness capabilities against innovative performance metrics

[33] CRI funding is administered through the Public Health Emergency Preparedness (PHEP) Cooperative Agreement. The FY 2009 funding formula for CRI is calculated using $0.31 per capita using the U.S. Census 2006 population estimates with two exceptions: 1) those CRI Metropolitan Statistical Areas (MSAs) that would have received less than $200,000 based on the Budget Period (BP) 10 population formula. These areas were given a base funding of $200,000; and 2) those CRI MSAs that would have received a greater than 25 percent reduction in funding (Chicago, Denver, Las Vegas, New York City and Washington D.C), were allocated 75 percent of their FY 08 award level.

developed to indicate a seamless, no point of failure readiness level from state distribution down to local dispensing.

Rationale and Recent Accomplishments*:* CDC currently undergoes a mandated annual formulary review process to link every item in the SNS with its source threat and requirement and determine cost projections including costs associated with storage and replacement. A team of interagency experts led by HHS recommends new medical countermeasure priorities to be contained in the SNS. SNS, through the Department of Veterans Affairs, leverages federal purchasing power for cost efficiencies and participates in the FDA and DOD SLEP process to extend the shelf life of eligible products.

SNS demonstrates continuous improvement in management and distribution through systems derived from proven practices and innovative solutions for acquisition, flexible storage, configuration, and emergency response support. Each year, SNS provides technical assistance and conducts exercises with state and local public health representatives and emergency response personnel to enhance their ability to receive, stage, store, distribute, and dispense SNS assets. These efforts help state and local health departments, in conjunction with federal teams, learn and improve from each exercise, leading to rapid and effective response and enhanced preparedness levels.

SNS accomplishments in FY 2009 include the following.

- CDC successfully deployed pandemic influenza countermeasures in response to the 2009 H1N1 influenza pandemic. In April 2009, CDC deployed 25 percent of stockpiled pandemic influenza assets to 62 project areas. From September through November 2009, CDC began distribution of additional Tamiflu suspension for treatment of influenza in children and 75 percent of the remaining N95 respirators contained in the stockpile.
- CDC conducted missions such as shipping anthrax immune globulin to a hospital patient in England; shipping botulinum antitoxin to hospital patients in Connecticut and Nebraska; shipping vaccine immune globulin to hospital patients in California and Pennsylvania; and the deploying FMS in response to the North Dakota floods.
- CDC significantly increased the number of participants in the CRI that achieved major improvement in SNS readiness levels during FY 2009 (the number of CRI jurisdictions achieving at least the minimum required score on their technical assistance rating increased from 57 percent in October, 2008 to 81 percent in September, 2009). The initiative continues to strengthen community readiness by improving staffing and resources to streamline distribution and dispensing methods.
- CDC initiated and implemented the forward placement of the medical countermeasure diethylene triamine pentaacetic acid (DTPA). The DTPA forward placement program assists states and cities by providing a locally maintained response to a radiological event (RDD) involving plutonium, curium, or americium isotopes.
- CDC tested modeling and simulation tools that will allow for significant cost reductions during exercises and training.
- CDC began a pilot program of closed POD with private sector organizations to assist them in developing private emergency response plans to dispense medical countermeasures to their employees and family members during a public health emergency.
- CDC collaborated internationally with Canada, Israel, and Switzerland to foster coordination and information sharing about countermeasure stockpiling between the U.S. and foreign partners.
- One hundred percent of states and directly funded cities are prepared to use the materiel contained in the SNS.

Health Impact: In FY 2011, CDC's work will sustain a strategic national stockpile ready for delivery in the event of a public health emergency within 12 to 48 hours, depending on the threat in order to mitigate the loss

of lives. With FY 2011 funding, CDC will also work to increase the level of SNS preparedness for dispensing countermeasures at the local level. *(Please see outcome measures 16.6.2, 16.6.3 – 16.6.6.)*

OUTCOME TABLE:

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 16.6: Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.				
16.6.1: Expand and enhance the Health Alert Networks (HAN) ability to rapidly provide access to public health guidelines, best practices, and information on the effectiveness of public health interventions. *(Outcome)*	FY 2008: a) 88 percent of State Health Departments acknowledge receipt of health alert messages within 30 minutes of delivery. (Exceeded)	a) 85 percent of state health departments acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis	a) 85 percent of state health departments acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis	Maintain
16.6.2: Percentage of state public health agencies that are prepared to use materiel contained in the SNS as demonstrated by evaluation of standard functions as determined by CDC. *(Outcome)*	FY 2009: 100% (Exceeded)	90% prepared	100% prepared	10%
Long Term Objective 16.9: Decrease the time needed to implement recommendation from after-action reports following threats to the public's health.				
16.9.5: Percentage of public health agencies that directly receive CDC PHEP funding that, at least once/year, re-test a response following completion of corrective action(s) identified in a prior actual or simulated response. *(Outcome)*	FY 2008: 92% (Exceeded)	98%	98%	Maintain
16.9.3: Improve the on-time achievement of individual project milestones for Epidemiology, Laboratories and Emergency Response. *(Outcome)*	FY 2009: 93% (Unmet but Improved)	96%	96%	Maintain
Long Term Objective 16.2: Decrease the time needed to classify health events as terrorism or naturally occurring in partnership with other agencies.				
16.2.2: By 2010, the BioSense program will reduce the time needed from a triggering biosurveillance event (the identification of a potential disease event or public health emergency event) to initiate event-specific standard operating procedures (the initiation of a public health investigation and, if needed, subsequent public health intervention) for all infectious, occupational or environmental (whether man-made or naturally occurring) threats of national importance. *(Outcome)*	FY 2009: 6.97 days (met)	6.26 days	6.11 days	-0.15 days

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 16.3: Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.				
16.3.4: Reduce the time needed for a Laboratory Response Network (LRN) laboratory to enter and message LRN-related standardized results to the CDC. *(Outcome)*	FY 2009: A) Chemical - 13 minutes B) Biological - 7 minutes (Exceeded)	A) Chemical – 10 minutes B) Biological – 5 minutes	A) Chemical - 7 minutes B) Biological - 4 minutes	A) Chemical: -3 minutes; B) Biological: -1 Minute
Long Term Objective 16.5: Decrease the time to identify causes, risk factors, and appropriate interventions for those affected by threats to the public's health.				
16.5.1: Prevent the importation and spread of infectious diseases to the U.S. in mobile populations and non-human-primates, as measured by meeting 4 of 4 targets for the following measures (16.5.2 - 16.5.5) *(Outcome)*[1]	FY 2007: 1 of 4 measures	N/A	N/A	N/A
16.5.2: Increase the proportion of applicants for U.S. immigration screened for tuberculosis by implementing revised tuberculosis technical instruction (TB TI). *(Outcome)*	FY 2008: 32% (Exceeded)	40%	45%	+5%
16.5.3: Increase the likelihood of travelers seeking pre-travel medical advice for travel to Africa and Asia *(Outcome)*	FY 2008: Africa: 52 Asia: 14	Africa: 32 Asia: 21	Africa: 34 Asia: 23	Africa: +2 Asia: +2
16.5.4: Increase of the percentage of immigrants and refugees with a "Class A or B medical notification for tuberculosis" who undergo medical follow-up after arrival in U.S *(Outcome)*	FY 2007: 65%	70%	72%	+2%
16.5.5: Maintain low mortality in nonhuman primates (NHP) imported to the U.S. for science, exhibition, and education. *(Outcome)*	FY 2009: <1% (Met)	<1%	<1%	Maintain
16.5.6: Protect the U.S. population by increasing the number of 25 US international airports and land borders covered by a communicable disease preparedness plan.[1] *(Outcome)*	FY 2008: 6	N/A	N/A	N/A
16.5.7: Increase the number of hospitals with MOAs in priority cities. *(Outcome)*	FY 2009: 175 (Met)	180	185	5
16.5.8: Increase the number of illnesses in persons arriving in the United States that are reported to CDC DGMQ by conveyance operators, CBP, and others. *(Outcome)*	FY 2009: 3,156 (Exceeded)	2,200	2,500	+300

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 16.6: Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.				
16.6.4: The number of successful annual exercises that test response to multiple events with a 12-hour response time. *(Outcome)*	FY 2009: 1 (Met)	1	1	Maintain
16.6.6: Percentage of inventory discrepancies that are reduced by using quality inventory management systems. *(Outcome)*	FY 2009: 0.67% (Exceeded)	<5%	<5%	Maintain

[1] These performance measures are long-term outcome measures, with FY 2015 targets of 4 of 4 for 16.5.1 and 25 for 16.5.6.

OUTPUT TABLE:

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 16.3: Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.				
16.3.1: Percentage of states that have level three chemical lab capacity, and have agreements with and access to (specimens arriving within 8 hours) a level-one chemical lab equipped to detect exposure to nerve agents, mycotoxins, and select industrial toxins. *(Output)*	FY 2009: 100% (Met)	100%	100%	Maintain
16.3.6: Percentage of state public health laboratories that directly receive CDC PHEP funding that can correctly subtype E.Coli O157:H7 and submit the results into a national reporting system within four working days for 90% of the samples received. *(Output)*	FY 2008: 60% (Unmet but Improved)	96%	96%	Maintain
Long Term Objective 16.9: Decrease the time needed to implement recommendation from after-action reports following threats to the public's health.				
16.9.1: Percentage of public health agencies that directly receive CDC PHEP funding that can convene within 60 minutes of notification a team of trained staff that can make decisions about appropriate response and interaction with partners. *(Output)*	FY 2008: 85% (Unmet but Improved)	97%	97%	Maintain
Long Term Objective 16.9: Decrease the time needed to implement recommendation from after-action reports following threats to the public's health.				
16.9.2: Increase the percentage of the TPER allocation for which budget execution matches strategic funding priorities. *(Output)*	FY 2009: 99% (Exceeded)	100%	100%	Maintain
16.9.4: Achieve progressive improvements in the quality of projects submitted for TPER Upgrading CDC Capacity funding consideration. *(Output)*	FY 2008: 83% (Exceeded)	87%	N/A[1]	N/A
Long Term Objective 16.2: Decrease the time needed to classify health events as terrorism or naturally occurring in partnership with other agencies.				
16.2.1: Number of top 50 metropolitan areas using BioSense. *(Output)*[2]	FY 2009: 9% increase in population coverage from FY 2008 (Met)	10% increase from 2009	10% increase from 2010	+10%

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 16.3: Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.				
16.3.3: Number of Laboratory ResponseNetwork member laboratories able to use their current Laboratory Information Management System (LIMS) for LRN-specific electronic data exchange. *(Output)*	FY 2009: 0 (Unmet)	5	6	1
Long Term Objective 16.6: Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.				
16.6.5: Number of trained and ready Technical Advisory Response Units (TARU) for response to multiple events. *(Output)*	FY 2009: 9 (Exceeded)	9	9	Maintain
Long Term Objective: Create program efficiencies that improve services and conserve resources for mission-critical activities.				
16.E.2: Dollars saved per $1 invested in the Food and Drug Administration's (FDA) Shelf Life Extension Program (SLEP) for available projects. *(Efficiency)*	FY 2009: $15 (Unmet but Improved)	$18	$20	+$2
16.E.4: Decrease the cost of notifying state health departments of disease conditions in incoming refugees and immigrants by implementing the electronic disease notification system. *(Efficiency)*	FY 2009: $404,404 (Exceeded)	$511,000	$490,000	Maintain

1 Data for measure 16.9.4 is now collected and processed on a biennial basis; therefore FY 2011 target has been transitioned to FY 2012.
2 After reaching 50 metropolitan areas using BioSense, measure 16.2.1 is now measuring the percentage of population covered in each of the 50 metropolitan areas.

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
16.A: Academic Centers for Public Health Preparedness and Preparedness and Emergency Response Research Centers	FY 2008: 27	27	19	-8
16.B: Number of states, territories, and major metropolitan areas formally assessing public health capacity and preparedness	FY 2008: 62	62	62	Maintain

GRANTEE TABLE:

PUBLIC HEALTH EMERGENCY PREPAREDNESS (PHEP) PROGRAM FY 2009 Funding	
State/Territory/Grantee	FY 2009 Funding
Alabama	$9,984,931
Alaska	$5,015,000
Arizona	$13,658,394
Arkansas	$7,279,503
California	$49,341,755
Colorado	$10,637,403
Connecticut	$8,704,406
Delaware	$5,000,000
District of Columbia	$6,461,359
Florida	$32,906,612
Georgia	$18,146,190
Hawaii	$5,144,507
Idaho	$5,330,380
Illinois	$19,985,919
Indiana	$12,979,201
Iowa	$7,540,433
Kansas	$7,446,545
Kentucky	$9,510,505
Louisiana	$9,756,363
Maine	$5,183,337
Maryland	$12,690,042
Massachusetts	$14,323,704
Michigan	$20,123,542
Minnesota	$12,055,280
Mississippi	$7,467,891
Missouri	$12,475,814
Montana	$5,019,036
Nebraska	$5,774,382
Nevada	$7,292,961
New Hampshire	$5,244,492
New Jersey	$18,247,856
New Mexico	$6,853,141
New York	$22,171,004
North Carolina	$16,224,492
North Dakota	$5,023,393
Ohio	$21,312,180
Oklahoma	$8,536,905

PUBLIC HEALTH EMERGENCY PREPAREDNESS (PHEP) PROGRAM FY 2009 Funding	
State/Territory/Grantee	FY 2009 Funding
Oregon	$8,884,916
Pennsylvania	$22,975,362
Rhode Island	$5,000,000
South Carolina	$10,097,336
South Dakota	$5,000,000
Tennessee	$12,495,537
Texas	$42,816,952
Utah	$7,018,990
Vermont	$5,042,969
Virginia	$16,613,973
Washington	$13,561,976
West Virginia	$5,839,235
Wisconsin	$12,177,579
Wyoming	$5,000,000
State Sub-Total	**$623,373,683**
American Samoa	$383,368
Guam	$546,695
Marshall Islands	$387,201
Micronesia	$455,796
Northern Mariana Islands	$418,947
Palau	$329,686
Puerto Rico	$8,665,828
Virgin Islands	$456,664
Territory Sub-Total	**$11,644,185**
Chicago	$10,699,574
Los Angeles	$22,522,771
New York City	$20,674,333
City Sub-Total	**$53,896,678**
Total States/Territories/Cities	**$688,914,546**

PROTECTING THE PUBLIC FROM HAZARDOUS EXPOSURES

In the last half century, a dramatic shift occurred in the health burden of the U.S. population from infectious diseases to diseases such as cancer, birth defects, and asthma, many of which may be associated with exposures to hazardous substances. Advances in industrial science and technology led to the development and production of tens of thousands of chemical compounds, which are now ubiquitous in our air, water, food, and homes. Serious health threats, from contamination in Love Canal, New York and gas released in Bhopal, India, brought the problem of environmental contamination to national attention in the 1980s.

Established by Congressional Mandate, the Agency for Toxic Substances and Disease Registry (ATSDR) plays a critical role in maintaining and improving the health of the American people by promoting healthy and safe environments and preventing harmful exposures. While ATSDR shares common concerns with other federal agencies and institutes, such as the Environmental Protection Agency (EPA) or CDC's National Institute for Occupational Safety and Health (NIOSH), ATSDR is unique in its focus on the human health impact of exposures to hazardous substances. ATSDR's primary focus is on preventing exposures in communities near toxic waste sites. However, the Agency is committed to better understanding how chemical exposures affect human health. After assessing these exposures, ATSDR works with government agencies, community groups, and industry to implement actions that protect the public's health and safety.

EPIDEMIOLOGY

According to the World Health Organization, an estimated 24 percent of the disease burden (healthy life years lost) and an estimated 23 percent of all deaths (premature mortality), globally, are attributable to environmental factors. Each day people are exposed to thousands of chemicals through food, air, water, soil, and consumer products. Some examples of exposures include: chemicals from landfills leaking into drinking water supplies; mercury contaminating fish in a local stream, kids who live next to an old factory showing elevated blood lead levels; and fumes that smell like gas or oil seeping into neighborhood basements. Biomonitoring data suggests widespread exposure in the U.S. population for some industrial chemicals, including polybrominated diphenyl ethers (PBDEs), bisphenol-A (BPA), and several perfluorinated compounds.

More than 80,000 chemicals are manufactured or used in the U.S. Research demonstrating the health impacts associated with these chemicals exists for, at most, a few thousand of these chemicals. Available research, though limited, provides strong evidence linking more than 20 types of cancer and nearly 25 reproductive, birth, developmental, neurobehavioral, and endocrine disorders with exposure to environmental contaminants. For example, there are demonstrated associations between lead and learning disabilities, asbestos and respiratory cancers, radon gas and lung cancer, ozone and respiratory effects, particulate matter and cardio-pulmonary disease, and perchlorate and thyroid disease.

Annual releases of toxic pollutants into the air amount to over two billion pounds, with a similar amount released into surface water, land, or underground. In 2006, nearly 38 percent of the U.S. population, or 114 million people, lived in a county where measured air pollutants reached concentrations above EPA standards. In addition, more than 10,000 accidental and illegal releases of hazardous substances occur annually in the United States.

The EPA estimates that 41 million people live within a four mile radius of the 1270 most hazardous waste sites in the U.S. (uncontrolled or abandoned places that contain hazardous substances and are designated on the EPA's National Priority List (NPL) for high priority sites). People have been exposed to a range of toxic substances at these sites—from industrial metals and chemicals to naturally-occurring asbestos to residual pesticides.

HEALTH DISPARITIES/SOCIAL DETERMINANTS

Based on a geographical analysis of 2000 census data, minority residents make up 38 percent of the population living within one mile of an NPL site (compared to minority residents making up 22.9 percent of the total US population). In addition, 13.7 percent of individuals living within one mile of a toxic waste site fall below the poverty line (compared to 12.4 percent of individuals in the US population.) As a result, low income and minority populations are at a higher risk for adverse health outcomes that are potentially associated with exposures to hazardous substances.

Tribal reservations contain a disproportionate number of hazardous waste sites as a result of the mining, drilling, and processing of natural resources. Additionally, communities with multiple brownfields (land reuse and redevelopment sites with possible residual chemical contamination from former uses) characteristically have lower socioeconomic conditions and poor health status.

A growing body of research suggests that maternal exposure to chemicals poses a risk to women's health (asthma, breast cancer and hormonal imbalances) as well as to fetal and health and development (miscarriage, birth defects, growth restriction, and motor/cognitive delays). Children are at an increased risk of exposed to hazardous substance exposure and of adverse health effects from their exposure. Their small body size and developing systems also place them at a greater risk of health effects than adults. ATSDR estimates about three million children live within one mile of a National Priorities List (NPL) hazardous waste site.

EVIDENCE-BASED ACTIVITIES

ATSDR conducts a range of activities to protect the public from harmful exposures. The efforts described below highlight the broad scope of ATSDR's evidence-based activities.

Protect the public from hazardous exposures	• ATSDR scientists identify pathways of exposure to hazardous chemicals and advise EPA, other agencies, and the public of actions needed to mitigate harmful exposures. • ATSDR's Emergency Response Team can be deployed at any time to the site of a toxic substance release or natural disaster upon request of state or federal authorities.
Build the science base on toxic chemicals	• Toxicological Profiles evaluate and interpret exposure pathways and possible health effects of hazardous substances found at NPL sites. These toxicological profiles are used by health and scientific professionals worldwide. • ATSDR's National Toxic Substance Incidents Program (NTSIP) collects and organizes information about where toxic substances are used and transported and details about any spills that may occur. • ATSDR's health studies link chemical exposures to diseases and other health effects. Health studies may also answer a specific question that a community has about the impact of a hazardous exposure in the community.
Deliver information on toxic chemicals	• ATSDR educates community groups and health professionals on how to prevent exposures and how to diagnose and treat patients exposed to hazardous substances.
Implement Registries	• Exposure Registries enumerate people to increase understanding of the associated health impacts and provide health information as appropriate.

PROGRAM ACTIVITIES TABLE

(Dollars in Thousands)	FY 2009 Enacted	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Agency for Toxic Substances and Disease Registry	$74,039	$0	$76,792	$76,337	-$455

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

SUMMARY OF THE REQUEST

The Agency for Toxic Substances and Disease Registry (ATSDR) is requesting $76,337,000 for FY 2011, a decrease of $455,000 below the FY 2010 Appropriation, which is inclusive of contract and travel savings (Please see page 17 for more information). FY 2011 funds will support ATSDR's work to serve the public through responsive public health actions to promote healthy environments and prevent harmful exposures.

(Dollars in Thousands)	FY 2009 Appropriation	FY 2009 Recovery Act	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/ FY 2010
Budget Authority	$74,039	$0	$76,792	$76,337	-$455
Total	$74,039	$0	$76,792	$76,337	-$455
FTEs	296	0	306	306	0

AUTHORIZING LEGISLATION

The Great Lakes Critical Programs Act of 1990, 33 U.S.C. § 1268, Section 104(i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), 42 U.S.C § 9604(i), The Defense Environmental Restoration Program, 10 U.S.C. § 2704, The Resource Conservation and Recovery Act, as amended, 42 U.S.C § 321 et seq, The Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

FY 2010 Authorization…..…….……..…….Indefinite

Allocation Methods……..Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Contracts; Other

PROGRAM DESCRIPTION

As a Congressionally-mandated federal public health agency, ATSDR strives to prevent chemical exposures and related health effects in communities across America. Chemical exposures occur in homes, schools, workplaces, and throughout communities. These exposures, which are often difficult to identify and control, can originate from accidental chemical releases, household products, hazardous waste sites, and a number of other sources. ATSDR experts and funded partners meet with individuals through community gatherings, in open forums, and even at their homes to listen to their environmental health concerns, provide information, and conduct investigations. By working with communities, ATSDR helps to ensure that the places in which people live and play are safe and healthy.

ATSDR works with public health and environmental officials from all levels of government to implement actions to prevent harmful exposures and protect the health of all people impacted by hazardous wastes. In FY 2011, ATSDR resources will support public health activities to identify and evaluate exposures to hazardous substances and to recommend appropriate actions to prevent and mitigate future exposures.

MECHANISMS AND FUNDING HISTORY TABLE

In FY 2011, ATSDR will provide funding to 20 state and local partners under its cooperative agreement program for site assessment and evaluation activities. ATSDR will continue to support seven additional states through the National Toxic Substance Incidents Program (NTSIP) for surveillance of uncontrolled and illegal releases of hazardous substances. Additionally, ATSDR will continue supporting 12 regional Pediatric Environmental Health Specialty Units and two Universities for Minority Environmental Health Research. ATSDR will provide funds to universities and other research organizations through grants for investigator

initiated peer reviewed research. ATSDR will allocate remaining funds through contracts, intramural research, personnel, technical assistance, and other programmatic oversight.

Fiscal Year	Amount
FY 2006	$74,905,000
FY 2007	$75,212,000
FY 2008	$74,039,000
FY 2009	$74,039,000
FY 2010	$76,792,000

Budget Request: Agency for Toxic Substances and Disease Registry

In FY 2011, the Agency for Toxic Substances and Disease Registry (ATSDR) will identify, assess, and respond to community-level, site-specific issues involving human exposure to hazardous substances in the environment. ATSDR's field staff located in EPA regional offices and state-level staff supported by the Cooperative agreement program compose a national network of public health experts that respond to a broad range of hazardous waste and chemical release related issues. ATSDR's FY 2011 activities serve four inter-related functions: 1) Protecting the public's health from hazardous exposures; 2) Building the science base on toxic chemicals; 3) Delivering information on toxic chemicals to health professionals and the public; and 4) Implementing Registries.

Budget Request: Protect the Public's Health from Hazardous Exposures

ATSDR protects the health of the American public by assessing potential health hazards at hazardous waste sites and making recommendations to partner agencies, private industry, and communities about steps they can take to stop and prevent human exposures to hazardous substances. While much of ATSDR's work occurs at hazardous waste sites, ATSDR also evaluates human exposures to chemicals at other "release" sites, for example, the air emissions from a manufacturing plant or a spill of manufacturing or combustion by-products.

ATSDR documents the findings and recommendations of its investigations in Public Health Assessments, Health Consultations, and exposure Investigations. In addition, ATSDR also provides technical assistance on environmental public health issues to health and environmental agencies as well as the public.

ATSDR provides support services and responds to chemical spills and other emergency events—from natural disasters and fires to illegal dumping. ATSDR advises federal, state, and local officials about when to evacuate communities; what levels of chemical pose a health threat; when to allow residents to return; how to educate the public regarding the released chemicals; and how to ensure the safety of responders and medical professionals.

In FY 2011, ATSDR will continue to provide technical support and collaborate with communities, health care providers, EPA, and other agencies to implement effective methods to stop exposures to hazardous materials. ATSDR's FY 2011 resources will support a range of activities, which are described below.

- More than 260 Public Health Assessments, Consultations, and Exposure Investigations will be conducted by ATSDR, in collaboration with partners, at hazardous waste sites in FY 2011. The recommendations from these assessments will be used to protect communities from hazardous exposures to chemicals.
- Over 1,400 technical assists will be completed in response to requests from external stakeholders (e.g., regulatory agencies, public health agencies, and the public). ATSDR's technical input and/or educational information will facilitate informed decision-making regarding environmental health issues.
- In order to support brownfield redevelopment, ATSDR will provide technical assistance on approximately 50 properties undergoing redevelopment; participate in at least five community health

pilot projects for brownfield and land reuse sites; and develop additional assessment tools for local health departments to engage in redevelopment decisions and policy.

- ATSDR will respond at least 200 requests of a time-critical nature from federal, state, and local emergency response personnel addressing chemical releases associated with emergency events.

Rationale and Recent Accomplishments: Human exposures to toxic substances can lead to a range of poor health outcomes, from cancer to asthma to developmental delays. ATSDR works to decrease the exposures that lead to these harmful health effects. In 2009, ATSDR completed evaluations of environmental exposures at 211 sites by issuing 233 public health assessments and consultations. Federal, state, and local authorities adopted 85 percent of ATSDR's recommendations made in these assessments, resulting in healthier and safer environments for Americans. While the complete impact of ATSDR's evaluation work is difficult to quantify, four key examples described below provide a glimpse into the substantial health benefits that result from ATSDR's work.

- In 2009, an ATSDR supported investigation identified naturally-occurring asbestos, a cancer-causing substance, at a recreational gem mine in North Carolina. The investigators evaluated air sample data and recommended suspension of gem mining to prevent additional public exposure to asbestos. The gem mining ceased and a site-specific asbestos factsheet was developed for local health departments.
- At least 5,000 school children exposed to mercury have been safeguarded by ATSDR's work. For example, at one Arizona High School, students found a large amount of elemental mercury in a school storage room, spilled it on school buses and took it home—exposing their families and community to this harmful substance. ATSDR ensured that families of exposed students were alerted and educated about mercury poisoning and that all mercury was removed from the storage rooms.
- Through efforts at 281 time-critical and/or emergency events ATSDR's efforts ensured that first responders and clean-up crews took steps to stay safe while cleaning up homes, workplaces, and communities. In 2009, ATSDR's response in these time-critical events resulted in removal of contaminated soils, provision of alternate water supplies, and/or mitigation of air release exposures.
- In 2009, ATSDR provided emergency response when a containment wall failure resulted in the release of fly ash in Tennessee. As part of the emergency response, ATSDR reviewed large data packages, provided key action levels for contamination, coordinated an epidemiological study with EPA, and participated in several media interviews. As a result of ATSDR's work, community members were able to make informed decisions to protect themselves during the cleanup period. For example, residents were assured that public water supplies were safe but that private wells needed to be evaluated before use.

Health Impact: ATSDR works to protect the public from exposures to hazardous substances by assessing sites and properties, responding to environmental emergencies, and working with government agencies, industries, community organizations, and the public to take action to mitigate and prevent exposures to hazardous substances. In FY 2011, ATSDR will ensure that EPA, state and regulatory agencies or other responsible entities will act on at least 85 percent of ATSDR's public health recommendations. Human exposures to toxic chemicals decrease when ATSDR's recommendations are followed resulting in a reduction in the negative health impacts that are associated with exposure. (*Please see outputs 17.C, 17.D, and 17.E and outcomes 17.1.1, 17.3.1 for specific information.*)

Budget Request: Building the Science Base on Toxic Chemicals

ATSDR works to build the knowledge of the scientific community, policy-makers, and medical professionals regarding the human effects of toxic substances. ATSDR's applied research includes both toxicological and epidemiological research. Additionally, ATSDR collaborates with other government agencies, universities, and volunteer organizations to address critical toxicological data needs. ATSDR's scientific research often grows out of site-specific public health activities. In FY 2011, ATSDR's resources will support the key activities to build the science base on toxic chemicals noted below.

- ATSDR will develop eight Toxicological Profiles and will expand and update 40 existing Profiles. ATSDR will also develop 16 shortened versions of these documents, known as quick reference guides for scientists, health providers, and the public to find information about a particular substance. ATSDR has developed over 300 Toxicological Profiles, which are comprehensive reference documents synthesizing the toxicology and possible health effects of the hazardous substances most often found at hazardous waste sites.
- Information from ATSDR's National Toxic Substance Incidents Program (NTSIP) is used to establish policy and guidance that helps keep first responders, employees, and the public safe during a chemical event. In FY 2011, ATSDR will fund seven state and local health departments to collect data on uncontrolled or illegal releases of hazardous substances and the injuries/evacuations associated with those events for the NTSIP database. ATSDR will also educate 35,000 people about chemical exposure event data collected through the NTSIP system.
- ATSDR partners with industry and other federal agencies to answer research questions related to hazardous substances. In FY 2011, ATSDR will collaborate with partners on research to fill more than 25 scientific data gaps that have been identified in the area of exposure to hazardous substances.
- ATSDR will use computational toxicology and exposure-dose reconstruction to create models and other science-based methods for understanding how chemicals impact health when traditional resources are lacking. ATSDR's modeling activities are used to provide rapid and cost effective information on health effects of chemicals.
- ATSDR will respond to 160 requests from State and Local Health Departments for assistance with geospatial information systems (GIS). In addition, ATSDR will advance geospatial science and systems as applied to environmental health, chronic disease, infectious disease, health care access, and emergency preparedness & response via applied research and GIS services, consulting, and training. ATSDR's GIS expertise has supported the visualization of the complex relationship between health and the environment, in addition to supporting other community health efforts across CDC.
- ATSDR will study health effects and exposures in specific communities and will:
    - Use the $2 million allocation to examine uranium exposure and pregnancy and neonatal complications of Navajo mothers, and provide educational outreach to increase prenatal care and mitigation of uranium exposure on the Navajo Reservation;
    - Continue to address Camp Lejeune community concerns and provide a significant contribution to gaps in the scientific knowledge about health effects of exposures to high levels of solvent-contaminated drinking water; and,
    - Characterize exposure pathways for persistent toxic substances in the Great Lakes basin with an emphasis on developing new methods and assessing the relationship between exposure pathways and body burden in vulnerable populations.

Rationale and Recent Accomplishments: More than 80,000 chemicals are used or manufactured in the United States and little is known about how most of these impact human health. ATSDR's Toxicological Profiles are an indispensible resource for environmental and health professionals around the world and are used to make decisions about cleaning up sites, responding to emergencies, and treating patients exposed to chemicals. The Toxicological Profiles form the scientific background of ATSDR scientists' assessment work, resulting in action recommendations that are grounded in the most up-to-date science on toxic chemicals.

Many states and partners have developed specific legislation and policies using NTSIP's predecessor database, the Hazardous Substances Emergency Events Surveillance (HSEES) system. For example, HSEES data have supported several state efforts to prevent the growing problem of methamphetamine lab exposures

and to minimize mercury releases in schools. HSEES data also support the counter-terrorism and response planning of agencies or facilities that make or store chemicals in the United States.

Two examples that show the benefit of ATSDR's modeling activities are described below.

- In FY 2009, ATSDR scientists used computational toxicology to develop models that describe how mixtures of chemicals could affect health at 11 different chemical disaster sites. As a result, first responders were able to take appropriate steps to keep themselves, and nearby residents safe.
- In Oatland Island, GA, ATSDR's exposure model was used to persuade state regulators to use a monitoring plan as a final remedy instead of the more expensive in-situ groundwater treatment, resulting in cost savings of $1.0 million dollars.

ATSDR geospatial accomplishments include the following activities noted below.

- ATSDR scientists provided geospatial support to the 2009 H1N1 Influenza response. Using ATSDR's maps, CDC officials were able to geospatially visualize critical public health information. With maps depicting disease spread, vaccine tracking, and community mitigation efforts, officials were able to make the best recommendations while considering multiple factors.
- In FY2009, ATSDR released the Community Health Status Indicator (CHSI) GIS Analyst, a web-based GIS interface that can geographically analyze and visualize community health data. This new interface will encourage a dialogue among community advocates and stakeholders to take action to improve a community's health.

ATSDR performs health studies toward the goal of producing scientific knowledge that is applicable to other situations involving similar exposures and diseases. Health studies may also answer a specific question that a community has about the impact of a hazardous exposure in the community. While there can be many uncertainties due to long latency periods and/or multiple causes of sickness or diseases, health studies may ultimately help establish a link between an exposure and a health effect. Noted below are additional details about select ATSDR health studies.

- A yearlong evaluation in the Ohio River Valley recently completed by ATSDR found high levels of airborne manganese. ATSDR is developing a follow-up study to compare the prevalence of nervous system dysfunction among a community exposed to manganese with the prevalence in a similar non-exposed community.
- In FY 2009, ATSDR initiated a surveillance project to evaluate myeloproliferative neoplasm (MPN) diagnosis and reporting to state registries on a national level. Data from this project may help identify prevention strategies and enable the collection of more accurate polycythemia vera (PV) and MPN data in cancer registries.

Health Impact: In FY 2011, ATSDR will engage in surveillance and research activities to increase the knowledge base on the health effects of toxic substances. The findings of this research will be used as scientists, health providers, and policy makers design and implement community/site clean-up activities, emergency responses, individual treatment plans, and environmental/land use policies. Additionally, the visualization of ATSDR findings on maps will serve as a powerful communication tool for staff working in communities. By applying ATSDR's research, policy makers, government agencies, and health providers will be able to make science-based decisions that will protect the public from exposures to hazardous substances. (*Please see outputs 17.G, 17.H, 17.I and 17.L and outcome 17.2.1 for specific information.*)

Budget Request: Deliver Information on Toxic Chemicals to Health Professionals and the Public

ATSDR translates and communicates scientific information on the human health effects of exposures to toxic substances and provides education to community groups and health professionals on how to prevent the health effects of toxic substance exposures. ATSDR provides targeted education at the community level to meet local needs and also broadly distributes educational materials through the internet and other

mechanisms. By working with communities, ATSDR helps to ensure that the places in which people live and play are safe and healthy.

ATSDR experts and funded partners meet with individuals through community gatherings, in open forums, and even at their homes to listen to environmental health concerns, provide information, and conduct investigations. ATSDR develops and provides medical education to assist health professionals in diagnosing and treating conditions related to hazardous exposures. ATSDR's FY 2011 resources will support a broad range of efforts to educate health professionals and the public on key environmental health topics. Several key examples of ATSDR's work in this area are noted below.

- ATSDR and its partners will educate more than 133,000 community members through public meetings, emails, factsheets, and online videos. ATSDR will share information about toxic substances present in communities, ways to decrease exposure, and other vital public health guidance. Community members can use this guidance to make healthy decisions about minimizing exposures and seeking appropriate treatment.
- In order to build medical system capacity to appropriately treat and refer patients exposed to hazardous substances, ATSDR collaborated with partners to educate 32,000 health professionals in toxicology, risk assessment, and clinical care.
- In collaboration with EPA, ATSDR will continue to support a six-year (2009-2015) cooperative agreement for 11 regional Pediatric Environmental Health Specialty Units (PEHSUs) and one satellite PEHSU in Ohio. The PEHSUs and partners at the American College of Medical Toxicology work to provide education, health consultation, and risk assessment to health care providers and the public on a range of environmental topics including toxic mold in homes, mercury in schools, and the health effects associated with imported drywall from China.
- To support the minority health professions community in their efforts to eliminate environmental health disparities, ATSDR will support two universities as part of Minority Health Cooperative Agreement for Environmental Health and Toxicology Educational Research Program. ATSDR's support for these Universities focuses on training and research.
- As part of an enhanced community engagement model, ATSDR will work with communities to use available resources to address their health concerns. Community assessments provide critical data on social determinants of health in the community and contribute to the development of effective and innovative community involvement initiatives. These assessments can also help to reduce the health disparities experienced at many sites, including those designated Environmental Justice sites.

Rationale and Recent Accomplishments: Building the science base on toxic substances is useful only if that knowledge and information is communicated to health providers, community members and policy makers. The work of ATSDR, EPA, and other agencies to clean up sites and prevent exposures is most effective with active participation from local community members and health care providers. Despite research linking environmental exposures to poor health outcomes, the study of environmental medicine is largely omitted from U.S. medical school curriculum, leaving health care providers ill equipped to provide environmental preventive or curative patient care. In FY 2009, ATSDR worked to educate the public and health professionals in several ways described below.

- ATSDR supported the education of more than 300,000 community members on the basics of toxic chemicals in the environment and how communities can reduce and prevent exposures. ATSDR utilizes community meetings, flyers, posters, phone calls, email, and the internet to reach people with these environmental health messages.
- ATSDR developed an educational curriculum guide entitled *Real Environment Action Created by Teens and Texts*. This curriculum utilizes new social media and mobile technologies to teach teens (through youth organizations) how to address environmental hazards in their communities by developing leadership skills and environmental health knowledge.

- ATSDR staff and the American College of Medical Toxicology collaborated with the Indian Health Services (IHS) to conduct grand rounds training on uranium and radiation exposures for nearly 150 clinical staff serving Navajo tribal members living near uranium mines and mills. In addition, ATSDR developed a DVD to ensure these messages will be communicated to future clinical staff.
- ATSDR's funding of the Minority Health Research and Education Cooperative Agreement provides local communities with the tools needed to impact environmental health disparities in minority and underrepresented communities. For example, the program provides environmental health education to graduate students and works to improve community member knowledge, skills, and awareness of key environmental health issues.

Health Impact: In FY 2011, ATSDR will educate the public about chemicals present in their homes, schools, and communities. Informed community members can take the steps they need to reduce their exposures to chemicals and other hazardous exposures, thus reducing health effects associated with those exposures. ATSDR's support for the education of primary care providers and other health professionals will ensure that these health professionals know how to prevent, diagnose, and treat illnesses caused by hazardous substances. People exposed to chemicals can then obtain early and proper treatment. (*Please see outputs 17.A, 17.N, 17.0, and 17.P for specific information.*)

Budget Request: Implement Registries

ATSDR maintains registries, which are confidential databases designed to collect, analyze, and track information about groups of people who share a defined exposure or illness. ATSDR provides information to people about health services and other services that are available to them. In addition, these registries may help to illuminate the relationship between exposure to hazardous substances and disease.

- In FY 2011, ATSDR will continue to build and maintain the Amyotrophic Lateral Sclerosis (ALS) registry. ATSDR will use this database to provide prevalence information on national ALS data to the medical, public health, and stakeholders' community, and help further research and understanding of the contributing factors of ALS.
- In FY 2011, ATSDR will continue to update data and enrollment in the Tremolite Asbestos Registry (TAR). The TAR is a registry of people exposed to tremolite asbestos originating in Libby, Montana and includes contact, demographic, exposure, and health outcome data for each registrant.

Rationale and Recent Accomplishments: ATSDR maintains registries with the goal of producing scientific knowledge about particular diseases or exposures. Analysis of registry data can be used to inform medical treatment of a registrant. The registry may also generate information that can be applied to similar situations or exposures. Two of ATSDR's accomplishments in the area of registries during 2009 are noted below.

- In October 2009, ATSDR launched the National ALS Registry website with funding from CDC. In the future, this website will include an online portal where people with ALS can enroll in the ALS Registry. ATSDR also completed four pilot studies that lead to the development of the National ALS Registry.
- ATSDR collaborated with HRSA on a health care program for the Libby, MT Community to provide screening services and medical care to community members exposed to Libby Asbestos so that individuals impacted can receive information and healthcare services.

Health Impact: In FY 2011, ATSDR will use funds to respond to selected community concerns regarding possible linkages between hazardous substances and health impacts. In response to a congressional mandate, the agency will develop national surveillance efforts for ALS and other neurological diseases (as appropriate). As a result, awareness about diseases and health effects will be increased across the globe. ATSDR is committed to maintaining exposure registries to help enumerate people with defined exposures to toxic substances, track them over time to understand associated health impacts, and provide health information to registrants as appropriate. Registries will continue to also help scientists understand the extent of exposures

and provide data that can be used to demonstrate exposures and health outcomes (*Please see output 17.H for specific information*).

IT INVESTMENTS

ATSDR invests in numerous Information Technology (IT) systems which support strategic and performance outcomes. The IT systems have diverse purpose, scope and composition. The systems provide electronic capabilities for gathering, storing, manipulating and disseminating valuable data for public health monitoring and tracking activities. The investment and use of IT systems are necessary to meet established goals and performance outcomes. The systems track non-infectious diseases and other health effects that may be associated with environmental exposures, maintain and collect standardized data from surveillance systems at the state and national level, and provide this data to develop and evaluate effective public health actions to prevent or control diseases.

OUTCOME TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Efficiency Measures:				
17.E.1: Reduce the average cost per site to deliver public health findings and recommendations to the public.[1] *(Efficiency*)	FY 2009: -11% (*Not Met*)	17%	N/A	N/A
17.E.2: Maintain the percentage of cost savings each year for CCEHIP as a result of the Public Health Integrated Business Services HPO. *(Efficiency)*	FY 2007: 39% (*Exceeded*)	29%	30%	1%
Long Term Objective 17.1: Assess current and prevent future exposures to toxic substances and related human health effects.				
17.1.1: Reduce exposures to toxic substances and mitigate the likelihood of future toxic exposures by increasing EPA's, state regulatory agencies', or private industries' acceptance of ATSDR's recommendations at sites with documented exposures. (*Outcome*)	FY 2009: 85% (*Exceeded*)	>85%	>86%	+>1%
Long Term Objective 17.3: Mitigate the risks of human health effects from toxic exposures.				
17.3.1: Protect human health by preventing or mitigating human exposures to toxic substances or related health effects at sites with documented exposures. (*Outcome*)	FY 2008: 82% (*Exceeded*)	74%	74%	Maintain

[1]Measure has been retired and replaced by 17.E.2.

OUTPUT TABLE

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
Long Term Objective 17.2: Determine human health effects associated with exposures to priority hazardous substances.				
17.2.1: Advance understanding of the relationship between human exposures to hazardous substances and adverse health effects by completing toxicological profiles for substances hazardous to human health. (*Output*)	FY 2009: 16 (*Not Met*)	18	18	Maintain

Measure	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
17.2.2: Fill data needs for human health effects/risks relating to hazardous exposures. (*Output*)	FY 2009: 37 (*Exceeded*)	10	10	Maintain
Long Term Objective 17.3: Mitigate the risks of human health effects from toxic exposures.				
17.3.2: Provide services to mitigate the risks of health effects from exposure to hazards from disasters. (*Output*)	FY 2009: 100% (*Met*)	100%	100%	Maintain

OTHER OUTPUTS

Outputs	Most Recent Result	FY 2010 Target	FY 2011 Target	FY 2011 +/- FY 2010
17. A.: Cooperative Agreements	FY 2009: 30	30	20	-10
17.B: Sites Evaluated/Chemical Release Responses	FY 2009: 818	500	500	Maintain
17.C: Public Health Assessments/Health Consults (includes chemical specific health consults)	FY 2009: 332	300	260[1]	-40
17.D: Technical Assists	FY 2009: 1468	1400	1400	Maintain
17.E: Exposure Investigations	FY 2009: 56	9	9	Maintain
17.G: Emergency Responses and Exercises	FY 2009: 94	58	58	Maintain
17.H: Health Studies	FY 2009: 39	36	36	Maintain
17.I: Surveillance (# of states) and Registries (# of registries by exposure type)	FY 2009: 11	11	11	Maintain
17.J: National Toxic Substances Incident Program (surveillance states and events)	FY 2009: 14 states/ 6,339 events	7 states/ 3,000 events[2]	7 states/3,000 events[2]	Maintain
17.K: Great lakes Research Projects (studies)	FY 2009: 4	4	4	Maintain
17.L: Minority health Professions Foundation (grants)	FY 2009: 5	2	2	Maintain
17.M:Toxicological Profiles	FY 2009: 13	13	13	Maintain
17.N: Information Dissemination	FY 2009: 7,147,521[3]	6,200,000[3]	6,200,000[3]	Maintain
17.O: Pediatric Environmental Health Specialty Units	FY 2009: 11	11	11	Maintain
17.P Health Professionals Trained	FY 2009: 62,112	63,600	47,097	-16,503
17.Q Community Members Educated	FY 2009: 336, 263[4]	133,000	133, 000	Maintain

[1] In FY 2010, the Site-Specific Cooperative Agreement Program will begin a new cycle of competitive funding with 20 anticipated grantees. Reduced outputs correlate to the decrease in the number of grantees from 30 to 20.
[2] The target was lowered because CERCLA funding is no longer available to support the states in HSEES surveillance activities.
[3] ATSDR is no longer responding to requests for publications stored in the warehouse. In the beginning of FY 2009, the CDC-INFO team started doing that work, so those numbers would not be included in our report for ATSDR. Also, in FY 2009 there were fewer ATSDR page views than in FY 2008. The reduction can be attributed to two factors: (1) In FY 2008 ATSDR experienced multiple one-time events of particular interest to the general public (including Camp Lejeune Congressional testimony, the release of multiple Great Lakes Area of Concern reports, and the release of formaldehyde studies related to FEMA Trailers); and (2) In FY 2009 an increasingly large number of our users came through Google rather than through the ATSDR home page. By accessing pages directly through Google search results, users took a more direct path to content and therefore reduced the number of intermediary pages visited. The result is fewer overall page views, but better quality access to content.
[4] There was a drastic increase in the FY 2009 number of community members educated due to a prevention activity that targeted 250,000 local utility customers by giving out a fact sheet in a newsletter. Since these large activities can't be forseen the targets for 2010 and 2011 have not been increased based on this result

DISCUSSION OF THE ADMINISTRATIVE TAP

In FY 2009, the administrative charge to ATSDR was $12,090,000, or 16.3 percent of their FY 2009 Budget. ATSDR provided these funds to CDC via an interagency agreement to fund activities such as: rent/utilities/maintenance, human resources management, information technologies systems, telecommunications, and financial management.

In FY 2010, the administrative charge will remain at $12,090,000, or 15.7 percent of their FY 2010 budget. Over the past several fiscal years, reorganizations and changes in budget structure have rendered CDC's administrative cost formula outdated. CDC is recommissioning another study to update the method for determining administrative costs to Programs (e.g. ATSDR, Vaccines for Children, etc.).34 The results of the impending study will be used to assist in determining ATSDR's administrative charge in FY 2011. Until a new formula is determined, CDC will continue to apply the existing method to determine administrative charges

[34] In FY 2005, CDC created the Business Services Support and Leadership & Management budget lines, which centralized funding for administrative support services for the Agency's CIOs that receive their appropriation through the Labor/Health and Human Services/Education bill. After the inception of those budget lines, those CIOs were no longer billed for administrative costs. CDC did continue to directly bill Programs that are not funded through the Labor/Health and Human Services/Education appropriation, such as ATSDR, for administrative support services.

REIMBURSEMENTS AND TRUST FUNDS

SUMMARY OF THE BUDGET

The FY 2011 President's Budget estimate of $555,388,000 for Reimbursements and Trust Funds reflects level funding with the FY 2010 estimate.

	FY 2009 Actual	FY 2010 Estimate	FY 2011 Estimate	FY 2011 Request +/ FY 2010
Budget Authority	$557,037	$555,388	$555,388	$0

AUTHORIZING LEGISLATION

Public Health Services Act §§ 301, 306(b)(4), 353; User Fee: Labor-HHS FY Appropriations.

PROGRAM DESCRIPTION

CDC's reimbursable activities provide technical assistance and consultation to other agencies and organizations. CDC has a long history of working and partnering with other federal agencies in the shared interest of public health improvement and prevention programs.

CDC will continue its longstanding agreements with other agencies of the Public Health Service, HHS, and others associated with CDC's Health Statistics studies. CDC will continue to provide consultation and technical assistance in areas such as genetic diseases, laboratory tests, investigations and diagnostic reagents, development of worker safety guidance, and training and model screening programs.

CDC provides a wide range of support and assistance to other agencies. For instance, CDC is working with the United States Agency for International Development on various projects to support infectious disease and family planning. In another agreement, CDC is assisting the Department of Homeland Security in evaluating and assessing fire prevention grants to firefighters. CDC also works with the Department of Justice on the assessment of hand-held assays for threat agents. Also, CDC collaborates with the Environmental Protection Agency and the Federal Emergency Management Administration on several projects of public health concern.

The CDC is also working with the Environmental Protection Agency to build global capacity and collaboration to better understand, investigate, control and prevent environmental and occupational health problems in developing countries and the United States. During the previous agreements, the major emphasis of the program was on epidemiology, risk assessment and surveillance. Subsequently, the major emphasis became prevention and intervention research to reduce risks in participating collaborating countries. The focus in the future will be to address relevant environmental and occupational health issues in the target developing countries and in-country infrastructure development, including human capacity for research (including clinical research), research implementation, bettering public health, information dissemination and mitigation of adverse consequences of environmental exposures and evaluation of success.

CDC also performs vessel sanitation inspections to ensure vessels are in compliance with the health and sanitation requirements for the federal government and specimen testing for customers, issues certifications, and sells biological projects and tapes of statistical data. Fees are collected for these activities to offset program costs.

In addition to reimbursable agreements and user fees, CDC receives funds from entering into Cooperative Research and Development Agreements (CRADAs) to enhance and facilitate collaboration between the Agency's laboratories and various partners. CDC typically provides

research personnel, laboratory facilities, materials, equipment, supplies, intellectual property, and other in-kind contributions to the collaborator. CDC uses the income from CRADAs to continue to improve programs.

In FY 2009, CDC also received $200 million in Pandemic Influenza Supplemental Funds through the Supplemental Appropriations Act, 2009 (P.L. 111-32) for H1N1 flu activities as well as $1.659 billion through the Public Health and Social Services Emergency Fund to support pandemic influenza risk communication and preparedness activities, vaccination campaign planning, H1N1, and other activities.

OUTPUT TABLES

#	OUTPUT TABLE (Dollars in Thousands)	FY 2009 Actual	FY 2009 FTEs	FY 2010 Estimate	FY 2011 Estimate
18.A	**Agency for International Development** 14 Agreements to Assist developing counties with implementation of population based surveys, and Breast Cancer and Environments Research. (BCERC)	$39,581	47	$39,581	$39,581
18.B	**Department of Agriculture** 9 Agreements to support Outbreak, and Plant Health Inspection.	$6,913	4	$6,913	$6,913
18.C	**Department of Commerce** 7 Agreements for various projects, Develop Standards for Respiratory Protection for Terrorist Threats and National Death Index Services.	$2,024	0	$2,024	$2,024
18.D	**Department of Defense** 31 Agreements for Smallpox Vaccine and Ancillary Supplies; Healthcare Safety Network and Electronic Disease Surveillance System /SANG; Health and Safety Oversight Chemical Demilitarization; Anthrax Vaccine Adsorbed (AVA) Supplies and Services; and other activities.	$50,201	20	$50,201	$50,201
18.E	**Department of Energy** 5 Agreements to assist with Energy Related Analytical Epidemiologic Research, Identification and Difference of Francisella Tularensis Subspecies Detected in Environmental Samples; and other activities.	$3,305	7	$3,305	$3,305

#	OUTPUT TABLE (Dollars in Thousands)	FY 2009 Actual	FY 2009 FTEs	FY 2010 Estimate	FY 2011 Estimate
18.F	**Department of Health and Human Services** 225 Agreements for Enhanced Surveillance for H1N1; Development of Questions for the National Health Interview Survey; Leadership to Plan, Implement and Evaluate a Diabetes Prevention Center; Registry and Surveillance System for Hemiglobinopathies (RUSH); Development and Implementation of a Training Program for Hazardous Substances; Early Detection Research Network; Secretariat Initiative to Reduce the Maternal and Infant Mortality Rates in Afghanistan; and other activities.	$428,617	873	$428,617	$428,617
18.G	**Department of Homeland Security** 16 Agreements for Design & Develop of Rapid Method for AMR Susceptibility Testing for Potential BT Agents; CDC Urban Monitoring Efforts (BIOWATCH); Personal Protective Equipment for Responders; and other activities.	$5,429	2	$5,429	$5,429
18.H	**Department of Housing and Urban Development** 3 Agreements for Healthy Homes Training Center Support; a Study on the Effectiveness of Lead Poisoning Prevention Laws; and other activities.	$808	0	$808	$808
18.I	**Department of Interior** 1 Agreement for Prevention and Control of Viral Hepatitis Infections	$49	0	$49	$49
18.J	**Department of Justice** 7 Agreements for 2009 Nat'l HIVP Clinical Indicator of Sexual Violence Surveillance System; the National Intimate Partner and Sexual Violence Survey (NISVSS); and other activities.	$690	0	$690	$690
18.K	**Department of Labor** 4 Agreements for Space, Materials, Utilities, & Support Services and other activities.	$1,394	1	$1,394	$1,394
18.L	**Department of State** 8 Agreements for Laboratory and Surveillance Capacity Development in Iraq; Biosecurity Engagement Project; Indian Council of Medical Research (ICMR); and other activities.	$4,980	2	$4,980	$4,980
18. M	**Department of Transportation** 3 Agreements for various projects: Question Design and Evaluation for NHTSA National Survey on Youth Traffic Safety Issues; Building Partnerships to Promote and Strengthen GDS Systems and Reduce Teen Motor Vehicle-Related Injury and Death; and Emergency Med Services-Workforce Injury & Illness Surveillance Program.	$222	0	$222	$222

#	OUTPUT TABLE (Dollars in Thousands)	FY 2009 Actual	FY 2009 FTEs	FY 2010 Estimate	FY 2011 Estimate
18.N	**Environmental Protection Agency** 14 Agreements for Collaborative Studies on Occupational and Environmental Risk; a Biological Sample Preparation Method Development Collection Project; Waterborne Contaminant and Diseases; and other activities.	$1,464	3	$1,464	$1,464
18.O	**Federal Emergency Management Agency** 3 Agreements for Evaluation of Activities supporting Fire Prevention; Public Health Assessment of Air Quality in Temporary Housing; and Health Monitoring of Response and Recovery Personnel in New York City.	$2,564	4	$2,564	$2,564
18.P	**Various Agencies/Organizations** 35 Agreements for surveillance and Standardization of Genetic Testing for the Environmental Determinants for Diabetes in Young (TEDDY).	$2,992	5	$2,992	$2,992
18.Q	**Department of Education** 1 Agreement for a School Associated Violent Death Study (SAVDS)	$79	0	$79	$79
18.R	**Department of Veterans Affairs** 6 Agreements for the Development of Electronic Surveillance and Control of Nosocomial Infections and Antibiotic Resistance; Support for the Federal Interagency Forum on Aging-Related Statistics; National Death Index Services; Collaboration with VA on the Work-life Initiative (WLI); and IRS Data Matching for Agent Orange & Persian Gulf War Studies.	$850	1	$850	$850
18.S	**Other** 22 Agreements for surveillance and Standardization of Genetic Testing; various agreements with WHO, UN, Peace Corp, and Exec Office of the President.	$0	0	$0	$0
	REIMBURSEMENTS SUBTOTAL	$552,162	969	$552,162	$552,162
18.T	**CRADA** 21 Agreements with Commercial and Non-Profit Organizations and Foundations.	$2,187	1	$1,000	$1,000
18.U	**User Fees**	$2,688	9	$2,226	$2,226
	TOTAL	$557,037	979	$555,388	$555,388

SUPPLEMENTAL INFORMATION

BUDGET AUTHORITY BY OBJECT

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION OBJECT CLASSIFICATION DIRECT OBLIGATIONS (DOLLARS IN THOUSANDS)			
Object Class	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/- FY 2010
Personnel Compensation:			
Full-Time Permanent(11.1)	616,050	624,341	8,291
Other than Full-Time Permanent (11.3)	71,256	72,215	959
Other Personnel Comp. (11.5)	33,046	33,491	445
Military Personnel (11.7)	66,092	66,982	890
Special Personal Service Comp. (11.8)	1,033	1,046	14
Total Personnel Compensation	787,478	798,076	10,598
Civilian personnel Benefits (12.1)	191,776	194,357	2,581
Military Personnel Benefits (12.2)	44,405	45,003	598
Benefits to Former Personnel (13.0)	0	0	0
SubTotal Pay Costs	1,023,659	1,037,436	13,777
Travel (21.0)	54,750	53,600	(1,150)
Transportation of Things (22.0)	13,905	13,613	(292)
Rental Payments to GSA (23.1)	41,540	41,688	148
Rental Payments to Others (23.2)	8,660	8,878	218
Communications, Utilities, and Misc. Charges (23.3)	47,179	46,189	(991)
NTWK Use Data TRANSM SVC (23.8)	414	405	(9)
Printing and Reproduction (24.0)	8,768	8,584	(184)
Other Contractual Services:			
Advisory and Assistance Services (25.1)	419,760	344,969	(74,792)
Other Services (25.2)	202,709	171,719	(30,990)
Purchases from Government Accounts (25.3)	381,722	373,709	(8,013)
Operation and Maintenance of Facilities (25.4)	75,448	73,864	(1,584)
Research and Development Contracts (25.5)	69,868	68,402	(1,466)
Medical Services (25.6)	8,193	8,021	(172)
Operation and Maintenance of Equipment (25.7)	24,273	23,764	(509)
Subsistence and Support of Persons (25.8)	0	0	0
Consultants, other and misc (25.9)	11,029	10,797	(232)
Subtotal Other Contractual Services	1,193,002	1,075,246	(117,757)
Supplies and Materials (26.0)	756,854	513,334	(243,519)
Equipment (31.0)	57,486	56,278	(1,208)
Land and Structures (32.0)	8,654	8,473	(182)
Investments and Loans (33.0)	0	0	0
Grants, Subsidies, and Contributions (41.0)	3,175,071	3,401,647	226,575
Insurance Claims and Indemnities (42.0)	53	52	(1)
Interest and Dividends (43.0)	392	384	(8)
Refunds (44.0)	0	0	0
Subtotal Non-Pay Costs	5,366,728	5,228,370	(138,358)
Total Budget Authority	6,390,387	6,265,806	(124,581)

SALARIES AND EXPENSES

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION SALARIES AND EXPENSES (DOLLARS IN THOUSANDS)			
	FY 2010 Appropriation	FY 2011 President's Budget Request	FY 2011 +/- FY 2010
Personnel Compensation:			
Full-Time Permanent(11.1)	$616,050	$624,341	$8,291
Other than Full-Time Permanent (11.3)	$71,256	$72,215	$959
Other Personnel Comp. (11.5)	$33,046	$33,491	$445
Military Personnel (11.7)	$66,092	$66,982	$890
Special Personal Service Comp. (11.8)	$1,033	$1,046	$14
Total Personnel Compensation	$787,478	$798,076	$10,598
Civilian personnel Benefits (12.1)	$191,776	$194,357	$2,581
Military Personnel Benefits (12.2)	$44,405	$45,003	$598
Benefits to Former Personnel (13.0)	$0	$0	$0
SubTotal Pay Costs	$1,023,659	$1,037,436	$13,777
Travel (21.0)	$54,750	$53,600	($1,150)
Transportation of Things (22.0)	$13,905	$13,613	($292)
Rental Payments to Others (23.2)	$8,660	$8,878	$218
Communications, Utilities, and Misc. Charges (23.3)	$47,179	$46,189	($991)
Printing and Reproduction (24.0)	$8,768	$8,584	($184)
Other Contractual Services:			$0
Advisory and Assistance Services (25.1)	$419,760	$344,969	($74,792)
Other Services (25.2)	$202,709	$171,719	($30,990)
Purchases from Government Accounts (25.3)	$381,722	$373,709	($8,013)
Operation and Maintenance of Facilities (25.4)	$75,448	$73,864	($1,584)
Medical Services (25.6)	$8,193	$8,021	($172)
Operation and Maintenance of Equipment (25.7)	$24,273	$23,764	($509)
Subsistence and Support of Persons (25.8)	$0	$0	$0
Subtotal Other Contractual Services	$1,112,105	$996,047	($116,058)
Supplies and Materials (26.0)	$756,854	$513,334	($243,519)
Subtotal Non-Pay Costs	$2,002,220	$1,640,244	($361,976)
Total Salary and Expense	$3,025,879	$2,677,680	($348,199)

DETAIL OF FULL-TIME EQUIVALENT EMPLOYMENT (FTE)

FY 2011 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
DETAIL OF FULL TIME EQUIVALENT EMPLOYMENT (FTE)

	FY 2009 [1]		FY 2010		FY 2011	
Direct FTEs	Civilian	Comm Corp	Civilian	Comm Corp	Civilian	Comm Corp
Infectious Diseases	2,716	360	2,747	361	2,604	361
Health Promotion	1,028	78	1,040	79	997	79
Health Information and Service	461	19	466	19	583	19
Environmental Health and Injury Prevention	544	49	550	49	544	49
Occupational Safety and Health	800	66	809	66	750	66
Global Health	119	12	120	12	153	12
Public Health Research [2]	NA	NA	NA	NA	NA	NA
Public Health Improvement and Leadership	598	133	605	133	673	133
Preventive Health & Health Services Block Grant (PHHSBG) [3]	NA	NA	NA	NA	NA	NA
Business Services Support	1,149	6	1,162	6	1,255	6
Terrorism [4]	308	40	311	40	350	40
Agency for Toxic Substances and Disease Registry	239	42	252	39	252	39
Subtotal, Direct FTE	*7,961*	*804*	*8,062*	*803*	*8,162*	*803*
Reimbursable FTEs						
Infectious Diseases	59	10	59	10	117	10
Health Promotion	19	4	19	4	10	4
Health Information and Service	419	15	419	15	320	15
Environmental Health and Injury Prevention	9	8	9	8	7	8
Occupational Safety and Health	264	22	264	22	248	22
Global Health	8	3	8	3	62	3
Public Health Research [2]	NA	NA	NA	NA	NA	NA
Public Health Improvement and Leadership	11	1	11	1	7	1
Preventive Health & Health Services Block Grant (PHHSBG) [3]	NA	NA	NA	NA	NA	NA
Business Services Support	2	0	2	0	3	0
Terrorism [4]	1	0	1	0	17	0
Agency for Toxic Substances and Disease Registry	15	0	14	1	14	1
Subtotal, Reimbursable FTE	*807*	*63*	*806*	*64*	*806*	*64*
ARRA FTEs						
Business Services Support (non-add)	*8*	*0*	*8*	*0*	*0*	*0*
TOTAL, CDC/ATSDR FTE	8,768	867	8,868	867	8,968	867

[1] The FY 2009 FTE levels are based on Oct. 15, 2009 PSC report.

[2] Public Health Research FTEs are reported under Public Health Improvement and Leadership.

[3] PHHSBG FTEs are reported under Health Promotion.

[4] Previous CDC FTE tables displayed all FTEs funded by Terrorism funds under this line regardless where the FTE were located in CDC. This FTE table displays only those FTEs that work in COTPER. The FTEs funded by COTPER but work in other Centers are displayed under the Center they work for.

DETAIL OF POSITIONS

FY 2011 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION PROGRAM ADMINISTRATION DETAIL OF POSITIONS [1]	FY 2009 Actual	FY 2010 Appropriation	FY 2011 Appropriation
Executive Level			
Executive level I	-	-	
Executive level II	-	-	
Executive level III	-	-	
Executive level IV	-	-	
Executive level V	-	-	
Subtotal	-	-	
Total-Executive Level Salary	-	-	
Total - SES	*33*	*33*	*33*
Total - SES Salary	$5,314,429	$5,314,429	$5,314,429
GS-15	589	535	535
GS-14	1,687	1,470	1,470
GS-13	2,415	2,184	2,184
GS-12	1,375	1,225	1,225
GS-11	883	761	761
GS-10	63	65	65
GS-9	519	465	465
GS-8	87	101	101
GS-7	368	366	366
GS-6	92	85	85
GS-5	77	76	76
GS-4	51	56	56
GS-3	33	23	23
GS-2	1	3	3
GS-1	0	0	0
Subtotal	*8,240*	*7,415*	*7,415*
Total - GS Salary	$736,661,452	$758,024,634	$780,007,348
Average GS grade	12.0	12.0	12.0
Average GS salary	89,401	102,229	105,193
Average Special Pay Categories			
Average Comm. Corps Salary[2]	76,731	79,340	82,038
Average Wage Grade Salary	55,348	56,953	58,604
Recovery Act	8	8	0

[1] Includes special pays and allowances.

[2] This table reflects *"positions"* not full-time equivalent(s) (FTEs)

PROGRAMS PROPOSED FOR ELIMINATION

The following table shows the programs proposed for elimination in the FY 2011 President's Budget Request. These activities may not have a demonstrated record of success, or hold significant promise for increasing accountability and improving health outcomes. Following the table is the rationale for the elimination of the program.

PROGRAM	REDUCTION AMOUNT (DOLLARS IN MILLIONS)
Vector-borne Diseases	$26.7
Congressional Projects	$20.6
Blood Disorders	$19.9
Johanna's Law	$6.8
Geraldine Ferraro Cancer Education Program	$4.7
Anthrax	$2.6
Polycythermia Vera (PV) Cluster Study	$2.5
Mind-Body Institute	$1.5
Alveolar Capillary Dysplasia	$0.2
Inflammatory Bowel Disease (IBD)	$0.7
Interstitial Cystitis (IC)	$0.7
Total	**$86.9**

Vector-borne Diseases (-$26.7 million)

The FY 2011 budget request does not include funding for Vector-borne Diseases. No specific funding is included for vector-borne activities, including West Nile Virus surveillance (WNV). Several years of CDC funds have allowed states to develop and enhance their WNV activities. FY 2011 funds include $155.2 million for the emerging infectious disease budget line, an increase of $18.9 million above the FY 2010 Omnibus. These emerging Infectious disease funds can support vector-borne activities in FY 2011, including WNV if determined a priority by States and the CDC.

Congressional Projects (-$20.6 million)

The FY 2011 budget request includes a decrease of $20.6 million for Public Health Improvement and Leadership in the area of congressionally determined projects. This line funded one-time projects whose selection was incorporated into law by reference.

Blood Disorders (-$19.9 million)

CDC's FY 2011 request includes a programmatic elimination of $19.9 million for the Blood Disorders program. CDC's FY 2011 request includes a proposal to realign CDC's Blood Disorders program to address the public health challenges associated with blood disorders and related secondary conditions. This realignment will allow CDC increased flexibility to prioritize population-based programs targeting blood disorder with the greatest risk of morbidity and mortality in order to maximize the health impact.

disparities in surveillance for colorectal cancer associated with IBD, and variation in outcomes in relation to race. This activity has also been supported through existing NIH research.

Interstitial Cystitis (IC) (-$0.7 million)

The FY 2011 budget request does not include dedicated funding for Interstitial Cystitis. CDC will continue to provide technical assistance to partners who are developing, implementing, and evaluating a national health promotion and education campaign to increase the general public and health care provider awareness and education of IC. This activity has also been supported through existing NIH research.

DISCUSSION OF THE ADMINISTRATIVE CAP

In FY 2009, the administrative charge to ATSDR was $12,090,000, or 16.3 percent of their FY 2009 Budget. ATSDR provided these funds to CDC via an interagency agreement to fund activities such as: rent/utilities/maintenance, human resources management, information technologies systems, telecommunications, and financial management.

In FY 2010, the administrative charge will remain at $12,090,000, or 15.7 percent of their FY 2010 budget. Over the past several fiscal years, reorganizations and changes in budget structure have rendered CDC's administrative cost formula outdated. CDC is recommissioning another study to update the method for determining administrative costs to Programs (e.g. ATSDR, Vaccines for Children, etc.).[1] The results of the impending study will be used to assist in determining ATSDR's administrative charge in FY 2011. Until a new formula is determined, CDC will continue to apply the existing method to determine administrative charges.

[1] In FY 2005, CDC created the Business Services Support and Leadership & Management budget lines, which centralized funding for administrative support services for the Agency's CIOs that receive their appropriation through the Labor/Health and Human Services/Education bill. After the inception of those budget lines, those CIOs were no longer billed for administrative costs. CDC did continue to directly bill Programs that are not funded through the Labor/Health and Human Services/Education appropriation, such as ATSDR, for administrative support services.

E-GOV INITIATIVES

FY 2011 HHS Enterprise Information Technology and Government-Wide E-Gov Initiatives

The **CDC** will use **$4,275,275** of its **FY 2011** budget to support Department-wide enterprise information technology and government-wide E-Government initiatives. Operating Divisions help to finance specific HHS enterprise information technology programs and initiatives, identified through the HHS Information Technology Capital Planning and Investment Control process, and the government-wide E-Government initiatives. The HHS enterprise initiatives meet cross-functional criteria and are approved by the HHS IT Investment Review Board based on funding availability and business case benefits. Development is collaborative in nature and achieves HHS enterprise-wide goals that produce common technology, promote common standards, and enable data and system interoperability.

Of the amount specified above, **$723,022.86** is allocated to developmental government-wide E-Government initiatives for **FY 2011**. This amount supports these government-wide E-Government initiatives as follows:

FY 2011 Developmental E-Gov Initiatives*	
Line of Business – Geospatial One-Stop	$33,778.85
Line of Business - Human Resources	$18,940.97
Line of Business - Grants Management	$25,239.88
Line of Business - Financial	$18,063.16
Line of Business - Budget Formulation and Execution	$12,000.00
Disaster Assistance Improvement Plan	$80,000.00
Federal Health Architecture	$535,000.00
FY 2011 Developmental E-Gov Initiatives Total	**$723,022.86**

* Specific levels presented here are subject to change, as redistributions to meet changes in resource demands are assessed.

Prospective benefits from these initiatives are:

Lines of Business-Geospatial: Promotes coordination and alignment of geospatial data collection and maintenance among all levels of government: provides one-stop web access to geospatial information through development of a portal; encourages collaborative planning for future investments in geospatial data; expands partnerships that help leverage investments and reduce duplication; and, facilitates partnerships and collaborative approaches in the sharing and stewardship of data. Up-to-date accessible information helps leverage resources and support programs: economic development, environmental quality and homeland security. HHS registers its geospatial data, making it available from the single access point.

Lines of Business-Human Resources Management: Provides standardized and interoperable HR solutions utilizing common core functionality to support the strategic management of Human Capital. HHS has been selected as a Center of Excellence and will be leveraging its HR investments to provide services to other Federal agencies.

Lines of Business-Grants Management: Supports end-to-end grants management activities promoting improved customer service; decision making; financial management processes; efficiency of reporting procedure; and, post-award closeout actions. The Administration for Children and

Families (ACF), is a GMLOB consortia lead, which has allowed ACF to take on customers external to HHS. These additional agency users have allowed HHS to reduce overhead costs for internal HHS users. Additionally,

NIH is an internally HHS-designated Center of Excellence. This effort has allowed HHS agencies using the NIH system to reduce grants management costs. Both efforts have allowed HHS to achieve economies of scale and efficiencies, as well as streamlining and standardization of grants processes, thus reducing overall HHS costs for grants management systems and processes.

Lines of Business –Financial Management: Supports efficient and improved business performance while ensuring integrity in accountability, financial controls and mission effectiveness by enhancing process improvements; achieving cost savings; standardizing business processes and data models; promoting seamless data exchanges between Federal agencies; and, strengthening internal controls.

Lines of Business-Budget Formulation and Execution: Allows sharing across the Federal government of common budget formulation and execution practices and processes resulting in improved practices within HHS.

Disaster Assistance Improvement Plan (DAIP): The DAIP, managed by Department of Homeland Security, assists agencies with active disaster assistance programs such as HHS to reduce the burden on other federal agencies which routinely provide logistical help and other critical management or organizational support during disasters.

Lines of Business-Federal Health Architecture: Creates a consistent Federal framework that improves coordination and collaboration on national Health Information Technology (HIT) Solutions; improves efficiency, standardization, reliability and availability to improve the exchange of comprehensive health information solutions, including health care delivery; and, to provide appropriate patient access to improved health data. HHS works closely with federal partners, state, local and tribal governments, including clients, consultants, collaborators and stakeholders who benefit directly from common vocabularies and technology standards through increased information sharing, increased efficiency, decreased technical support burdens and decreased costs.

In addition, **$1,050,722.43** is allocated to ongoing government-wide E-Government initiatives for **FY 2011**. This amount supports these government-wide E-Government initiatives as follows:

FY 2011 Ongoing E-Gov Initiatives*	
E-Rule Making	$7,244.91
Grants.Gov	$615,660.47
Integrated Acquisition Environment	$376,008.86
GovBenefits	$51,808.19
FY 2011 Ongoing E-Gov Initiatives Total	**$1,050,722.43**

* Specific levels presented here are subject to change, as redistributions to meet changes in resource demands are assessed.

CROSSWALK – FUNDING BY PROGRAM AND ORGANIZATION (2009)

FY 2011 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
FUNDING BY PROGRAM AND ORGANIZATION FY 2009
(DOLLARS IN THOUSANDS)

	ATSDR	CCID	CCHP	CCHIS	CCEHIP	NIOSH	COGH	COTPER	L&M	OD	OWCD	BSS	Total
Infectious Diseases		1,947,827											**1,947,827**
Health Promotion			1,019,708										**1,019,708**
Health Information and Service				279,356									**279,356**
Environmental Health and Injury Prevention					330,657								**330,657**
Occupational Safety and Health						360,059							**360,059**
Global Health							319,113						**319,113**
Public Health Research										31,000			**31,000**
Public Health Improvement and Leadership									149,332	24,945	34,859		**209,136**
Preventive Health and Health Services Block Grant			102,000										**102,000**
Buildings and Facilities										151,500			**151,500**
Business Services Support												359,877	**359,877**
Public Health Preparedness and Response								1,514,657					**1,514,657**
Total, CDC	**0**	**1,947,827**	**1,121,708**	**279,356**	**330,657**	**360,059**	**316,613**	**1,514,657**	**149,332**	**207,445**	**34,859**	**359,877**	**6,622,390**
Agency for Toxic Substances and Disease Registry	74,039												**74,039**
Public Health and Social Services Emergency Fund		200,000											**200,000**
Vaccines for Children		3,382,875											**3,382,875**
Energy Employees Occupational Illness Compensation Program Act (EEOICPA)					55,358								**55,358**
Other User Fees					2,226								**2,226**
Total, CDC/ATSDR	**74,039**	**5,530,702**	**1,121,708**	**279,356**	**388,241**	**360,059**	**316,613**	**1,514,657**	**149,332**	**207,445**	**34,859**	**359,877**	**10,339,388**

CROSSWALK – FUNDING BY PROGRAM AND ORGANIZATION (2010)

FY 2011 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
FUNDING BY PROGRAM AND ORGANIZATION FY 2010
(DOLLARS IN THOUSANDS)

	ATSDR	CCID	CCHP	CCHIS	CCEHIP	NIOSH	COGH	COTPER	L&M	OD	OWCD	BSS	Total
Infectious Diseases		2,009,178											**2,009,178**
Health Promotion			1,074,660										**1,074,660**
Health Information and Service				288,654									**288,654**
Environmental Health and Injury Prevention					335,733								**335,733**
Occupational Safety and Health						373,171							**373,171**
Global Health							336,124						**336,124**
Public Health Research										31,170			**31,170**
Public Health Improvement and Leadership									149,986	23,620	37,826		**211,432**
Preventive Health and Health Services Block Grant			102,034										**102,034**
Buildings and Facilities										69,150			**69,150**
Business Services Support												369,869	**369,869**
Public Health Preparedness and Response								1,549,358					**1,549,358**
Total, CDC	**0**	**2,009,178**	**1,176,694**	**288,654**	**335,733**	**373,171**	**336,124**	**1,549,358**	**149,986**	**123,940**	**37,826**	**369,869**	**6,750,533**
Agency for Toxic Substances and Disease Registry	76,792												**76,792**
Vaccines for Children		3,636,201											**3,636,201**
Energy Employees Occupational Illness Compensation Program Act (EEOICPA)					55,358								**55,358**
Other User Fees					2,226								**2,226**
Total, CDC/ATSDR	**76,792**	**5,645,379**	**1,176,694**	**288,654**	**393,317**	**373,171**	**336,124**	**1,549,358**	**149,986**	**123,940**	**37,826**	**369,869**	**10,521,110**

CROSSWALK – FUNDING BY PROGRAM AND ORGANIZATION (2011)

FY 2011 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
FUNDING BY PROGRAM AND ORGANIZATION FY 2011
(DOLLARS IN THOUSANDS)

	ATSDR	CCID	CCHP	CCHIS	CCEHIP	NIOSH	COGH	COTPER	L&M	OD	OWCD	BSS	Total
Infectious Diseases		1,912,851											**1,912,851**
Health Promotion			1,080,846										**1,080,846**
Health Information and Service				306,947									**306,947**
Environmental Health and Injury Prevention					329,920								**329,920**
Occupational Safety and Health						456,042							**456,042**
Global Health							351,944						**351,944**
Public Health Research										31,170			**31,170**
Public Health Improvement and Leadership									142,469	2,508	47,939		**192,916**
Preventive Health and Health Services Block Grant			102,034										**102,034**
Buildings and Facilities										0			**0**
Business Services Support												382,152	**382,152**
Public Health Preparedness and Response								1,464,656					**1,464,656**
Total, CDC	**0**	**1,912,851**	**1,182,880**	**306,947**	**329,920**	**457,479**	**351,944**	**1,464,656**	**142,469**	**33,678**	**47,939**	**382,152**	**6,611,478**
Agency for Toxic Substances and Disease Registry	76,337												**76,337**
Public Health and Social Services Emergency Fund-Flu Transfer		224,859											**224,859**
Vaccines for Children		3,651,354											**3,651,354**
Energy Employees Occupational Illness Compensation Program Act (EEOICPA)						55,358							**55,358**
Other User Fees					2,226								**2,226**
Total, CDC/ATSDR	**76,337**	**5,789,064**	**1,182,880**	**306,947**	**332,146**	**511,400**	**351,944**	**1,464,656**	**142,469**	**33,678**	**47,939**	**382,152**	**10,621,612**

SIGNIFICANT ITEMS

SIGNIFICANT ITEMS IN APPROPRIATIONS REPORTS – HOUSE

SIGNIFICANT ITEMS FOR INCLUSION IN

THE FY 2011 CONGRESSIONAL JUSTIFICATION

AND OPENING STATEMENTS

HOUSE REPORT NO. 111-220

CENTERS FOR DISEASE CONTROL AND PREVENTION

Item

Influenza Vaccines — The Committee recognizes that ACIP now recommends routine influenza vaccination for all children aged six months through 18 years. However, despite the new recommendation large numbers of school-aged children remain unvaccinated. The Committee encourages CDC to work to increase the rates of vaccination in school-aged children. (Pages 76-77)

Action taken or to be taken

In 2008, CDC added the recommendation that all children 5-18 years of age receive an annual influenza vaccination. This expansion added 26 million children and adolescents to groups recommended for routine influenza vaccination.

Based on conductive formative research to better understand the barriers and facilitators for parental decision-making about flu vaccination for their children, CDC has taken several steps to raise awareness about the importance of this new recommendation including the use of social media (e.g., a weekly blog on flu on the WebMD website, webinars for mommy bloggers, and outreach to parenting websites); strengthened partnerships with organizations that represent and support parents (e.g., Families Fighting Flu, Parent Teacher Association, and Women, Infants and Children (WIC) program); and development and distribution of print materials and public service announcements.

CDC has and will continue to work closely with its immunization partners to raise public awareness and increase provider education about the flu vaccination recommendation for children; provide assistance to state and local immunization programs on implementing the new recommendation; and make available information for planning and conducting school-located influenza vaccination clinics that target enrolled school-aged children.
(http://www.cdc.gov/h1n1flu/vaccination/slv/planners.htm).

Item

HIV/AIDS in American Indian and Alaska Native Communities - The Committee recognizes that American Indians and Alaska Natives have the known third highest rate of new HIV infection in the U.S. after African Americans and Hispanics. The Committee is concerned that of the 63 evidence-based prevention interventions contained in the 2008 Compendium of Evidence-Based HIV Prevention Interventions, none target Native American communities. The Committee urges CDC to increase the number of interventions for these populations and to work with the National Institutes of

Health (NIH) and other behavioral research groups to accomplish this work. The Committee further encourages CDC to work directly with the Tribal Epidemiology Centers to support their culturally-competent approach in order to gain needed epidemiology in the area of HIV/AIDS surveillance within American Indian and Alaska Native communities. (Page 77)

Action taken or to be taken

Evidence-based interventions (EBIs) in CDC's *Compendium of Evidence-Based Interventions* are identified from the scientific literature. To date there have not been any EBIs targeting certain populations, including American Indian and Alaska Native (AI/AN) communities. The fact that there are over 400 AI tribes in the United States presents some challenge of whether intervention research should focus on AI/AN as one group or more specifically on the strengths and challenges of particular tribes. In addition, interventions are not usually targeted only by race/ethnicity, but also along other risk dimensions (*e.g.*, high-risk women, men who have sex with men).

CDC will collaborate with NIH to address the committee's concern and conduct rigorous research on interventions for AI/AN populations. CDC also encourages communities to adapt and tailor existing EBI for their populations. CDC fully supports adaptation of EBIs to meet the needs of different populations so long as core elements of the original intervention are retained. CDC also supports training and technical assistance to accomplish adaptation of EBIs.

Item

HIV/AIDS in High Risk Youth — The Committee recognizes that seven of the 63 evidence-based prevention interventions contained in CDC's 2008 Compendium of Evidence-Based HIV Prevention Interventions target high risk youth, and that data indicate that more than one-third of new infections were among youth aged 13– 29. The Committee is concerned that none of the evidence-based prevention interventions target homeless individuals and only one intervention targets runaway youth in shelters to prevent HIV/ AIDS. The Committee urges CDC to increase the number of targeted interventions for these populations and to work with NIH and other behavioral research groups to accomplish this work. (Page 77)

Action taken or to be taken

Currently, 17 of the 69 evidence-based interventions (EBIs) in CDC's 2009 *Compendium of Evidence-Based Interventions* target youth and high-risk youth. Homeless individuals were enrolled in a number of interventions and "runaway youth" were targeted in at least one intervention. By targeting high-risk youth and high-risk populations in general, most EBIs target people who are vulnerable to being homeless or marginally housed. In addition, many of the interventions are adaptable for a homeless population. CDC is currently exploring ways to address broader social and structural issues so that HIV prevention and housing needs can be addressed more holistically.

Item

Microbicides — The Committee requests that in the future, CDC include information in the HIV/AIDS section of the Congressional budget justification on the amount of anticipated and actual funding it allocates to activities related to research and development of microbicides for HIV prevention. The Committee urges CDC to work with NIH, USAID, and other appropriate agencies to

develop processes for coordinated investment and prioritization for microbicide development, approval, and access. (Pages 78-79)

Action taken or to be taken

CDC is currently allocating $900,000 for continuing microbicide projects for HIV prevention. CDC will continue to collaborate with NIH and other appropriate agencies about microbicide development and research.

Item

Hepatitis Education, Prevention, and Surveillance – The Committee urges CDC to target funding increases for viral hepatitis toward the identification of chronically infected persons and their referral to medical care, particularly focusing on groups disproportionately affected by chronic HCV and HBV. In addition, the Committee encourages CDC to provide States with funds to implement a chronic Hepatitis B and C surveillance system, which currently does not exist. This information is critical to understanding the impact of Hepatitis epidemics and for targeting limited resources for greatest impact. (Page 79)

Action taken or to be taken

CDC works to improve viral hepatitis screening and referral to medical care and hepatitis surveillance. CDC currently provides funding for Adult Viral Hepatitis Prevention Coordinators (AVHPCs) in 49 state and six local health departments to provide leadership in the integration of viral hepatitis prevention activities such as public and provider education, screening and counseling for persons at risk of infection, and referral of infected persons to appropriate medical care. CDC also awards funds to governmental and community-based partners to develop and sustain integrated training and education programs directed toward risk populations, and public health and care providers. CDC works with multiple governmental and community organizations, particularly those serving Asian American/Pacific Island communities, to ensure appropriate screening, referral and treatment for viral hepatitis in outreach, clinical and public health settings. CDC is now working to update its HCV screening guidelines. CDC also continues to evaluate rapid anti-HCV tests and to prepare for the potential impact of such HCV testing in the United States.

To improve detection of viral hepatitis, CDC has developed a national plan for viral hepatitis surveillance guided by best practice models. CDC currently provides funding to 9 state and local health departments to support enhanced surveillance for chronic HBV and HCV infection and it helps other states monitor chronic HBV and HCV infections and detect cases of rare or new causes. CDC also provides ongoing support to all states in investigating and responding to viral hepatitis outbreaks, deploying field investigators and conducting rapid serologic and genetic testing when requested to identify sources of infection and to direct control strategies. CDC is currently reviewing recommendations from the Institute of Medicine report regarding viral hepatitis prevention and control in the United States.

Item

Hepatitis Testing – The Committee recognizes the high incidence of Hepatitis and its often undocumented state. In fiscal year 2009 the Committee urged CDC to formulate a plan for significant testing for Hepatitis, including the implementation of rapid testing technology as a means of

ascertaining the prevalence of Hepatitis. The Committee requests a status report on CDC's plan to implement Hepatitis testing to be included in the fiscal year 2011 Congressional budget justification. (Page 79)

Action taken or to be taken

In FY 2008, CDC published chronic hepatitis B screening recommendations that identify the populations in greatest need of HBV testing. The recommendations also address the steps needed to delay or halt the progression of HBV-related liver disease and to prevent HBV transmission to others. CDC is working with multiple governmental and community organizations, particularly those serving Asian American/Pacific Island communities, to implement these recommendations and ensure appropriate screening, referral and treatment for viral hepatitis in outreach, clinical and public health settings. CDC is now working to update its HCV screening guidelines. It is currently funding five sites to study new strategies for HCV testing in order to improve the proportion of persons aware of their HCV infection, and is working with governmental, community, and industry partners to implement these strategies. CDC also is evaluating both the sensitivity and specificity of rapid anti-HCV tests now in development and their effectiveness in clinical and other settings to prepare for the potential impact of such HCV testing in the United States. CDC will continue to keep the committee informed about its efforts to implement all effective means of testing for chronic viral hepatitis. CDC is also in the process of reviewing comments from the Institute of Medicine's report regarding viral hepatitis prevention and control.

Item

TB Administrative Grant Costs — The Committee is pleased that CDC is working with States, territories, and localities to ensure equitable TB funding to all jurisdictions through the distribution formula. The Committee encourages grantees to keep administrative costs at or below ten percent to ensure adequate funds to all jurisdictions in proportion to the number and complexity of TB cases. (Page 79)

Action taken or to be taken

Grantees negotiate indirect cost rates with the Department of Health and Human Services. Program consultants at CDC have worked and continue to work with grantees who want to lower indirect costs. Program consultants have informed grantees of the benefit of lowering indirect costs, including reallocation of funding toward prevention and control activities (i.e., surveillance, education, outreach, contact investigation, diagnosis, and directly observed therapy). Some states and large cities have negotiated a lower indirect cost rate with the Department of Health and Human Services.

Item

County Departments of Public Health — The Committee lauds CDC's efforts to improve and update the funding formula for TB treatment and education, but recognizes that county departments of public health should be included in stakeholder meetings on changes to the funding formula. The Committee directs CDC to reach out to and include stakeholders from county departments of public health suffering from a disproportionate number of TB cases to participate in and contribute to discussion groups involved in the creation of new administrative funding formulas. (Page 79)

Action taken or to be taken

CDC, in conjunction with partners including the National Tuberculosis Controllers Association (NTCA), the Association of Public Health Laboratories (APHL), and the CDC Advisory Council for the Elimination of Tuberculosis (ACET), developed a funding formula that uses epidemiologic, case complexity, and laboratory services data to distribute limited resources. The Workgroup first met in FY 2005 and was reconvened again in 2007 to recommend updates to the formula for the funding cycle FY 2010 - FY 2014.

The Workgroup is composed of representatives from ACET; NTCA; members from high, medium and low-incidence states; big cities; and CDC employees involved in program, surveillance, training and education, and laboratory analysis. The Workgroup also included a subgroup to develop recommendations for TB funding for laboratories. This subgroup included representatives from NTCA, APHL, laboratory directors from high, medium, and low incidence states, and CDC. CDC encourages all TB programs to participate in the NTCA and its workgroups. In addition, local jurisdictions that are not directly funded by CDC are encouraged to work closely with their State health departments to assure funding allocations are aligned with the TB epidemiology in their areas and that their challenges and needs are properly conveyed to the NTCA and its workgroups.

Item

Food Safety — The Committee supports CDC's increased investment in food safety. Improving foodborne outbreak detection and response remains a critical priority for CDC, as well as the Federal, State, and local food safety regulatory agencies. CDC's proposed enhancement of PulseNet and other surveillance tools and capacities will help ensure continuing improvement in this area. The Committee also believes that an equally important priority for CDC is to invest in generating the epidemiological data and conducting the analyses that regulatory agencies and the food industry need to target to implement effective prevention strategies. The Committee expects CDC to focus an increasing share of its management attention and resources on such prevention-related activities and to work closely with the Food and Drug Administration and other key parties to help prevent foodborne illness. (Page 81)

Action taken or to be taken

In FY 2009, CDC established OutbreakNET sentinel sites with assistance from local, state and federal partners involved with foodborne outbreak response. The OutbreakNET sentinel sites will improve the speed and accuracy of outbreak investigations by developing, evaluating and disseminating new tools and strategies for linking illness with food (s) consumed. With these tools, CDC will also be able to administer standardized questionnaires for completion online, allowing epidemiological data to be more readily available. In addition, CDC is collaborating with federal partners to develop a new and innovative tool that will allow CDC to enhance PulseNET data and share data that includes mapping and time series analyses.

CDC has made data from 1998-2007 foodborne outbreaks publicly available and searchable on the Internet. Data from the web site can be downloaded and entered into any statistical software program to analyze results. CDC has developed new statistical models using more comprehensive and complete surveillance data to estimate the burden of foodborne diseases in the United States and the attribution of illnesses to specific food commodities. The resulting new estimates for these metrics

will be published in 2010. CDC has been communicating closely with federal partners to use new information from surveillance data to guide effective prevention measures. At the beginning of FY 2010, CDC created a data analysis team that is solely responsibility for the collection, analysis and dissemination of foodborne disease data to regulators, industry, the public and to others involved in prevention strategies.

CDC participates in regular conference calls and quarterly face-to-face meetings with high-level FDA leadership. CDC is expanding its efforts to co-locate and exchange staff with FDA and other regulatory partners. CDC and FDA liaisons and FTEs who are involved in daily decision-making and data acquisition convey these findings to their home agencies. CDC continues to deploy epidemiologists to FDA for cross-training in regulatory activities.

Item

Lyme Disease — The Committee encourages CDC to expand its activities related to developing sensitive and more accurate diagnostic tools and tests for Lyme disease, including the evaluation of emerging diagnostic methods and improving utilization of diagnostic testing to account for the multiple clinical manifestations of acute and chronic Lyme disease; to expand its epidemiological research activities on tick-borne diseases to include an objective to determine the long-term course of illness for Lyme disease; to improve surveillance and reporting of Lyme and other tick-borne diseases in order to produce more accurate data on their prevalence; to evaluate the feasibility of developing a national reporting system on Lyme disease, including laboratory reporting; and to expand prevention of Lyme and tick-borne diseases through increased community-based public education and creating a physician education program that includes the full spectrum of scientific research on the diseases. (Page 81)

Action taken or to be taken

Jointly, CDC and NIH have obtained a comprehensive set of serum samples for use in evaluating diagnostic tests. This serum repository will be available to qualified investigators developing tests that may improve upon the currently recommended two-tiered method. It also may be used for production of a proficiency panel to aid in evaluation and FDA licensing of new tests. In addition, CDC is conducting trials on several candidate reservoir-targeted vaccines (RTVs) aimed at eliminating the Lyme disease agent in host animals, which in turn will reduce the human exposure risk to infected ticks.

A national reporting system for Lyme disease has been in place since 1991; cases are reported by clinicians and/or laboratories according to applicable state laws and the information is transmitted electronically to CDC through the National Notifiable Diseases Surveillance System (NNDSS). CDC, through collaborations with the Council of State and Territorial Epidemiologists (CSTE), adopted a broader Lyme disease surveillance case definition. This revised case definition provides public health officials the flexibility to determine a more complete measure of the surveillance burden. CDC continues to work with external partners to develop community-based public education materials as well as web-based physician education program for diagnosis and treatment of Lyme disease and other tick-borne illnesses.

Item

Antimicrobial Resistance — The Committee is concerned that there are significant gaps in CDC's ability to track and monitor life-threatening antimicrobial resistant pathogens, such as Klebsiella species, Pseudomonas aeruginosa, and methicillin-resistant Staphylococcus aureus, as these emerge in hospital and community settings. In particular, the Committee is concerned about the lack of capacity to do sentinel surveillance to describe and confirm regional outbreaks, and urges CDC to build upon existing structures, as well as add new sites, to cultivate a geographically distributed sentinel surveillance network. This network should collect and analyze a variety of locally available clinical specimens and help CDC to describe, confirm, and intervene against emerging outbreaks of resistant pathogens. (Page 82)

Action taken or to be taken

CDC shares the Committee's concern regarding the rise of antimicrobial resistant pathogens in both healthcare and community settings. In response to this concern, CDC has developed enhancements to the National Healthcare Safety Network (NHSN) to monitor resistance. Enhancements include Multidrug Resistant Organism (MDRO) and *Clostridium difficil*e-Associated Disease (CDAD) modules to provide information on methicillin-resistant Staphylococcus aureus (MRSA), vancomycin resistant *Enterococcus, Klebsiella*, *Acinetobacter*, and *Clostridium difficile*-associated disease. NHSN is a secure, internet-based surveillance system that enables healthcare facilities to collect and use data about HAIs, adherence to clinical practices known to prevent HAIs, and other adverse events. Currently, over 2300 healthcare facilities from 50 states are enrolled in NHSN, including facilities from 21 states mandating public reporting using NHSN.

To complement NHSN data, CDC continues to support the Emerging Infection Program which monitors MRSA in nine states and, *Clostridium difficile* infection in eight states. In addition, CDC continues to maintain and strengthen relationships with state health departments. This includes providing assistance to state health departments in identifying and investigating possible outbreaks including resistant organisms in healthcare and community settings. Both of these systems provide data on emerging antimicrobial resistance issues, as well as data on overall burden, trends, and impact of prevention of antimicrobial resistance, which is critically important in addressing the full range of antimicrobial resistance issues. In addition, CDC is providing ARRA funds to the Emerging Infection Program to expand and enhance the program's ability to serve as a sentinel surveillance network to detect emerging healthcare problems. ARRA Emerging Infection Program activities include assessing the number of invasive MRSA infections that are preventable in non-hospital setting to inform interventions and establishing a communications network with all NHSN facilities in the Emerging Infection Program.

Item

Blood Safety Surveillance — The Committee supports the National Healthcare Safety Network (NHSN), a surveillance tool used by hospitals and other health care facilities to better understand and prevent healthcare-associated infections. The Committee is aware that CDC has added an additional module to NHSN to collect, analyze and report national data on adverse events and medical errors occurring during blood transfusions. The Committee encourages CDC to move forward in implementing the transfusion data network, in collaboration with private sector experts to maximize

hospital participation, adequately train staff, analyze data, and develop effective interventions. (Page 82)

Action taken or to be taken

CDC has completed the design of the NHSN Hemovigilance Module, and has initiated the implementation phase. Pilot testing of the module began in May 2009 at nine healthcare facilities. At the completion of the pilot, in early 2010, all healthcare facilities in the U.S., including existing NHSN member-facilities, will be eligible to implement the module to track transfusion-related adverse events. As the Hemovigilance Module is implemented beyond the nine pilot sites in FY 2010, the American Association of Blood Banks (AABB) and other transfusion community partners will have an active role in promoting awareness of the value of participating in the module, while CDC will be responsible for operating and maintaining the module and associated data.

CDC will work with partners to ensure appropriate awareness of clinicians to report suspected events. AABB will lead education efforts of its members on the importance of hemovigilance to improve blood safety. When data are available from this system, AABB and other key partners in the blood collection and transfusion community also will review the national aggregated results, which will be publicly available, to consider how new interventions can best be implemented and evaluated, in collaboration with government partners, including FDA, NIH, CMS, and AHRQ in a biovigilance collaborative.

Item

Breast Cancer Awareness for Young Women — Within the total for breast and cervical cancer, the Committee includes $5,000,000 for breast cancer awareness for young women. The Committee encourages CDC, in collaboration with HHS, the National Cancer Institute, and the Agency for Healthcare Research and Quality to develop evidence-based initiatives to advance understanding and awareness of breast health and breast cancer among women at high risk for developing breast cancer, including women under 40. (Page 84)

Action taken or to be taken

CDC acknowledges the need for targeted research on what factors increase breast cancer awareness, particularly in high-risk groups and in younger women. CDC plans to first examine current scientific research on breast cancer awareness, particularly among high risk women. CDC also plans to examine current scientific research on the effectiveness of interventions aimed at increasing breast cancer awareness among high risk women under 40. This systematic review will inform CDC of the current state of the science regarding effective breast cancer awareness initiatives and will establish an evidence base of what and how initiatives can most effectively raise awareness, especially in this targeted population of high risk women and including women under 40. Once this evidence base is established, CDC will use the findings of this systematic review to inform its future approaches to targeting awareness efforts aimed at high risk women and including younger women.

Item

Chronic Kidney Disease — The Committee has included funding to continue planning for capacity and infrastructure at CDC for its kidney disease program and to institute a CKD surveillance system. The Committee is pleased that CDC convened an expert panel on CKD and that the recommendations

have been published. The Committee urges CDC to prioritize and begin implementation of the recommendations. The Committee urges CDC to support additional grants for State based, culturally appropriate, community demonstration projects for CKD detection, to expand on the pilot screenings that have occurred in four States through previous Federal funding. The demonstration projects will include efforts to track the progression of CKD in patients who have been diagnosed, as well as identify the onset of CKD among individuals who are members of high risk groups but have not been diagnosed. (Page 84)

Action taken or to be taken

Recommendations from the 2007 Chronic Kidney Disease (CKD) expert panel proceedings were published in March 2009. Based on these recommendations, CDC developed an algorithm to identify people who would benefit the most from a screening event. CDC is currently funding demonstration projects at eight sites in four states (California, New York, Florida, and Minnesota). To date, 894 participants have been screened.

In collaboration with Johns Hopkins University and the University of Michigan, CDC is establishing a national surveillance system for CKD. The system will identify existing local and national sources of CKD data; identify gaps and deficiencies in the existing data sources; and propose creative solutions to fill the gaps and remedy deficiencies.

Item

Chronic Obstructive Pulmonary Disease (COPD) — COPD is the fourth leading cause of death in the U.S. and the only one of the top five causes of death that is on the rise. The Committee notes that CDC does not yet have a dedicated program to address COPD—a major source of illness and death in the U.S. The Committee continues to urge the National Center for Chronic Disease Prevention and Health Promotion to establish a COPD program and to develop, in consultation with appropriate stakeholders, a Federal plan to respond to COPD. (Page 85)

Action taken or to be taken

CDC supports the initial assessment and planning for public health activity in this important area. COPD represents a public health problem that is increasing but could be almost completely prevented with the elimination of smoking. CDC is the lead Federal agency for tobacco control, providing national leadership for a comprehensive, broad-based approach to reduce tobacco use. Current activities support tobacco prevention and control by focusing on preventing young people from starting to smoke, eliminating exposure to secondhand smoke and promoting quitting among young people and adults.

In 2009, CDC promoted the addition of a COPD question to the Behavioral Risk Factor Surveillance Survey to determine the prevalence of COPD among all U.S. survey respondents in 2011. This will provide the first state-specific prevalence data in all states—a major gap in COPD surveillance. In 2009, CDC also proposed a COPD surveillance module for the Behavioral Risk Factor Surveillance Survey in 2011 that would assess quality of life, medication use, and annual visits to hospitals, emergency rooms, and physicians for COPD-related symptoms among respondents with COPD. The National Heart, Lung and Blood Institute collaborated with CDC to provide one-time funds to all states choosing to implement this module in either 2011 or 2012.

CDC is interested in consulting with experts to develop a national roadmap to explore the public health issues related to COPD, which would include addressing the public health role in prevention, treatment, and management. This would include the examination of the best strategies to address surveillance of COPD.

Item

Epilepsy — The Committee supports the CDC epilepsy program, which has made considerable progress over the past decade in establishing and advancing a public health agenda to meet the needs of Americans with epilepsy. The Committee encourages CDC to develop and implement a national outcome measurement protocol to evaluate the impact that public health programs have on employment, school, social life, and general well being of youth, seniors, young adults, and others living with epilepsy. The findings of these measures will help families understand the relationships between medications, co-morbid conditions, and epilepsy, and will build a platform for a national call to action for additional training for schools, employers, first responders, and adult day care providers. (Page 85)

Action taken or to be taken

In partnership with the National Epilepsy Foundation and research partners, CDC has established public health approaches to epilepsy. In 2009, program activities included a national epilepsy awareness media campaign that focused on minority populations and underserved groups; expansion of an educational curriculum for middle school and high school students to include Web site partnerships; expansion of a school nurse training program to include access to online materials; piloting of a toolkit to support caregivers of seniors with seizures; an outreach strategy to promote a first responders' curriculum for police, corrections officers, and emergency responders; integration of epilepsy related curriculum into school health programs; development of materials to promote understanding of cognition issues and to address traumatic brain injury and post traumatic epilepsy; and initiation of a research and educational outreach agenda addressing sudden unexplained death in epilepsy.

Intramural and extramural research is underway in order to better understand the epidemiology of epilepsy, specifically the incidence and prevalence of the condition in diverse populations in the United States; risk factors and severity of epilepsy in these populations; access to specialty care; health disparities among people with epilepsy; and predictors of outcomes such as age, socioeconomic status, burden of concurrent illness. This research will provide data that could be used to inform development of outcome measurement protocols. In addition, a cluster analysis of BRFSS epilepsy data related to seizure frequency, mental health, behavioral risk factors, quality of life, and socio-demographic variables is underway to identify vulnerable subgroups of people with epilepsy, and to make recommendations for intervention and future research.

Item

Excessive Alcohol Use — The Committee supports the recommendations of the Surgeon General's Call to Action on Underage Drinking, including the call for ongoing independent monitoring of youth exposure to alcohol advertising, and urges CDC to develop and continue its work to monitor and report on the level of risk faced by youth from exposure to alcohol advertising. (Pages 85-86)

Action taken or to be taken

Excessive alcohol use contributes to an average of 4,700 deaths among underage youth each year, and is associated with many other health risk behaviors, including high-risk sexual activity, smoking and interpersonal violence. Multiple systematic reviews of the scientific literature have shown that youth exposure to alcohol advertising is associated with both the initiation of alcohol consumption by youth and the amount consumed per drinking occasion. In FY 2009, CDC competitively funded the Center on Alcohol Marketing and Youth (CAMY) at the Johns Hopkins Bloomberg School of Public Health to monitor youth exposure to alcohol marketing on television, in print media, on the radio, and on the internet. In addition, consistent with the Surgeon General's recommendation to build state and federal public health capacity in alcohol epidemiology, CDC funded a full-time alcohol epidemiologist in the New Mexico Department of Health to analyze and disseminate data on underage and binge drinking and to support the implementation of effective, community-based strategies to prevent these behaviors. CDC will continue its efforts to monitor alcohol marketing to youth and to strengthen the scientific foundation for the prevention of underage and binge drinking.

Item

Gynecologic Cancer Education and Awareness Program — The Committee is encouraged by the progress that has been made by CDC, in coordination with the Office of Women's Health and qualified nonprofit private sector entities to initiate a national education campaign on gynecologic cancers and available prevention strategies. The Committee urges CDC to continue and enhance the current public education activities to increase women's knowledge regarding gynecologic cancers. (Pages 86)

Action taken or to be taken

CDC recognizes the need to expand understanding and awareness of gynecologic cancers in hopes of finding these cancers early when treatment is most beneficial. CDC's *Inside Knowledge: Get the Facts About Gynecologic Cancer* campaign educates patients and providers about the five main types of gynecologic cancer: cervical, ovarian, uterine, vaginal, and vulvar. The campaign develops and disseminates evidence-based educational materials for patients, and such resources have been tested for low literacy audiences and adapted into Spanish to make them accessible to a wide range of audiences. CDC has conducted formative research to determine the knowledge, behaviors, and attitudes among women about gynecologic cancers, and has conducted focus groups across the U.S. to test campaign messages and creative concepts for public service announcements (PSAs). *Inside Knowledge* print and broadcast PSAs are in development, as are other resources, such as a comprehensive gynecologic cancer brochures, health care provider education materials, posters, and internet marketing strategies. CDC is also working to evaluate the campaign's implementation and effectiveness. Some of the activities related to gynecologic cancer are addressed through CDC's comprehensive cancer control program and ovarian cancer budget activities.

Item

Healthy Brain Initiative — Studies have indicated that cumulative risks for vascular disease and diabetes also increase the risk of cognitive decline and Alzheimer's disease. In 2005, the Committee called upon CDC to launch an Alzheimer's-specific segment of the Healthy Aging Program, to aggressively educate the public and health professionals about ways to reduce the risks of developing Alzheimer's by maintaining a healthy lifestyle. The Committee recommends funding to continue this

program and encourages CDC to support the evaluation of existing population-based surveillance systems, with a view toward developing a population based surveillance system for cognitive decline, including Alzheimer's disease and dementia. (Pages 86)

Action taken or to be taken

CDC's Healthy Aging Program is excited to be a part of the national efforts to address the impact of cognitive impairment and Alzheimer's disease in the public health arena. CDC and the Alzheimer's Association, in collaboration with many local, state and national-level partners, developed *The Healthy Brain Initiative: A National Public Health Road Map to Maintaining Cognitive Health* (www.cdc.gov/aging). The *Road Map* is a call for action and a guide for implementing an effective and coordinated approach to addressing cognition as a public health issue. Ten priority actions were identified in the Road Map, including the need for state and community-level data on the perceived impact of cognitive impairment. In 2009, CDC's Healthy Aging Program developed a set of questions on the perceived impact of cognitive impairment that were included in the Behavioral Risk Factor Surveillance System (BRFSS), which provides state and local information about critical public health issues. The CDC Healthy Aging program is supporting efforts to provide funding to states to facilitate the inclusion of the module in the 2011 BRFSS surveys. Additionally, the Healthy Aging Program is collaborating with state and national partners to create a series of reports to facilitate the application of the data derived from the module.

CDC's Healthy Aging Program is also supporting the Healthy Aging Research Network, which is conducting research to identify how different groups of older adults understand cognitive health and which health promotion approaches have the most public appeal. In addition, CDC's Healthy Aging Program funded a project to review the literature on physical activity interventions designed to promote cognitive health.

Item

Heart Disease and Stroke — Recognizing that cardiovascular disease is the number one killer in the U.S., the Committee strongly supports the ultimate goal of providing basic implementation funding to each State for the competitively awarded Heart Disease and Stroke Prevention Program. The Committee is concerned that only 14 States receive basic implementation funding, nine States receive no funds, and many States have been stalled at the capacity building level for years—a few for a decade. Further, the Committee understands the importance of the CDC's continued efforts to work collaboratively with States to establish a comprehensive cardiovascular disease surveillance system to monitor and track these disorders at the national, State, and local levels. (Page 86)

Action taken or to be taken

CDC provides a range of funding and support to state health departments to manage heart disease and stroke prevention programs at the state and local levels. These states facilitate collaboration among public and private sector partners; define the burden of heart disease and stroke in the state; develop and update statewide plans for heart disease and stroke prevention; identify culturally appropriate approaches to promote cardiovascular health with racial, ethnic, and other priority populations; and increase awareness of the signs and symptoms of heart attack and stroke. States that receive greater amounts of funding also implement and evaluate policy, environmental, and educational interventions in health care sites, workplaces, and communities; and provide training and technical assistance to

public health and health care professionals and partners to support policy and systems change. While the majority of states are at the baseline funding level, these states are eligible to apply, through a competitive process, for limited additional funding to implement specific interventions.

In the next grant cycle in 2011, the funding opportunity announcement (FOA) for the program will be restructured to eliminate the formal structure of two discrete funding levels.

CDC will continue to build on current efforts to provide an online repository of heart disease and stroke data in order to develop more comprehensive surveillance systems that will help to fill the gaps in existing tracking systems. CDC intends to improve surveillance efforts through such means as oversampling population subgroups in existing surveys, developing and purchasing new datasets, and adding new questions to existing surveys.

Item

Infant Mortality — The Committee is concerned that declines in infant mortality have stalled in the United States. Each year 12 percent of babies are born too early, and 8 percent are born with low birth-weight, putting them at higher risk for infant death and for developmental disabilities. The Committee notes that many experts believe that prenatal care, which usually begins during the first 3 months of a pregnancy, comes too late to prevent many serious maternal and child health problems. The Committee encourages CDC to study how best to communicate important health information with women who are contemplating starting or expanding their family. (Page 76)

Action taken or to be taken

Ensuring maternal health before, during, and after pregnancy is a top priority for CDC's Safe Motherhood Initiative. The overall health status of women prior to conception is an important factor in improving health outcomes of mothers and babies. Factors such as obesity, hypertension, and diabetes have all increased in recent years among women of reproductive age, threatening to erode gains in maternal and infant outcomes. CDC will continue to study and support effective ways to communicate to women of child-bearing age the importance of overall health before, during, and after pregnancy, including healthy lifestyle choices, regular preventive health visits, family planning, and management of obesity, smoking, diabetes, hypertension, and other medical risk factors. While current evidence indicates that the expected impact of investments in preconception care will likely be most directly linked to improved maternal and infant health rather than infant mortality per se, preconception care represents one more opportunity to advance the health of women of reproductive age.

Item

Inflammatory Bowel Disease — The Committee continues to prioritize CDC's inflammatory bowel disease (IBD) epidemiology study and has included funding to continue this important initiative. The Committee encourages CDC to initiate the establishment of a pediatric IBD patient registry. (Page 86)

Action taken or to be taken

CDC's epidemiologic studies are making significant contributions to the field of Crohn's disease and ulcerative colitis, the two most common inflammatory bowel diseases. Funds are being used to collaborate with the Crohn's and Colitis Foundation of America (CCFA). The initial research addressed questions regarding potential differences in the quality of treatment given to patients with

IBD in the community setting, including patient, provider, or clinic predictors of treatment differences and possible effects on patient outcomes. The most recent studies have addressed incidence, prevalence and time trends of pediatric IBD, race as a predictor of mortality in IBD, the natural history of IBD in a pediatric population and clinical variations in steroid dependent parents with IBD.

Furthermore, CDC epidemiologists and CCFA have supported the Ocean State Crohn's and Colitis Registry. This project is an incident cohort of all newly diagnosed adults and pediatric patients in the state of Rhode Island. The purpose of the registry is to gain insight into the etiology of IBD, to learn why the course of illness varies among individuals, and to determine what factors may improve outcomes.

Item

Maternal and Child Health — The Committee is concerned that declines in infant mortality have stalled in the U.S. Each year, 12 percent of babies are born too early, and eight percent are born with low birth-weight, putting them at higher risk for infant death and for developmental disabilities. The Committee notes that many experts believe that prenatal care, which usually begins during the first three months of a pregnancy, comes too late to prevent many serious maternal and child health problems and are calling for improved preconception care. The Committee encourages CDC and its partners to study how best to communicate with women about the need for preconception care. The Committee urges CDC to continue to make research on preconception health and health care a priority. (Page 87)

Action taken or to be taken

Ensuring maternal health before, during, and after pregnancy is a top priority for CDC's Safe Motherhood Initiative. The overall health status of women prior to conception is an important factor in improving health outcomes of mothers and babies. Factors such as obesity, hypertension, and diabetes have all increased in recent years among women of reproductive age, threatening to erode gains in maternal and infant outcomes. CDC will continue to study and support effective ways to communicate to women of child-bearing age the importance of overall health before, during, and after pregnancy, including healthy lifestyle choices, regular preventive health visits, family planning, and management of obesity, smoking, diabetes, hypertension, and other medical risk factors. While current evidence indicates that the expected impact of investments in preconception care will likely be most directly linked to improved maternal and infant health rather than infant mortality per se, preconception care represents one more opportunity to advance the health of women of reproductive age.

Item

National Sleep Awareness Roundtable — The Committee is pleased with the activities of the National Sleep Awareness Roundtable (NSART), a partnership between CDC, other Federal agencies, and the voluntary health community. The Committee expects CDC to support NSART and has provided funding within the Community Health Promotion program for this initiative and to incorporate sleep and sleep-related disturbances into established CDC surveillance systems. (Page 87)

Action taken or to be taken

CDC has partnered with the National Sleep Foundation (NSF) to develop the National Sleep Awareness Roundtable (NSART), a coalition of about 40 governmental and professional organizations. CDC funded the NSF to support NSART to raise public awareness about sleep and sleep outcomes; to promote science-based policies; and to promote recognition of insufficient sleep as a public health problem and the need for care for individuals with sleep disorders. In 2009, CDC funded a work group of NSART sleep experts to meet in spring 2010 with representatives of national school administration organizations to promote system changes to school start times for high school students, who have the greatest need for a later start time.

In collaboration with sleep experts from the NSF, CDC developed a five-question optional module for inclusion on the Behavioral Risk Factor Surveillance System (BRFSS). The five sleep measures are: hours of sleep; snoring; insufficient sleep; daytime sleepiness; and drowsy driving. CDC funded 11 states to administer this module on the BRFSS in 2009 and 8 to 14 states in 2010. Additionally, since 2008, a question on insufficient sleep has been a part of BRFSS core questionnaire, which will be asked by all states through 2011.

Item

Obesity — To effectively address this epidemic, the Committee urges CDC to provide leadership and coordination for the Federal government's efforts to address overweight and obesity. In this leadership role, CDC should develop a national plan to prevent overweight and obesity among children, adolescents, and adults. On an annual basis, CDC should issue a report to the Nation on trends, research, and prevention efforts related to overweight and obesity in children, adolescents, and adults, including CDC's investments in State and community obesity prevention programs. (Page 87)

Action taken or to be taken

CDC has taken and continues to take notable steps in leading efforts for obesity prevention and control. In June 2008, CDC conducted a public health law summit on the legal preparedness for actions to prevent and control obesity. In July 2009, CDC conducted its inaugural conference on obesity prevention and control, "Weight of the Nation," where CDC released data about the economic impact of obesity on medical cost, the prevalence of obesity among children less than five years of age who receive care in WIC programs, and obesity prevalence rates among racial/ethnic groups 18 years old and older. CDC is currently coordinating with DHHS to delineate roles and responsibilities for the development of a national action plan for obesity prevention and control, expected to be released by 2011. CDC is also developing guidance documents on the six target behaviors (fruit and vegetable consumption, breastfeeding, physical activity, TV viewing, energy density, and sugar sweetened beverages) related to obesity. These documents will review the scientific evidence and policy and environmental actions that states and communities might implement. Also, CDC plans to update and release information and statistics about trends in nutrition, physical activity, and obesity, and well as investments in obesity programs and research.

Item

Obesity and Built Environments — The Committee recognizes the importance of the built environment for promoting healthy behaviors. The Committee encourages CDC to work with the Secretary of Transportation and encourages CDC grantees to work with local transit officials to

coordinate the goals of population-level prevention programs with transportation projects that support healthy lifestyles and enhanced physical activity. (Page 87)

Action taken or to be taken

CDC is collaborating with a broad range of agencies, including the Department of Transportation, in efforts to realize the benefits of healthy community design. In November 2008, CDC collaborated with national, state, and local partners to conduct the first-ever "Transportation 101" meeting, where practitioners, researchers, and policy makers from the fields of transportation and public discussed how best to coordinate efforts. The meeting led to the creation of a CDC position statement (currently going through agency clearance) on the important intersection among chronic diseases, environmental health, and injuries. Another important outcome of the "Transportation 101" meeting was the creation of a transportation white paper developed by the American Public Health Association and Transportation 4 America. The white paper provides specific suggestions for the Federal transportation bill reauthorization that would create policies and programs that concurrently address both transportation and public health priorities, such as active transportation and light rail systems.

In addition, CDC provided public health information and evaluation of the health impact of non-motorized transportation projects funded by the Department of Transportation. As part of its outreach efforts, CDC provides health evaluations of local transit projects, such as studying the health effect of a new rail line in Charlotte, NC. CDC's Healthy Community Design Initiative works with grantees and others to ensure that transportation and land use projects are designed to encourage physical activity and healthy lifestyles, reduce injuries, and improve environmental health outcomes.

Item

Oral Health — The Committee recognizes that reducing disparities in oral disease will require additional and sustained support in proven strategies at the State and local levels. The Committee provides funding for States to strengthen their capacities to assess the prevalence of oral diseases and the associated health burden, to target resources and interventions and prevention programs to the underserved, and to evaluate changes in policies and programs. The Committee encourages CDC to advance efforts to reduce the health disparities and burden from oral diseases, including those that are linked to chronic diseases. (Page 88)

Action taken or to be taken

In FY 2010, CDC is working with 16 states to build capacity for effective oral health prevention programs and to reduce disparities among disadvantaged populations. This effort includes working with states to develop school-based or school-linked programs to reach children at high risk of oral disease with proven prevention services, such as dental sealants. CDC also works with states to expand the fluoridation of community water systems and operates a fluoridation training and quality assurance program. In addition, CDC will expand its efforts to assess the extent of oral diseases, target prevention programs and resources to those at greatest risk, fund prevention research, and evaluate changes in policies and programs to reduce disparities. CDC will continue to develop methods to identify and reach adults at greatest risk of oral diseases associated with other chronic diseases (e.g., diabetes and heart disease) and their risk factors.

Item

Pediatric Cancer — The Committee encourages CDC to enhance and expand the infrastructure to track the epidemiology of pediatric cancer into a comprehensive nationwide registry of actual occurrences of pediatric cancer, as authorized by the Caroline Pryce Walker Conquer Childhood Cancer Act. (Page 88)

Action taken or to be taken

Since the passage of the Conquer Childhood Cancer Act, CDC has worked to explore the best approaches to pediatric cancer research and surveillance enhancement, including work to implement cancer surveillance enhancement that will benefit cancer research as a whole. CDC met with subcommittee members on September 16, 2009 to inform them of CDC's progress in fulfilling the Conquer Childhood Cancer Act and how CDC's National Program of Cancer Registries (NPCR) is exploring the best ways to maximize cancer registry data use for pediatric cancer research. CDC convened an expert panel of cancer registry and pediatric cancer research experts on December 2-3, 2009 to provide stakeholders the opportunity to share information with each other, identify key research needs, and provide input for CDC's future directions in pediatric cancer surveillance. The expert panel met specifically to:

- Explore the needs of pediatric cancer epidemiologists and how to address those needs;
- Identify methods to address the research needs identified utilizing cancer registries and other databases;
- Identify opportunities for creating new partnerships between CDC and pediatric cancer researchers to increase the research value of pediatric cancer registries and other research databases; and,
- Outline the methodology and resources needed to establish rapid case ascertainment for pediatric cancers within the NPCR.

CDC is currently developing a report on its efforts to improve surveillance of pediatric cancers which it expects to release in April, 2010.

Item

Physical Fitness in Underserved Communities — The obesity epidemic currently sweeping the U.S. is a particularly poignant problem for the nation's children. Among minority populations in this country, the numbers are particularly alarming. Statistics from CDC show that more than 22 percent of Mexican-American males aged 12 to 19 are obese, as are over 18 percent of African-American males and over 17 percent of non-Hispanic white males in the same age group. As for females aged 12 to 19, almost 28 percent of African- Americans and almost 20 percent of Mexican-Americans are obese, compared to more than 14 percent of non-Hispanic whites. The Committee encourages CDC to work with national and locally based organizations to promote school-based and after-school programs that combine physical fitness and nutrition education. Particular emphasis should be given to low-impact team sports that have the greatest appeal to specific communities, such as soccer in Latino and immigrant communities. (Page 88)

Action taken or to be taken

CDC recognizes the need for quality physical education and nutrition programs, and supports expanded access to both school-based and after-school programs especially in communities with high rates of childhood obesity. CDC will work with national nongovernmental organizations as well as state and local education agencies to continue highlighting the importance of supporting targeted programming aimed at increasing physical activity and improving nutritional intake among populations at highest risk.

Item

Preterm Birth — Preterm birth affects more than 540,000 babies each year in the U.S. and nearly 50 percent of all premature births have no known cause. Within the funds provided, the Committee encourages CDC to expand epidemiological research on the causes and prevention of preterm birth and to establish systems for the collection of maternal-infant clinical and biomedical information to link with the Pregnancy Risk Assessment Monitoring System in an effort to identify ways to prevent preterm birth and reduce racial disparities. (Page 88)

Action taken or to be taken

Preterm birth is the most frequent cause of infant mortality in the United States. CDC continues to expand epidemiological research on the causes and prevention of preterm birth, including systems for the collection of maternal-infant clinical and biomedical information linked to epidemiologic investigations of preterm birth, infant mortality, and racial disparities. CDC has advanced a prevention research agenda to examine, in a comprehensive way, the social, biological, genetic, and clinical factors contributing to the risk of preterm birth and racial disparities. In addition, CDC provides technical assistance to states to strengthen epidemiologic investigations of infant mortality and preterm birth, to identify populations at risk, and evaluate strategies for prevention.

Item

Primary Immune Deficiency Diseases —.The Committee remains supportive of the Primary Immune Deficiency Diseases program that has demonstrated great success in identifying and moving into treatment persons with undiagnosed diseases that pose a public health threat. The Committee believes this program should continue to move forward in a public-private partnership as it currently operates. (Page 88)

Action taken or to be taken

CDC recognizes that promoting earlier diagnosis and treatment of genetic diseases, such as primary immune deficiencies, is an important public health role. Although single-gene genetic diseases are individually rare, collectively they present a significant public health issue. CDC is working with its partners on the Genetics for Early Disease Detection and Intervention (GEDDI) initiative, a public health approach using clinical, genetic and family history information for early diagnosis of disease leading to improved health outcomes, through the development of clinical decision support tools and provider and public education about genetic risk factors and symptoms for selected diseases, including primary immune deficiencies.

Item

Psoriasis **-** The Committee is concerned that there is a lack of epidemiological and longitudinal data on individuals with psoriasis and psoriatic arthritis, including children and adolescents. The Committee provides funding to support such data collection in order to better understand the co-morbidities associated with psoriasis, examine the relationship of psoriasis to other public health concerns such as the high rate of smoking and obesity among those with the disease, and gain insight into the long-term impact and treatment of these two conditions. The Committee encourages CDC to work with national organizations and stakeholders to examine and develop options and recommendations for psoriasis and psoriatic arthritis data collection, including a registry. (Pages 88-89)

Action taken or to be taken

Psoriasis and psoriatic arthritis can compromise the quality of life for people affected by the condition by affecting basic life functions such as sleeping, preventing work in certain occupations, staying physically active, and causing psychological distress. CDC's Arthritis progam is continuing to work with the National Psoriasis Foundation (NPF) on the most effective means to incorporate existing clinical, research, and educational approaches into a more comprehensive public health approach for psoriasis and psoriatic arthritis. This work will help to inform possible next steps to address these problems from a public health perspective.

CDC's National Center for Health Statistics obtains data on psoriasis through its National Health and Nutrition Examination Survey (NHANES). A 2008 analysis of NHANES data from 2003-2004 showed that 3.2 percent of adults aged 20 to 59 years of age reported having been diagnosed with psoriasis. For 2009-2010 NHANES participants ages 16 and older will be asked if they have ever been told by a doctor or other health care professional whether they had psoriasis. Also, study participants who indicate that they have had arthritis are asked about the type of arthritis and for 2009-2010 NHANES will include an option for recording a response of "psoriatic" arthritis.

Item

Pulmonary Hypertension — The Committee continues to be interested in pulmonary hypertension (PH) and encourages CDC to expand its partnership with the PH community aimed at increasing awareness of this devastating disease among the general public and health care providers. (Page 89)

Action taken or to be taken

CDC recognizes that early diagnosis and aggressive treatment are critical to improve the prognosis of pulmonary hypertension. The diagnosis of pulmonary hypertension is usually made many years after most patients have had the illness and have suffered the many disabling symptoms. Therefore, increased public and health care provider awareness of the signs and symptoms of pulmonary hypertension is important. CDC continues to explore opportunities to work on collaborative studies and surveillance reports with the Pulmonary Hypertension Association and other partners such as the American Heart Association and National Heart, Lung, and Blood Institute.

Item

Scleroderma — The Committee is aware that scleroderma, an over-production of collagen resulting in the hardening of skin and joints, affects an estimated 300,000 people in the U.S. The Committee

continues to encourage CDC to undertake steps to increase awareness in the public and larger health care community to allow for earlier diagnosis and treatment. (Page 89)

Action taken or to be taken

The CDC Arthritis Program recognizes the severity of disease among people affected by scleroderma, which is one of the more than 100 conditions that comprise arthritis and other rheumatic conditions. CDC provides educational information to the public and larger health care community on Arthritis and overall rheumatic conditions, which provides general information that will help the estimated 300,000 people with scleroderma.

Item

Vision Health - The Committee supports CDC's vision health initiative, which focuses on eye disease surveillance and evaluation systems so that our nation has much-needed epidemiological data regarding overall burden and high-risk populations to formulate and evaluate strategies to prevent and reduce the economic and social costs associated with vision loss and eye disease. (Page 89)

Action taken or to be taken

CDC's Vision Health Initiative (VHI) conducts or supports research to strengthen the public health science base for vision loss prevention and eye health promotion. VHI maintains and expands national and state specific surveillance systems, epidemiology, health economics, and health outcomes research; and assesses the burden of age related eye diseases, utilization and access to eye care, and cost effectiveness of available interventions to reduce the burden of eye diseases. In 2009, VHI launched a new website that included a state data tool and interactive maps that present prevalence of eye conditions, vision loss, and access to eye care for the states, by racial/ethnic group, gender, education, and diabetes diagnosis.

In 2008, CDC awarded a three year cooperative agreement to Prevent Blindness America (PBA). PBA is working with partners, state officials, and academic institutions to integrate vision health activities within other state public health programs, to enhance the surveillance system for vision loss and eye diseases at the national and state level, and to develop a model to reach high risk populations for vision loss and eye diseases.

Item

Blood Disorders - The Committee recognizes the many accomplishments of the Blood Disorders Division at CDC, especially those achieved through its partnership with the network of Hemophilia Treatment Centers. This program remains an essential part of CDC's blood disorders programs and needs to be maintained in order to respond to increasing needs of men and women with bleeding and clotting disorders. Within the total for blood disorders, the Committee encourages CDC to develop and implement ahemoglobinopathy surveillance and registry program with particular attention to Sickle Cell Disease. (Pages 90-91)

Action taken or to be taken

CDC is committed to continuing its support for individuals affected by bleeding and clotting disorders. In 2009, CDC entered into an interagency agreement with the National Heart, Lung and Blood Institute in which NIH will contribute $20 million to CDC over four years to develop, implement, and evaluate a Registry and Surveillance System in Hemoglobinopathies (RuSH) pilot

project. RuSH will be a state-based data system, registry and biospecimen repository that will provide data to describe the epidemiologic and clinical characteristics of people with hemoglobinopathies including Sickle Cell Disease in six states. CDC will be shifting to a more population-based approach in FY 2011, which should help even more people at risk for developing blood disorders.

Item

Cerebral Palsy — In 2008, the Committee requested a report from CDC about the types of data that are most needed for a public health response to cerebral palsy and the strengths and weaknesses of the various methods of collecting epidemiologic data in this population. As a result of the report's findings, the Committee urges CDC to establish cerebral palsy surveillance and epidemiology systems that would work in concert with similar disorders. (Page 91)

Action taken or to be taken

CDC continues to share the Committee's concern on public health needs for surveillance and research on cerebral palsy.

In 2006, three Autism and Developmental Disabilities Monitoring (ADDM) Network sites, in addition to CDC, include cerebral palsy in surveillance activities. These sites, collectively referred to as the ADDM CP Network, are the only population-based programs using common methods to track cerebral palsy in the United States. The ADDM CP Network provides comparable, population-based data needed to examine trends and characteristics of children with cerebral palsy over time. Further, these data serve as a population-based case series of children from which to conduct future epidemiologic research examining potential risk and causative factors of cerebral palsy. The ADDM CP Network has published prevalence findings for the 2002 and 2004 surveillance years and findings for 2006 are currently in press.

Item

Fragile X — The Committee urges CDC to support the continuation of public health activities in the areas of Fragile X Syndrome and Associated Disorders. The Committee urges CDC to focus its efforts on identifying ongoing needs and effective treatments by increasing epidemiological research, surveillance, screening efforts, and the introduction of early interventions and supports for individuals living with Fragile X Syndrome and Associated Disorders. The CDC should focus funds within the Fragile X program on the continued growth and development of initiatives that support health promotion activities and foster rapid, high-impact translational research practice for the successful treatment of Fragile X Syndrome and Associated Disorders. (Page 91)

Action taken or to be taken

CDC's past efforts in fragile X activities include: Establishing a resource center on fragile X and development and dissemination of tools to develop and critique accurate genetic information for families and providers and supporting the publication of guidelines for carrier testing in fragile X and providing educational information on carrier testing to a targeted group of health care providers.

CDC's ongoing and new fragile X initiatives include the following:

- Supporting a national needs survey involving families affected by fragile X with dissemination of findings;

- Providing support for establishment of an infrastructure for a consortium of fragile X clinics that will provide the means to analyze treatment options, promote research and develop a patient registry;
- Supporting a feasibility study to determine if children with fragile X can be ascertained through surveillance of children who have autism and other intellectual disabilities working in conjunction with the Autism and Developmental Disabilities Monitoring (ADDM) Network; and,
- Providing support to determine the premutation prevalence of fragile X from an ongoing longitudinal study.

CDC will continue to support the Fragile X Clinical and Research Consortium to identify needs, effective treatments and positive outcomes for individuals who have fragile X syndrome and associated disorders.

Item

Limb Loss — The Committee supports the CDC Limb Loss Information Center program, which has made considerable progress in establishing and advancing a public health agenda to meet the needs of Americans with limb loss. There are more than 1.8 million Americans living with limb loss. The vast majority of these limb losses are attributed to diabetic infection resulting in limb amputation and current military/war events and practices. The Committee urges CDC to continue efforts to expand public health activities on behalf of persons with limb loss and recommends establishing a registry for limb loss to capture its true impact. A registry will estimate the incidence and prevalence of limb loss, promote a better understanding of limb loss, and provide data that will be useful for research on improving limb loss management and developing standards of care. (Page 91)

Action taken or to be taken

CDC acknowledges the importance of accurate data that reflects the incidence and prevalence of limb loss in the population. CDC continues its support for programs to improve the quality of life for individuals with limb loss through work with our partner Amputee Coalition of America (ACA) to operate the National Limb Loss Information Center (NLLIC) which includes a national hotline, a website, referral services, educational curricula, youth programs, a national peer network, military outreach and support, consumer publications, fact sheets and a library (electronic and physical).

Item

Marfan Syndrome — The Committee continues to be interested in Marfan syndrome. Many individuals affected by Marfan syndrome are undiagnosed or misdiagnosed until they experience a cardiac complication. Increasing awareness of this genetic condition is vital to ensuring timely diagnosis and appropriate management and treatment. The Committee encourages CDC to work to increase awareness of this disease among the public and health care providers. (Page 91)

Action taken or to be taken

CDC is aware of the public health concerns regarding Marfan syndrome and shares the Committee's concerns. Marfan syndrome is included in CDC's Partnership group. The Partnership group, facilitated by the National Center for Birth Defects and Developmental Disabilities, encourages collaboration with other groups interested in disabling conditions. CDC is providing partial funding

for the National Marfan Foundation's conference. The conference will provide an opportunity for increasing awareness and knowledge of Marfan to health care providers, affected families, and the public.

Item

National Birth Defects Prevention Study — The Committee commends CDC's work in the area of birth defects surveillance, research, and prevention. With the funds provided the Committee urges CDC to enhance research on congenital heart defects, conduct genetic analysis of the samples collected via the National Birth Defects Prevention Study, and maintain assistance to the regional birth defects centers of excellence and aid to States to implement and expand community-based birth defects tracking and referral systems. (Page 92)

Action taken or to be taken

CDC's birth defects research activities are conducted by CDC's nine Centers for Birth Defects Research and Prevention in Arkansas, California, Iowa, Massachusetts, New York, North Carolina, Texas, Utah, and CDC's site in Georgia. The Centers collaborate on the National Birth Defects Prevention Study (NBDPS) which is now the largest study of the causes of birth defects ever conducted in the United States. These Centers have gathered information from more than 32,000 families and are using this information to look at key questions about birth defects. Researchers have identified significant findings on environmental factors such as nutrition and smoking.

Item

Prenatally and Postnatally Diagnosed Conditions — The Committee encourages CDC to increase the provision of scientifically sound information and support services to patients receiving a positive test result for Down syndrome or other pre- or postnatally diagnosed conditions by using available funds to award grants, contracts, or cooperative agreements to collect, synthesize, and disseminate current and accurate information about the tested condition; and coordinate the provision of, and access to, supportive services for patients affected, which should include a telephone hotline, an information clearinghouse, parent-support programs, and a registry of families willing to adopt children affected by such conditions. CDC is encouraged to provide assistance to State and local health departments to integrate the results of prenatal testing and pregnancy outcomes into State-based vital statistics and birth defects surveillance programs. (Page 92)

Action taken or to be taken

CDC is committed to providing accurate scientific information and data for Down syndrome and other congenital conditions, working with sister HHS agencies and other stakeholders. CDC recently funded studies of Down syndrome survival, hospitalization, and growth.

CDC's work to incorporate prenatal testing and pregnancy outcome information into birth defect surveillance programs began in 1994 with the Metropolitan Atlanta Congenital Defects Program. CDC has published a birth defects surveillance funding announcement for FY2010 that encourages states with existing programs to broaden their methodologies and approaches.

CDC has supported the Genetic Alliance and other stakeholders in creating the Access to Credible Genetics (ATCG) resource network, a website with the goal of providing accurate information on rare genetic disorders to families and healthcare providers. In addition to providing information on

conditions such as Duchenne muscular dystrophy and Fragile X Syndrome, a toolkit on the website helps parents assess the quality of information when searching for information on rare conditions.

Item

Thalassemia — The Committee believes that the thalassemia program, which provides blood safety surveillance to patients with this fatal genetic blood disease, has benefitted those patients by assuring that they are monitored closely by major research centers, while at the same time benefitting the general population by providing an early warning system of potential problems in the blood supply. CDC is encouraged to work closely with the patient community to maximize the impact of this program. (Page 92)

Action taken or to be taken

CDC is committed to continue collaborating with health-care providers, academic centers, community-based organizations, and national preventive health agencies to implement specialized prevention programs for persons with thalassemia and their families. CDC funds seven Thalassemia Treatment Centers (TTCs), a network of specialized treatment centers that promote the prevention, management, and treatment of complications experienced by persons with thalassemia. The TTCs participate in CDC's blood safety surveillance program and provide clinical data to describe the health status and extent of complications of target populations of persons with thalassemia. Data collected will contribute to the scientific knowledge base on thalassemia and will play a significant role in the development of research ideas and methods to optimize health outcomes of individuals with thalassemia. In addition, CDC provides funding to the Cooley's Anemia Foundation (CAF) for education and outreach. CAF is the only national thalassemia consumer organization. As a result of CDC's funding, the CAF works collaboratively with the TTCs to implement prevention outreach programs in underserved and traditionally non-English speaking communities, and provides educational materials to community-based providers and service organizations.

Item

Venous Thromboembolism — Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE), collectively known as venous thromboembolism (VTE) is estimated to affect one million Americans each year, with approximately one third of the cases being fatal PE. The Surgeon General's Call to Action to Prevent DVT and PE, as well as a report on VTE surveillance published in CDC's Morbidity and Mortality Weekly Report, recognize the need for strengthened disease surveillance and for the translation into practice of appropriate prevention measures. The Committee encourages CDC to develop a surveillance plan, which includes the resources needed to implement the recommendations of the Call to Action. (Pages 92-93)

Action taken or to be taken

While no national surveillance data exists for DVT/PE, estimates indicate that DVT/PE affects anywhere from 300,000 to 900,000 individuals in the U.S. each year. CDC is convening a group of experts in January 2010 to explore the various approaches for conducting surveillance to address this important public health issue. In addition, CDC currently funds five centers through the Thrombosis and Hemostasis Centers Research and Prevention Network to foster epidemiologic research and ultimately improve diagnosis and treatment of individuals with thrombotic conditions. These centers provide an opportunity for broad population based research of DVT/PE. Data from this Network

includes over 5000 patients, ranging from newborn to 90 years and all racial/ethnic groups. Half of these patients have experienced a DVT/PE. CDC plans to analyze these cases to better understand and prevent DVT/PE.

Item

National Health Interview Survey — The Committee is concerned over the lack of health care data about the lesbian, gay, bi-sexual and transgendered community. The Committee continues to urge CDC to enhance the National Health Interview Survey to collect data regarding the sexual orientation and gender identity of survey respondents using tested methods for doing so with the greatest possible accuracy. (Page 93)

Action taken or to be taken

CDC obtains data on sexual identity from two of its surveys using methods that maximize privacy. The National Survey of Family Growth and the National Health and Nutrition Examination Survey are exploring the viability of including questions about sexual identity on the National Health Interview Survey (NHIS). Sexual identity questions have not been asked on the NHIS primarily due to concerns about the ability to collect high quality data on this issue in a large general-purpose interview setting. Initial research indicates that the concept is complex and that question improvements are needed. There is also concern that the open household setting in which the NHIS survey is typically conducted where questions are read aloud may result in poor data quality for questions pertaining to sexuality and could potentially result in interview break-offs, thus jeopardizing CDC's ability to produce high quality data on a wide range of health issues. CDC, however, is continuing to explore avenues to overcome these challenges, including determining how best to design sexual identity questions to ensure that the concept is measured accurately with as little measurement error as possible; determining how questions can be administered to ensure privacy and maximize response rates; and having sufficient sample sizes to produce useful results for the target population. CDC is developing plans for conducting a test of proposed methodologies and to determine effects on response rates and patterns.

Item

Preserving the Integrity of Seminal Health Surveys — The Committee encourages the National Center for Health Statistics (NCHS) to fully support its ongoing seminal health surveys, in particular the NHIS and NHANES. These surveys provide unique insights into the health status of the American people and are an important resource to policymakers at the Federal, State, and local levels of government. The Committee expects NCHS to protect these core surveys without compromising data quality or accessibility, particularly with regard to minority populations. Further cuts to the sample sizes of these surveys could compromise our ability to monitor health disparities at a time when our society becomes increasingly diverse. (Page 93)

Action taken or to be taken

Data from CDC's National Center for Health Statistics have long documented disparities in the use of health care services, a variety of risk factors, health insurance coverage, and access to care, and led to the identification of health disparities as a major public health problem. In 2009, CDC was able to restore the National Health Interview Survey sample size and maintain the National Health and Nutrition Examination Survey sample size, enhancing our ability to monitor the Nation's health.

These surveys obtain high quality data on the U.S. population as a whole, as well as population sub-groups as defined by race/ethnicity, geography, age, gender and socioeconomic status.

Item

Vital Statistics — The Committee values NCHS and its critical role in monitoring our nation's health. The Committee has reservations about NCHS' plan to purchase only core items of birth and death data from States through the National Vital Statistics System. This plan will result in a reduction of over three-fourths of the number of enhanced data items that are routinely used to monitor maternal and infant health, such as use of prenatal care, smoking during pregnancy, medical risk factors, and educational attainment of parents, among others. The Committee urges NCHS to purchase the core and enhanced data currently collected by vital statistics jurisdictions and collect 12 months of these data within the calendar year. (Page 94)

Action taken or to be taken

CDC's National Center for Health Statistics is committed to obtaining high quality information on vital events from our state partners and to make these data available for policy, programmatic and research uses. This effort is complicated by the fact that revisions to the standard birth and death certificates in 2003 have not been adopted by all states, creating challenges to producing national level data. CDC is currently working with registration areas to develop a mechanism to meet data needs in future years. CDC will continue to purchase the core and enhanced items while this process is ongoing in 2010. CDC' goal is to obtain data that are consistent across states' birth and death certificates so that CDC can meet its primary commitment to obtain twelve months of national data on the most central items on birth and death certificates with improved quality and timeliness in order to meet the needs of all vital statistics data users.

Item

Asthma — The Committee urges CDC to work with States and the asthma community to implement evidence-based best practices for policy interventions, with specific emphasis on indoor and outdoor air pollution, which will reduce asthma morbidity and mortality. (Page 95)

Action taken or to be taken

CDC is concerned with the burden of Asthma in the U.S. CDC is committed to exploring the impact of indoor and outdoor air pollution on human health. CDC works with States and the asthma community to implement evidence-based best practices for policy interventions in order to reduce asthma morbidity and mortality. CDC recently completed a review of home visit interventions that contain an emphasis on the environment and cover a range of indoor and outdoor triggers. CDC-funded states are working on policies in support of home visit interventions such as reimbursement for home visits by Medicaid and other health plans; incorporating home visits in model benefits packages for employers; training home inspectors to identify and report conditions creating asthma triggers in multi-unit housing; implementing smoking bans, and requiring integrated pest management in multi-unit, subsidized housing.

Item

Biomonitoring — The Committee encourages the CDC to direct increases for CDC's Environmental Health Laboratory to States with existing biomonitoring programs in order to expand State public health laboratory capabilities; to conduct subpopulation studies; to conduct representative analyses of routinely collected blood, cord blood and other biospecimen ; to develop protocols for conducting biomonitoring of sensitive subpopulations such as children; and to support biomonitoring field operations such as participant enrollment, sample collection, data analysis, report generation and results communications. CDC is also encouraged to focus on developing new methods for identifying chemical sources and routes of exposure using model exposure questionnaires and the collection of relevant household and other environmental samples. (Page 95)

Action taken or to be taken

CDC awarded three cooperative agreements for state-based biomonitoring to California, New York, and Washington. CDC will support these three state-based laboratory programs to conduct biomonitoring assessments of chemical exposures among residents, including sensitive subpopulations such as children. States will examine chemical exposures in communities or vulnerable populations, substantially improving exposure assessments compared to current environmental modeling. The focus of CDC's biomonitoring activities involves the measurement of chemicals or their metabolites in human specimens; however, CDC has applied this methodology to environmental samples to help identify sources and routes of exposure in combination with human data.

Since 1999, CDC has measured disinfection by-products in water samples from the National Health and Nutrition Examination Survey (NHANES). CDC also measures the fuel oxygenate MTBE in NHANES tap water since 1999 and in 2005 began measuring perchlorate levels in NHANES tap water.

Item

Childhood Lead Poisoning Screening — The Committee commends CDC for supporting the development of a Clinical Laboratory Improvement Amendment (CLIA)-waived, point-of-care lead poisoning screening device. This FDA approved technology holds great promise for increasing testing rates in underserved communities. The Committee continues to encourage CDC to promote broader use of this screening tool among its lead poisoning prevention grantees. (Page 95)

Action taken or to be taken

CDC's Healthy Homes Program (formerly the Childhood Lead Poisoning Prevention Program) promotes the use of point-of-care screening devices through training, purchases of the instrument, and cooperative agreement funding for state and local lead poisoning prevention programs.

Item

Climate Change — The Committee provides increased resources for a Climate Change Program at CDC. In continuing to develop this program, the Committee urges CDC to support State climate change preparedness activities, public health education and communications about health and climate change, training for public health professionals on climate change and health, and research and surveillance. The Committee urges CDC to fund research on the health impacts and implications of

climate change, the health impacts of potential mitigation strategies and the development of tools for modeling and forecasting climate change at the regional, State, and local levels. CDC should work with partners at the National Institute of Environmental Health Sciences, the National Oceanic and Atmospheric Association, the National Aeronautics and Space Administration, and the Environmental Protection Agency to develop a coordinated research agenda on climate change and health. (Page 96)

Action taken or to be taken

CDC's expertise and programs in environmental health, infectious disease, and other fields form the foundation of public health efforts in preparedness for climate change. In FY2009, CDC formally established its Climate Change and Health Program, to address five broad areas: expand the Climate Change Research Foundation, enhance state & local climate change capacity, develop partnerships, promote workforce development and, communicate health-related aspects of climate change. For example, CDC funded five states and six local jurisdictions to conduct needs assessments and develop strategic plans to address weaknesses and bolster climate change capacity. These pilot grants will inform future development of state, territorial, city, and county climate change programs.

CDC collaborated with the National Institute of Environmental Health Sciences, the National Oceanic and Atmospheric Association, the National Aeronautics and Space Administration, and the Environmental Protection Agency to develop a coordinated research agenda on climate change and health. This group included representatives from NIH's National Institute of Environmental Sciences, CDC's National Center for Environmental Health, EPA, HHS, NOAA, USDA, the U.S. Global Climate Change Research Program, among others. The purpose of this paper is to identify research needs for all aspects of the research-to-decision making pathway that will help us understand and mitigate the health effects of climate change, as well as ensure that we choose the healthiest and most efficient approaches to climate change adaptation. This agenda is currently under inter-agency clearance and will serve as a roadmap for federal climate change research.

Item

National Environmental and Health Outcome Tracking Network — The Committee supports the continued development of the National Environmental and Health Outcome Tracking Network. With the increased resources provided in fiscal year 2009, five new grantees will be funded taking the total number of grants to 22. In fiscal year 2010, the Committee provides increased funding to enable at least one additional State to integrate environmental and health outcome data and participate in National Environmental and Health Outcome Tracking Network. In awarding funds, the Committee encourages CDC to give preference to current and former grantees and States that have invested in health tracking infrastructure. (Page 96)

Action taken or to be taken

CDC funded six additional states to implement statewide Tracking Networks as components of the National Tracking Network. These states will now be able to conduct environmental public health surveillance, enhance data and methods for using surveillance data, and hire and train environmental public health professionals. The new grantee states include: Colorado, Kansas, Louisiana, Minnesota, South Carolina, and Vermont. Funding was awarded through a competitive process open to previous grantees and all other non-funded states, locales, territories, and tribal nations. Awards were determined by the amount of funding available and use of objective review criteria to determine each

applicant's capacity to develop and implement tracking networks within their funded jurisdictions that would be part of the National Tracking Network.

The 2009 application process indicates strong interest among states to participate in the National Environmental Public Health Tracking Program.

Item

National Report on Dietary and Nutritional Indicators in the U.S. Population — The Committee urges CDC to expand the report from the original 27 indicators to other important nutritional markers such as trans fats and omega-3 fatty acids and encourages the Environmental Health Laboratory to improve and standardize selected laboratory tests used for the diagnosis, treatment, and prevention of chronic diseases such as cardiovascular disease, diabetes, and cancer. (Pages 96-97)

Action taken or to be taken

In the *First National Report on Dietary and Nutritional Indicators in the U.S Population,* CDC provided baseline data on 27 biochemical and nutritional indicators. CDC developed new methods for measuring five *trans* fats in blood, nine *omega*-3 fatty acids in blood, caffeine in urine, and vitamin D in serum. These measurements are now being performed on NHANES samples for inclusion in the *Second National Report on Dietary and Nutritional Indicators in the U.S. Population.* This publication will provide first-time data for *omega*- and *trans*-fatty acids.

Item

Newborn Screening for Severe Combined Immune Deficiency — The Committee is pleased that this newborn screening program has supported pilot projects in the States, which have led to the identification, treatment, and cure of patients with this fatal disease. CDC is encouraged to pilot this program in additional States in fiscal year 2010. (Page 97)

Action taken or to be taken

CDC's Newborn Screening Quality Assurance Program (NSQAP) is the only comprehensive program in the world devoted to ensuring the accuracy of newborn screening tests. The program funds two states (Wisconsin and Massachusetts) to conduct population-based pilot studies for Severe Combined Immune Deficiency (SCID). Sometimes known as the "bubble boy disease," SCID is characterized by an inability to resist infections. Without early diagnosis and treatment, babies with SCID usually die within a year. After reviewing program findings, the Jeffrey Modell Foundation volunteered to work with CDC to sponsor additional state screening programs.

Item

Fostering Public Health Responses Program — Nearly one third of American women report being physically or sexually abused by a husband or boyfriend at some point in their lives. The problem has immense financial considerations, with the health-related costs of intimate partner violence in the U.S. exceeding $5,900,000,000 each year. Early detection and treatment of victims and potential victims not only addresses the victims' needs, but can financially benefit health care systems in the long run. Therefore, the Committee urges the development of the Fostering Public Health Responses Program to coordinate the public health response to domestic violence. (Page 97)

Action taken or to be taken

Through the Domestic Violence Prevention Enhancements and Leadership Through Alliances (DELTA) program, CDC funds 14 state-level domestic violence coalitions to provide prevention-focused training, technical assistance, and financial support to local communities, who then develop and implement strategies focused on prevention first-time perpetration and victimization. All 14 of the DELTA-funded domestic violence coalitions have established effective working relationships with their state public health agency, resulting in programmatic and policy successes. Moreover, CDC is working with DELTA Prep grantees (funded by the Robert Wood Johnson Foundation) to build the capacity of an additional 19 states to conduct primary prevention activities, working closely with their state public health agencies.

Item

Gun Control Advocacy — The Committee maintains bill language prohibiting funds in this bill from being used to lobby for or against the passage of specific Federal, State, or local legislation intended to advocate or promote gun control. The Committee understands that CDC's responsibility in this area is primarily data collection and the dissemination of that information and expects the research in this area to be objective and grants to be awarded through an impartial, scientific peer review process. (Page 98)

Action taken or to be taken

CDC takes this language seriously and continues to ensure that the agency and its grantees abide by this restriction.

Item

Intersection between Domestic Violence and Child Maltreatment — The Committee urges CDC to support training and collaboration on the intersection between domestic violence and child maltreatment. Such a program would support cross-training to enhance community responses to families where there is both child abuse and domestic violence. Law enforcement, courts, child welfare agencies, domestic and sexual violence service providers, and other community organizations could be able to deal with both problems simultaneously, allowing for a better use of our limited resources. As the two problems often occur together, dealing with one problem and not the other is at the peril of our children. (Page 98)

Action taken or to be taken

From 2000-2007, CDC collaborated with the Department of Justice to fund the evaluation of six demonstration sites across the country. The demonstration sites joined battered women's organizations, child protection agencies, the courts, and other partners in implementing the recommendations from *Effective Interventions in Domestic Violence and Child Maltreatment Cases: Guidelines for Policy and Practice.* Every local site was evaluated individually, and a comprehensive national evaluation was conducted at the completion of the initiative. Many lessons were learned and products such as training curriculums, community assessment tools and multimedia materials were developed and collected to assist others in doing this work.

Item

Mine Technology and Safety Test Bed — The Committee encourages NIOSH to develop a Mine Technology and Safety Test Bed, which will facilitate real-time situational awareness and improve miners' safety. The program should, at a minimum, consist of NIOSH-approved communications capable of supporting and integrating a multi-channel, digital voice, data and text messaging system that can establish connections to external networks. The system should also include real-time three dimensional immersive surveillance tracking capabilities. The system shall be MINER Act compliant and meet or exceed Mine Safety and Health Administration standards. The network infrastructure should be self-healing, redundant, and survivable during day-to-day operations and in emergency situations. (Page 99)

Action taken or to be taken

CDC's National Institute for Occupational Safety and Health believes that the establishment of the described Test Bed would lead to important improvements in communications and tracking technologies for post-accident applications. An underground coal mine in Kentucky has been identified as a strong candidate for such a test bed.

Item

Pandemic Influenza — The experience with the 2009 outbreak of the novel H1N1 virus has identified significant deficiencies in efforts to protect health care workers in the event of a pandemic influenza. Currently there is no comprehensive Occupational Safety and Health Administration (OSHA) standard to protect health care workers from pandemic influenza and airborne infectious diseases. OSHA and CDC guidelines recommending the use of NIOSH-certified respirators and other control measures to protect health care workers from pandemic influenza and the H1N1 virus have not been followed by many State and local health departments who instead have recommended lesser degrees of protection. OSHA and NIOSH, the agencies with legal responsibility for and expertise in worker protection, should take the lead in developing and implementing recommendations and requirements to protect healthcare workers from pandemic influenza and other infectious agents. To further implement the recommendations of the 2008 Institute of Medicine (IOM) report on protecting health care workers from pandemic influenza, the bill includes funding in the NIOSH budget to study the transmissibility of pandemic influenza virus and other pathogenic bioaerosols and to evaluate the efficacy of respiratory protection and other control measures to protect health care workers from these infectious agents. As recommended by the IOM, such studies should include workplace studies during outbreaks and occurrences of influenza. (Pages 99-100)

Action taken or to be taken

In FY 2009, CDC's National Institute for Occupational Safety and Health developed an aggressive research portfolio in response to the Institute of Medicine Report *Preparing for an Influenza Pandemic: Personal Protective Equipment for Healthcare Workers* (2008). CDC research identified several decontamination methods that were effective in killing viral contamination while maintaining acceptable filtration performance and respirator fit. In addition to being published in five peer reviewed manuscripts, these efforts have been cited by the Veterans Health Administration (VHA) H1N1 Influenza Advisory Committee and the UK Health Protection Agency (HPA) due to the potential for filtering facepiece reuse following exposure to viral exposures. Research is also

underway to simulate exposure of health care workers to infectious aerosols. This research is being conducted using cough and breathing simulators. Controlled studies to address the efficacy of surgical masks and filtering facepiece respirator use in preventing transmission of influenza are underway. Research in the area of respirator fit test science also is underway. This research will assess the rate at which respirator fit changes as a function of time and will also assess factors that effect change in respirator fit.

To address the need to design and promote the next generation of user friendly respirator designs, a CDC collaboration with the VHA developed a set of recommendations to match the function and utility of respirators to the needs of the healthcare industry. The collaboration addressed respirator characteristics particularly germane to health care workers. Continuation of these efforts are leading to the development of standards for improving respirators used in health care settings and ultimately a respirator for the health care worker which meets the use criteria identified by health practitioners.

To most effectively reach respirator users, CDC has developed a Web-based Clearinghouse of Respirator Information in conjunction with the October 14, 2009, release of the CDC *Interim Guidance on Infection Control Measures for 2009 H1N1 Influenza in Healthcare Settings, Including Protection of Healthcare Personnel*. The purpose of this web page is to provide CDC-verified information to respirator users including healthcare personnel seeking respiratory protection for use during care of 2009 H1N1 patients and others by dispelling user confusion due to misinformation and lack of knowledge on performance, selection, acquisition and use of various respirator types.

Additionally, CDC is working with the Veterans Health Administration under an Interagency agreement to develop a clinical effectiveness study to validate laboratory test methods against clinical-outcomes. The project responds to a recommendation from the IOM report to explore the effectiveness of personal respiratory protection technologies. Advances produced from this research will be incorporated into the standards development process as they occur.

Item

Global Disease Detection Program — The Committee encourages increased involvement of CDC's global health staff worldwide as a first response to emerging health threats. In addition, the Committee encourages CDC to leverage the infrastructure of the GDD Regional Centers and the broader network of expertise at CDC headquarters to provide regional training and increase public health capacity in support of the International Health Regulations. (Page 101)

Action taken or to be taken

CDC's GDD Regional Centers and headquarters staff continue to build public health capacity in support of the International Health Regulations. In 2009, GDD Regional Centers have provided public health training for 12,500 individuals, responded to 123 outbreaks, discovered 9 pathogens (new to the region or the world), and are able to identify an additional 80 pathogens locally. In addition, CDC has increased its GDD Technical Support Corps (TSC) from 8 to 14 members. The TSC is a group of highly specialized scientific experts from across CDC that supports the GDD Centers and helps build broad-based public health capacity. Finally, CDC has worked with the World Health Organization (WHO) and the Pan American Health Organization (PAHO) to designate CDC as a WHO Collaborating Center for Implementation of International Health Regulations (IHR) National Surveillance and Response Capacity.

Item

Malaria — The Committee supports CDC's global malaria program. It is essential, as the threat of drug and pesticide resistance looms, that CDC continues research leading to new tools that will be available to replace current interventions once they are no longer effective. The Committee urges CDC to expand its important malaria work, and recognizes that without CDC's contributions, the overall U.S. effort against malaria will be considerably less effective. Further, the Committee encourages CDC to expand its support for public-private partnerships involved in the discovery, development, and delivery of effective and affordable anti-malarial drugs. (Pages 101-102)

Action taken or to be taken

CDC conducts operations research in the context of PMI to improve delivery and uptake of current interventions. Apart from PMI, CDC is actively involved in a number of research efforts with partners such as:

- Developing new antimalarials for prevention and treatment in pregnancy;
- Testing an improved formulations of a treatment drug for children;
- Improving access to antimalarials;
- Developing new tools to measure malaria transmission;
- Assessing the spread and degree of drug and insecticide resistance;
- Developing new vector control tools; developing and evaluating diagnostic tools;
- Field evaluation of malaria vaccines; and
- Working with other global malaria leaders in developing a research agenda for malaria elimination and eradication.

CDC works with public private partnerships such as the Medicines for Malaria Venture and the Malaria Vaccine Initiative to develop new drugs and vaccines for malaria.

Item

Pre-Exposure Prophylaxis — The Committee is aware that there are currently seven clinical trials testing the safety and effectiveness of Pre-Exposure Prophylaxis (PrEP), and that PrEP is considered among the most promising of potential HIV prevention interventions now being studied. The Committee encourages the agencies sponsoring these trials—NIH, CDC, and the U.S. Agency for International Development—to jointly develop a five year coordinated PrEP research plan. (Page 102)

Action taken or to be taken

CDC works closely with other federal agencies and other organizations sponsoring PrEP trials and participates on a working group with other federal agencies involved in PrEP. In addition to a plan for PrEP research, CDC sees a need to conduct implementation preparedness research and operations research if trial results are positive for one or more studies populations before 2011 (MSM and IDU final results are expected by late 2010). Implementation/operations research should be conducted in collaboration with a variety of federal agencies, including research agencies (e.g., NIH) and program agencies (e.g., SAMHSA, HRSA, VA).

Item

State-by-State Preparedness Data — Ensuring national preparedness requires regular review of State preparedness efforts by Federal, State, and local governments, and the public. The Committee commends CDC for releasing ''Public Health Preparedness: Strengthening CDC's Emergency Response''. The Committee is pleased that the report provides an overview of public health preparedness activities and details accomplishments and challenges. The Committee expects the Department to collect and review State by State data on benchmarks and performance measures developed pursuant to the provisions of the Pandemic and All-Hazards Preparedness Act and to detail how preparedness funding is spent in each State. These data should be made available to the Congress, State and local health departments, State and local governments, and to the public. The Committee further expects that as the Department collects and evaluates State pandemic response plans, the results of these evaluations will be made available to the Congress and to the public. (Page 103)

Action taken or to be taken

Based on the provisions in the Pandemic and All-Hazards Preparedness Act, CDC has developed benchmarks for awardees of the Public Health Emergency Preparedness (PHEP) cooperative agreement. The latest program announcement for the August 2009 to August 2010 PHEP cooperative agreement, (http://www.bt.cdc.gov/cotper/coopagreement/10/FinalPHEP_BP10_Guidance_5-01-09.pdf), specifies the benchmarks for awardees. The benchmarks assess the following:

CDC will continue to detail how funding is spent in the states in upcoming reporting on preparedness, such as in the forthcoming CDC's 2010 Preparedness Report. Following the last evaluation of state pandemic response plans, a summary report was provided in January 2009 to the Homeland Security Council (http://www.flu.gov/professional/states/state_assessment.html), and information was shared with members of Congress and their staff members. In addition, CDC held a briefing for members of the press. State pandemic response plans are published online at <http://www.flu.gov/professional/states/stateplans.html and at pandemicflu.gov>. These state pandemic plans currently are in operation with the 2009 H1N1 influenza response. Ongoing evaluation of pandemic operations plans will be conducted on a regular basis.

Item

Business Services and Support **-** It is the Committee's intention that funds provided in business services and support are sufficient to carry out CDC's business functions. The Committee will not support programmatic ''tapping'' to achieve additional funding in this area and appreciates that CDC has made efforts to curtail this practice. If additional funding is required for activities within this or any other budget line, the Committee expects CDC to work with the Department of Health and Human Services to prepare timely and detailed reprogramming or transfer requests to be submitted to the Committees on Appropriations of the House of Representatives and the Senate.

Action taken or to be taken

CDC agrees with the Committee to work with HHS to prepare timely and detailed reprogramming or transfer requests to be submitted to the Committees on Appropriations of the House of Representatives and the Senate if additional funding is required for activities within this budget activity.

Item

Preventing Steroid Use — Within the funds available, the Committee urges CSAP to develop and implement appropriate prevention programs focused on preventing the use of steroids and other performance enhancing drugs by young people. In addition, the Committee urges SAMHSA to work with NIDA and CDC to examine the relationship between youth steroid and other performance enhancing drug use and suicides within this population and to develop evidence-based treatment protocols for helping young people abusing steroids and other performance enhancing drugs to safely stop using these drugs. (Pages 149-150)

Action taken or to be taken

CDC is working on an agreement with SAMHSA to use their National Survey on Drug Use and Health, which may provide additional information on steroid use and suicide. In addition, CDC is moving the injury and violence prevention field toward primary prevention and early intervention by exploring ways to prevent suicide before it occurs.

SIGNIFICANT ITEMS IN APPROPRIATIONS REPORTS – SENATE

SIGNIFICANT ITEMS FOR INCLUSION IN

THE FY 2011 CONGRESSIONAL JUSTIFICATION

AND OPENING STATEMENTS

SENATE REPORT NO. 111-66

CENTERS FOR DISEASE CONTROL AND PREVENTION

Item

Zoonotic, Vector Borne, and Enteric Diseases — The Committee directs the CDC to include in its annual budget justification an itemized expenditure of funds for each Chronic Fatigue Syndrome [CFS] research project or activity in the following five functional expense categories: surveillance and epidemiology; clinical assessment and evaluation; objective diagnosis and pathophysiology; treatment and intervention; and education, including the CFS marketing campaign and healthcare provider education. The justification should include a breakdown of intramural and extramural spending and should reflect funding mechanisms used for extramural support, such as contracts, cooperative agreements and grants. (Page 65)

Action taken or to be taken

CFS Research Program - FY 2009 Obligated Funds	
Surveillance & Epidemiology	**$1,896,473**
Intramural	$810,842
Extramural Contracts	$1,085,631
Clinical Assessment & Evaluation	**$581,041**
Intramural	$371,175
Extramural Contracts	$209,866
Objective Diagnosis & Pathophysiology	**$1,732,810**
Intramural	$1,732,810
Treatment & Intervention	**$95,753**
Intramural	$95,573
Provider Education	**$233,765**
Intramural	$143,629
Extramural Contracts	$90,136
Other - (CFS Advisory Committee)	**$37,500**
Contract - Interagency	$37,500
Total	**$4,577,342**

Item

Antimicrobial Resistance — The Committee remains concerned by the emergence of life-threatening antimicrobial resistant pathogens in hospital and community settings. The Committee is pleased that CDC has set up a surveillance network similar to a sentinel surveillance system and encourages CDC

to continue making such systems easy to use and compatible with the emergence of health information technology. (Page 66)

Action taken or to be taken

CDC continues to share the Committee's concern regarding the emergence of life-threatening antimicrobial resistant pathogens in the healthcare and community settings. CDC's National Healthcare Safety Network (NHSN) continues to be a vital surveillance tool in monitoring antimicrobial resistance. Several efforts are underway to streamline NHSN by providing system upgrades to enhance usability and performance, and improve surveillance; as well as expanding server capacity. Efforts are also underway to accelerate the migration to electronic reporting from electronic health record systems (EHRs) and CDC is supporting staff to better analyze data and assess impact, to continue to provide technical assistance to the states, and to assist in the activities mentioned above. Additionally, CDC has provided American Recovery and Reinvestment Act (ARRA) funds directly to states, some of which are using the funds to conduct electronic lab reporting activities in their state.

In addition to the information on Antimicrobial Resistance available through NHSN, NARMS, a collaborative effort of CDC, FDA, and USDA, continues to provide key information regarding the development and spread of antimicrobial resistance among enteric bacteria in humans, animals, and retail foods. CDC's Emerging Infections Program, a network of 10 state health departments conducting population-based surveillance, has expanded the number of antimicrobial resistance related infections and pathogens that are monitored in community and healthcare settings.

Item

Lyme Disease — The Committee encourages the CDC to expand its activities related to developing sensitive and more accurate diagnostic tools and tests for Lyme disease including the timely evaluation of emerging diagnostic methods and improving utilization of diagnostic testing to account for the multiple clinical manifestations of acute and chronic Lyme disease; to expand its epidemiological research activities on tick-borne diseases [TBDs] to include an objective to determine the long-term course of illness for Lyme disease; to improve surveillance and reporting of Lyme and other TBDs in order to produce more accurate data on the prevalence of the Lyme and other TBDs; to evaluate the feasibility of developing a national reporting system on Lyme including laboratory reporting; and to expand prevention of Lyme and TBDs through increased community-based public education and creating a physician education program that includes the full spectrum of scientific research on the diseases. (Page 66)

Action taken or to be taken

Jointly, CDC and NIH have obtained a comprehensive set of serum samples for use in evaluating diagnostic tests. This serum repository will be available to qualified investigators developing tests that may improve upon the currently recommended two-tiered method. It also may be used for production of a proficiency panel to aid in evaluation and FDA licensing of new tests. In addition, CDC is conducting trials on several candidate reservoir-targeted vaccines (RTVs) aimed at eliminating the Lyme disease agent in host animals, which in turn will reduce the human exposure risk to infected ticks.

A national reporting system for Lyme disease has been in place since 1991; cases are reported by clinicians and/or laboratories according to applicable state laws and the information is transmitted electronically to CDC through the National Notifiable Diseases Surveillance System (NNDSS). CDC, through collaborations with the Council of State and Territorial Epidemiologists (CSTE), adopted a broader Lyme disease surveillance case definition. This revised case definition provides public health officials the flexibility to determine a more complete measure of the surveillance burden. CDC continues to work with external partners to develop community-based public education materials as well as web-based physician education program for diagnosis and treatment of Lyme disease and other tick-borne illnesses.

Item

Hepatitis Testing — The Committee encourages the CDC to expand testing and continue to validate interventions focused on the mother-child transmission issue and other efforts targeted on the prevention of the hepatitis B virus in the Asian-American community where currently 1 in 10 individuals are infected with the hepatitis B virus. (Page 66)

Action taken or to be taken

Screening for hepatitis B virus (HBV) infection in pregnant women to identify newborns who will require prophylaxis against perinatal infection is a well-established, evidence-based standard endorsed by the US Preventive Services Task Force. Recommendations for HBV screening for pregnant women are included in CDC's Hepatitis B Vaccination Recommendations for Infants, Children, and Adolescents, published in December 2005. CDC monitors provision of hepatitis B vaccine to newborns, and has published a checklist for hospital policies and procedures as well as other materials for providers. CDC currently funds five cooperative agreements to assess and improve public health programs to prevent perinatal HBV and ensure all infants born to HBV-infected women are protected from HBV infection.

In FY 2008, CDC published chronic hepatitis B screening recommendations that identify the populations in greatest need of HBV testing. The recommendations also address the public health management needed to delay or halt the progression of HBV-related liver disease and to prevent HBV transmission to others. CDC works with multiple governmental and Asian American/Pacific Island community partners to implement these recommendations, and promote appropriate screening, referral and treatment for viral hepatitis in outreach, clinical and public health settings. CDC is also currently reviewing recommendations from the Institute of Medicine report regarding viral hepatitis prevention and control in the United States.

Item

HIV/AIDS — Within the amount made available for HIV/AIDS, increases over last year's level have been provided for the President's proposals on service integration, data collection and additional testing. All other activities, including the Early Diagnosis and Screening program have been included at the 2009 level. The Committee again notes that the Early Diagnosis and Screening funds may be awarded to States newly eligible for the program in fiscal year 2010. No State may be eligible for more than $1,000,000. The Committee intends that the amounts that have not been awarded by May 31, 2010 shall be awarded for other HIV testing programs. The Committee commends the Department for the prioritization of the domestic HIV/AIDS testing among African- Americans. The

Committee requests a comprehensive report on the progress of this initiative to date to be included in fiscal year 2011 budget justification. The Committee continues to be supportive of CDC's promotion of rapid HIV tests in its HIV/AIDS testing activities. (Page 67)

Action taken or to be taken

CDC appreciates the committee's support for the domestic HIV/AIDS testing initiative. In FY 2009, CDC continued to fund 25 jurisdictions under this initiative, which focuses on areas with the highest burden of AIDS among African Americans. A comprehensive report to Congress covering the first 18 months of the initiative was submitted in October 2009. While complete testing data are not yet available for the second year of this three-year initiative, as of August 2009, the 25 funded jurisdictions had conducted over 1.3 million tests and confirmed HIV diagnoses for over 15,000 individuals in the 23 months since the testing initiative was launched in October 2007. CDC has provided a more complete update, using the latest available data (i.e., an 18-month program review and 23-month preliminary program reports), in the budget request section of this Congressional Justification. A report to Congress covering the second year will be submitted later in 2010.

As the domestic HIV/AIDS testing initiative enters the third and final year of its current program cycle, CDC is drafting a new Funding Opportunity Announcement to support the next cycle of funding for the testing initiative. Under the new program, which will begin in FY 2011, CDC will expand the target populations for the domestic HIV/AIDS testing initiative to include Hispanics/Latinos, as well as men who have sex with men of all races and ethnicities.

Item

Microbicides — The Committee requests the CDC continue to include information in the fiscal year 2011 budget justification on the amount of anticipated and actual funding it allocates to activities related to research and development of microbicides for HIV prevention. The Committee urges CDC to work with NIH, USAID, and other appropriate agencies to develop processes for coordinated investment and prioritization for microbicide development, approval, and access. (Page 67)

Action taken or to be taken

CDC is currently allocating $900,000 for its microbicide research portfolio. CDC will continue to collaborate with NIH, USAID, FDA, and other appropriate agencies about microbicide development, approval, and access.

Item

Prostatitis — Up to 20 percent of chronic prostatitis may be due to sexually transmitted diseases [STDs] that go undiagnosed. T he Committee encourages the CDC to consider updating the sexually transmitted disease guidelines with a new focus on the prostate as a reservoir for hidden infection. The Committee recommends that the National Center for Infectious Disease work with other centers in the CDC with special expertise to test for all microbial life and their relation to prostatic disease and to examine prostatic fluid, semen, and prostatic tissue pathology for other theories of causation. (Page 67)

Action taken or to be taken

In April 2009, CDC convened a consultation to examine evidence in preparation for the regular update of the *STD Treatment Guidelines*, which is expected to be published in Summer 2010. The

2010 *STD Treatment Guidelines* will be based on the best available scientific data and the recommendations from STD experts who reviewed the evidence before and during the consultation. These guidelines will include updates on the treatment of prostatitis, including updates on recommendations for follow-up for patients with urethritis and recommendations for partner referral. CDC worked closely with the American Urological Association to develop these updates. The consultation also concluded that more research is needed, especially research utilizing molecular methods rRNA to detect novel pathogens.

Item

Viral Hepatitis — The Committee expects the CDC to put forward a professional judgment budget for viral hepatitis no later than August 15, 2010. (Page 67)

Action taken or to be taken

CDC is preparing a professional judgment (PJ) budget for viral hepatitis. CDC will finalize the PJ after reviewing recommendations in the Institute of Medicine report on viral hepatitis (released in January 2010).

Item

Immunization and Respiratory Diseases — The Committee is concerned that the number of doses of routinely recommended childhood vaccines in the pediatric vaccine stockpile of the Centers for Disease Control and Prevention has consistently remained well below the 6-month supply that is required under current law. The Committee understands that this target represents a significantly larger investment than is currently made under the Vaccines for Children program. The Committee is pleased that the CDC has formed a workgroup to review the stockpile target amounts to determine an appropriate supply target for each type of vaccine. The Committee requests that CDC include in that review a timetable for meeting the agreed-upon targets. (Page 68)

Action taken or to be taken

CDC has statutory authority from VFC to stockpile enough vaccine to supply the nation (public and private sectors) for six months with the recommended number of doses of each of the vaccines in the VFC program. Within that authority, CDC sets target numbers of doses to stockpile so that the two purposes of the stockpile can be met: 1) fighting outbreaks and 2) maintaining vaccine availability in case of a supply disruption.

CDC conducted strategic planning with vaccine and disease experts to identify target amounts for each VFC vaccine. The resulting strategic plan is currently under review. The plan proposes new stockpile targets and includes a five-year timetable to reach those targets.

Item

Adolescent Health — The Committee expects that, in the context of national health reform and the renewed commitment to health promotion and disease prevention, the Secretary will place this office within the Office of Public Health and Science, as authorized. The Committee expects the Director of the Office to coordinate efforts among HRSA, CMS, CDC, and SAMHSA to reduce health risk exposure and behaviors among adolescents, particularly low-income adolescents, and to better manage and treat their health conditions. The Committee has also tasked OAH with implementing a new initiative supporting evidence-based teen pregnancy prevention approaches. (Page 158)

Action taken or to be taken

CDC values its current collaborations with other HHS centers and offices to promote adolescent health, including efforts to reduce adolescent sexual risk taking that leads to pregnancy and sexually transmitted infections, and looks forward to building on these efforts through the Office of Adolescent Health. CDC currently works with several HHS agencies and offices—including ACF, HRSA, SAMHSA, OPA, ASPE, and the Center for Faith-based and Neighborhood Partnerships—to promote healthy behaviors among adolescents. Activities include serving on cross-agency workgroups and providing technical assistance on research and evaluation projects. In addition, CDC is collaborating with ACF, OPA, and ASPE to help identify effective interventions and develop and evaluate promising teen pregnancy prevention strategies.

Item

Cancer — The Committee is aware of the passage of the Conquer Childhood Cancer Act, which requires the CDC to track the epidemiology of pediatric cancer in a comprehensive nationwide registry. The Committee is aware that the current cancer registry program contains data on pediatric cancer. Therefore, the Committee requests that the CDC provide the subcommittee with a briefing on the options for developing a registry that can comply with the statute while taking advantage of the investments already made by the subcommittee. CDC is currently developing a report on its efforts to improve surveillance of pediatric cancers which it expects to release in April, 2010. (Pages 70-71)

Action taken or to be taken

Since the passage of the Conquer Childhood Cancer Act, CDC has worked to explore the best approaches to pediatric cancer research and surveillance enhancement, including work to implement cancer surveillance enhancement that will benefit cancer research as a whole. CDC met with subcommittee members on September 16, 2009 to inform them of CDC's progress in fulfilling the Conquer Childhood Cancer Act and how CDC's National Program of Cancer Registries (NPCR) is exploring the best ways to maximize cancer registry data use for pediatric cancer research. CDC convened an expert panel of cancer registry and pediatric cancer research experts on December 2-3, 2009 to provide stakeholders the opportunity to share information with each other, identify key research needs, and provide input for CDC's future directions in pediatric cancer surveillance. The expert panel met to specifically:

- Explore the needs of pediatric cancer epidemiologists and how to address those needs
- Identify methods to address the research needs identified utilizing cancer registries and other databases
- Identify opportunities for creating new partnerships between CDC and pediatric cancer researchers to increase the research value of pediatric cancer registries and other research databases
- Outline the methodology and resources needed to establish rapid case ascertainment for pediatric cancers within the NPCR.

CDC is currently developing a summary of the findings of the panel which will be used to create an action plan to enhance CDC's surveillance of pediatric cancer.

Item

Chronic Kidney Disease — The Committee supports continued planning for capacity and infrastructure at CDC for a kidney disease program and a CKD surveillance system. The Committee is pleased that CDC convened an expert panel on CKD, and encourages CDC to prioritize and begin implementation of the recommendations. (Page 71)

Action taken or to be taken

Recommendations from the 2007 Chronic Kidney Disease (CKD) expert panel proceedings were published in March 2009. Based on these recommendations, CDC developed an algorithm to identify people who would benefit the most from a screening event. CDC is currently funding demonstration projects at eight sites in four states (California, New York, Florida, and Minnesota). To date, 894 participants have been screened.

In collaboration with Johns Hopkins University and the University of Michigan, CDC is establishing a national surveillance system for CKD, expected to be launched in the spring of 2011. The system will identify existing local and national sources of CKD data; identify gaps and deficiencies in the existing data sources; and propose creative solutions to fill the gaps and remedy the deficiencies.

Item

Deep Vein Thrombosis — The Committee is aware of the Surgeon General's Call to Action to Prevent Deep Vein Thrombosis [DVT] and Pulmonary Embolism [PE]. The Committee encourages the CDC to consider creating a coordinated plan to reduce the prevalence of DVT and PE nationwide. (Page 71)

Action taken or to be taken

While no national surveillance data exists for DVT/PE, estimates indicate that DVT/PE affects anywhere from 300,000 to 900,000 individuals in the US each year. CDC is convening a group of experts in January 2010 to explore the various approaches for conducting surveillance to address this important public health issue. In addition, CDC currently funds five centers through the Thrombosis and Hemostasis Centers Research and Prevention Network to foster epidemiologic research and ultimately improve diagnosis and treatment of individuals with thrombotic conditions. These centers provide an opportunity for broad population based research of DVT/PE. Data from this Network includes over 5000 patients, ranging from newborn to 90 years and all racial/ethnic groups. Half of these patients have experienced a DVT/PE. CDC plans to analyze these cases to better understand and prevent DVT/PE.

Item

Diabetes — The Committee urges that resources be put toward vital activities within the Division of Diabetes Translation, such as: public health surveillance; translating research findings into clinical and public health practice; developing and maintaining State-based diabetes prevention and control programs; and supporting outreach and education. (Page 71)

Action taken or to be taken

CDC will work with partners to expand the translated Diabetes Primary Prevention model and give heightened attention to populations at highest risk for diabetes. CDC develops, maintains, and

monitors the impact of diabetes and its complications using: 1)statistical models to forecast burden and costs; 2)surveillance systems to identify high-risk sub-groups needs and health services utilization; and 3)small area analyses to assist with local planning and decision-making. Other research and surveillance will focus on access, quality of care, cost effectiveness and risk-reduction.

CDC will continue to support Diabetes Prevention and Control Programs (DPCPs) in the fifty states, DC, eight current or former territories, and other organizations to identify and focus on populations with greatest diabetes burden and risk. DPCPs and other organizations work with health care systems to implement evidence-based and promising models the in their communities, Federally Qualified Health Centers, community health centers, and other systems that provide services for under/uninsured populations and racial/ethnic minorities. CDC's National Diabetes Education Program offers tools and materials tailored for populations with greatest diabetes risk/burden. These materials are used by DPCPs and their partner organizations at the state and local level in their work to: influence improvements in health care systems, build clinic-community linkages to support lifestyle change, and expand the reach of diabetes self management education.

Item

Diabetes in Native Americans/Native Hawaiians — The high incidence of diabetes among Native American, Native Alaskan, and Native Hawaiian populations persists. The Committee is pleased with the Centers for Disease Control and Prevention's efforts to target this population, in particular, to assist the leadership of Native Hawaiian and Pacific Basin Islander communities. It is important to incorporate traditional healing concepts and to develop partnerships with community health centers. The Committee encourages CDC to build on all its historical efforts in this regard. (Page 71)

Action taken or to be taken

CDC's Native Diabetes Wellness Program (NDWP) program works with partners to build, expand, evaluate, and disseminate promising practices for diabetes intervention and prevention in American Indian and Alaska Native (AI/AN) communities.

In FY2008, CDC entered into a five year cooperative agreement with 11 tribes and tribal organizations to support community use of traditional foods and sustainable ecological approaches for diabetes prevention and health promotion in American Indian and Alaska Native communities. Additionally, grantees will engage communities in identifying and sharing the stories of healthy traditional ways of eating, being active, and communicating health information and support for diabetes prevention and wellness. In FY2009, CDC funded 6 additional tribes and tribal organizations for a total of 17 grantees.

Item

Diabetes and Women's Health — The Committee is concerned by the rising incidence of type 2 diabetes mellitus. Although the onset of type 2 diabetes can be prevented or delayed through prevention methods, obstetricians and other women's healthcare providers and their patients are often unaware of the woman's later risk and need for follow-up and preventive measures. Less than one-half of women with gestational diabetes receive recommended glucose testing at a postpartum visit. The Committee encourages the CDC to promote education and awareness among both patients and providers. (Pages 71-72)

Action taken or to be taken

CDC develops and disseminates gestational diabetes and diabetes prevention and control strategies and information to women with and at risk for diabetes and to health care providers. CDC's Diabetes and Women's Health Initiative is working with the National Association of Chronic Disease Directors to conduct a Gestational Diabetes Mellitus (GDM) validation project to: 1) establish a 5-state collaboration to identify, catalogue, and validate routinely collected data about GDM; 2) identify gaps in quality of GDM prevalence data; 3) develop recommendations for improving data quality; and 4) to determine implications for care.

In collaboration with the Agency for Healthcare Research and Quality (AHRQ), CDC's Division of Diabetes Translation will complete a report in 2010, which will analyze national datasets to assess quality of care among women at risk for diabetes.

Item

Epilepsy — The Committee encourages the CDC to develop national outcome measurement protocols to evaluate the impact public health programs have on employment, school, social life, and general well being. The findings of these measures will help families understand the relationships between medications and co-morbid conditions and epilepsy, and will help to build a platform for a national call to action for additional training for schools, employers, first responders and adult day care providers. In addition, the Committee encourages CDC to establish Regional Epilepsy Epidemiology Centers of Excellence to conduct greater surveillance of the causes and prevalence of epilepsy, particularly among pediatric, elderly and veteran populations and those suffering from related disorders such as autism, mental retardation, brain tumor, stroke, traumatic brain injury and a variety of genetic syndromes. The Committee encourages CDC to share data collected from this initiative with the National Institutes of Health and the Departments of Defense and Veterans Administration. (Page 72)

Action taken or to be taken

In partnership with the National Epilepsy Foundation and research partners, CDC has established public health approaches to epilepsy. In 2009, program activities included a national epilepsy awareness media campaign that focused on minority populations and underserved groups; expansion of an educational curriculum for middle school and high school students to include Web site partnerships; expansion of a school nurse training program to include access to online materials; piloting of a toolkit to support caregivers of seniors with seizures; an outreach strategy to promote a first responders' curriculum for police, corrections officers, and emergency responders; integration of epilepsy related curriculum into school health programs; development of materials to promote understanding of cognition issues and to address traumatic brain injury and post traumatic epilepsy; and initiation of a research and educational outreach agenda addressing sudden unexplained death in epilepsy.

Intramural and extramural research is underway in order to better understand the epidemiology of epilepsy, specifically the incidence and prevalence of the condition in diverse populations in the United States; risk factors and severity of epilepsy in these populations; access to specialty care; health disparities among people with epilepsy; and predictors of outcomes such as age, socioeconomic status, burden of concurrent illness. This research will provide data that could be used

to inform development of outcome measurement protocols. In addition, a cluster analysis of BRFSS epilepsy data related to seizure frequency, mental health, behavioral risk factors, quality of life, and socio-demographic variables is underway to identify vulnerable subgroups of people with epilepsy, and to make recommendations for intervention and future research.

Item

Food Allergy and Anaphylaxis Information — The Committee is pleased by the report from the CDC outlining the status of the food allergy and anaphylaxis information center and requests that the report be updated in the fiscal year 2011 budget justification. (Page 72)

Action taken or to be taken

CDC has provided an update on its work to address food allergy and anaphylaxis in the fiscal year 2011 CDC budget justification.

Item

Inflammatory Bowel Disease — The Committee continues to support CDC's inflammatory bowel disease epidemiology study and is pleased with the research done to date. The Committee encourages the CDC to consider the establishment of a pediatric patient registry. (Page 72)

Action taken or to be taken

CDC's epidemiologic studies are making significant contributions to the field of Crohn's disease and ulcerative colitis, the two most common inflammatory bowel diseases. Funds are being used to collaborate with the Crohn's and Colitis Foundation of America (CCFA). The initial research addressed questions regarding potential differences in the quality of treatment given to patients with IBD in the community setting, including patient, provider, or clinic predictors of treatment differences and possible effects on patient outcomes. The most recent studies have addressed incidence, prevalence and time trends of pediatric IBD, race as a predictor of mortality in IBD, the natural history of IBD in a pediatric population and clinical variations in steroid dependent parents with IBD.

Furthermore, CDC epidemiologists and CCFA have supported the Ocean State Crohn's and Colitis Registry. This project is an incident cohort of all newly diagnosed adults and pediatric patients in the state of Rhode Island. The purpose of the registry is to gain insight into the etiology of IBD, to learn why the course of illness varies among individuals, and to determine what factors may improve outcomes.

Item

National Youth Fitness and Health Study — Prior to the NCYFS in the mid-1980s, the United States had conducted a decennial, national fitness studies in the mid-1950s, mid-1960s, and mid-1970s. After a more than 20 year gap, the Committee believes that repeating and enhancing this survey is a critical investment that can make a difference in improving the health of our Nation's youth. (Page 73)

Action taken or to be taken

CDC recognizes the importance of the National Youth Fitness and Health Study (NYFHS). Since the last comprehensive national assessment of youth fitness (the National Children and Youth Fitness

Survey) 20 years ago, the prevalence of obesity has increased dramatically across all age groups. Participation in daily physical education among high school students declined from 42 percent in 1991 to 25 percent in 1995 and was statistically unchanged between 1995 and 2007, the last year for which data is available.

Item

Obesity — The Committee recognizes the importance of the built environment to promoting healthy behaviors. The Committee encourages the CDC to work with the Secretary of Transportation, CDC grantees and local transit officials to coordinate the goals of population level prevention programs with transportation projects and infrastructure that support healthy lifestyles and enhanced physical activity. (Page 73)

Action taken or to be taken

In November 2008, CDC collaborated with national, state, and local partners to conduct the first-ever "Transportation 101" meeting, where practitioners, researchers, and policy makers from the fields of transportation and public discussed how best to coordinate efforts. The meeting led to the creation of a CDC position statement (currently going through agency clearance) on the important intersection among chronic diseases, environmental health, and injuries. Another important outcome of the Transportation 101 meeting was the creation of a transportation white paper developed by the American Public Health Association and Transportation 4 America. The white paper provides specific suggestions for the Federal transportation bill reauthorization that would create policies and programs that concurrently address both transportation and public health priorities, such as active transportation and light rail systems. In the coming month, CDC staff will work closely with DOT staff to ensure public health concerns, such as health impact assessments, are considered in the redrafting of the Federal transportation bill.

Item

Office of Smoking and Health — The Committee recognizes that efforts to reduce smoking and the health consequences of tobacco use are among the most effective and cost-effective investments in prevention that can be made. The Committee is pleased with the work underway to expand the Environmental Health Laboratory's effort to analyze tobacco products and cigarette smoke based on the increase provided in fiscal years 2008 and 2009. The Committee expects the Office of Smoking and Health [OSH] to transfer no less than $4,000,000 above last year's transfer level to the Environmental Health Laboratory to support this work. The Committee notes that this transfer is to be provided by OSH to the lab in a manner that supplements and in no way replaces existing funding for tobacco-related activities. The Committee urges that the Office on Smoking and Health, as well as the Environmental Health Laboratory, provide assistance and coordinate with the new Center for Tobacco Products at the FDA. In addition, the Committee recognizes the effectiveness of State and national counter-marketing campaigns in reducing youth tobacco use and is aware of the diminishing resources at the State level for such efforts. The Committee has provided an increase for tobacco prevention activities to support expanded counter marketing programs. (Page 73)

Action taken or to be taken

CDC's Office on Smoking and Health (OSH) currently collaborates with CDC's Division of Laboratory Sciences to evaluate additives and chemical constituents of tobacco and tobacco smoke.

This ongoing collaboration includes research on tobacco smoke toxicity and human smoking behavior. As requested, OSH will transfer an additional $4,000,000 in funding to CDC's Division of Laboratory Sciences to supplement current and additional research.

Currently, OSH is collaborating with the Food and Drug Administration (FDA) as provisions of the Family Smoking Prevention and Tobacco Control Act of 2009 go into effect. OSH will continue to provide technical assistance and laboratory support to FDA as they build capacity and will conduct surveillance to monitor the impact of tobacco regulation. In addition, with the increase provided by the committee, OSH will provide increased support for counter marketing programs through CDC's National Tobacco Control Program, which provides funding and technical assistance to all 50 states, the District of Columbia, territories, tribes and national networks.

Item

Oral Health — The Committee has included funding to prevent oral diseases recognizes that to effectively reduce disparities in oral disease will require additional, sustained investments in proven strategies at the State and local levels. The Committee has provided funding for States to strengthen their capacities to assess the prevalence of oral diseases and the associated health burden, to target resources and interventions and prevention programs to the underserved, and to evaluate changes in policies and programs. The Committee encourages the CDC to advance efforts to reduce the health disparities and burden from oral diseases, including those that are linked to chronic diseases. (Page 73)

Action taken or to be taken

In FY 2010, CDC is working with 16 states to build capacity for effective oral health prevention programs and to reduce disparities among disadvantaged populations. This effort includes working with states to develop school-based or school-linked programs to reach children at high risk of oral disease with proven prevention services, such as dental sealants. CDC also works with states to expand the fluoridation of community water systems and operates a fluoridation training and quality assurance program. In addition, CDC will expand its efforts to assess the extent of oral diseases, target prevention programs and resources to those at greatest risk, fund prevention research, and evaluate changes in policies and programs to reduce disparities. CDC will continue to develop methods to identify and reach adults at greatest risk of oral diseases associated with other chronic diseases (e.g., diabetes and heart disease) and their risk factors.

Item

Physical Fitness in Underserved Communities — The Committee is particularly concerned by the disparity in obesity rates for African-American and Hispanic/Latino children. The Committee encourages CDC to promote school-based and after-school programs that combine physical fitness and nutrition education, and appeal to children in underserved communities. (Page 74)

Action taken or to be taken

CDC recognizes the need for quality physical education and nutrition programs, and supports expanded access to both school-based and after-school programs especially in communities with high rates of childhood obesity. CDC will work with national nongovernmental organizations as well as

state and local education agencies to highlight the importance of targeted programming aimed at increasing physical activity and improving nutritional intake among populations at highest risk.

Item

Preterm Birth — The Committee encourages the CDC to expand epidemiological research on the causes and prevention of preterm birth and to establish systems for the collection of maternal-infant clinical and biomedical information to link with the Pregnancy Risk Assessment Monitoring System in an effort to identify ways to prevent preterm birth and reduce racial disparities. (Page 74)

Action taken or to be taken

Preterm birth is the most frequent cause of infant mortality in the United States. CDC continues to expand epidemiological research on the causes and prevention of preterm birth, including systems for the collection of maternal-infant clinical and biomedical information linked to epidemiologic investigations of preterm birth, infant mortality, and racial disparities. CDC has advanced a prevention research agenda to examine, in a comprehensive way, the social, biological, genetic, and clinical factors contributing to the risk of preterm birth and racial disparities. In addition, CDC provides technical assistance to states to strengthen epidemiologic investigations of infant mortality and preterm birth, to identify populations at risk, and evaluate strategies for prevention.

Item

Psoriasis — The Committee is concerned that there is a lack of epidemiological and longitudinal data on individuals with psoriasis and psoriatic arthritis, including children and adolescents. The Committee encourages CDC to undertake data collection efforts in order to better understand the co-morbidities associated with psoriasis, examine the relationship of psoriasis to other public health concerns such as the high rate of smoking and obesity among those with the disease, and gain insight into the long-term impact and treatment of these two conditions. The Committee encourages the CDC to examine and develop options and recommendations for psoriasis and psoriatic arthritis data collection, including a registry. (Page 74)

Action taken or to be taken

Psoriasis and psoriatic arthritis can compromise the quality of life for people affected by the condition by affecting basic life functions such as sleeping, preventing work in certain occupations, staying physically active, and causing psychological distress. CDC's Arthritis program is continuing to work with the National Psoriasis Foundation (NPF) on the most effective means to incorporate existing clinical, research, and educational approaches into a more comprehensive public health approach for psoriasis and psoriatic arthritis. This work will help to inform possible next steps to address these problems from a public health perspective.

CDC's National Center for Health Statistics obtains data on psoriasis through its National Health and Nutrition Examination Survey (NHANES). A 2008 analysis of NHANES data from 2003-2004 showed that 3.2 percent of adults aged 20 to 59 years of age reported having been diagnosed with psoriasis. For 2009-2010 NHANES participants ages 16 and older will be asked if they have ever been told by a doctor or other health care professional whether they had psoriasis. Also, study participants who indicate that they have had arthritis are asked about the type of arthritis. The 2009-2010 NHANES will include an option for recording a response of "psoriatic" arthritis.

Item

Scleroderma — The Committee continues to encourage CDC to undertake steps to increase awareness in the public and larger healthcare community to allow for earlier diagnosis and treatment. (Page 74)

Action taken or to be taken

The CDC Arthritis Program recognizes the severity of disease among people affected by scleroderma, which is one of the more than 100 conditions that comprise arthritis and other rheumatic conditions. CDC provides educational information to the public and larger health care community on Arthritis and overall rheumatic conditions, which provides general information that will help the estimated 300,000 people with scleroderma.

Item

Congenital Muscular Dystrophy — The Committee is aware that, despite available genetic tests, congenital muscular dystrophy [CMD] is often misdiagnosed and medical care is variable. The Committee encourages the CDC to consider expanding on existing infrastructure such as the MD Star Net, to track diagnosis, care and prognosis in the CMDs. (Page 75)

Action taken or to be taken

CDC acknowledges the importance of accurate and timely diagnosis of conditions to promote appropriate health care services and optimal well-being for individuals. CDC recognizes the challenges of public health surveillance for rare conditions, such as CMD, for which accurate and timely diagnosis can be difficult despite the availability of a genetic test.

Item

Fragile X — The Committee encourages the CDC to focus its efforts on identifying ongoing needs, effective treatments and positive outcomes for families by increasing epidemiological research, surveillance, screening efforts, and the introduction of early interventions and support for individuals living with Fragile X Syndrome and Associated Disorders. The Committee commends the CDC's current collaboration with NICHD and the newly formed Fragile X Clinical & Research Consortium. The Committee encourages the CDC to focus funds within the Fragile X program on the continued growth and development of initiatives that support health promotion activities and foster rapid, high-impact translational research practice for the successful treatment of Fragile X Syndrome and Associated Disorders, including ongoing collaborative activities with the Fragile X Clinical & Research Consortium. The Committee directs the CDC to provide to the Committee a progress report on all Fragile X activities in the fiscal year 2011 budget justification. (Pages 75-76)

Action taken or to be taken

CDC's past efforts in fragile X activities include: Establishing a resource center on fragile X and development and dissemination of tools to develop and critique accurate genetic information for families and providers and supporting the publication of guidelines for carrier testing in fragile X and providing educational information on carrier testing to a targeted group of health care providers.

CDC's ongoing and new fragile X initiatives include the following:

- Supporting a national needs survey involving families affected by fragile X with dissemination of findings;
- Providing support for establishment of an infrastructure for a consortium of fragile X clinics that will provide the means to analyze treatment options, promote research and develop a patient registry;
- Supporting a feasibility study to determine if children with fragile X can be ascertained through surveillance of children who have autism and other intellectual disabilities working in conjunction with the Autism and Developmental Disabilities Monitoring (ADDM) Network; and,
- Providing support to determine the premutation prevalence of fragile X from an ongoing longitudinal study.

CDC will continue to support the Fragile X Clinical and Research Consortium to identify needs, effective treatments and positive outcomes for individuals who have fragile X syndrome and associated disorders.

Item

Hereditary Hemorrhagic Telangiectasia — The Committee encourages the CDC to consider establishing a resource center to increase identification of people affected with HHT, and increase knowledge, education and outreach of this largely preventable condition. In addition, the Committee encourages the CDC to create a multi-center clinical database to collect and analyze data, support epidemiology studies, provide surveillance, train healthcare professionals and improve outcomes and quality of life for those with HHT. (Page 76)

Action taken or to be taken

Hereditary Hemorrhagic Telangiectasia (HHT) is a genetic disorder of the blood vessels, which affects approximately 1 in 5,000 people, including males and females from all racial and ethnic groups. HHT, sometimes referred to as Osler-Weber-Rendu (OWR), presents in various manifestations and levels of severity. CDC plans to expand blood disorders surveillance, education and outreach activities to include HHT. Through cross-disciplinary collaboration recommendations were developed, on early diagnosis and intervention, screening and measuring prevalence, establishing databases, creating public and private partnerships, implementing HHT clinical guidelines and developing strategies for quantifying reduced treatment related costs. CDC has undertaken the following steps towards addressing the comprehensive strategies proposed in the roadmap: HHT was added to the newly developed "female Universal Data Collection form" being implemented in 30 Hemophilia Treatment Centers across the US and will provide information on HHT patients seen in HTCs; added a HHT medical representative to CDC's Rare Bleeding Disorders Working Group tasked with developing surveillance tools, clinical research studies, and educational materials; and included HHT in the National Hemophilia Foundation's (NHF) Rare Bleeding and Clotting Disorders Resource Center.

Item

Marfan Syndrome — The Committee encourages CDC to increase awareness of Marfan syndrome among the general public and healthcare providers. (Page 76)

Action taken or to be taken

CDC is aware of the public health concerns regarding Marfan syndrome and shares the Committee's concerns. Marfan syndrome is included in CDC's Partnership group. The Partnership group, facilitated by the National Center for Birth Defects and Developmental Disabilities, encourages collaboration with other groups interested in disabling conditions. CDC is providing partial funding for the National Marfan Foundation's conference. The conference will provide an opportunity for increasing awareness and knowledge of Marfan to health care providers, affected families, and the public.

Item

Thalassemia — The Committee continues to support the thalassemia program, and encourages the CDC to work closely with the patient community to maximize the impact of this program. (Page 76)

Action taken or to be taken

CDC is committed to continue collaborating with health-care providers, academic centers, community-based organizations, and national preventive health agencies to implement specialized prevention programs for persons with thalassemia and their families. CDC funds seven Thalassemia Treatment Centers (TTCs), a network of specialized treatment centers that promote the prevention, management, and treatment of complications experienced by persons with thalassemia. The TTCs participate in CDC's blood safety surveillance program and provide clinical data to describe the health status and extent of complications of target populations of persons with thalassemia. Data collected will contribute to the scientific knowledge base on thalassemia and will play a significant role in the development of research ideas and methods to optimize health outcomes of individuals with thalassemia. In addition, CDC provides funding to the Cooley's Anemia Foundation (CAF) for education and outreach. CAF is the only national thalassemia consumer organization. As a result of CDC's funding, the CAF works collaboratively with the TTCs to implement prevention outreach programs in underserved and traditionally non-English speaking communities, and provides educational materials to community-based providers and service organizations.

Item

Health Statistics Agency — The Committee commends the NCHS for fulfilling its mission as the Nation's premier health statistics agency and for ensuring the credibility and integrity of the data it produces. In particular, the Committee congratulates the agency for its timely release of critical data and encourages it to continue making information, including data from the National Health and Nutrition Examination Survey [NHANES] and the National Health Interview Study [HIS], accessible to the public as soon as possible. (Page 77)

Action taken or to be taken

Providing relevant and timely data in an accessible manner is a major priority of CDC's National Center for Health Statistics (NCHS). Actions taken in recent years have resulted in the production of more timely NCHS data both generally and particularly for the National Health and Nutrition Examination Survey and the National Health Interview Survey. New data dissemination methods, including web-based data access tools such as pre-tabulated tables and interactive data warehouses,

have also made NCHS data more accessible. NCHS will continue its efforts to improve access to critical statistical information.

Item

Asthma — The Committee urges the CDC to work with States and the asthma community to implement evidence-based best practices for policy interventions, with specific emphasis on indoor and outdoor air pollution, which will reduce asthma morbidity and mortality. (Page 79)

Action taken or to be taken

CDC is concerned with the burden of Asthma in the U.S. CDC is committed to exploring the impact of indoor and outdoor air pollution on human health. CDC works with States and the asthma community to implement evidence-based best practices for policy interventions in order to reduce asthma morbidity and mortality. CDC recently completed a review of home visit interventions that contain an emphasis on the environment and cover a range of indoor and outdoor triggers. CDC-funded states are working on policies in support of home visit interventions such as reimbursement for home visits by Medicaid and other health plans; incorporating home visits in model benefits packages for employers; training home inspectors to identify and report conditions creating asthma triggers in multi-unit housing; implementing smoking bans, and requiring integrated pest management in multi-unit, subsidized housing.

Item

Built Environment — The Committee recognizes the importance of the built environment to promoting healthy behaviors. The Committee encourages CDC to work with the Secretary of Transportation and encourages CDC grantees to work with local transit officials to coordinate the goals of population level prevention programs with transportation projects that support healthy lifestyles and enhanced physical activity. (Page 79)

Action taken or to be taken

CDC is collaborating with a broad range of agencies, including the Department of Transportation, in efforts to realize the benefits of healthy community design. In November 2008, CDC collaborated with national, state, and local partners to conduct the first-ever "Transportation 101" meeting, where practitioners, researchers, and policy makers from the fields of transportation and public discussed how best to coordinate efforts. The meeting led to the creation of a CDC position statement (currently going through agency clearance) on the important intersection among chronic diseases, environmental health, and injuries. Another important outcome of the "Transportation 101" meeting was the creation of a transportation white paper developed by the American Public Health Association and Transportation 4 America. The white paper provides specific suggestions for the Federal transportation bill reauthorization that would create policies and programs that concurrently address both transportation and public health priorities, such as active transportation and light rail systems.

In addition, CDC provided public health information and evaluation of the health impact of non-motorized transportation projects funded by the Department of Transportation. As part of its outreach efforts, CDC provides health evaluations of local transit projects, such as studying the health effect of a new rail line in Charlotte, NC. CDC's Healthy Community Design Initiative works with grantees

and others to ensure that transportation and land use projects are designed to encourage physical activity and healthy lifestyles, reduce injuries, and improve environmental health outcomes.

Item

Childhood Lead Poisoning Screening — The Committee commends CDC for supporting the development of point-of-care screening devices. The Committee continues to encourage CDC to develop and promote the use of these types of screening tools. (Page 79)

Action taken or to be taken

CDC's Healthy Homes Program (formerly the Childhood Lead Poisoning Prevention Program) promotes the use of point-of-care screening devices through training, purchases of the instrument, and cooperative agreement funding for state and local lead poisoning prevention programs.

Item

Health Impact Assessment — The Committee strongly supports the adoption of health impact assessments and urges the CDC to develop a tool that would lend itself to widespread dissemination of this critical model. (Page 80)

Action taken or to be taken

CDC developed, in conjunction with the National Association of County and City Health Officials (NACCHO), a tool box of materials and guidance to enable local health officials to conduct Health Impact Assessments (HIAs). The toolbox is in use and has been evaluated by local health officials. CDC is currently working on expanding the HIA tool box. In addition, CDC will support local health agencies and others to conduct HIAs, begin to develop a public health community design research program, and begin to develop and validate built environment indicators for incorporation into a built environment surveillance system.

Item

Child Maltreatment —Studies show the serious impact of adverse childhood experiences on lifelong physical and mental health. The Committee encourages the CDC to consider developing a network of researchers and research institutions to foster research, training, and dissemination of best practices on the prevention, detection, diagnosis, and treatment of child abuse and neglect. (Page 81)

Action taken or to be taken

CDC recognizes that child maltreatment can impact a child's brain development and subsequently increase vulnerabilities to a broad range of mental and physical health problems, ranging from anxiety disorders and depression to cardiovascular disease and diabetes. Safe, stable, and nurturing relationships with parents and other significant adults build healthy brains that provide a strong foundation for healthy development. CDC supports the development and dissemination of (1) prevention strategies designed to empower parents; (2) positive parenting, caregivers, and families; and (3) social environments that value and support children. The promotion of effective child maltreatment prevention programs will enhance health and well-being across the lifespan.

Last year, CDC launched the Knowledge to Action (K2A) Child Maltreatment Prevention Consortium. The purpose of K2A is to promote safe, stable and nurturing relationships at the community level by integrating research, policy and practice in child maltreatment prevention.

K2A's focus includes exploring primary prevention from a public health lens, actionable knowledge transfer, community/societal level change, and visionary/innovative thinking and actions. CDC, in partnership with the three children organizations (National Alliance of Children's Trust and Prevention Funds, Parents Anonymous Inc., and Prevent Child Abuse America) and the Administration for Children and Family's Office on Child Abuse and Neglect form the Leadership Group which is responsible for K2A vision, leadership, direction, resources, and links for the Consortium.

Item

National Violent Death Reporting System — The Committee urges the CDC to continue to develop and implement this injury reporting system. (Page 81)

Action taken or to be taken

Established by the CDC in Fiscal Year 2002, the National Violent Death Reporting System (NVDRS) allows states and communities to collect timely, complete and accurate information about violent deaths through the linkages of information from law enforcement agencies, medical examiners and coroners, health providers, crime laboratories and other agencies. In 2009, CDC funded NVDRS in 18 states. Information from this system helps develop, inform and evaluate violence prevention strategies at both state and national levels. CDC continues to work with state health departments, academic institutions, health care providers, national organizations, national organizations, and others regarding the system's development and implementation.

Item

Trauma Centers — The Committee encourages the CDC to expand its capacity to collect and exchange information on trauma centers, including information on best practices to ensure long-term patient recovery and reintegration into work force, and information in inter and intrastate reimbursement of services at trauma centers. (Page 81)

Action taken or to be taken

Approximately 50 million Americans do not have access to a Level I or II trauma center within one hour of being injured. Helicopter or ambulance transport to a Level I or II trauma center is not available in three-fourths of the geographic areas of the continental United States. CDC's mapping and database features help make information on trauma care in the U.S. accessible to a broad spectrum of individuals and organizations. The initiative seeks to improve access to acute injury care through the development and promotion of tools aimed at improving access to Level I and II trauma centers in the U.S.

Item

Violence Against Women — The Committee encourages the CDC to increase research on the psychological sequelae of violence against women and expand research on special populations and their risk for violence, including adolescents, older women, ethnic and racial minorities, women with disabilities, immigrant women, and other affected populations. (Page 81)

Action taken or to be taken

CDC conducts intramural and extramural research to address the psychological consequences of Sexual Violence, Intimate Partner Violence and Teen Dating Violence. For example, CDC is working with the Migrant Clinicians Network and the National Indian Justice Center to build organizational capacity and develop a program model that is culturally relevant and focused on engaging men and boys in the primary prevention of Sexual Violence and Intimate Partner Violence. Additionally, CDC is using a comprehensive sexual violence survey instrument to learn more about sexual violence victimization prevalence, characteristics, circumstances, and help-seeking behavior among English- and/or Spanish-speaking adults from different racial/ethnic minority populations. CDC also supports an initiative to promote respectful, nonviolent dating relationships among adolescents living in high-risk, inner-city communities. The objective of this project is to develop, implement, and evaluate a comprehensive approach to promoting respectful, nonviolent teen dating relationships by utilizing current evidence-based practice and experience.

Item

AIDS and Malaria Programs — The Committee commends the efforts of the CDC's Global AIDS and Global Malaria Programs in implementing the President's Emergency Plan for AIDS Relief [PEPFAR] and the President's Malaria Initiative. The Committee encourages global AIDS and malaria program activities beyond PEPFAR and PMI countries. (Page 83)

Action taken or to be taken

In accordance with the July 30, 2008 PEPFAR reauthorization legislation, CDC plays an enhanced role in carrying out and expanding program monitoring, impact evaluation research and analysis, and operational research. These expanded activities as well as CDC's on-going PEPFAR contributions to health systems strengthening will help to build mainstream healthcare capacity in resource-constrained countries that will positively impact activities and service delivery.

This impact is now being felt regionally as the number of countries CDC supports continues to grow from an initial 15 countries to 70 world-wide with field-based offices in 43 countries. CDC fully anticipates that this geographic scope will continue to expand in accordance with the Office of the Global AIDS Coordinator's Five Year Strategy scheduled to be released in December 2009.

Item

Malaria — The CDC plays a critical role in the fight against malaria by performing much of the ''downstream'' research that links basic science with the actual interventions tested and delivered to those in need, and CDC has been critical in developing and evaluating the tools being used today to combat malaria. As the threat of drug and pesticide resistance increases, the Committee urges the CDC to continue to perform malaria research leading to new drugs and tools that will be available to replace current interventions once they are no longer effective. (Page 83)

Action taken or to be taken

CDC conducts operations research in the context of PMI to improve delivery and uptake of current interventions. Apart from PMI, CDC is actively involved in a number of research efforts with partners such as:

- Developing new antimalarials for prevention and treatment in pregnancy;

- Testing an improved formulations of a treatment drug for children;
- Improving access to antimalarials;
- Developing new tools to measure malaria transmission;
- Assessing the spread and degree of drug and insecticide resistance;
- Developing new vector control tools; developing and evaluating diagnostic tools;
- Field evaluation of malaria vaccines; and
- Working with other global malaria leaders in developing a research agenda for malaria elimination and eradication.

Item

Non-Communicable Diseases — The Committee is concerned about the growing threat posed by non-communicable diseases to the health status of low-and middle-income countries. The Committee has included additional funding for CDC to expand its work in this area, with a particular focus on tobacco control and injury prevention. As the global tobacco burden begins to shift away from high-income countries, 7 out of 10 tobacco-related deaths are expected to occur in the developing world by 2030. The Committee urges CDC to work with low- and middle-income countries to enhance research and surveillance activities through the Global Tobacco Surveillance System, improve design of national tobacco control programs, and strengthen related laboratory capacity. In addition, the Committee encourages CDC to expand research and programmatic efforts related to global injury and violence prevention to help reduce the 5 million annual deaths associated with injury and violence worldwide. (Page 83)

Action taken or to be taken

CDC is committed to continuing and expanding its work with low-and middle-income countries to enhance research and surveillance activities through the Global Tobacco Surveillance System, improve design of national tobacco control programs, and strengthen related laboratory capacity. CDC manages the Global Tobacco Surveillance System, the only worldwide surveillance effort tracking tobacco use among youth and adults. CDC is increasing its efforts to assist countries with using data for decision-making, improving policies and implementing effective programs. Specifically, in 2010, CDC will work to: 1) further develop country capacity to analyze tobacco surveys and link data to tobacco control program efforts; 2) provide resources to establish or strengthen comprehensive national tobacco control programs (for instance, through mini-grants or demonstration grants); and 3) provide assistance to countries in designing and planning laboratory systems capable of analyzing the tobacco products in their country or region (for example, analyzing how additives, constituents and product design affect toxicity, carcinogenicity and addictiveness of tobacco).

Global injuries pose a significant public health burden, particularly in developing countries. CDC in past years has **e**stablished international standards for injury data collection as well as guidelines for conducting community surveys using a methodology for gathering robust, reproducible injury data. CDC has also piloted data collection and monitoring systems in Africa, Latin America, and Eastern Europe and continues to work with partner nations in **b**uilding international injury capacity through training at Argentina, Brazil, Costa Rica, El Salvador, Honduras, Mexico, Nicaragua, Peru and Vietnam.

Beginning in FY 2010 CDC will expand research and programmatic efforts to promote global injury prevention by providing technical assistance and training to Ministries of Health (MOH) on injury prevention policies. Additionally CDC will work to conduct real-time monitoring and response to global injury trends via CDC field stations thereby enhancing regional support and technical resources for country's MOH to build necessary injury prevention infrastructure and capacity. Furthermore, CDC will continue to develop, evaluate and disseminate evidence-based interventions to promote road traffic injury prevention around the world, and serve as a critical first step toward the development of a coordinated approach to global injury prevention.

Item

BioSense — The Committee strongly supports the new direction being taken by the BioSense program, in particular the movement towards an open, distributed computing model. An open, distributed model encourages collaboration among geographically distributed organizations and provides a very efficient framework for creating mutually beneficial solutions. The Committee urges the CDC to ensure that biosurveillance systems interconnect with electronic medical record [EMR] systems effectively. (Page 84)

Action taken or to be taken

CDC is committed to ensuring interconnectivity between public health surveillance systems and clinical systems at the point of care, including electronic medical records (EMR). CDC's BioSense program is currently developing a strategy to link clinical health data between Health Information Exchanges (HIEs) and public health departments via the Nationwide Health Information Network (NHIN) CONNECT gateway. Compatible interfaces will allow NHIN CONNECT and public health systems to utilize data and services interchangeably to enhance information exchange across jurisdictions to improve public health decision-making.

CDC is encouraging collaboration among distributed organizations, which will ultimately enhance public health surveillance and clinical services through mutually beneficial solutions. CDC initiatives involve the development of a prototype EMR alerting solution to increase the accessibility and availability of public health alerts to clinicians at the point of care. This solution improves upon the standard distribution of email and fax alerts by extending the distribution directly to EMR systems targeting persons with specific conditions related to the health alert. The alert repository can serve as a model for a notifiable disease repository to improve case detection and reporting.

Item

State-by-State Preparedness Data — The Committee commends CDC for releasing Public Health Preparedness: Strengthening CDC's Emergency Response. The Committee is pleased that the report provides an overview of public health preparedness activities and details accomplishments and challenges. The Committee expects the Department to collect and review State-by-State data on benchmarks and performance measures developed pursuant to the provisions of the Pandemic and All-Hazards Preparedness Act (Public Law 109–417) and to detail how preparedness funding is spent in each State. The Committee further expects that as the Department collects and evaluates state pandemic response plans, the results of these evaluations will be made available to the Committee and to the public. (Page 84)

Action taken or to be taken

Based on the provisions in the Pandemic and All-Hazards Preparedness Act, CDC has developed benchmarks for awardees of the Public Health Emergency Preparedness (PHEP) cooperative agreement. The latest program announcement for the August 2009 to August 2010 PHEP cooperative agreement specifies the benchmarks for awardees.
(http://www.bt.cdc.gov/cotper/coopagreement/10/FinalPHEP_BP10_Guidance_5-01-09.pdf)

CDC will continue to detail how funding is spent in the states in upcoming reporting on preparedness, such as in the forthcoming CDC's 2010 Preparedness Report. Following the last evaluation of state pandemic response plans, a summary report was provided in January 2009 to the Homeland Security Council (http://www.flu.gov/professional/states/state_assessment.html), and information was shared with members of Congress and their staff members. In addition, CDC held a briefing for members of the press. State pandemic response plans are published online at <http://www.flu.gov/professional/states/stateplans.html and at pandemicflu.gov>. These state pandemic plans currently are in operation with the 2009 H1N1 influenza response. Ongoing evaluation of pandemic operations plans will be conducted on a regular basis.

Item

Strategic National Stockpile — The Committee urges the Department to prioritize updating and restocking on an ongoing basis, including replenishing material used during the ongoing H1N1 outbreak. The Committee supports stockpiling medical supplies, including syringes. The Committee requests a professional judgment recommendation as to the level of funding needed to acquire the necessary equipment, medicines and supplies. (Page 85)

Action taken or to be taken

CDC's Strategic National Stockpile (SNS) undergoes an annual formulary review process mandated by Homeland Security Presidential Directive-21 (HSPD-21) and Section 319F-2(a)(1) of the Public Health Service Act as added by the Pandemic and All-Hazards Preparedness Act (PAHPA, Public Law 109-417). PAHPA directs that "The [HHS] Secretary shall conduct an annual review (taking into account at-risk individuals) of the contents of the stockpile, including non-pharmaceutical supplies, and make necessary additions or modifications to the contents based on such review." This annual review consists of four phases that prioritize updating and restocking SNS on an ongoing basis.

A professional judgment recommendation is under development and will be provided to congress February 2010. The professional judgment will address the funding needs associated with current and future replenishment of the stockpile.

Item

Disability — The Committee encourages the CDC to create an Office of Disability and Health in the Director's office. The office would perform functions and carry out responsibilities akin to those currently undertaken by the Office of Minority Health and the Office of Women's Health. (Page 86)

Action taken or to be taken

CDC shares the Committee's interests in raising the visibility of disability and health issues. Under CDC's current organizational structure, the Division of Human Development and Disability is

positioned to coordinate with CDC programs that are focused on disability and health issues. The Division engages in a collaborative, life course approach to addressing disability and health issues that is designed to assist people with disabilities from birth through adulthood. CDC's current organizational structure presents a strong foundation upon which to build a comprehensive, public health approach to improving the lives of people with disabilities.

Item

Leadership and Management Savings — The Committee strongly believes that as large a portion as possible of CDC funding should go to programs and initiatives that improve the health and safety of Americans. To facilitate this goal, any savings in leadership and management may be reallocated to the Director's Discretionary Fund upon notification of the Committee. (Page 86)

Action taken or to be taken

CDC agrees to reallocate any savings from leadership and management to the Director's Discretionary Fund upon notification of the Committee through an official reprogramming.

Item

Buildings and Facilities — The Committee has again provided bill language to allow CDC to enter into a single contract or related contracts for the full scope of development and construction of facilities and instructs CDC to utilize this authority, when necessary, in constructing the Atlanta facilities. (Page 86)

Action taken or to be taken

Actions consistent with the language providing that a single contract or related contracts for the development and construction of Atlanta facilities have been employed and collectively include the full scope of the FY 2007, FY 2008 and FY 2009 projects (Buildings 23, 24, & 107/108). These solicitations and contracts contained the clause 'availability of funds' consistent with 48 CFR 52.232-18. CDC solicited authorization for P2007150 (Building 24), P2003116 (Building 107), and P2003117 (Building 108) between 2007 and 2009. Through an incremental/staged approach, this process was used to obtain full funding for Buildings 23 and 24. CDC has entered into a single design-build contract to deliver each project.

Item

Microbicides — Encouraging results from a recent NIH Microbicide Trials Network safety and effectiveness study of the microbicide candidate PRO2000 showed that the product was 30 percent more effective than any other arm of the study in preventing HIV. While data from this study are not definitive and results from additional trials are needed to confirm these findings, they support the concept that a microbicide could prevent HIV infection. The Committee urges the NIH to work with USAID, CDC, and other appropriate agencies to develop processes for coordinated investment and prioritization for microbicide development, approval, and access. (Page 98)

Action taken or to be taken

CDC is currently allocating $900,000 for microbicide research projects. CDC will continue to collaborate with NIH, USAID, FDA, and other appropriate agencies about microbicide development, approval and access.

CDC is also encouraged about early results of the microbicide candidate PRO2000. Results for PRO2000 and tenofovir gel microbicide trials are anticipated in 2009/2010. If the microbicide is shown to be effective, CDC will work with both other research partners (e.g., NIH) and other federal agencies focused on prevention service delivery (e.g., Office of Population Affairs) to plan for effective roll-out of a vaginal microbicide.

Item

Nontuberculous Mycobacteria [NTM] — The Committee commends the NIAID for its planning meetings regarding NTM, outreach to the NTM patient community, and leading NTM treatment center. The Committee recommends further collaboration with the NHLBI, CDC, the advocacy community and other Federal agencies to provide leadership that will enhance diagnostic and treatment options as well as medical and surgical outcomes through the stimulation of multi-center clinical trials and promotion of health care provider education. (Page 98)

Action taken or to be taken

CDC acknowledges the Committee's recommendation and will continue to collaborate with our sister agencies to further efforts related to NTM.

Item

Influenza Vaccine — The Committee again encourages HHS and CDC to continue to support public and professional education, media awareness, and outreach programs related to the annual flu vaccine. The Committee strongly encourages CDC and HHS to aggressively implement initiatives for increasing influenza vaccine demand to match the increased domestic vaccine production and supply resulting from pandemic preparedness funding. Developing a sustainable business model for vaccine production will go a long way toward making vaccine available when needed. (Page 167)

Action taken or to be taken

In FY 2009, CDC provided approximately $16 million in influenza pandemic funding to all 64 Section 317 immunization grantees to increase demand for seasonal influenza vaccine. Funding supported the continuation of FY 2008 strategies and activities, including 1) identifying and enhancing collaboration with partners to increase demand for seasonal influenza vaccine; 2) encouraging implementation of evidence-based interventions to increase seasonal influenza for all ages (e.g., patient reminder systems, provider reminder systems, education of health care providers, promoting vaccination in multiple settings); 3) working with partners to implement strategies to improve influenza vaccination of health care personnel; 4) working with schools to evaluate the effectiveness of delivering influenza vaccine in school settings; 5) working with partners to ensure immunization services are readily accessible to high-risk persons; 6) exercising mass vaccination plans utilizing seasonal influenza vaccine; and 7) working with partners to implement strategies to increase influenza vaccination of school-aged children and adolescents.

SIGNIFICANT ITEMS IN APPROPRIATIONS REPORTS – CONFERENCE

SIGNIFICANT ITEMS FOR INCLUSION IN

THE FY 2011 CONGRESSIONAL JUSTIFICATION

AND OPENING STATEMENTS

CONFERENCE REPORT NO. 111-366

CENTERS FOR DISEASE CONTROL AND PREVENTION

Item

HIV — In order to support a multi-faceted approach to HIV research and prevention practices, the conferees have established five new sub-budget lines that are structured around the principles of transparency, accountability, and comprehensiveness. The conferees expect that the fiscal year 2011 budget justification will follow this format, providing detailed explanations of funded activities, and how any proposed increases or reductions will be applied across each line. The conferees further insist that any future movement of funds between these lines must go through the formal reprogramming review process. (Page 1019)

Action taken or to be taken

CDC is in support of the principles of transparency, accountability, and comprehensiveness in reporting how the HIV budget is allocated along these new lines. CDC has revised their HIV budget system to provide reporting along these new budget lines provided by Congress.

Item

Ryan White HIV/AIDS Treatment Extension Act — The Ryan White HIV/AIDS Treatment Extension Act of 2009 did not reauthorize this activity; therefore, the conferees expect CDC not to carve out any funding for this activity in fiscal year 2010. (Page 1019)

Action taken or to be taken

CDC is aware and supportive of this Congressional action and does not intend to carve out funding for this activity in FY 2010.

Item

Hepatitis C — The conferees direct CDC to include in the fiscal year 2011 congressional budget justification a description of efforts and timelines to update hepatitis C screening guidelines, including information on pilot studies that are ongoing and planned for the future using a one-time, age-based screen to target the age demographic with the highest prevalence. (Page 1019)

Action taken or to be taken

CDC is currently working with academic partners to update the HCV screening guidelines, and is planning to convene a consultation with stakeholders to review the guidelines in FY 2011.

Pending pilot studies include funding four sites to study new strategies for HCV testing in order to increase the proportion of persons aware of their HCV infection. This two-year study will implement and evaluate the effectiveness of one-time, opt-out HCV screening of all persons born from 1945 through 1964 who receive care in managed care settings. The 1945-1964 birth cohort has a 4.6-times higher HCV prevalence than those born outside that cohort. CDC is currently conducting a study in Northern California to evaluate the feasibility of implementing the birth cohort strategy in a managed care setting which will inform the four-site study. CDC recently completed a study in three clinics in the Bronx serving patients with high rates of poverty and substance use to evaluate the birth cohort strategy in an inner city setting and is conducting data analysis now.

CDC also is evaluating both the sensitivity and specificity of pre-market rapid anti-HCV tests and their effectiveness in clinical and community settings, to prepare for the potential impact of such HCV testing in the US.

Item

Congenital Heart Disease — The conferees are pleased by advances that have allowed children with congenital heart disease (CHD) to live longer; however, there is little data on adults living with this condition. The conferees encourage CDC to develop a population-based adult CHD surveillance plan to determine the prevalence of CHD in the adult population. (Page 1023)

Action taken or to be taken

CDC is pleased to hear about Congress' interest in congenital heart defects (CHD) in adults and looks forward to providing Congress with a population-based adult CHD plan in FY 2010.

Item

National Occupational Research Agenda — The conference agreement includes increased funding over the fiscal year 2009 level for the National Occupational Research Agenda. The conferees urge NIOSH to direct some of this increase to intramural and extramural research to implement the recommendations of the 2008 and 2009 Institute of Medicine reports, including research to determine relative contribution of various routes of influenza transmission; and for each mode of transmission, efficacious means to prevent and control transmission, and to limit exposure to health care workers. (Page 1025)

Action taken or to be taken

CDC's National Institute for Occupational Safety and Health has developed an implementation plan to address the recommendations of the IOM reports *Preparing for an Influenza Pandemic: Personal Protective Equipment for Healthcare Workers.* In 2010, CDC will build on current efforts to better understand influenza transmission, routes of influenza transmission and the personal protective equipment needs associated with the various modes of transmission in order to limit exposures to health care workers. CDC is currently exploring the options available to expand this work through intramural efforts and through a Request for Application (RFA) that would significantly advance the progress of this research.

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