Preventive Health and Health Services Block Grant

Evaluation Report

2017 Framework Measures Assessment—Key Findings

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For more information or for questions about this report, please contact phhsblockgranteval@cdc.gov.

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Preface

The findings presented in this evaluation report are based on analyses of data collected by the Centers for Disease Control and Prevention on measures from the Preventive Health and Health Services Block Grant Measurement Framework (Version 1.0). The framework was designed to enable CDC to standardize the collection of data for select outputs and outcomes (i.e., results) of the grant. The framework defines and describes four measures for assessing three cross-cutting results from grantees' flexible use of funds.

Data for the measures were self-reported by grantees in October 2017 via a web-based questionnaire (OMB No. 0920-0879). The findings from these measures data are a key part of the evaluation of the PHHS Block Grant.

For more information about the PHHS Block Grant, please visit www.cdc.gov/phhsblockgrant.

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Executive Summary

The Preventive Health and Health Services Block Grant (PHHS Block Grant) has received more than 35 years of congressionally appropriated funding and is administered by the Centers for Disease Control and Prevention (CDC). Block grants provide flexible funding to grantees, allowing them the discretion to identify priorities and implement activities to reach identified goals and objectives. However, this flexibility presents a well-known challenge to measurement and evaluation, primarily because of the variation in grantee activities, outputs, and outcomes. For the PHHS Block Grant, this is a particularly difficult challenge—61 grantees can address any of the more than 1,200 *Healthy People 2020* national health objectives across 42 health topic areas.

To address this challenge, the evaluation team in CDC's Center for State, Tribal, Local, and Territorial Support (formerly/then called the Office for State, Tribal, Local and Territorial Support [OSTLTS]) developed an innovative approach to evaluating the grant. The approach is designed to assess the grant's value (i.e., benefits to public health), describe select cross-cutting outputs and outcomes, and strengthen its accountability overall. The evaluation team engaged key stakeholders, including grantees, CDC partners, state health officials, and CDC leaders, throughout the evaluation process. The evaluation team also conducted an evaluability assessment and interviews to better understand the grant and to determine grantee perspectives on the importance of flexibility and value of the grant. These efforts led to development of the PHHS Block Grant Measurement Framework, a primary part of the overall evaluation approach.

The framework consists of three components—*flexibility, use of funds,* and *results*. The results represent three cross-cutting outcomes: 1) public health infrastructure improved,[1] 2) emerging needs addressed, and 3) evidence-based public health practiced. Four measures were developed to operationalize and assess the results. The framework measures are designed to apply to grantee activities regardless of how funds are invested or which *Healthy People 2020* objectives grantees are working toward. This enables CDC to aggregate grantee data and improve accountability by demonstrating outcomes of the overall grant. The framework, as well as the four associated measures, were vetted extensively with grantee representatives, CDC leaders, and project officers within OSTLTS.

2017 Framework Measures Assessment—Key Findings

Of the 61 grantees, 57 (93%) reported data via a web-based questionnaire in October 2017. Overall, findings show that the PHHS Block Grant helped strengthen the public health system by enabling state, tribal, local, and territorial health departments to use flexible grant funds to improve public health infrastructure, address emerging public health needs, and practice evidence-based public health. Grantees reported addressing their public health priorities in a variety of ways, including initiating new activities, expanding or enhancing existing activities, maintaining ongoing activities, protecting activities that were in jeopardy because of impending loss of resources, and restoring important activities that had been stopped.

[1] Version 1.0 of the framework measures focuses on information systems capacity and on quality improvement.

Below are the key findings for each of the four framework measures.

Public Health Infrastructure Improved

INFORMATION SYSTEMS CAPACITY IMPROVED

1.1 Number of state, territorial, tribal, and local **health departments** whose capacity to collect or enhance data that provide information of public health importance was improved or maintained through the use of PHHS Block Grant funds

The PHHS Block Grant supports improving the capacity of public health information systems.

- ► 74% of grantees reported using PHHS Block Grant funds to support development, improvement, and/or maintenance of one or more information systems.
- ► A total of **164 health departments**—40 grantees, 112 local health departments, and 12 tribal health departments—developed, improved, and/or maintained a total of 153 information systems.

QUALITY IMPROVED

1.2 Number of state, territorial, tribal, and local **health departments** in which the efficiency or effectiveness of operations, programs, and services was improved through the use of PHHS Block Grant funds

The PHHS Block Grant supports improving the efficiency and effectiveness of health department operations, programs, and services.

- ► 67% of grantees reported using PHHS Block Grant funds to support a quality improvement effort.
- ► A total of **376 health departments** achieved a quality improvement focused on efficiency and/or effectiveness of an operation, program, or service.

Emerging Needs Addressed

EMERGING PUBLIC HEALTH NEEDS ADDRESSED

2.1 Number of **emerging public health needs** that were addressed through the use of PHHS Block Grant funds

The PHHS Block Grant supports efforts to address grantee-specific emerging public health needs.

- ► 68% of grantees reported using PHHS Block Grant funds to address emerging public health needs.
- ► A total of **111 emerging public health needs** were addressed by health departments.

Evidence-Based Public Health Practiced

EVIDENCE-BASED PUBLIC HEALTH INTERVENTIONS IMPLEMENTED

3.1 Number of **evidence-based public health interventions** implemented through the use of PHHS Block Grant funds

The PHHS Block Grant supports implementing public health interventions that are known to work.

- ► 84% of grantees reported using PHHS Block Grant funds to implement a total of 976 public health interventions.
- ► A total of **568 evidence-based public health interventions** were implemented.

2017 Framework Measures Assessment

Background

For more than 35 years, the Preventive Health and Health Services (PHHS) Block Grant has been a primary source of flexible funding for public health. Through legislative authority, the PHHS Block Grant funds 61 grantees—all 50 states, the District of Columbia, two American Indian tribes, five US territories, and three freely associated states. Grantees use these flexible funds to address priority public health needs within their jurisdictions in collaboration with local and tribal public health organizations. The legislation requires grantees to align their program objectives to *Healthy People 2020*, a set of national objectives designed to guide health promotion and disease prevention efforts. The Centers for Disease Control and Prevention (CDC) administers the PHHS Block Grant and is responsible for evaluating the grant to account for outcomes achieved.

PHHS Block Grant Evaluation

The focus of the evaluation is on assessing the grant as a whole—not individual grantee activities or outcomes. The purposes of the PHHS Block Grant evaluation are to—

1. Assess the value of the grant (i.e., benefits and contributions to public health)
2. Describe select outputs and outcomes of the grant
3. Strengthen performance and accountability of the grant

Evaluation Questions

To achieve the purposes of the evaluation, data and information must be collected to help answer relevant questions. There are two overarching evaluation questions:

1. How does the PHHS Block Grant support grantees in addressing their jurisdictions' prioritized public ealth needs related to *Healthy People 2020* objectives?
2. How does the PHHS Block Grant contribute toward the achievement of organizational, systems, and health-related outcomes?

PHHS Block Grant Measurement Framework

Flexible funding and the resulting wide variation in grantee activities pose challenges for aggregating data and measuring outcomes of the grant. The PHHS Block Grant Measurement Framework (referred to hereafter as the "framework") is an innovative approach to assessing the outputs and outcomes resulting from grantees' use of flexible grant funds. (See **Appendix A** for an image illustrating the components of the framework.) CDC developed the framework in collaboration with a variety of stakeholders, including grantees, the Association for State and Territorial Health Officials (ASTHO), and ICF. Development of the framework was also informed by an evaluability assessment of the PHHS Block Grant, the PHHS Block Grant logic model (see **Appendix B**), and an exploratory qualitative study designed to gain insight into the grant's benefits and the relative importance of flexibility from the perspective of grantees.

The framework is designed to address challenges to evaluating the PHHS Block Grant—specifically, aggregating data and measuring outcomes of the grant. The framework consists of three components—*flexibility, use of funds,* and *results*. The framework centers on *flexibility* as a key aspect of the grant. Grantees have flexibility to identify, prioritize, and determine appropriate strategies for addressing their public health needs. Flexibility also includes grantees' ability to direct the *use of funds* in various ways to address their needs (e.g., funding new programs). As a component of the framework, results refers to three cross-cutting outcomes from use of PHHS Block Grant

funds: 1) public health infrastructure improved, 2) emerging needs addressed, and 3) evidence-based public health practiced. To account for the outputs and outcomes being achieved through the grant as a whole, measures are needed that allow data to be aggregated across all grantees.

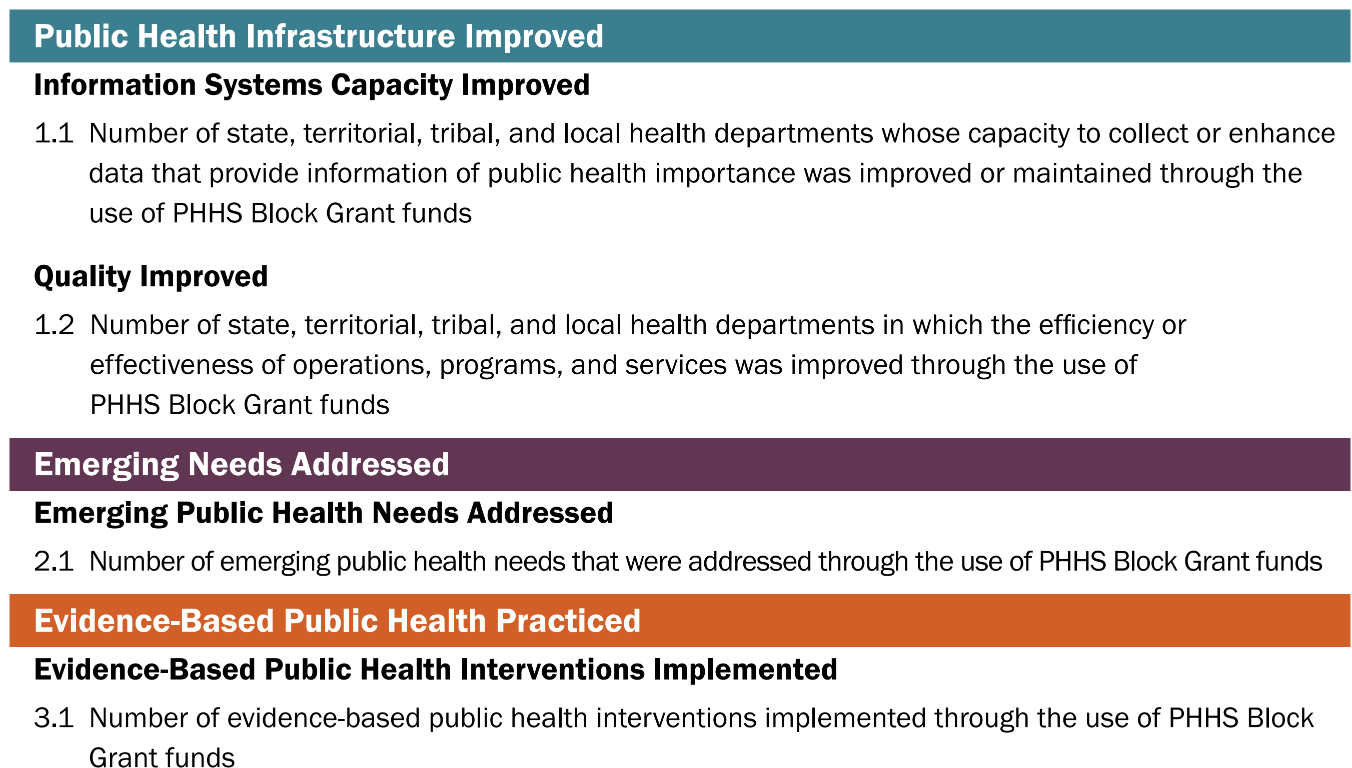
Framework Measures

Block grants, by definition, provide flexible funding to grantees. Grantees can focus their funding on more than 1,200 *Healthy People 2020* objectives to address their public health needs. This flexibility leads to a wide variation in individual grantee goals, objectives, activities, outputs, and outcomes across the overall grant. This variation precludes using typical performance measures for evaluation that are focused on specific outcomes. These types of measures would be insufficient for evaluating the overall grant because of the inability to aggregate data across all grantees.

The framework defines four measures that enable CDC to standardize collection of data on grantee achievements. The measures are designed to assess select outputs and outcomes from the wide range of activities grantees implement using flexible grant funds. The measures are not specific to any one health topic area. They are cross-cutting measures and can apply to grantee activities regardless of how funds are invested or which *Healthy People 2020* objectives grantees are working toward. Grantees should be able to see alignment between their work and the framework measures. However, depending on a grantee's activities, not every measure will necessarily be relevant in any given reporting period.

The measures assess specific aspects of the three results in the framework that were considered most important, relevant, measurable, and feasible for the first round of data collection. Additional measures might be developed for future versions of the framework as needed (e.g., measures for additional aspects of public health infrastructure, such as workforce). Figure 1 shows the current framework measures.

Figure 1. PHHS Block Grant Measurement Framework (Version 1.0) – Measures



Public Health Infrastructure Improved

Information Systems Capacity Improved

1.1 Number of state, territorial, tribal, and local health departments whose capacity to collect or enhance data that provide information of public health importance was improved or maintained through the use of PHHS Block Grant funds

Quality Improved

1.2 Number of state, territorial, tribal, and local health departments in which the efficiency or effectiveness of operations, programs, and services was improved through the use of PHHS Block Grant funds

Emerging Needs Addressed

Emerging Public Health Needs Addressed

2.1 Number of emerging public health needs that were addressed through the use of PHHS Block Grant funds

Evidence-Based Public Health Practiced

Evidence-Based Public Health Interventions Implemented

3.1 Number of evidence-based public health interventions implemented through the use of PHHS Block Grant funds

Use of the Framework Measures

The design of the framework measures specifically addresses the challenges to evaluation posed by flexibility and enables CDC to aggregate grantee data and improve accountability by demonstrating outcomes of the overall grant. Specifically, key findings on the measures will be used to 1) describe the outcomes of grantees' public health efforts and 2) provide evidence to inform future budgetary requests and support program monitoring at the national level.

It should be noted that the framework measures are not intended to be used to limit or direct grantee activities to address public health priorities within their jurisdiction. In addition, the measures are not intended to assess grantee performance, as there are no performance standards outlined in the authorizing legislation. The measures do not capture, and were not designed to capture, all grantee activities or achievements.

Methods

The 2017 Framework Measures Assessment was distributed to the 61 PHHS Block Grant coordinators via a web-based data collection questionnaire. The questionnaire was developed in collaboration with the Association of State and Territorial Health Officials (ASTHO) using Qualtrics®. The questionnaire was accessible September 28–October 31, 2017, and asked Block Grant coordinators or their designee to report information regarding results and improvements supported by the PHHS Block Grant from July 1, 2016, through June 30, 2017. Because this was the first implementation of the measures and response to this data collection was voluntary, several steps were taken to encourage participation and reduce nonresponse bias, including—

1. **Technical assistance (TA) opportunities and tools –** All grantees were provided documentation and tools in advance of the web-based questionnaire opening. TA tools included a measures guidance document, measures Excel workbook, and hard copy of the questionnaire. TA opportunities included measure orientation breakout sessions at the annual grantee meeting and three measurement webinars, which provided details of the reporting requirements. Additionally, evaluation team members and project officers coordinated to respond to ad hoc TA requests and questions throughout the reporting phase.
2. **Ample time for data entry –** The web-based questionnaire was available for grantees to complete and submit for a total of 23 business days (September 28–October 31, 2017).
3. **Multiple reminders –** Reminder emails were sent at 14 business days into the reporting period (October 11, 2017) and at 21 business days into the reporting period (October 24, 2017).

Data Analysis

Quantitative analysis was completed using a variety of descriptive statistics (e.g., frequency, mean, median). Qualitative analysis was conducted to thematically categorize open-ended responses and to complete exploratory analysis for the types of *Healthy People 2020* health topic areas addressed (see **Appendix C**).

The response rate was high, with 93% of the grantees (N = 57) responding to the survey.

Limitations

Two main limitations are identified for this analysis:

1. All data are self-reported.
2. Outliers were found in all four measures, affecting averages. These outliers may be a result of several factors including, but not limited to, varied interpretations of a measure or survey item, effects of governance structure, or a reflection of the flexibility grantees have in the types of activities and priorities addressed using PHHS Block Grant funds.

Key Findings

Of the 61 grantees, 57 (93%) reported data via a web-based questionnaire in October 2017. Data on the four framework measures provide information about how flexible PHHS Block Grant funds were used to meet grantees' public health needs and about select outcomes achieved related to the three results in the framework. While not all grantees used PHHS Block Grant funds to support activities specific to each measure, the majority of grantees reported data on each measure (range = 67%–84%), and 91% (n = 52) reported data on at least one measure. The high percentages of grantees reporting on the measures demonstrate that the measures are relevant and capture achievements related to the results in the framework for most grantees.

Overall, findings show that the PHHS Block Grant helped strengthen the public health system by enabling state, tribal, local, and territorial health departments to use flexible grant funds to improve public health infrastructure, address emerging public health needs, and practice evidence-based public health. Grantees reported addressing their public health priorities in a variety of ways, including initiating new activities, expanding or enhancing existing activities, maintaining ongoing activities, protecting activities that are in jeopardy because of impending loss of resources, and restoring important activities that had been stopped.

Key findings are reported below by each result in the framework and associated measure(s).

Public Health Infrastructure Improved

INFORMATION SYSTEMS CAPACITY IMPROVED

1.1 Number of state, territorial, tribal, and local health departments whose capacity to collect or enhance data that provide information of public health importance was improved or maintained through the use of PHHS Block Grant funds.

About this measure

This measure focuses on the capacity to collect or enhance essential public health data. Specifically, this measure targets the infrastructure of the information system itself, not the analysis and use of data the information system collects.

Why this measure is important for evaluating the PHHS Block Grant

Data and information are essential to help health agencies identify, prioritize, and effectively address public health issues, and to monitor trends and outcomes of public health efforts.

Health departments can't be expected to address public health problems unless they know what the problems are, and they can't know what the problems are without sufficient information systems capacity.

What was learned about the PHHS Block Grant and information systems capacity

The majority of grantees used PHHS Block Grant funds to support efforts to improve health department information systems. Of the 57 respondents, 42 grantees (74%) reported that they used PHHS Block Grant funds to support development, improvement, and/or maintenance of one or more information systems. All three types of health departments—grantee, local, and tribal—developed, improved, and/or maintained information systems, most of which were surveillance systems and administrative/business systems. Improvements made by grantees reached beyond grantees' own agencies to also benefit the local and tribal health departments that used or had access to these systems.

Information Systems Capacity—Key Findings

Grantee, local, and tribal health departments improved their information systems capacity.

Measure 1.1
164 health departments

A total of 164 health departments—40 grantees, 112 local health departments, and 12 tribal health departments—developed, improved, and/or maintained a total of 153 information systems. Grantee health departments directly supported the majority of the systems (n = 136; 89%).

Information system improvements made by grantee health departments also benefited local and tribal health departments.

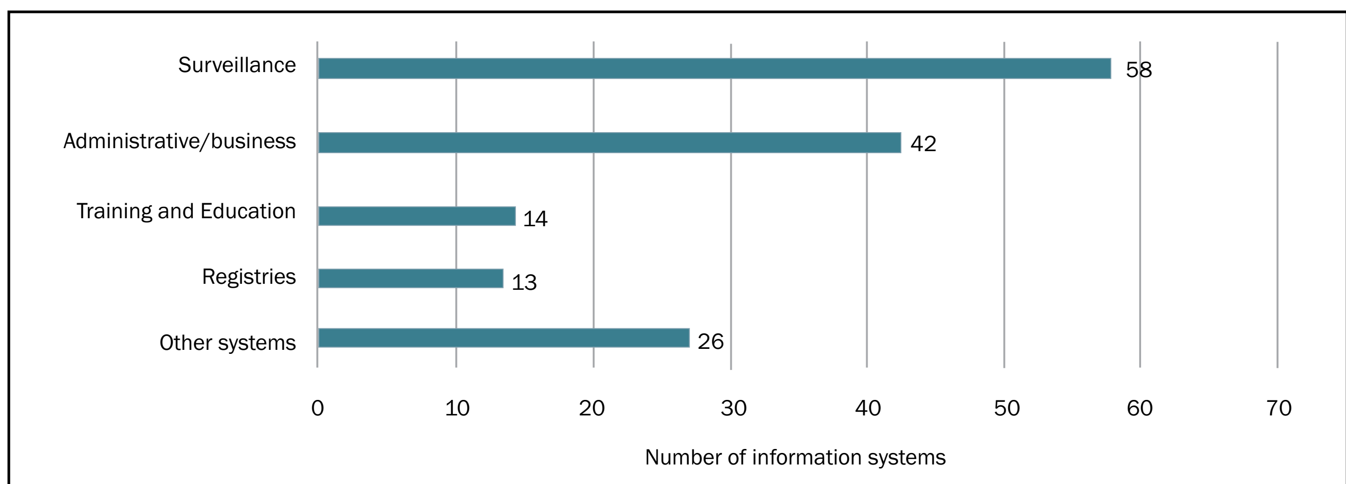
A total of 120 of the 136 information systems developed, improved, and/or maintained by grantees were made available for local and tribal health departments to use. On average, 38 local health departments and 4 tribal health departments across the 40 grantees used or had access to these information systems.

Most of the improvements in information system capacity supported by grantees were for surveillance systems and administrative/business systems.

Of the systems that were developed, improved, and/or maintained, 58 (38%) were surveillance systems (e.g., Behavioral Risk Factor Surveillance System, Youth Risk Behavior Surveillance System, Pregnancy Risk Assessment Monitoring System, State Electronic Notifiable Diseases Surveillance System) and 42 (28%) were administrative and business systems (see Figure 2). The administrative and business systems consisted of performance management systems (e.g., performance improvement dashboard, local public health planning and performance measurement system, clear impact scorecard), financial management systems (e.g., state grants management system, accounts payable) and program administration systems (e.g., client database, case management).

Other systems improved included vital events databases (n = 7; 5%), electronic health records and health information exchanges (n = 4; 3%), laboratory systems (n = 2; 1%), and online mapping (n = 2; 1%). Seven percent (n = 11) of the other types of systems were uncategorized.

Figure 2. Number of Information Systems Supported Through PHHS Block Grant Funds, by Type of System



QUALITY IMPROVED

1.2 Number of state, territorial, tribal, and local health departments in which the efficiency or effectiveness of operations, programs, and services was improved through the use of PHHS Block Grant funds.

About this measure

This measure captures the extent to which the PHHS Block Grant supports quality improvement efforts to increase the efficiency and/or effectiveness of health department operations, programs, or services.

Health departments can't expect to make greater progress on public health problems unless they use data and information to increase the efficiency and effectiveness of their public health efforts.

Why this measure is important for evaluating the PHHS Block Grant

Quality improvement (QI) is a formal approach used to strengthen organizational performance and increase the efficiency and/or effectiveness of public health operations, programs, and services. While individual employee performance may contribute to increased efficiency and effectiveness, it is important that the processes to improve efficiency and effectiveness be infused into agency-wide public health practice and operations to achieve significant and lasting improvements in quality.[2]

What was learned about the PHHS Block Grant and quality improvement

The majority of grantees used PHHS Block Grant funds to support implementation of QI efforts designed to increase the efficiency and/or effectiveness of health department operations, programs, or services. Of the 57 respondents, 38 grantees (67%) reported that they used PHHS Block Grant funds to support a QI effort. Grantee, local, and tribal health departments implemented QI projects and achieved a variety of efficiency and effectiveness improvements.

[2] PHAB Standard 9.2: Develop and implement quality improvement processes integrated into organizational practice, programs, processes, and interventions

Quality Improvement—Key Findings

Grantee, local, and tribal health departments achieved an efficiency and/or effectiveness improvement in a health department operation, program, or service.

Measure 1.2
376 health departments

A total of 376 health departments—30 grantees, 344 local health departments, and 2 tribal health departments—achieved an efficiency and/or effectiveness improvement. Grantee health departments achieved a total of 477 improvements across 140 operations, programs, or services; local health departments achieved a total of 173 improvements across 56 operations, programs, or services; and tribal health departments achieved a total of 9 improvements across 2 operations, programs, or services.

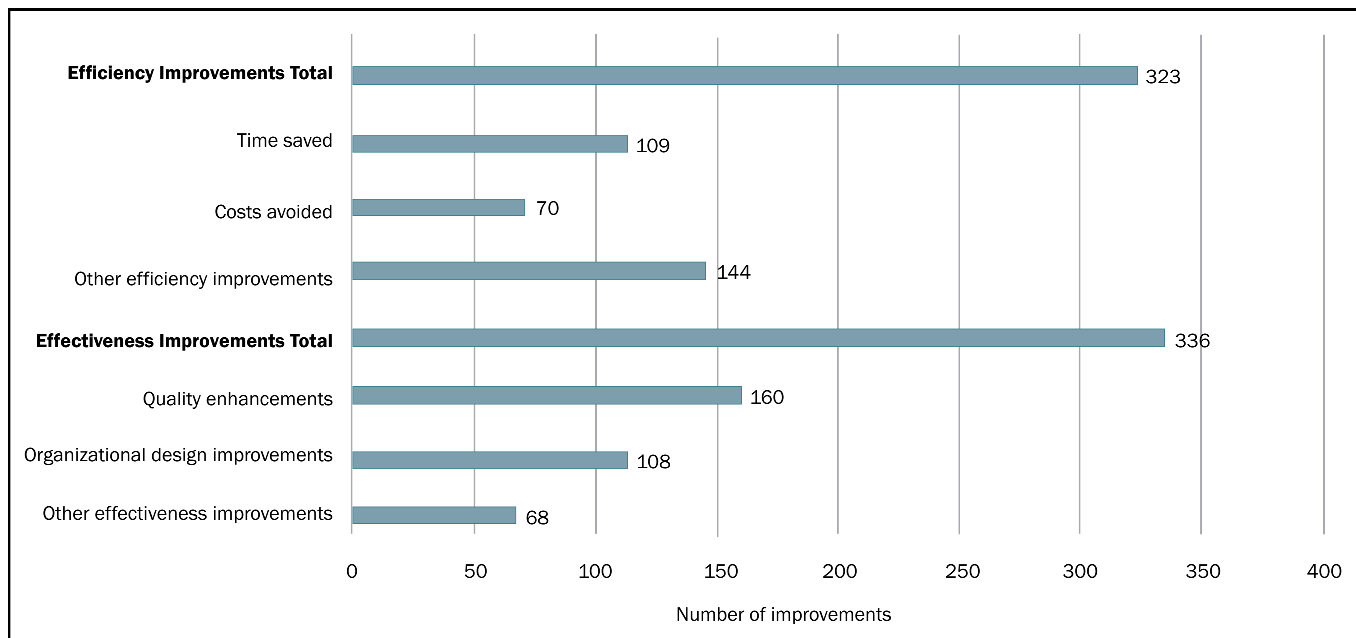
Most grantees working to improve efficiency and/or effectiveness used an established QI approach.

A total of 26 grantees reported using an established QI method to achieve at least 1 improvement in an operation, program, or service. Examples included Plan-Do-Check-Act (PDCA), Plan-Do-Study-Act (PDSA), Lean, Kaizen, 5s, and Collaboratives. PHHS Block Grant-supported QI projects contributed to ongoing efforts by grantees to achieve measurable improvements that support public health in their jurisdictions.

Health departments achieved a variety of efficiency and effectiveness improvements.

The type of improvements reported were split between efficiency and effectiveness improvements, representing 49% (n = 323) and 51% (n = 336), respectively (see Figure 3). "Other efficiency improvements" included reduced number of steps, costs saved, and revenue generated because of billable services, and "Other effectiveness improvements" included increased staff satisfaction. A total of 23 grantees (40%) made at least 1 improvement in efficiency while 30 grantees (53%) made at least 1 improvement in effectiveness.

Figure 3. Number of Efficiency and Effectiveness Improvements Achieved Through PHHS Block Grant Funds, by Type of Improvement



Other Findings About Public Health Infrastructure

To gather more information about public health infrastructure improvements achieved through PHHS Block Grant support, the questionnaire asked grantees to identify accreditation-related activities they conducted within the grantee health department as well as work toward achieving national standards.

Most grantees addressed national standards or accreditation-related activities as established by the Public Health Accreditation Board (PHAB).

More than half (56%; n = 32) of grantees used funds to support work to meet or maintain performance against national standards in their own health departments, while 37% (n = 21) of grantees supported this work in local health departments and 7% (n = 4) of grantees supported this work in tribal health departments.

Slightly less than half (46%; n = 26) used funds to hire staff to support accreditation-related activities, while 11% (n = 6) of grantees supported this work in local health departments. No funds were used to support tribal health departments for accreditation-related activities.

Twelve percent (n = 7) of grantees used funds to pay for PHAB fees, while 7% (n = 4) provided funds to local health departments for this purpose. No funds were used to help tribal health departments pay PHAB fees.

Emerging Needs Addressed

EMERGING PUBLIC HEALTH NEEDS ADDRESSED

2.1 Number of emerging public health needs that were addressed through the use of PHHS Block Grant funds.

About this measure

This measure captures recently identified and/or prioritized emerging public health needs that were addressed using PHHS Block Grant support.

Why this measure is important for evaluating the PHHS Block Grant

Emerging public health needs often include specific challenges faced by grantee jurisdictions, some of which might be unique and warrant grantee-specific approaches enabled by flexible block grant funding.

Protecting and improving public health often requires flexibility for health departments to tackle public health problems as they emerge in unique ways within their jurisdiction.

What was learned about the PHHS Block Grant and emerging public health needs

The majority of grantees used PHHS Block Grant funds to support efforts to address emerging public health needs specific to their jurisdiction. Of the 57 respondents, 39 (68%) grantees reported using PHHS Block Grant funds to address emerging public health needs, such as diabetes and opioid and prescription drug abuse.

Emerging Public Health Needs—Key Findings

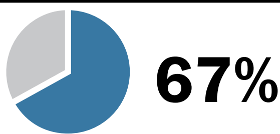
Grantee, local, and tribal health departments addressed specific emerging public health needs.

Measure 2.1

111 emerging public health needs

A total of 111 emerging public health needs were addressed using PHHS Block Grant funds.

Most of the emerging public health needs addressed were newly prioritized.[3]



The majority (n = 74; 67%) of the 111 emerging public health needs were characterized as newly prioritized.

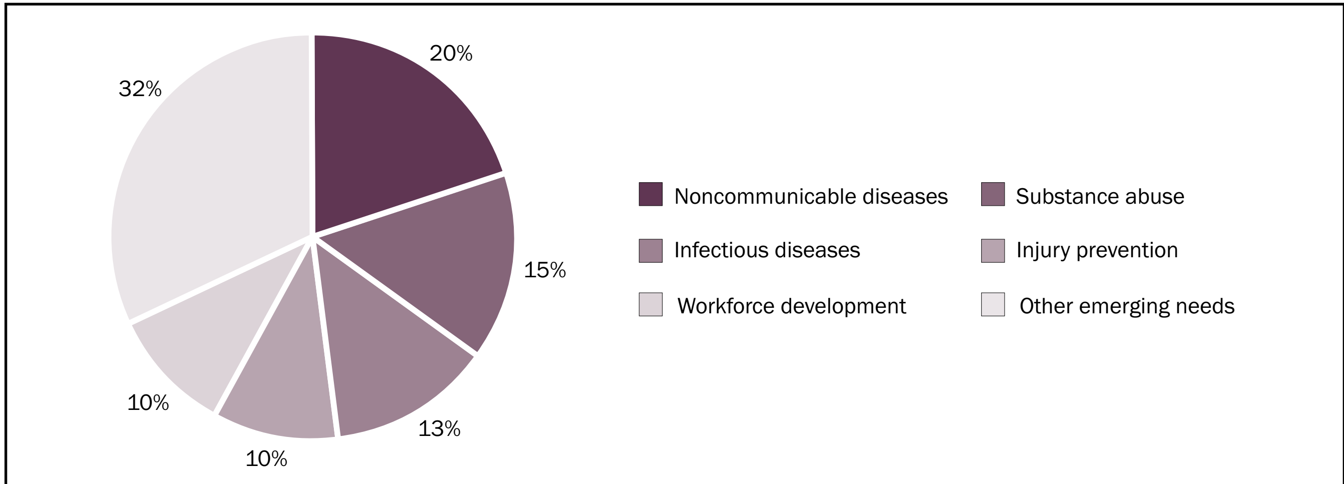
Various types of emerging public health needs were addressed.

The emerging public health needs addressed were varied, with the top five topic areas accounting for more than two-thirds (68%) of all emerging needs reported (see Figure 4). "Noncommunicable diseases"—which relates to chronic diseases and associated risk factors—included the topic areas of obesity, physical activity/nutrition, tobacco, diabetes, and asthma, and represented 20% of the emerging needs addressed. Substance abuse (e.g., opioid and prescription drug abuse, prevention, and education) accounted for 15% of emerging needs addressed. Infectious diseases, such as bacterial infections, viral infections, arboviral diseases, foodborne illnesses, and sexually transmitted diseases, accounted for 13%. Injury prevention and workforce development each accounted for 10%.

[3] Newly prioritized needs are defined in the framework as those emerging needs that have been known to the grantee but lacked funding or support, are new to the public health field, or have new expectations for a public health response.

Seven of the other emerging needs addressed were declared public health emergencies including disease outbreaks (tuberculosis, dengue fever, foodborne illness, measles, and syphilis) and environmental emergencies associated with floods in 2016 and a city water crisis.

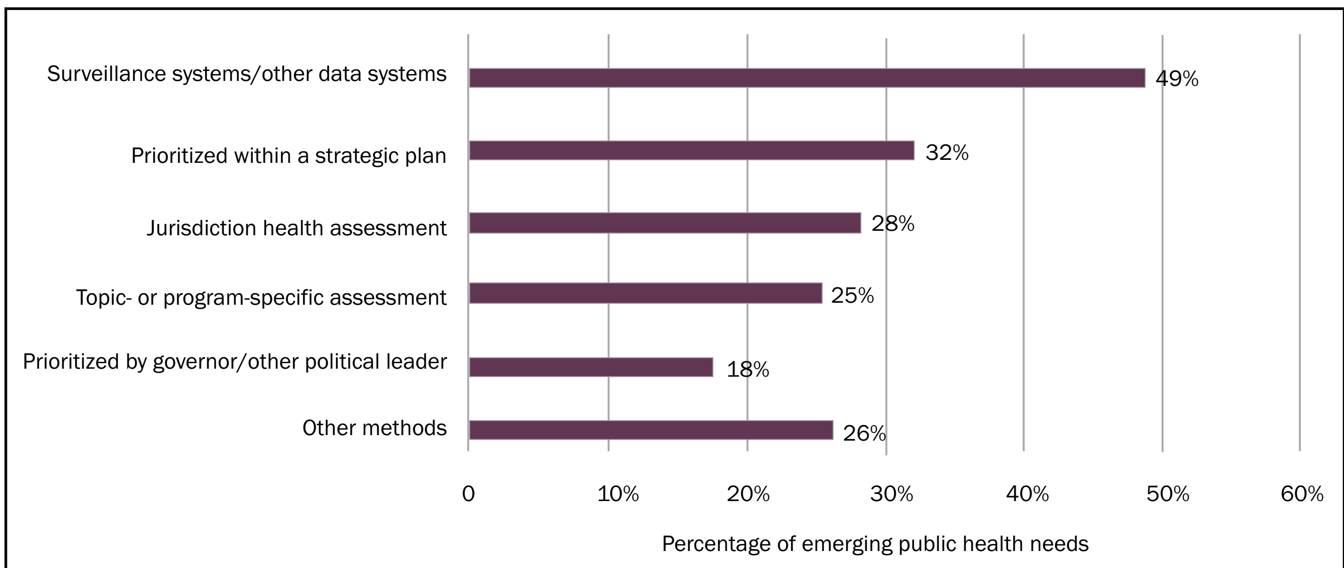
Figure 4. Percentage of Emerging Public Health Needs Addressed Through PHHS Block Grant Funds, by Type of Need



Emerging public health needs addressed were identified in a variety of ways.

The majority (n = 27; 69%) of grantees used multiple methods to identify emerging public health needs. Nearly half (49%) of the emerging needs addressed were identified using surveillance systems or other data sources (see Figure 5). Prioritizing emerging public health needs within a strategic plan was the next most frequently identified method, with 32% of needs identified in this way.

Figure 5. Percentage of Emerging Public Health Needs Addressed Through PHHS Block Grant Funds, by Method Grantees Used to Identify the Need



Evidence-Based Public Health Practiced

EVIDENCE-BASED PUBLIC HEALTH INTERVENTIONS IMPLEMENTED

3.1 Number of evidence-based public health interventions implemented through the use of PHHS Block Grant funds.

About this measure

This measure captures the number of evidence-based public health interventions implemented through PHHS Block Grant funds. Public health interventions are defined as any type of planned activity, such as a program, service, or policy, designed to prevent disease or injury or promote health in a group of people. For the purposes of this measure, public health interventions are considered to be evidence based if they are supported by moderate, strong, or rigorous evidence according to the *Healthy People 2020* strength of evidence rating criteria.[4]

Health departments can't do their best to protect and improve public health unless they implement public health interventions that are known to work AND collect data and information about public health efforts whose effectiveness is not yet known.

Why this measure is important for evaluating the PHHS Block Grant

Implementing public health interventions based on the best available evidence is an important practice for maximizing public health outcomes.

What was learned about the PHHS Block Grant and evidence-based public health interventions

The majority of grantees used PHHS Block Grant funds to support implementation of public health interventions. Of the 56 respondents, 47 (84%) reported that they used PHHS Block Grant funds to implement a total of 976 public health interventions. Most of the public health interventions implemented[5] were evidence based. For most of the interventions implemented whose effectiveness was unknown, health departments assessed the interventions to see if they were effective.

Evidence-Based Public Health Interventions—Key Findings

The majority of public health interventions implemented were evidence based.

Measure 3.1

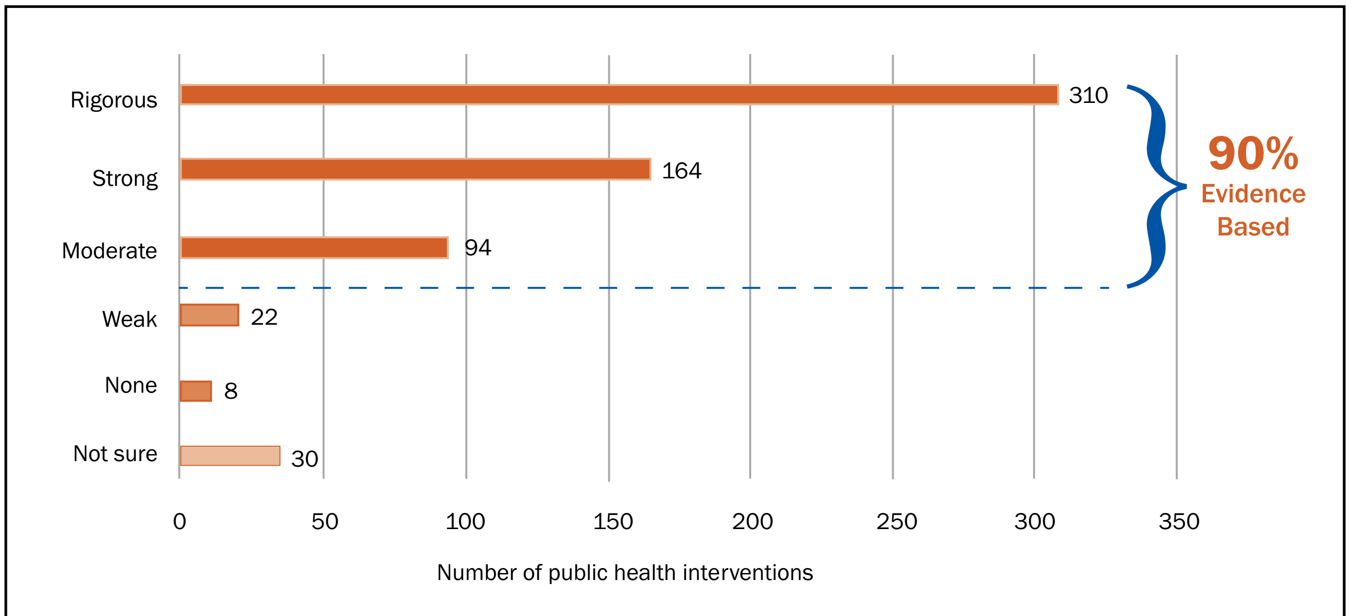
568 evidence-based public health interventions

Of the 628 public health interventions that grantees implemented and reported details for, 568 (90%) were evidence based (i.e., supported by moderate, strong, or rigorous evidence according to the *Healthy People 2020* strength of evidence rating criteria). Nearly half (49%) of all public health interventions implemented were supported by rigorous evidence (see Figure 6).

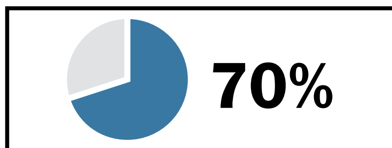
[4] *Healthy People 2020*. Evidence-Based Resources. www.healthypeople.gov/2020/Implement/EBR-glossary#selection-criteria. Accessed April 5, 2018.

[5] Respondents reported details for 628 of the 976 public health interventions implemented.

Figure 6. Number of Public Health Interventions Implemented Through PHHS Block Grant Funds, by Level of Evidence Supporting the Intervention



Grantees developed practice-based evidence by assessing public health interventions to see how well they worked.

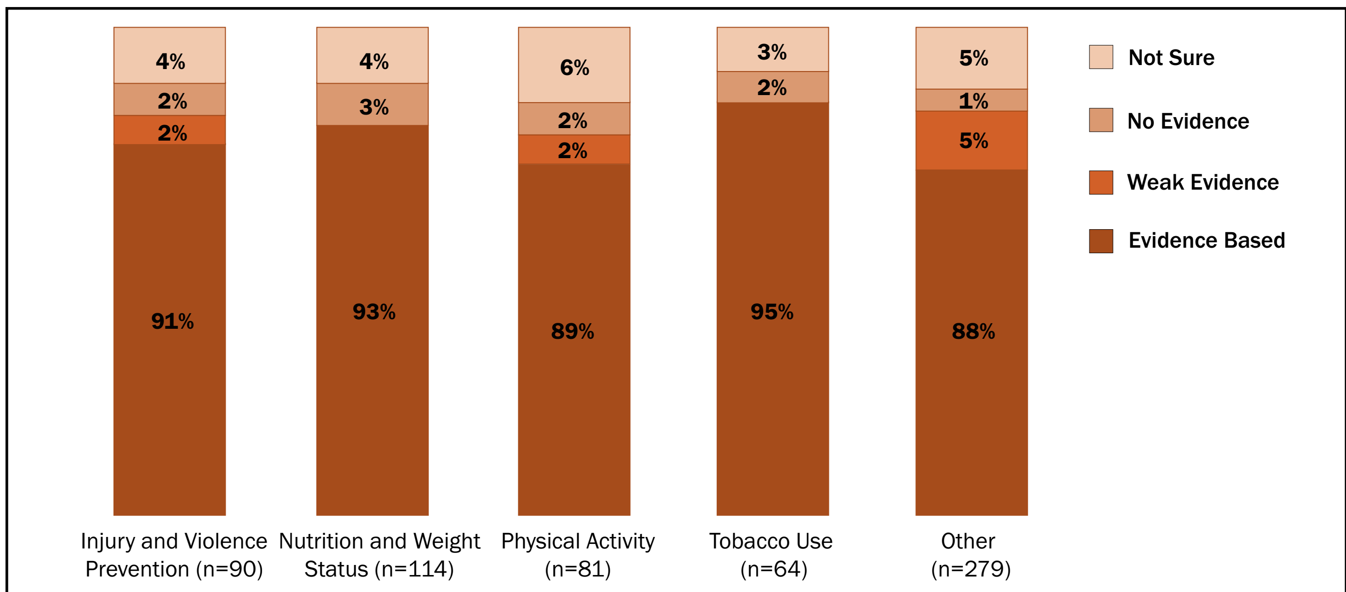


Of the 30 interventions with a weak or no evidence base, the majority (n = 21; 70%) were untested, innovative, and/or new. Grantees collected data on 21 of the 30 interventions to determine if they were effective at achieving intended outcomes, contributing to practice-based evidence for public health.

The top *Healthy People 2020* health topic areas addressed were nutrition and weight status, injury and violence prevention, physical activity, and tobacco use.

Of the 628 public health interventions, 114 addressed nutrition and weight status, 90 addressed injury and violence prevention, 81 addressed physical activity, and 64 addressed tobacco use. The vast majority of the interventions implemented across all *Healthy People 2020* health topic areas were evidence based (see Figure 7).

Figure 7. Evidence Base for Public Health Interventions Implemented Through PHHS Block Grant Funds, by Healthy People 2020 Health Topic Area



Other Findings About Evidence-Based Public Health Practice

To gather more information about evidence-based public health practice implemented through PHHS Block Grant support, the questionnaire asked grantees to identify activities they funded within their health department or within local or tribal health departments to build the evidence base for public health and to support evidence-based decision making.

Grantees supported health assessment activities at jurisdiction, community, and tribal levels to gather evidence (i.e., data and information) to determine public health needs.

Health assessments at the jurisdiction level (e.g., state health assessments) were conducted, monitored, or updated by 23 (41%) grantees. In addition, community health assessments conducted, monitored, or updated by local health departments were supported by 20 grantees (36%). These types of activities were also supported within tribal health departments by 2 grantees (4%). Other health-related assessments, such as topic-specific and program-specific assessments, were conducted by 22 (39%) grantees. These types of assessments were also supported within local health departments by 18 (32%) grantees and within a tribal health department by 1 (2%) grantee.

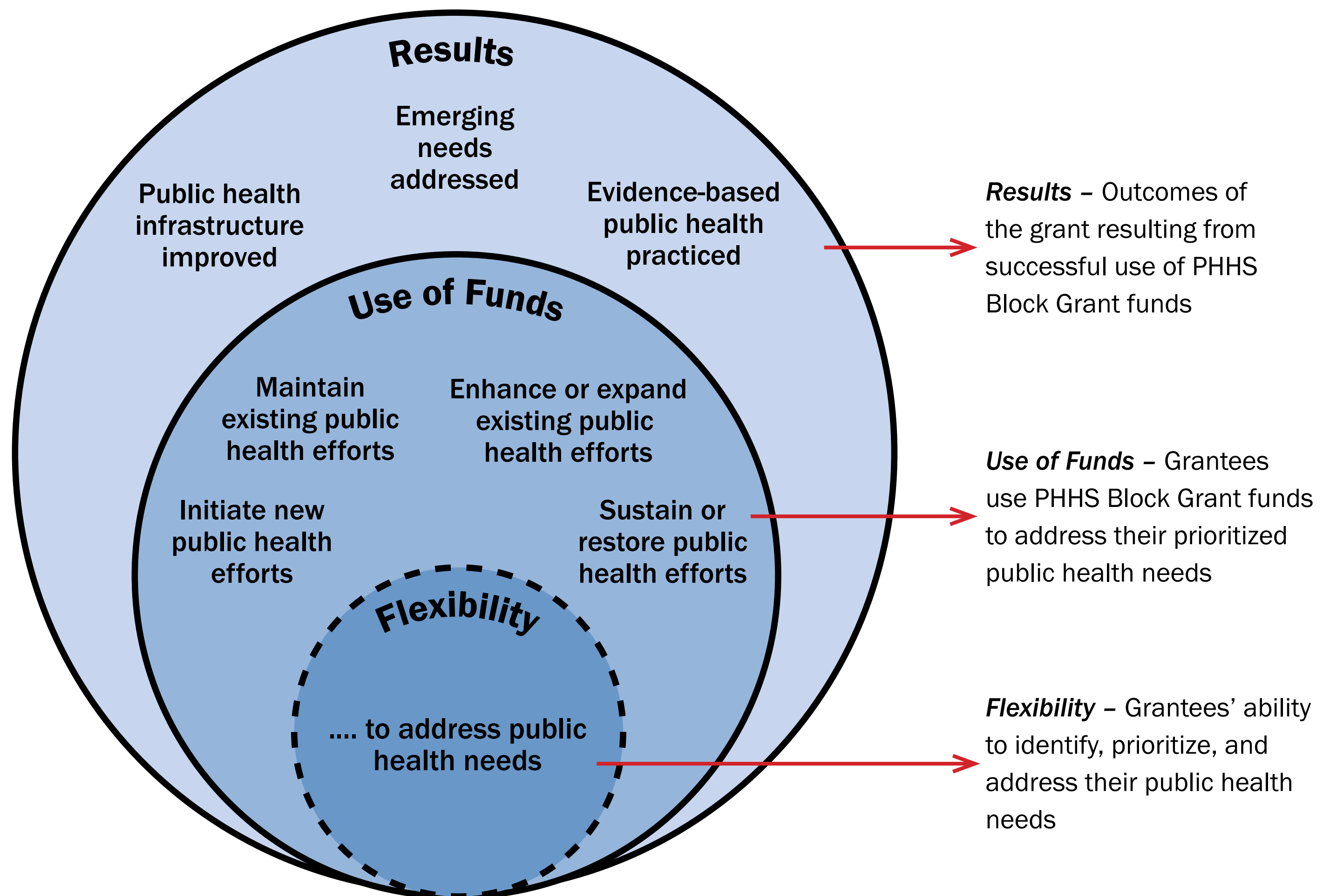
Grantees supported health improvement planning activities to prioritize public health needs and guide public health action (i.e., evidence-based decision making).

Health improvement plans at the jurisdiction level (e.g., state health improvement plans) were developed or updated by 20 (36%) grantees, and 14 (25%) grantees supported this activity in tribal health departments. Community health improvement plans were developed or updated by 17 grantees (30%), while 32 (57%) grantees supported health improvement planning in local health departments and 10 (18%) in tribal health departments. Topic-specific or program-specific action plans were developed or updated by 28 (50%) grantees, while 32 (57%) grantees supported development of topic-specific or program-specific action plans in local health departments and 9 (16%) in tribal health departments.

Appendix A—PHHS Block Grant Measurement Framework

Components of the PHHS Block Grant Measurement Framework

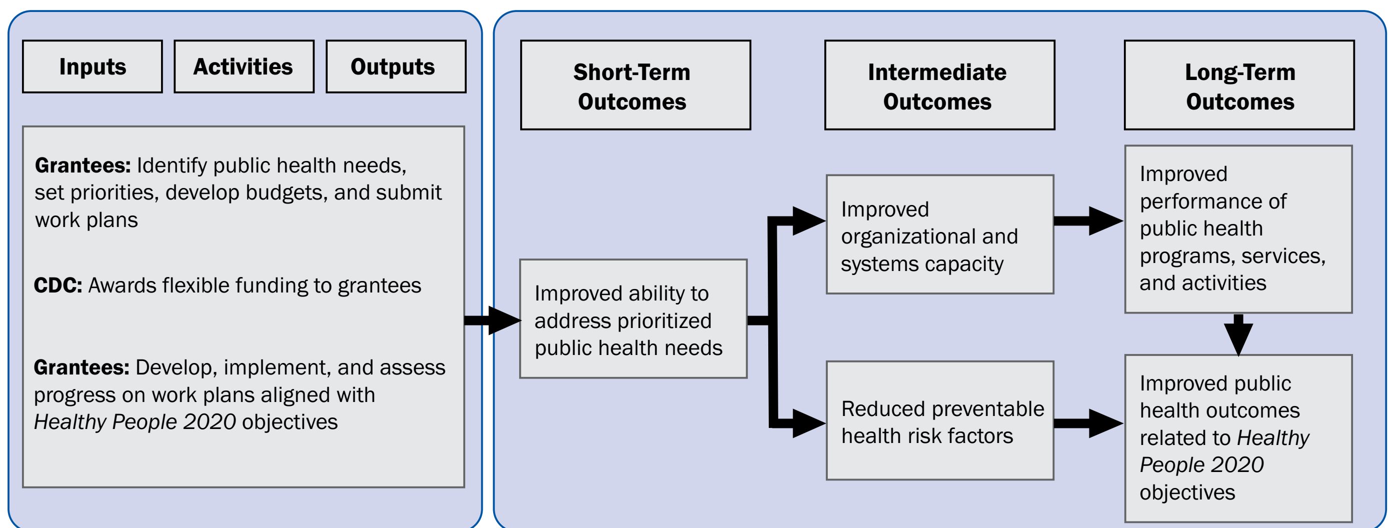
(Version 1.0)



Appendix B—PHHS Block Grant Logic Model

Preventive Health and Health Services Block Grant Logic Model (Simplified Version)

Evaluation Question Alignment



APPENDIX C – 2017 FRAMEWORK MEASURES ASSESSMENT—DATA TABLES

The data tables below present results from the 2017 Framework Measures Assessment. Key findings on the framework measures in this report are based on data from these tables. Percentages in some tables may not total 100% due to rounding.

Table 1. Response (Submission) Rates, by Measure

PHHS Block Grant Measure	N	%
PHI 1.1 Information Systems Capacity Improved	57	*93.4*
PHI 1.2 Quality Improved	57	*93.4*
EN 2.1 Emerging Public Health Needs Addressed	57	*93.4*
EBPH 3.1 Evidence-Based Public Health Interventions Implemented*	56	*91.8*
Overall survey response rate	**57**	***93.4***

One grantee excluded because of missing data.

Table 2. Summary of Grantee Reporting, by Measure (N = 57)

PHHS Block Grant Measure	N	%
PHI 1.1 Information Systems Capacity Improved	42	*73.7*
PHI 1.2 Quality Improved	38	*66.7*
EN 2.1 Emerging Public Health Needs Addressed	39	*68.4*
EBPH 3.1 Evidence-Based Public Health Interventions Implemented*	47	*83.9*
Reported on at least 1 measure	52	*91.2*
Reported on all 4 measures	25	*43.9*
Did not report on any measure	4	*7.0*

One grantee excluded because of missing data.

Table 3. Summary of Information Systems Developed, Improved, or Maintained, by Type of System

Type of System	N	%
Laboratory data systems	2	*1.3*
Surveillance systems	58	*37.9*
Registries	13	*8.5*
Vital events databases	7	*4.6*
Administrative/business systems	42	*27.5*
Performance management systems	*30*	*19.6*
Financial management systems	*1*	*0.7*
Program administration	*7*	*4.6*
Communication systems	*4*	*2.6*
Individual record systems	4	*2.6*
Electronic health records	*3*	*2.0*
Health information exchanges	*1*	*0.7*
Education/training systems	14	*9.2*
Digital library or health department	*4*	*2.6*
Public data dashboard	*6*	*3.9*
Public or patient training	*3*	*2.0*
Workforce development	*1*	*0.7*
Online mapping systems	2	*1.3*
Other	11	*7.2*
All systems	**153**	***100.0***

Table 4. Summary of How PHHS Block Grant Funds* Were Used To Support Information Systems, by Type of System

Type of System	Initiated New		Maintained Existing		Enhanced or Expanded		Sustained or Restored	
	N	%	N	%	N	%	N	%
Laboratory systems (n = 2)	1	*1.8*	-	-	2	*3.7*	-	-
Surveillance systems (n = 58)	19	*33.9*	25	*37.9*	23	*42.6*	2	*28.6*
Registries (n = 13)	4	*7.1*	7	*10.6*	4	*7.4*	-	-
Vital events databases (n = 7)	2	*0.4*	3	*4.5*	4	*7.4*	1	*14.3*
Administrative/business systems (n = 42)	17	*30.4*	18	*27.3*	15	*27.8*	2	*28.6*
Individual record systems (n = 4)	2	*0.4*	2	*3.0*	-	-	1	*14.3*
Education/training systems (n = 14)	6	*10.7*	7	*10.6*	2	*3.7*	1	*14.3*
Online mapping systems (n = 2)	-	-	1	*1.5*	1	*1.9*	-	-
Other (n = 11)	5	*8.9*	3	*4.5*	3	*5.6*	-	-
Total systems (N = 153)	**56**	***36.6***	**66**	***43.1***	**54**	***35.3***	**7**	***4.6***

**Table presents duplicated data for the four different types of use of PHHS Block Grant funds.*

Table 5. Summary of QI Outcomes, by Type of Improvement Achieved

Type of Improvement	N	%
Efficiency improvement	323	*49.0*
Time saved	*109*	*16.5*
Reduced number of steps	*64*	*9.7*
Cost saved	*54*	*8.2*
Costs avoided	*70*	*10.6*
Revenue generated because of billable services	*22*	*3.3*
Other efficiency improvement	*4*	*0.6*
Effectiveness improvement	336	*51.0*
Increased satisfaction	*66*	*10.0*
Organizational design improvements	*108*	*16.4*
Quality enhancement of services or programs	*160*	*24.3*
Other effectiveness improvement	*2*	*0.3*
All improvements	**659**	***100.0***

Table 6. Summary of How PHHS Block Grant Funds* Were Used To Support QI, by Type of Health Department

Type of Health Department	Initiated New		Maintained Existing		Enhanced or Expanded		Sustained or Restored		Total Number of Programs, Operations, or Services for Which a QI Was Achieved
	N	%	N	%	N	%	N	%	
Grantee health department	67	*47.9*	57	*40.7*	76	*54.3*	23	*16.4*	140
Local health department	30	*53.6*	19	*33.9*	23	*41.1*	8	*14.3*	56
Tribal health department	1	*50.0*	-	-	1	*50.0*	-	-	2
All health departments	**98**	***49.5***	**76**	***38.4***	**100**	***50.5***	**31**	***15.7***	**198**

**Table presents duplicated data for the four different types of use of PHHS Block Grant funds.*

Table 7. Summary of Grantee Activities To Address National Standards or Conduct Accreditation-Related Activities* (N = 57)

Activity	Grantee Activities		Grantee-Supported Local Health Department Activities		Grantee-Supported Tribal Health Department Activities	
	N	%	N	%	N	%
Paid for PHAB fees	7	*12.3*	4	*7.0*	-	-
Hired staff to support accreditation-related activities	26	*45.6*	6	*10.5*	-	-
Worked to meet and/or maintain performance against standards	32	*56.1*	21	*36.8*	4	*7.0*

**Table presents duplicated data for activities supported by PHHS Block Grant funds.*

Table 8. Summary of Emerging Needs Addressed, by Health Topic Area

Health Topic Area	N	%
Environmental health	8	*7.2*
Hazardous chemicals	*1*	*0.9*
Lead poisoning	*2*	*1.8*
Water safety	*5*	*4.5*
Health equity	6	*5.4*
Health services	7	*6.3*
Infectious diseases	14	*12.6*
Arboviral diseases	*3*	*2.7*
Bacterial infections	*4*	*3.6*
Foodborne illnesses	*2*	*1.8*
Sexually transmitted diseases	*3*	*2.7*
Viral infections	*1*	*0.9*
Injury prevention	11	*9.9*
Elderly care	*2*	*1.8*
Infants/children	*2*	*1.8*
Motor vehicle injury	*2*	*1.8*
Sexual violence prevention	*4*	*3.6*
Mental health	7	*6.3*
Suicide prevention	*3*	*2.7*
Noncommunicable diseases	22	*19.8*
Asthma	*2*	*1.8*
Diabetes	*2*	*1.8*
Obesity	*6*	*5.4*
Physical activity/nutrition	*4*	*3.6*
Tobacco	*3*	*2.7*
Other	*5*	*4.5*
Substance abuse	17	*15.3*
Workforce development	11	*9.9*
Other	8	*7.2*
All health topic areas	**111**	***100.0***

Table 9. Summary of Characteristics of Emerging Public Health Needs Addressed

Characterization of Emerging Need	N	%
Newly developing	31	*27.9*
Newly prioritized	74	*66.7*
Both newly developing and newly prioritized	6	*5.4*
All emerging needs	**111**	***100.0***

Table 10. Summary of Methods Used To Identify Emerging Public Health Needs

Identification Method	N	% of Methods Used (N = 198)	% of Emerging Needs (N = 111)
Conducted, monitored, or updated a jurisdiction health assessment	31	*15.7*	*27.9*
Conducted a topic- or program-specific assessment	28	*14.1*	*25.2*
Identified via surveillance systems or other data sources	54	*27.3*	*48.6*
Prioritized within a strategic plan	36	*18.2*	*32.4*
Declared as an emergency within your jurisdiction	6	*3.0*	*5.4*
Governor (or other political leader) established as a priority	20	*10.1*	*18.0*
Legislature established as a priority	13	*6.6*	*11.7*
Tribal government/elected official established as a priority	5	*2.5*	*4.5*
Other	5	*2.5*	*4.5*

Table 11. Summary of How PHHS Block Grant Funds* Were Used To Support Emerging Public Health Needs (N = 111)

Use of PHHS Block Grant Funds	N	%
Initiated new effort to address the emerging public health need	51	*45.9*
Maintained existing effort to address the emerging public health need	25	*22.5*
Enhanced or expanded existing effort to address the emerging public health need	38	*34.2*
Sustained or restored an effort to address the emerging public health need	7	*6.3*

**Table presents duplicated data for the four different types of use of PHHS Block Grant funds.*

Table 12. Summary of Strength of Evidence of Evidence-Based Public Health Interventions Implemented

Strength of Evidence Base	N	%
Rigorous	310	*49.4*
Strong	164	*26.1*
Moderate	94	*15.0*
Total Evidence-Based Interventions	**568**	***90.4***
Weak	22	*3.5*
None	8	*1.3*
Not sure	30	*4.8*
All Interventions	**628**	***100.0***

Table 13. Summary of Characteristics of Interventions with Weak or No Evidence Base

Strength of Evidence Base	Was the intervention untested, new, and/or innovative?					
	Yes		No		Not Sure	
	N	%	N	%	N	%
Weak	13	*43.3*	7	*23.3*	2	*6.7*
None	8	*26.7*	-	-	-	-
All	**21**	***70.0***	**7**	***23.3***	**2**	***6.7***

Table 14. Summary of Data or Information Collected for Interventions with Weak or No Evidence Base

Strength of Evidence Base	Was data or information collected to determine intervention effectiveness?					
	Yes		No		Not Sure	
	N	%	N	%	N	%
Weak	15	*50.0*	5	*16.7*	2	*6.7*
None	6	*20.0*	2	*6.7*	-	-
All	**21**	***70.0***	**7**	***23.3***	**2**	***6.7***

Table 15. Summary of Health Topic Areas Addressed, by Strength of Evidence Base

Health Topic Area	Rigorous Evidence		Strong Evidence		Moderate Evidence		Weak Evidence		No Evidence		Not Sure		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1. Access to health services	1	*0.2*	5	*0.8*	1	*0.2*	-	-	-	-	2	*0.3*	9	*1.4*
2. Adolescent health	11	*1.8*	2	*0.3*	2	*0.3*	-	-	-	-	-	-	15	*2.4*
3. Arthritis, osteoporosis, and chronic back conditions	1	*0.2*	1	*0.2*	-	-	-	-	-	-	-	-	2	*0.3*
4. Blood disorders and blood safety	-	-	-	-	-	-	-	-	-	-	-	-	0	-
5. Cancer	4	*0.6*	3	*0.5*	1	*0.2*	1	*0.2*	-	-	1	*0.2*	10	*1.6*
6. Chronic kidney disease	-	-	-	-	-	-	-	-	-	-	-	-	0	-
7. Dementias, including Alzheimer's disease	-	-	-	-	-	-	-	-	-	-	-	-	0	-
8. Diabetes	15	*2.4*	3	*0.5*	1	*0.2*	1	*0.2*	1	*0.2*	1	*0.2*	22	*3.5*
9. Disability and health	1	*0.2*	-	-	1	*0.2*	-	-	-	-	-	-	2	*0.3*
10. Early and middle childhood	3	*0.5*	1	*0.2*	-	-	-	-	-	-	-	-	4	*0.6*
11. Educational and community-based programs	6	*1.0*	7	*1.1*	4	*0.6*	-	-	-	-	-	-	17	*2.7*
12. Environmental health	5	*0.8*	2	*0.3*	3	*0.5*	-	-	-	-	1	*0.2*	11	*1.8*
13. Family planning	-	-	2	*0.3*	1	*0.2*	-	-	-	-	-	-	3	*0.5*
14. Food safety	23	*95.8*	-	-	1	*0.2*	-	-	-	-	-	-	24	*3.8*
15. Genomics	-	-	-	-	-	-	-	-	-	-	-	-	0	-
16. Global health	-	-	-	-	-	-	-	-	-	-	-	-	0	-
17. Health communication and health information technology	-	-	-	-	2	*0.3*	-	-	-	-	-	-	2	*0.3*
18. Health-related quality of life and well-being	2	*0.3*	18	*2.9*	2	*0.3*	-	-	-	-	1	*0.2*	23	*3.7*
19. Healthcare-associated infections	-	-	-	-	-	-	1	*0.2*	-	-	-	-	1	*0.2*
20. Hearing and other sensory or communication disorders	-	-	-	-	-	-	-	-	-	-	-	-	0	-
21. Heart disease and stroke	6	*1.0*	2	*0.3*	4	*0.6*	-	-	-	-	4	*0.6*	16	*2.5*
22. HIV	1	*0.2*	1	*0.2*	-	-	-	-	-	-	-	-	2	*0.3*

Table 15. Summary of Health Topic Areas Addressed, by Strength of Evidence Base (continued)

Health Topic Area	Rigorous Evidence		Strong Evidence		Moderate Evidence		Weak Evidence		No Evidence		Not Sure		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
23. Immunization and infectious diseases	8	1.3	2	0.3	1	0.2	1	0.2	-	-	-	-	12	1.9
24. Injury and violence prevention	40	6.4	19	3.0	23	3.7	2	0.3	2	0.3	4	0.6	90	14.3
25. Lesbian, gay, bisexual, and transgender health	-	-	-	-	-	-	-	-	-	-	-	-	0	-
26. Maternal, infant, and child health	3	0.5	8	1.3	-	-	-	-	-	-	-	-	11	1.8
27. Medical product safety	-	-	-	-	-	-	-	-	-	-	-	-	0	-
28. Mental health and mental disorders	1	0.2	2	0.3	2	0.3	-	-	1	0.2	-	-	6	1.0
29. Nutrition and weight status	52	8.3	29	4.6	25	4.0	3	0.5	-	-	5	0.8	114	18.2
30. Occupational safety and health	3	0.5	2	0.3	-	-	-	-	-	-	-	-	5	0.8
31. Older adults	4	0.6	-	-	-	-	-	-	-	-	-	-	4	0.6
32. Oral health	11	1.8	3	0.5	-	-	1	0.2	-	-	-	-	15	2.4
33. Physical activity	52	8.3	17	2.7	3	0.5	2	0.3	2	0.3	5	0.8	81	12.9
34. Preparedness	-	-	-	-	-	-	-	-	-	-	-	-	0	-
35. Public health infrastructure	3	0.5	4	0.6	-	-	-	-	-	-	1	0.2	8	1.3
36. Respiratory diseases	8	1.3	-	-	-	-	1	0.2	-	-	-	-	9	1.4
37. Sexually transmitted diseases	4	0.6	-	-	3	0.5	-	-	-	-	1	0.2	8	1.3
38. Sleep health	-	-	-	-	-	-	-	-	-	-	-	-	0	-
39. Social determinants of health	1	0.2	3	0.5	-	-	-	-	1	0.2	-	-	5	0.8
40. Substance abuse	3	0.5	1	0.2	2	0.3	-	-	-	-	-	-	6	1.0
41. Tobacco use	27	4.3	26	4.1	8	1.3	1	0.2	-	-	2	0.3	64	10.2
42. Vision	-	-	-	-	-	-	-	-	-	-	-	-	0	-
43. Emergency medical services*	-	-	-	-	-	-	2	0.3	-	-	-	-	2	0.3
44. Rape or attempted rape*	11	1.8	1	0.2	3	0.5	7	1.1	1	0.2	2	0.3	25	4.0
Total	**310**	**49.4**	**164**	**26.1**	**93**	**14.8**	**23**	**3.7**	**8**	**1.3**	**30**	**4.8**	**628**	**100.0**

"Emergency medical services" and "Rape or attempted rape" are in addition to the 42 Healthy People 2020 *health topic areas to which grantees can allocate funds.*

Table 16. Summary of How PHHS Block Grant Funds* Were Used To Support Public Health Interventions, by Strength of Evidence Base

Evidence Base	Initiated New		Maintained Existing		Enhanced or Expanded		Sustained or Restored	
	N	%	N	%	N	%	N	%
Rigorous	73	*11.6*	165	*26.3*	111	*17.7*	7	*1.1*
Strong	35	*5.6*	98	*15.6*	36	*5.7*	4	*0.6*
Moderate	27	*4.3*	59	*9.4*	15	*2.4*	-	-
Weak	4	*0.6*	13	*2.1*	4	*0.6*	1	*0.2*
None	5	*0.8*	2	*0.3*	-	-	1	*0.2*
Not sure	9	*1.4*	23	*3.7*	3	*0.5*	2	*0.3*
Total	**153**	***24.4***	**360**	***57.3***	**169**	***26.9***	**15**	***2.4***

**Table presents duplicated data for the four different types of use of PHHS Block Grant funds.*

Table 17. Summary of Grantee Activities To Build the Evidence Base for Public Health (N = 56)

Activity	Grantee Activities		Grantee-Supported Local Health Department Activities		Grantee-Supported Tribal Health Department Activities	
	N	%	N	%	N	%
Conducted, monitored, or updated a health assessment	23	*41.1*	20	*35.7*	2	*3.6*
Conducted a topic- or program-specific assessment	22	*39.3*	18	*32.1*	1	*1.8*
Analyzed or monitored surveillance or other types of data	33	*58.9*	10	*17.9*	1	*1.8*

Table 18. Summary of Grantee Activities To Support Evidence-Based Decision Making (N = 56)

Activity	Grantee Activities		Grantee-Supported Local Health Department Activities		Grantee-Supported Tribal Health Department Activities	
	N	%	N	%	N	%
Developed or updated a health improvement plan	20	*35.7*	-	-	14	*25.0*
Developed or updated a community health improvement plan	17	*30.4*	32	*57.1*	10	*17.9*
Developed or updated a topic- or program-specific action plan	28	*50.0*	32	*57.1*	9	*16.1*

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