

Overview of Los Angeles County

Los Angeles County (LAC), at 4,084 square miles, 88 incorporated cities and over 10 million residents, is one of the largest counties in the US, with a population that is larger than 43 of the 50 states. For planning purposes, the County of Los Angeles Department of Public Health (DPH) uses eight (8) geographical regions known as service planning areas (SPAs)(see Figure 1). The SPAs range in size, diversity, and population density, from rural to densely urban. Six of the eight SPAs have more than a million residents each.

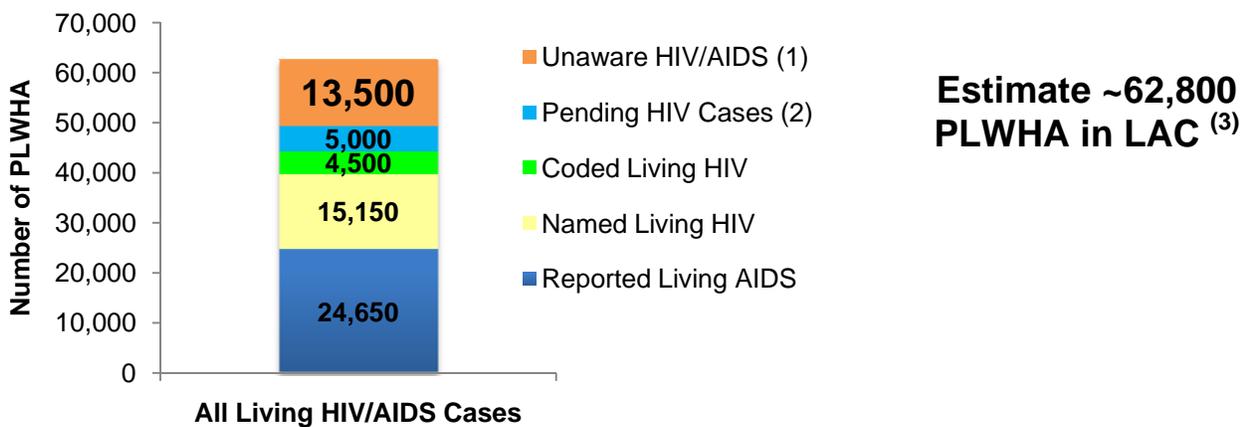
Figure 1. Los Angeles County Service Planning Areas (SPAs)



LAC is home to an estimated 62,800 people living with HIV/AIDS, of whom an estimated 13,500 are unaware of their status (Figure 2). In addition to the size and complexity of the HIV/AIDS epidemic, the continuum of HIV prevention and care services must be noted in the context of extreme demographic, socioeconomic, cultural and linguistic diversities in the County. The burden of HIV/AIDS in LAC is multiplied by the enormous number of HIV-infected people, co-morbid diseases, the extremely high numbers of people living in poverty and without health insurance, and the challenges of providing services across 4,084 square miles to individuals who are already

disenfranchised. HIV/AIDS is most prevalent among the SPAs most affected by poverty and a plethora of other health challenges, the combination of which makes delivering comprehensive HIV/AIDS services in the County extremely costly.

Figure 2. Estimated Number of People Living with HIV/AIDS (PLWHA) in LAC, 2009



Data Source: LAC HIV Epidemiology Program, reported as of 12/31/2009.

(1) Estimate that 21.5% of HIV+ in LA County are unaware of their infection; modified from CDC estimate.

(2) Of 6,700 notifications pending investigation, estimate >4,000 to be cases.

(3) Estimate based on a 1:1 ratio of HIV (non-AIDS) to living AIDS cases and includes reported, named, coded, pending and unaware HIV and AIDS cases.

Over the last ten years, the HIV epidemic in LAC has become an epidemic affecting an increasingly diverse population. The most distinctive characteristics are:

- The racial, ethnic and socioeconomic groups infected with HIV increasingly are lower income people of color, especially men who have sex with men of color. In 2010, the highest proportion of reported HIV/AIDS cases was among Latino(a)s at 39%; however, African-Americans had the highest rate at 1,025 per 100,000 persons¹.
- The social organization of those infected is changing, with an increasing number being men who have sex with men but who do not identify as gay, bisexual, or homosexual.
- The age and gender of those infected and most at risk is diverse, with an increasing proportion of new infections estimated among women of color, young adults (13-24 years) and individuals 50 years and older.
- Levels of stigma, shame, homophobia, fear and ignorance of HIV/AIDS stubbornly persist.
- It is increasingly likely that clients new to the system of HIV services will present with multiple morbidities and complicating co-factors.

Social Determinants of Health

LAC's 88 incorporated cities and the unincorporated areas span more than 4000 square miles; LAC is 88 times larger than our sister city San Francisco and larger than Washington, DC, Houston, New York City, San Francisco and Philadelphia combined. LAC is an ethnically diverse geographical region; the population is 47% Latinos; 29% Whites; 13% Asian/Pacific Islanders; 9% African Americans; 2% multiple or other races/ethnicities; and 0.3% American Indians/Alaskan Natives². Census data from 2006 show 35% of LAC residents were foreign born and over 100 languages are spoken across the county. As such, with relatively little homogeneity within and across *geographically* defined communities, defining community in a consistent way is a challenge.

Homelessness. The 2009 Greater Los Angeles Homeless Count projected an annual estimate of 96,169 homeless in LAC, of whom 65% were male and 35% female. At 47%, African Americans represented the largest racial group of the homeless population, followed by Latino/as (29%), Whites (21%) and Native Americans (2%). Nearly half (46%) of the homeless people were found in SPA 4 (Metro) and SPA 6 (South Los Angeles), areas with the highest rates of HIV/AIDS, poverty, and uninsured. Twenty-four percent of LAC's homeless were chronically homeless; 2% had HIV/AIDS; 24% were mentally ill; 41% had a substance abuse problem; 2% were youth; 15% were veterans; and 9% were victims of domestic violence³.

According to the research report by Inter-University Consortium Against Homelessness³, in LAC, 20,000 people released from jail or prison become homeless each year; 8,400 homeless mental health patients were treated by the County Department of Mental Health; 8,500 homeless substance users were treated by the County Substance Abuse Prevention and Control Program. In the downtown Skid Row area, 1,079 homeless patients spent a total of 11,406 days in three adjacent hospitals, at a cost of \$39,316,508 annually.

Lack of Health Insurance. LAC has one of the highest rates of uninsured individuals among all counties in California. According to the 2009 projection based on the 2007 California Health Interview Survey (CHIS), 29% of LAC residents were uninsured sometime during the past year (UCLA Center for Health Policy Research, 2010). This is a 26% increase from 2007, and represents 607,457 more people who became uninsured in the last two years. The lack of health insurance among so many was due to

¹ HIV Epidemiology Program, Los Angeles County Department of Public Health. HIV/AIDS Surveillance Summary, January 2010: 1-33. Available at: <http://publichealth.lacounty.gov/hiv/>.

² United Way of Greater Los Angeles: *The 2007 LA County Zip Code Data Book*, May 2007. Available at: <http://www.unitedwayla.org/getinformed/rr/socialreports/Pages/2007zipcode.aspx>.

³ Inter-University Consortium Against Homelessness. Ending Homelessness in Los Angeles. January 2007. Available at: <http://www.unitedwayla.org/getinformed/rr/research/basic/Pages/Ending.aspx>.

increases in local unemployment and the drops in both household income and job based insurance coverage. Lack of insurance among low-income people in LAC underscores the severity of need for additional resources for medical and support services. UCLA's Center for Health Policy Research estimated that the total current spending for LAC's uninsured was \$4.6 billion in 2005.

Poverty. Low socioeconomic status is a powerful determinant of individual risk for HIV infection, health care access, and health outcomes. Poverty is particularly associated with increased morbidity and premature mortality. Unemployment, poverty and illiteracy are correlated with poor access to health education, preventive services, and medical care, resulting in an increased risk for HIV infection and faster progression to AIDS. CHIS 2007 found that 21% of LAC residents lived below FPL, compared to the state-wide rate of 16%, and nearly 55% of LAC residents lived at or below 300% FPL.

While the federal poverty level is the official measure of poverty used to determine income eligibility for most public benefits programs, the measure is an outdated one, developed in the 1960s and based solely on the cost of the basic food budget needed to meet minimum nutritional requirements. The FPL does not take into account regional costs for housing, transportation, health care, and other necessary living expenses. Thus, estimates of poverty in LAC based on the FPL more likely reflect a picture of people living in extreme poverty. Since 2008, the economic recession and the rising unemployment rate in LAC have continued to compound the effects of existing poverty. As of July 2010, the unemployment rate in LAC was 13.4%, compared to 12.8% state-wide and 9.7% nationally (California Employment Development Department; U.S. Bureau of Labor Statistics). Increased unemployment is already creating more need and adding pressure to the local system of publicly-funded services.

Substance Abuse. Unlike other parts of the country, the connection between substance use and HIV in LAC centers on unsafe sex while under the influence of alcohol or other drugs, rather than needle sharing. Substance abuse interferes with both adherence to medication regimens and treatment efficacy. Analysis of injection drug use alone does not characterize the impact of substance abuse on HIV infection in LAC. In Los Angeles County, aside from being used to inject illicit drugs, syringes are shared by transgender individuals to administer steroids, vitamins and hormones. Field market research among transgender women suggests sharing of syringes for hormone therapy is seen as an act of "sisterhood" rather than a potential health risk. Unlicensed health care providers sometimes offer injections of vitamins and antibiotics without consistent syringe sterilization.

Methamphetamine (meth) was the most frequently reported primary drug used among all persons admitted to drug treatment in LAC, followed by cocaine/crack and alcohol (LAC Substance Abuse Prevention and Control Program, 2009). Among men who have sex with men in LAC, meth use is frequently associated with increased sexual activity and unsafe sex. Meth-using men who have sex with men are much more likely to have casual sex, multiple sexual partners and report inconsistent condom use than men who have sex with men who do not use meth. Meth users have numerous clinical challenges such as poor treatment engagement rates, high drop-out rates, high relapse rates, severe paranoia, and declining oral health. The medical and psychiatric aspects of meth dependency often exceed the capabilities of existing substance abuse programs.

Overview of the County of Los Angeles Department of Public Health

The County of Los Angeles Department of Public Health, Office of AIDS Programs and Policy (OAPP) coordinates the overall response to HIV/AIDS in Los Angeles County (LAC) in collaboration with community-based organizations, governmental bodies, advocates and people living with HIV/AIDS. OAPP is the administrative agency for funding from the Health Resources and Services Administration (HRSA), the Centers for Disease Control and Prevention (CDC), the State of California Office of AIDS, and the County of Los Angeles Department of Public Health (DPH). OAPP uses these fiscal resources to manage approximately 200 contracts within a network of nearly 100 community-

based organizations and ten County departments in an effort to maximize access to services for people living with HIV or AIDS (PLWHA).

The LAC HIV continuum of care is a comprehensive path from HIV prevention to treatment for individual clients affected by HIV, including those without HIV, those at risk for HIV, those who have HIV but are unaware, those who are aware but not receiving care, and those who are receiving care and adhering to care plans. The system of care is designed to promote awareness of and access to HIV prevention, care and treatment services to reduce HIV incidence and relieve disease burden. Early identification of individuals living with HIV/AIDS has been a crucial first step in this effort. In an effort to reduce the number of individuals who are unaware of their HIV status and decrease HIV incidence, LAC has and will continue to implement several innovative strategies to meet these goals.

Re-assessing the HIV Epidemic in Los Angeles County.

Structural Changes: Consistent with CDC's 2009 recommendations and guidance for health department program coordination and service integration (PCSI), effective February 2011, the Los Angeles County Department of Public Health has begun planning for the integration of OAPP, STDP, and the HIV Epidemiology Program (HEP) into one consolidated public health program. The integration will occur in steps, with administration, finance, contracting and procurement, and human resources management being merged first, followed by data management, grants management, and quality management. Finally, program planning and direct service delivery activities, research and evaluation will be synchronized. The fully integrated program will reduce duplication of services, maximize all available resources, and see clients holistically rather than through the disparate lenses of disease prevention and treatment. Integration activities are expected to become finalized within the next 18 months.

Focus on Syndemic Planning. Los Angeles County Department of Public Health (DPH) has historically prioritized and provided services over its 4,000 square mile jurisdiction through Service Planning Areas (SPAs). However, differences in disease burden are not explained by SPA boundaries (see Figure 1). Data sharing with DPH HIV Epidemiology, Sexually Transmitted Disease Program (STDP), and OAPP provided an opportunity to examine disease burden without regard to arbitrary geographic boundaries. A syndemic planning model was used to focus on connections among cofactors as determinants of risk for HIV disease, and is used extensively when prioritizing HIV prevention services within Los Angeles County. Increasingly, the connection between co-factors like homophobia, stigma, homelessness and poverty combined with co-morbidities like addiction, mental illness, STD infection and hepatitis are recognized as drivers of this complex epidemic, and are all locally considered in comprehensive planning activities.

Using Cost and Data to Predict Outcomes.

The Office of AIDS Programs and Policy (OAPP) is collaborating with other LAC Department of Public Health partners and RAND Corporation researchers on several modeling activities (described in detail in Appendix A) to determine the optimal use of prevention strategies to achieve the highest impact in addressing the National HIV/AIDS Strategy (NHAS) goals and objectives:

1. **Modeling HIV Testing to Reduce Unaware HIV Infections**— this activity is to aid OAPP determine how much scale-up of HIV testing will need to occur by 2015 to reach NHAS goals.
2. **Maximizing the Benefit of Prevention Interventions** – this was a tool developed by RAND in 2004 to assist prevention programs in prioritizing prevention strategies.
3. **Robust Decision Making** – a collaboration with RAND and OAPP in developing a conceptual framework and robust decision-support tools that can be used to more explicitly recognize the trade-offs among different resource allocation scenarios in order to achieve reductions in HIV

transmission in LAC (e.g., prioritizing HIV testing investments for MSM vs. HE/RR programming for MSM; targeted condom distribution vs. broader community-wide distribution).

Required and Recommended Interventions:

The following interventions will be scaled up/increased with the goal of maximizing impact on the NHAS goals as determined by results of the modeling activities:

- #1. Routine, opt-out HIV screening in clinical settings
- #3. Condom distribution prioritized to target HIV-positive (HIV+) persons and persons at high risk
- #4. Provision of Post-Exposure Prophylaxis
- #6. Linkage to HIV care, treatment and prevention services for those testing HIV+ and not in care
- #7. Interventions / strategies for promoting retention in or re-engagement in HIV care for HIV+ persons
- #8. Enforce policies and procedures for ensuring ART provision according to clinical practice guidelines
- #9. Interventions promoting ART treatment adherence for HIV+ persons
- #12. Partner services for HIV+ persons
- #16. Targeted HIV and sexual health social marketing
- #18. Community interventions that reduce HIV risk
- #20. Integration of hepatitis, TB, STD testing, partner services, vaccination and treatment for HIV negative persons at high risk
- #21. Targeted use of HIV and STD surveillance data to prioritize risk reduction and partner services
- #22. Broadening linkages and provision of services for social factors influencing HIV incidence for HIV negative persons at high risk

The following interventions may be scaled up/increased dependent on their relative impact on NHAS goals as determined by the modeling activities:

- #2. HIV testing in non-clinical settings
- #10. STD screening for HIV+ persons
- #13. Behavioral risk screening and risk reduction for HIV+ persons at risk for HIV transmission
- #17. Evidence-based clinic-wide prevention interventions for HIV+ persons at risk of acquiring HIV
- #23. Brief alcohol screening and interventions for HIV+ persons and high-risk HIV negative persons

The following interventions are not likely to change significantly as a result of the modeling activities:

- #5. Efforts to change existing structures, policies, and regulations that are barriers to optimal care and treatment
- #11. Prevention of perinatal transmission
- #14. Linkage to other medical and social services for HIV+ persons
- #15. Condom distribution to the general population
- #19. Behavioral risk screening followed by individual and group-level evidence-based interventions for HIV negative persons at high risk, particularly those in serodiscordant couples
- #24. Community mobilization

Additionally, OAPP has also worked with the Los Angeles CFAR at UCLA (UCLA Center for HIV Prevention Identification and Treatment Services – CHIPTS) to identify areas where technical assistance from the CFAR would be helpful to guide development, implementation, and evaluation of specific required and recommended interventions. Based on these needs, the UCLA CFAR has submitted a request for funding to work with LAC to address required intervention #9, and recommended interventions #8 and #9.