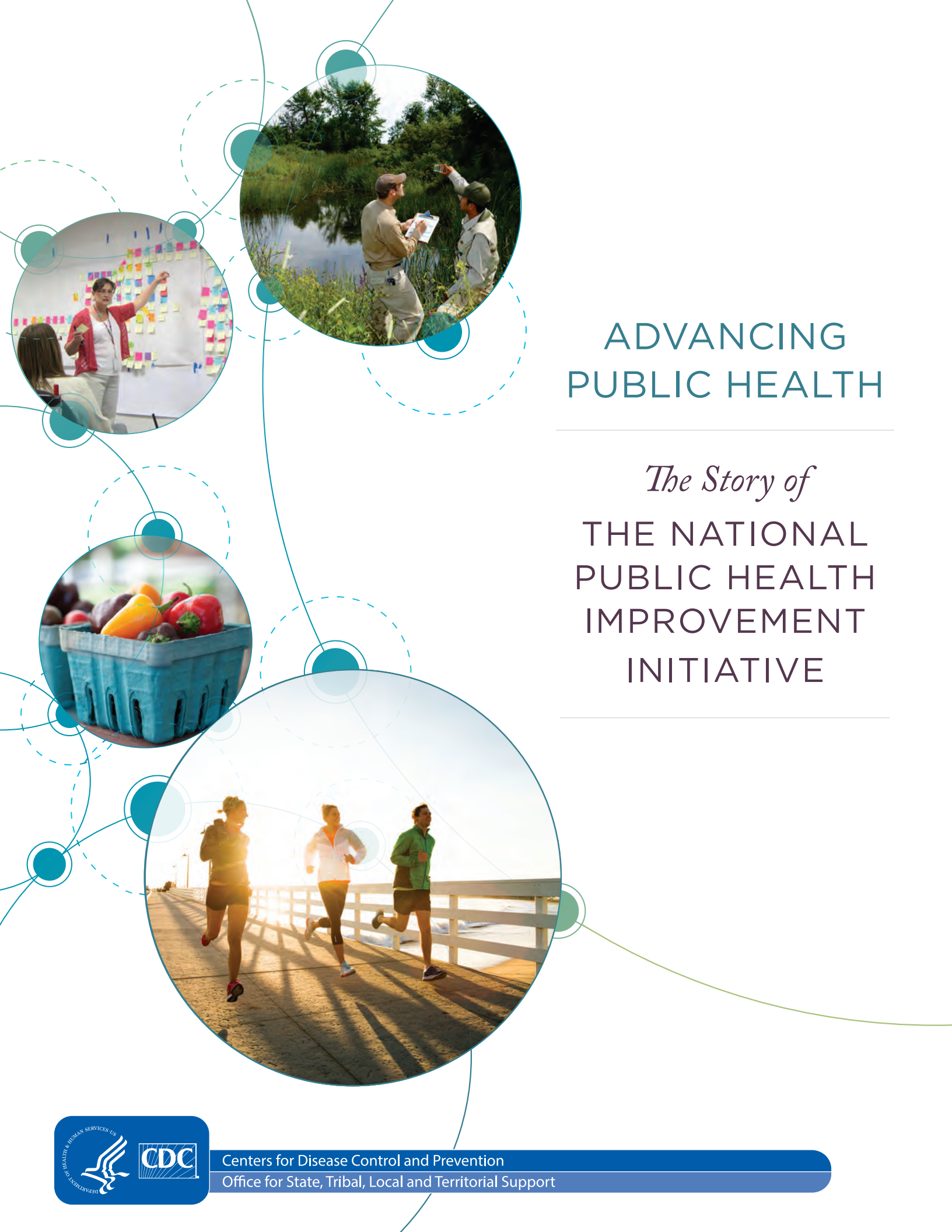




ADVANCING PUBLIC HEALTH

The Story of THE NATIONAL PUBLIC HEALTH IMPROVEMENT INITIATIVE



Centers for Disease Control and Prevention
Office for State, Tribal, Local and Territorial Support

ACKNOWLEDGMENTS

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For more information or for queries about this compendium, please contact ostltsfeedback@cdc.gov.



Dear Colleague,

You have in your hands a compendium that summarizes the journey and accomplishments of a ground-breaking program—the National Public Health Improvement Initiative (NPHII). This initiative represented an unprecedented opportunity for the Centers for Disease Control and Prevention (CDC) to support state, tribal, local, and territorial public health departments to improve their efficiency and effectiveness.

Funding for NPHII was identified in the spring of 2010, shortly after the Office for State, Tribal, Local and Territorial Support (OSTLTS) was established. OSTLTS, as a new CDC office responsible for strengthening our nation's health departments, shaped the many key elements for this groundbreaking initiative. We developed a vision and programmatic objectives that would serve to strengthen health departments' infrastructure, regardless of their starting point. We also engaged key national partners to play critical roles in providing capacity building assistance and developing tools that leveraged new knowledge from the field.

The timing was ideally aligned with the launch of the national voluntary accreditation program for health departments and the field's growing interest in quality improvement. The timing allowed us to focus on the national accreditation standards for health departments as a framework for performance improvement, while also fostering health departments' use of quality improvement and performance management.

Most importantly, NPHII's success was due to our awardees in the field. We have heard from countless health officials who extolled the opportunities NPHII created and who were excited about their health departments' achievements. They found themselves leading the way for other governmental departments, and their elected officials noticed and celebrated their achievements.

In this compendium, you can read about the overall accomplishments of NPHII, as well as stories from each of the funded health departments. We hope you are inspired and impressed by these extraordinary efforts to improve the performance of our nation's public health system.

Sincerely,

José T. Montero, MD, MHCDS

Director, OSTLTS, and Deputy Director for State, Tribal, Local, and Territorial Support, CDC

Judith A. Monroe, MD

Former Director, OSTLTS, and Deputy Director for State, Tribal, Local, and Territorial Support, CDC

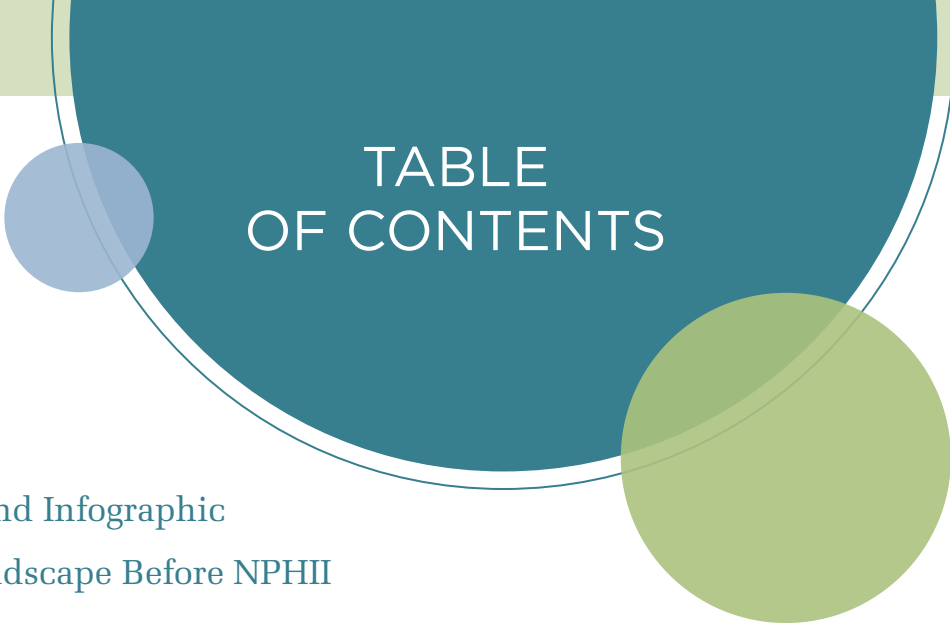


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EXECUTIVE SUMMARY

As the 21st century approached, several public and privately funded efforts established the foundation for improving the public health system and leveraging the many entities that contribute to the community's health within a given jurisdiction. These initiatives created new appreciation for the value of quality improvement within public health and developed tools with practical applications.

Building on those efforts, the Centers for Disease Control and Prevention (CDC) invested in an unprecedented program to infuse quality and performance improvement methods in health departments across the United States—the National Public Health Improvement Initiative (NPHII). NPHII provided \$142 million and technical assistance to 73 awardees from 2010 to 2014. Annual funding for the program varied between \$42.5 million initially to \$32.5 million in Year 4.

The awardees were health departments in

- 48 states and the District of Columbia
- 9 cities or counties serving large populations
- 4 US territories
- 3 US-affiliated Pacific Islands and 1 Pacific Island organization
- 4 federally recognized tribes and 4 tribal organizations that support approximately 250 federally recognized tribes

Awardees were empowered to identify the strategies that would best help them meet NPHII's overarching objectives. NPHII enabled awardees to implement deliberate quality improvement projects, enhance a culture of quality, and increase efficiency and effectiveness of programs and core business functions. NPHII encouraged a significant focus on performance management by supporting efforts to build organization-wide performance management systems and improvement capacity. Awardees were required to hire or designate a performance improvement manager who would serve as a cross-cutting leader, and many awardees used this opportunity to create or support an office for organization-

wide performance improvement to strengthen their agency's infrastructure. Additionally, more than half of the awardees used NPHII funding to increase their capacity to coordinate with, train, and support other health agencies within their jurisdictions.

NPHII's major objectives and activities included

- Accelerating readiness for health department accreditation, as defined through nationally established standards and measures
- Improving organizational efficiency and effectiveness through quality improvement activities, such as the use of quality improvement projects to improve process time or increase customer satisfaction
- Increasing performance management capacity and actively using data to monitor and improve program and organizational performance

To help awardees meet NPHII's objectives, CDC engaged six national organizations to offer capacity building assistance directly to individual awardees. This created a remarkable opportunity for collective planning that unified and leveraged the support these national organizations provided the health departments. CDC and its partners jointly developed and delivered content for annual awardee meetings, provided technical assistance and support with a strong customer focus, and collaborated with one another on how to best respond to emerging challenges as the new program launched and matured. In addition, CDC engaged one partner to support evaluation activities throughout the life of the NPHII program.

NPHII's four years of support helped awardees integrate performance improvement into their organizations' culture in an unparalleled way that better positioned them to sustain these efforts. The infographic on the following page summarizes the program's accomplishments. The compendium then showcases those accomplishments in detail, featuring examples of how each awardee used NPHII support to build the foundation and capacity for increased efficiency and effectiveness of disease control and prevention efforts in their communities.

NATIONAL PUBLIC HEALTH IMPROVEMENT INITIATIVE

The Centers for Disease Control and Prevention implemented the National Public Health Improvement Initiative (NPHII) to assist 73 public health agencies in increasing public health accreditation readiness, improving efficiency and effectiveness through quality improvement initiatives, and increasing performance management capacity. Through NPHII, agencies increased their ability to make data-driven decisions for priority setting, program planning, and implementation, eliminated siloes through partnerships and collaborations, strengthened the culture for performance improvement, and institutionalized these practices within the agency.

ACCREDITATION READINESS

40% of the US population

is served by NPHII-funded agencies that achieved accreditation.



97% of agencies

strengthened their readiness for accreditation by engaging in activities such as



Designating an accreditation coordinator



Completing the PHAB checklist



Establishing a roadmap to submit an application



Communicating with leaders and staff about accreditation



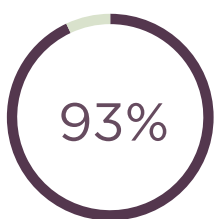
Conducting a gap analysis



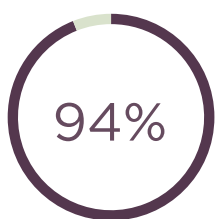
Creating a document management system

The majority of agencies

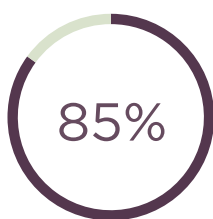
completed or made progress toward completing the Public Health Accreditation Board (PHAB) prerequisites.



Organizational Strategic Plan



Health Assessment



Health Improvement Plan

86% of agencies

increased the efficiency and/or effectiveness of a program, operation, or service through quality improvement projects.

QUALITY IMPROVEMENT



Time saved



Quality enhancement of a service and/or system



Costs saved or avoided



Improved customer satisfaction



Increased reach to a target population



Increased preventive behaviors

SPREADING THE IMPACT OF NPHII

More than half of agencies

used NPHII funds to provide mini-grants and/or nonmonetary support (i.e., technical assistance, training, workshops to other health agencies within their jurisdictions to conduct performance improvement activities).

Number of other health agencies that received support

● Mini-grants

● Nonmonetary support



SUSTAINING PERFORMANCE IMPROVEMENT

76% of agencies

will sustain activities for two or more focus areas—accreditation readiness, quality improvement, and/or performance management.



75% of agencies

with a performance improvement office will maintain it.

88% of agencies

maintaining these offices will sustain activities for all three focus areas.



THE PUBLIC HEALTH LANDSCAPE BEFORE NPHII

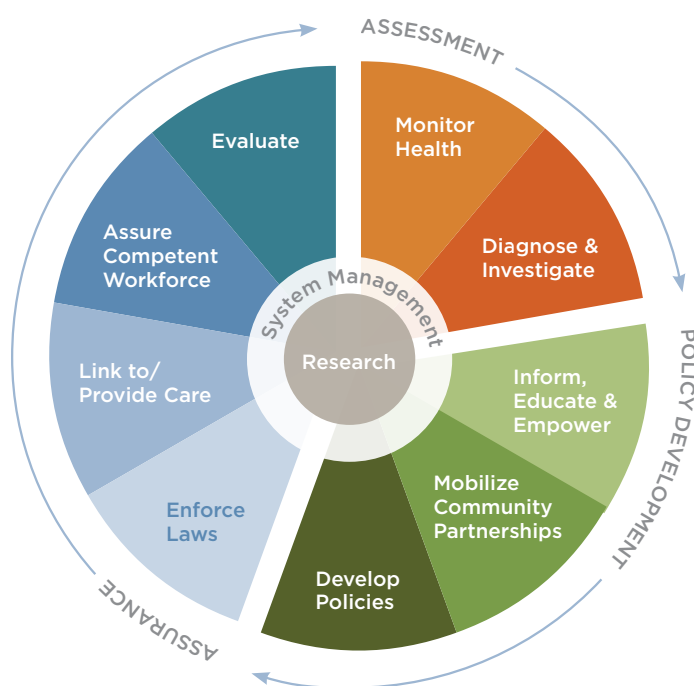
Health departments, described by the Institute of Medicine (IOM) as the “backbone of public health,” play important roles in preventing and controlling disease, ensuring safe and healthy environments, and promoting healthy behaviors. The nation relies on the approximately 3,000 health departments* serving state, tribal, local, and territorial jurisdictions. This network of health agencies provides important services to the public, such as disease outbreak investigations, vaccinations, restaurant inspections, chronic disease screening and self-management classes, and policy development and implementation (e.g., smoke-free ordinances).

In its groundbreaking 1988 report, *The Future of Public Health*, the IOM stated that “this nation has lost sight of its public health goals and has allowed the system of public health activities to fall into disarray.” In the same report, the IOM identified three core public health functions and prompted discussions and subsequent attention to the roles of health departments and their partners.

In 1994, the US Department of Health and Human Services articulated a vision and mission for public health, as well as key responsibilities.¹ These “Ten Essential Public Health Services” became the framework for a new generation of public health practice (**Figure 1**).

* The terms “health department” and “public health agency” are used interchangeably in this document.

Figure 1: Ten Essential Public Health Services



STRENGTHENING PUBLIC HEALTH SYSTEMS

As the 21st century approached, several federally and foundation-funded efforts laid the groundwork for improving public health systems. Public health systems include the many entities that contribute to the community's health within a given jurisdiction.

For example, in 1997, the Centers for Disease Control and Prevention (CDC) initiated the development of National Public Health Performance Standards (NPHPS). CDC and NPHPS national partners collaboratively developed tools to assess and strengthen state and local public health system partnerships. The resulting information helped identify best practices, improve coordination, promote policy changes, and target opportunities for improvement.² After rigorous testing in hundreds of sites, CDC and its partners formally launched the NPHPS tools in 2002 and released updated versions in 2007 and 2013.

Also during the late 1990s, the W.K. Kellogg Foundation and Robert Wood Johnson Foundation (RWJF) partnered to support the Turning Point program, which funded 14 state and 41 local community partnerships to develop system improvement plans³ and explored topics such as law, performance management, and communications.⁴ The Turning Point and NPHPS efforts—individually and jointly—provided new opportunities to strengthen public health partnerships at all levels, define the role of the health department in ensuring a strong public health system, and provide much-needed tools for improving public health practice.

“In the United States, governments at all levels (federal, state, and local) have a specific responsibility to strive to create the conditions in which people can be as healthy as possible.”

— IOM, *THE FUTURE OF THE PUBLIC'S HEALTH IN THE 21ST CENTURY*, 2002

“To most effectively protect and promote the health of the population, the nation’s entire governmental public health infrastructure—its human resources, information systems, and organizational capacity—must be revitalized and strengthened.”

— IOM, *THE FUTURE OF THE PUBLIC’S HEALTH IN THE 21ST CENTURY*, 2002

In 2001, the 9/11 and anthrax attacks brought renewed emphasis and awareness of the importance of a strong public health infrastructure to preparing for possible terrorist attacks and other emergencies. Increased funding for emergency preparedness played a role in supporting the day-to-day activities of health departments in a way that would strengthen the capacity needed in times of emergency response. However, little funding was available to help health departments look at or strengthen essential public health services overall. This meant that health departments continued to struggle to ensure their basic capacities were in place.

A 2002 IOM report, *The Future of the Public’s Health in the 21st Century*, focused attention on health department accreditation, which had been successfully pioneered in a handful of states.^{5,6} Acting in part on this call to action, CDC and RWJF co-supported an effort to explore the feasibility and desirability of national accreditation and to provide formal recommendations for such a program. The Public Health Accreditation Board (PHAB), established in 2007, launched the first national voluntary public health accreditation program in 2011, after four years of field-driven development and testing.⁷ PHAB accredited the first round of 13 health departments in February 2013. As of April 2017, 178 health departments—22 state, 155 local, and 1 tribe—and one integrated state system with 67 county components had been accredited.

NPHPS NATIONAL PARTNERS

- American Public Health Association
- Association of State and Territorial Health Officials
- Centers for Disease Control and Prevention
- National Association of County and City Health Officials
- National Network of Public Health Institutes
- Public Health Foundation

“PHAB accreditation provides a means for a health department to identify performance improvement opportunities, enhance management, develop leadership, and strengthen community relationships—leading organizations to improved accountability, credibility, and better health outcomes.”⁸

— THOMAS ET AL., 2014.

Around the same time public health accreditation efforts were under way, the Pandemic and All Hazards Preparedness Act (PAHPA) was enacted in 2006. Driven in part by the 9/11 and anthrax attacks in 2001 and by Hurricane Katrina in 2005, PAHPA was established to strengthen the nation’s capacity to “improve the Nation’s public health and medical preparedness and response capabilities for emergencies, whether deliberate, accidental, or natural.”⁹ This all-hazards approach emphasized the need to improve public health systems.

Then the global financial crisis of 2008 brought several years of severe budget cuts to health departments, resulting in significant losses in personnel and resources. Subsequently, many public health programs and services were restructured, diminished, or eliminated.¹⁰ The *Blueprint for a Healthier America* reported that a \$20 billion annual shortfall in public health funding impaired the nation’s ability to carry out basic functions.¹¹

In 2010, new funding provided an unprecedented opportunity to address the complex challenges faced by public health while building upon the groundwork laid by the efforts, events, and reports of previous decades.¹²

Seeking to improve the efficiency and effectiveness of public health departments, CDC launched the National Public Health Improvement Initiative (NPHII). NPHII employed a unique, cross-cutting approach to increase US health departments’ capacity to achieve national accreditation standards, implement performance management practices and systems, and routinely use well-established quality improvement methods.

“When NPHII came along, it took all the parts and pieces and put them into a consolidated approach that addressed ongoing infrastructure needs.”

— NATIONAL PARTNER REPRESENTATIVE





NPHII PROGRAM OVERVIEW

The Centers for Disease Control and Prevention (CDC) launched the National Public Health Improvement Initiative (NPHII) in 2010 in the face of increasingly complex public health challenges, dwindling resources, and healthcare system changes.

The NPHII cooperative agreement provided funding and technical support to state, tribal, local, and territorial public health department awardees to advance performance improvement and adopt fundamental changes that would improve the delivery and impact of public health programs and services. Put simply, NPHII was intended to help health departments do their work better.

Most federal public health funding supports programs that focus on specific diseases, health issues, or population segments, known as categorical funding. Health departments often struggle to identify adequate resources for building a strong organization that can be nimble in the face of emerging issues and handle the public health responsibilities not covered by categorical funding. NPHII complemented CDC's categorical investments by allowing agencies to strengthen organization-wide capacities, systems, and processes.

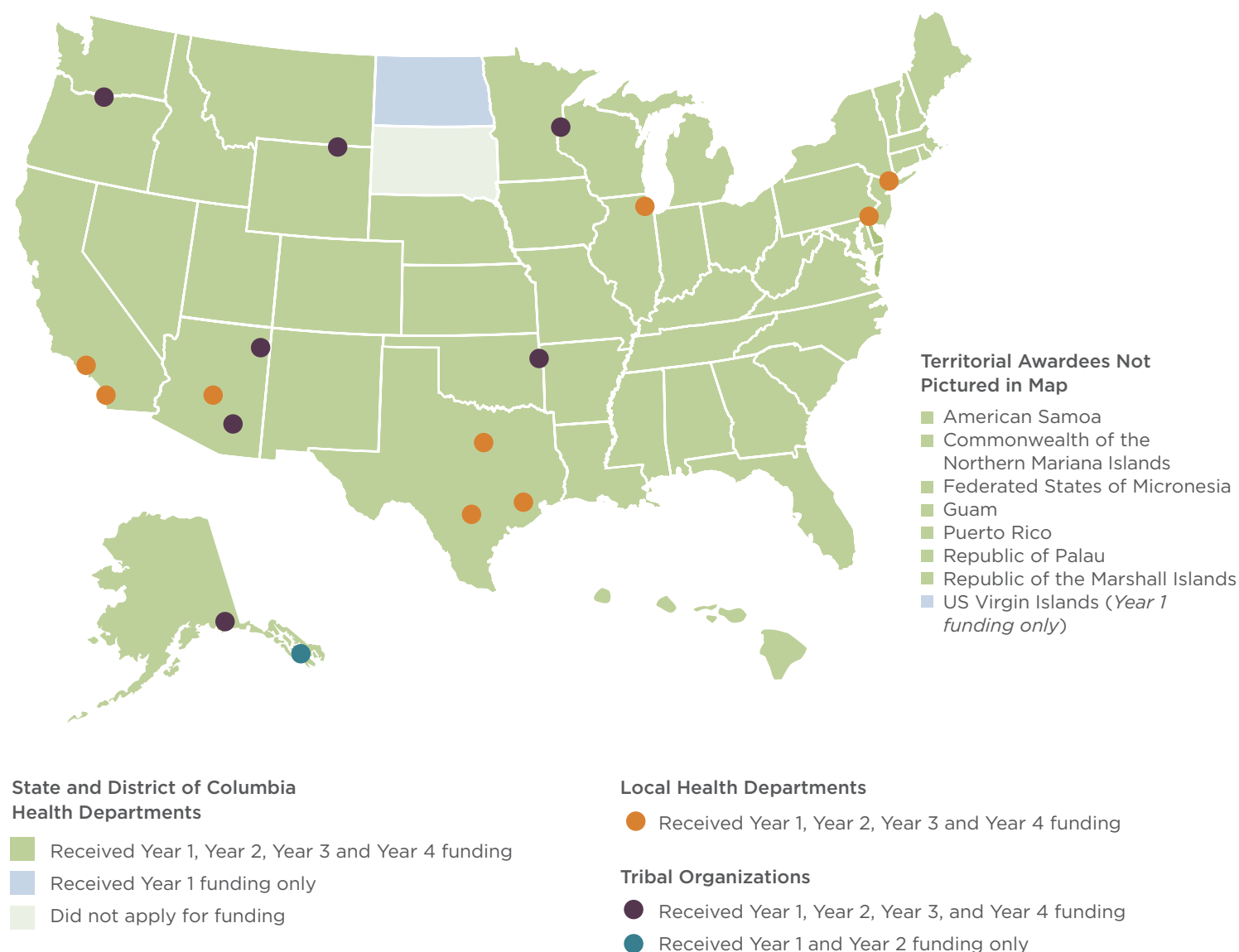
NPHII provided funding and technical assistance to 73 awardees from 2010 to 2014 (**Figure 2**). The total investment in NPHII was \$142 million; annual funding for the program varied, ranging from \$42.5 million in Year 1 to \$32.5 million in Year 4.

The awardees were health departments in

- 48 states and the District of Columbia
- 9 cities or counties serving large populations
- 4 US territories
- 3 US-affiliated Pacific Islands and 1 Pacific Island organization
- 4 federally recognized tribes and 4 tribal organizations that support 250 federally recognized tribes

Awardees were encouraged to use NPHII resources to address priority areas for which funding is typically scarce, such as cohesive agency level planning, business practice improvements, workforce development, or comprehensive community health assessments. The initiative's flexibility, collaborative approach, and iterative evaluation allowed CDC and its partners to adjust initiative strategies to align with real-time shifts in public health practice, including the launch of the national public health accreditation program in 2011.

Figure 2: Map of Awardees



“These funds are a down payment on improving public health services across the nation. With these funds, we will help our nation’s public health departments work more effectively and efficiently to detect and respond to public health problems. This program will strengthen the nation’s public health system and our ability to improve the health and well-being of all Americans”

— DR. JUDITH A. MONROE

Former director, OSTLTS, and former CDC deputy director, speaking about NPHII’s launch

PROGRAM OBJECTIVES AND REQUIREMENTS

As with many new initiatives, the focus of NPHII's programmatic activities evolved during the program's first years. Throughout the program, there was a general focus on performance improvement, including the requirement to **hire or designate a performance improvement manager (PIM) with the organizational responsibility of fostering quality improvement (QI)**. PIMs provided a focal point for performance improvement work within their agencies and, in some instances, PIMs also served as accreditation coordinators. They worked to increase collaboration within their public health agencies and engage staff in the use of QI methods and approaches to build performance management (PM) capacity and integrate performance improvement into the agency's culture.⁸

By the third year, awardees' activities were squarely focused on three key areas:

- **Accelerate public health accreditation readiness** — To improve performance against national standards and assist awardees in pursuing accreditation, NPHII supported awardees in several areas, including
 - Completing an organizational self-assessment against the Public Health Accreditation Board (PHAB) standards to identify gaps and opportunities for improvement.
 - Developing (or making progress toward developing) at least one of the following: health assessment, health improvement plan, or agency-wide strategic plan. While these are important documents required for accreditation, each is also considered vital to any health department's operations and support of community health.
 - Undertaking other readiness activities, including planning for accreditation (e.g., developing a timeline and "roadmap" to agency's accreditation application), organizing the agency workforce and documentation for accreditation, or engaging in activities to address a gap in meeting a specified accreditation standard.

- **Improve organizational efficiency and effectiveness through quality improvement activities** — NPHII awardees built capacity and developed skills enabling improvements in health departments' business practices, programs, and public health service delivery. Awardees were required to implement QI initiatives or projects that increased *efficiency* (such as time saved or fewer steps to complete a process) and/or *effectiveness* (such as improved customer satisfaction or increased access to services).
- **Increase performance management capacity** — CDC emphasized actively using data to monitor and improve program and organizational performance. In particular, NPHII encouraged awardees to build or improve PM practices or systems. PM focuses on the use of data for decision-making by setting objectives, measuring and reporting progress, and, if movement toward those objectives is not being made, engaging in QI activities.

NPHII PROGRAM FEATURES: ADVANCING AWARDEE SUCCESS

CDC also placed considerable attention on the following program components, which were intended to more fully support the success of awardees in creating a more comprehensive initiative.

Building Leadership for Performance Improvement

CDC required awardees to hire or designate a PIM to provide leadership for performance improvement within the organization. CDC strongly encouraged awardees to ensure a direct connection between PIMs and senior leaders. In addition to establishing the PIM position, many awardees created or supported an office for organization-wide performance improvement to strengthen their agency's infrastructure. As of the midpoint of the program, 64% of awardees noted that, organizationally, the PIM and/or the office responsible for performance improvement resided at the senior management and/or executive

leadership level. This link to agency leadership became a critical part of the organizational change process. “Because we have senior leaders on board with this initiative, employees are empowered to make changes and ask questions about challenging the status quo,” one PIM said. “Empowering employees is leading us towards a culture shift.”¹³

Peer-to-Peer Learning and Collaboration

NPHII encouraged collaboration among awardees within and beyond their jurisdictions. For example, CDC established the PIM Network, a community of practice, to provide a forum for awardees to learn from each other. The PIM Network facilitated ongoing communication and collaboration among peers; supported training and professional development; built the evidence base for PM/QI efforts; identified opportunities for participation in developing, informing, and updating PM/QI policies and practices; and built and maintained a peer-driven knowledge base that connected PIMs to shared resources. For the first time, a nationwide network of PIMs directly connected state, tribal, local, and territorial health agencies to each other and to CDC.

“The PIM Network has proven invaluable and increased capacity to coordinate systems development and improvement within and across jurisdictions,” a CDC staff member said. Some NPHII awardees even created regional networks, including the California PIM Network, New England PIM Collaborative, and the Texas PIM Network, to enhance peer interactions. These networks held conference calls, organized joint projects, hosted training opportunities, and developed or shared resources to foster rapid capacity building. For example, the California PIM Network, which focuses its efforts on local health departments, developed a website that hosts continuously updated accreditation readiness resources.¹⁴ In addition, some national partners hosted constituency-specific learning communities, such as accreditation coordinator learning communities.

Awardees were also encouraged to develop cross-jurisdictional partnerships. This prompted some awardees—particularly states or awardees representing groups of tribes or territories—to support other organizations in accreditation readiness and PM/QI. This allowed NPHII support to reach beyond the directly funded agencies to coordinate with, train, and provide funding to other public health agencies. Several awardees increased the capacity of additional health agencies by providing grants, technical assistance, and training, as well as sharing resources and knowledge.

National Partner Engagement

CDC funded several key national partner organizations to extend the expertise of the Office for State, Tribal, Local and Territorial Support (OSTLTS) and expand the breadth and depth of capacity building assistance (CBA) and technical support provided to awardees. Collaboration with other partners, such as PHAB (an OSTLTS-funded partner, but not supported through NPHII funds) and Robert Wood Johnson Foundation (RWJF) helped ensure alignment of NPHII awardee and partner activities with national thought leaders and complementary initiatives. “This collaboration with national partners enriched the program,” said Harald Pietz, a former OSTLTS branch chief. “The combined impact of diverse experts and perspectives was a force multiplier.”

NPHII-FUNDED PARTNERS

- American Association of Indian Physicians
- American Public Health Association
- Association of State and Territorial Health Officials
- National Association of County and City Health Officials
- National Network of Public Health Institutes
- Public Health Foundation

Funded partners were generally involved in ways that drew on their expertise in specific topics or leveraged their ability to support their member-based constituencies. One partner—the National Network of Public Health Institutes (NNPHI)—was uniquely engaged to support evaluation activities throughout the life of the NPHII program.

Capacity Building and Technical Assistance

CDC worked with its national partners to provide CBA and technical support to awardees. This ranged from one-on-one technical assistance tailored to awardee needs to more broad-reaching capacity building activities, such as national awardee meetings, webinars, conference presentations, and tool development.

When CDC program staff received a technical assistance request, they worked with the funded national partners to determine the most effective response, which could require a combination of direct consultation, onsite workshops, or broader-based support. Ongoing feedback from awardees continued to prioritize and shape the types of assistance offered.

“The variety of activities completed by awardees would have been extremely difficult to support without focused CBA engagement,” said Roberta Erlwein, who served as the NPHII program lead. While the national partners that served as CBA providers had their own unique competencies and focus areas, organizations often collaborated to ensure improved awardee outcomes. NPHII funding allowed national organizations to have a unified focus on the support, technical assistance, and educational opportunities that they collectively provided the health departments.

Evaluation: Data for Continuous Improvement and Impact

CDC, in collaboration with NNPHI, conducted an evaluation of NPHII to assess progress toward program objectives and achievement of outcomes, as well as to understand the perceived value of the initiative among key stakeholders. The design and implementation of an innovative evaluation and measurement approach resulted in data that were useful for guiding continuous improvements to the program and technical assistance efforts, as well as for understanding the extent to which the initiative supported improved public health practice and performance. For more details on the evaluation purpose and methodology, see **Appendix B**.

Success of the evaluation was due, in part, to the continued use of evaluation methods and findings to inform refinements to program objectives and guidance to awardees. This resulted in increased clarity that, in turn, facilitated collection of more consistent, aggregate data.

TOPICS ADDRESSED THROUGH CBA

- Accreditation readiness
- Community/state health assessment and improvement planning
- Strategic planning
- QI tools and methods
- Developing and implementing QI plans
- Return on investment
- Performance standards, measurement, and management
- Workforce training and development strategies
- Health information technology

“The Network has proven invaluable and increased capacity to coordinate systems development and improvement within and across jurisdictions.”

— CDC STAFF MEMBER

One key example of this success was the development of a standardized approach to defining and measuring outcomes of awardee QI efforts. To assess and describe the impact of QI projects, and to assist awardees with articulating concrete outcomes of their QI activities, CDC’s NPHII evaluation staff developed a core set of efficiency- and effectiveness-related outcomes with a framework to standardize their measurement.¹⁵ Use of this framework resulted in the ability to identify, determine, and quantify the outcomes of awardee health department QI efforts in a meaningful way. The framework, recognized for excellence and innovation in evaluation at the 2014 CDC/ATSDR Honor Awards, also provides the field with a means to build the evidence base for QI and has already been leveraged for other endeavors.¹⁶

Another example of the contributions of the NPHII evaluation revolved around the initiative’s accreditation readiness objective. To more consistently assess agencies’ readiness for accreditation, CDC’s NPHII evaluation team developed a self-assessment to help awardees report on their progress toward meeting PHAB standards. The self-assessment helped awardees identify organizational gaps and determine whether they were making progress toward closing the gaps. Results from the self-assessment were used to determine the most and least frequently met standards and identify areas needing additional technical assistance and support.



.....

The overall initiative was designed to balance flexibility and accountability—valuing impact at both the awardee jurisdictional and national levels. Dr. Craig Thomas, Director of the Division of Public Health Performance Improvement in OSTLTS, summed it up best by stating, “NPHII was a unique and exciting program. The cross-cutting and noncategorical nature of the funding meant that we were strengthening the very foundation of health departments in a way that had the potential for improving any public health program. The flexibility of the program allowed awardees to focus efforts in areas that best fit their own needs and starting points. We were also able to develop an accountability system and evaluation framework that helped us figure out where and how we moved the needle nationally. Finally, the inclusion of partners was critical—they played such important roles in providing technical assistance and training and ensuring the state, tribal, local, and territorial awardees could be as successful as possible.”



NPHII PROGRAM ACCOMPLISHMENTS

The National Public Health Improvement Initiative (NPHII) was designed to provide the funding and technical assistance needed to strengthen health department effectiveness and efficiency. With the focus provided by NPHII's objectives and requirements, awardees were able to leverage NPHII resources in ways that best addressed their own needs. As illustrated in the following sections, evaluation findings show that NPHII's key program objectives related to accreditation readiness, quality improvement (QI), and performance management (PM) were successfully achieved. In addition to these major achievements, awardees and partners found that the NPHII investments yielded other benefits across all areas, such as leaving a legacy of tools and resources that continue to be used by the field, enhancing peer connections in health departments across the country, and adding to the knowledge base related to performance improvement.

NPHII PROGRAM OBJECTIVES ACHIEVED

Increased Accreditation Readiness

The Public Health Accreditation Board (PHAB) officially launched the first national public health accreditation program in 2011, just before NPHII's second year. The Centers for Disease Control and Prevention (CDC) capitalized on this opportunity to use the national standards as a basis for defining what NPHII awardees should strengthen within their organizations. Although applying for accreditation was not a program requirement, NPHII funding provided state and local health departments necessary resources to meet the national standards and complete accreditation readiness tasks—resources that proved valuable regardless of an awardee's intent to become accredited.

By the end of Year 4, 97% of awardees reported having strengthened their accreditation readiness through various activities, including

-  Communicating with leaders and staff about accreditation
-  Conducting a gap analysis using the national public health accreditation standards
-  Designating an accreditation coordinator
-  Completing the PHAB checklist
-  Establishing a roadmap to submit an application for accreditation
-  Creating a system to manage documentation that shows evidence of meeting accreditation standards



According to awardees, completion of these activities helped their health departments better understand agency operations, engage in cross-organization work, and collaborate more effectively with external partners. Awardees indicated that staffing support from NPHII funding accelerated accreditation readiness timelines and processes. Among those awardees that initially lacked leadership support or resources to pursue accreditation, NPHII provided the necessary financial and technical support to prioritize accreditation readiness activities.

In addition, awardees noted that the capacity building assistance (CBA) provided by the national partner agencies, by the performance improvement manager (PIM) network, or through hands-on training and learning communities was vital to their ability to complete accreditation readiness activities. For example, the Association of State and Territorial Health Officials (ASTHO) fostered peer- sharing and learning through the accreditation coordinator and PM/QI learning communities for state health department staff. These groups also were integral in guiding the national partners in efforts to develop toolkits, guides, and other resources that continue to inform agencies as they work toward accreditation.

During the program's final two years, NPHII required all awardees to complete a self-assessment against PHAB's national standards. This process helped agencies gain a working knowledge of the standards and identify areas where NPHII support could help them improve.

By the program's end, more than three-quarters of the awardees (77%) reported closing gaps in at least one PHAB standard (e.g., moving from not meeting a standard to addressing it, or from working on a standard to meeting it). Almost 90% of awardees reported meeting or making progress toward the standards addressing workforce development, PM, and QI (Standards 8.2, 9.1, and 9.2), which have historically been among the most challenging standards for health departments to meet.

Health department leaders agreed that NPHII funding pushed their agencies to review standards, identify gaps, and develop approaches to fill these gaps—all of which moved them closer to accreditation. One health department leader stated simply, "Without this [NPHII] funding, we never could have gotten there."

“Each one of the [health department] programs view the work that they do as the most important thing. [By] convening work groups across the division, it helped people to understand that all the work that we do within public health is important, that sometimes there is some work that’s more important than others, and that we need to use health outcomes and health data to help us measure what areas that [our state constituents] need the most support.”

— JAYNE BAILEY

Interim Deputy Director, Public Health Division, Oregon Health Authority

PHAB Prerequisites: Health Assessment, Health Improvement Plan, and Strategic Plan

The national standards established by PHAB outline different areas of expectation for health departments. Three key documents were required at the start of the PHAB application process. Those became commonly known as the “PHAB prerequisites.” Regardless of a health department’s intention to apply for accreditation, the development and use of these documents are critical to ensuring strong health department operations and proactive collaborative processes to address major health issues within the jurisdiction.

Each of these prerequisites are fully described through the national standards:

- **State/community health assessment** — Community-driven document that describes the health status of the population the health department serves
- **State/community health improvement plan** — Collaborative process to identify priorities and document objectives and action plans for each
- **Agency-wide strategic plan** — Plan establishing a health department’s vision, goals, and objectives

Figure 3: PHAB Prerequisite Completion Status by End of Program (Year 4)

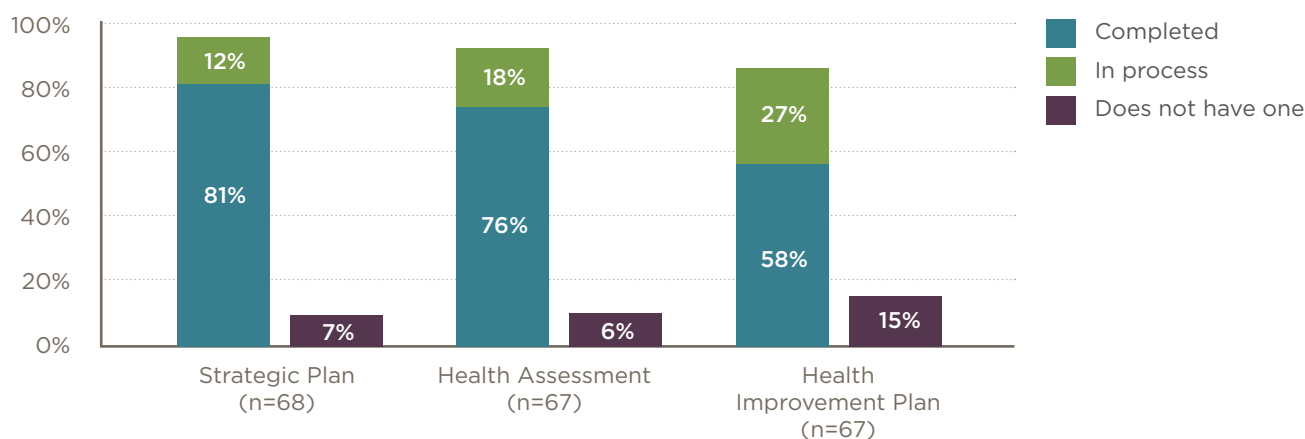


Figure 4: Awardee Progress in Completing PHAB Prerequisites: May 2013–December 2014 (n=67)

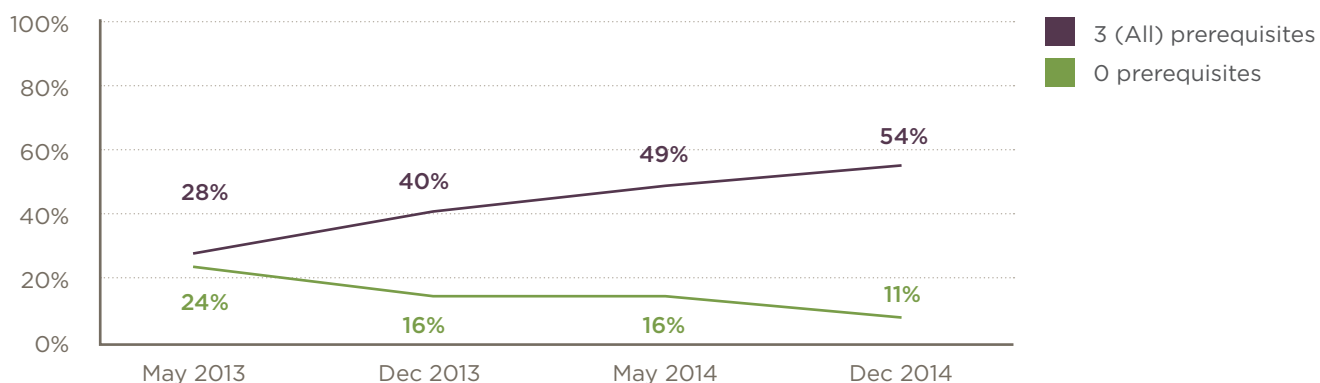
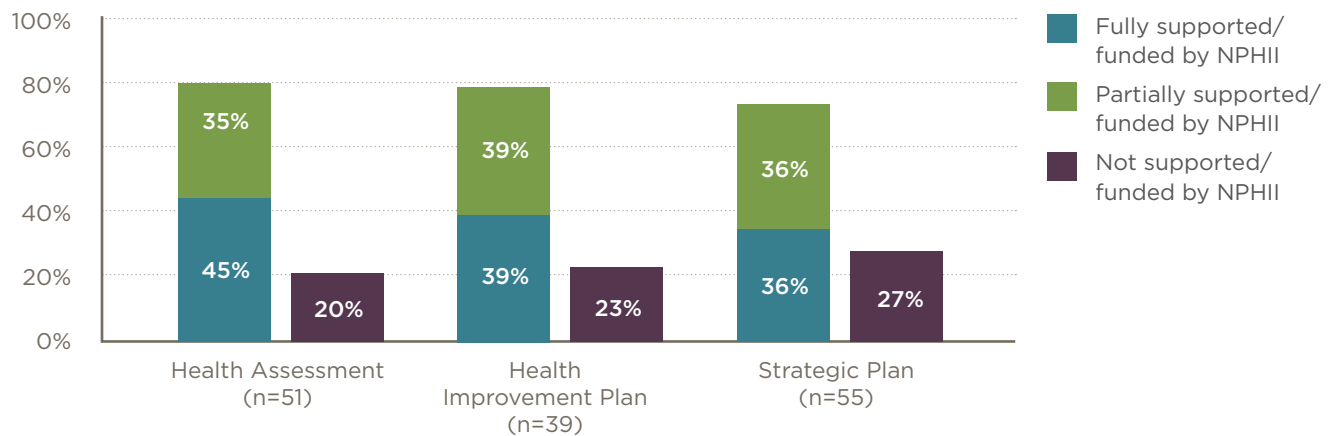


Figure 5: Extent of NPHII Support Used to Complete PHAB Prerequisites



One of NPHII's key objectives focused on developing or making progress toward developing at least one of the three accreditation prerequisites (**Figure 3**). By the initiative's conclusion, most awardees met this challenge, with 54% of awardee health departments completing all three prerequisites and 90% completing at least one prerequisite.

While NPHII required progress on at least one prerequisite, the percentage of awardee agencies who completed all prerequisites almost doubled (from 28% to 54%) from the time it became a required focus in May 2013 to the program's end in December 2014 (**Figure 4**). The percentage of agencies that were still in progress but had not yet finished any prerequisite was cut by more than half (from 24% to 11%) over the same period.

A substantial percentage of awardee health departments used NPHII funds to complete these activities. For example, among those awardees who completed a health assessment by the end of the program, 80% indicated that they had fully or partially conducted this work with NPHII resources (**Figure 5**).

Awardees reported that NPHII support in this area helped them not only to develop these documents, but to do so more effectively. Increased funding allowed their agencies to conduct more rigorous data reviews, which informed agency priorities and helped track progress on strategic planning objectives. In turn, these activities helped awardees better align public health work within and across the various public health agencies in their states.

Awardees stated that NPHII support of state and community health assessments helped them better understand, connect to, and gain trust from the communities they served. For example, a tribal awardee reported that their tribal health assessment increased the visibility, integrity, and the community's awareness of the public health department. The residents "were engaged in what the community health profile meant to their community, to the tribe, and to the work that we were looking at doing within the tribe." As an added benefit, the assessment process spurred interests about other areas that affected tribe members' daily lives, such as education or law enforcement.

Working with local partners also helped agencies develop a shared understanding of area health issues and led to better coordinated state health improvement plans and community health improvement plans (also known as SHIPs and CHIPs). “One of the greatest outcomes of the SHIP was that we had enough local folks at the table that were simultaneously working on their CHIPs,” said Judy Martin, Deputy Director of the Nebraska Department of Health and Human Services, Division of Public Health. “It was nice to see so many of the CHIPs mirror the SHIP priorities. I think it has built bridges with local health departments and other local partners because they realize, if this is showing up in the SHIP, they’re taking it seriously.”

In Montana, engaging key stakeholders in developing the state health improvement plan led to an ongoing investment from a new state foundation. According to a Montana Department of Public Health program manager, the state foundation used the state health improvement plan as a basis to learn about state health issues and determine funding priorities. As a result, the foundation agreed to support the state’s efforts to implement key strategies of the plan.

Health department leaders also noted that increased engagement in strategic planning across divisions allowed multiple parts of an agency to take ownership of the goals, objectives, strategies, and activities defined within the plan. The cross-agency engagement also helped health departments more easily identify and use the expertise that each program and unit brought to the table.

Some public health leaders attributed their health departments’ success to working on or completing the prerequisites. “Our strategic map has a cross-cutting strategic priority that says we will make continuous quality improvement a way of life in this department,” said Dr. Ron Chapman, the former state health officer and director of the California Department of Public Health. “That says it all. People are behind it, and they’re making it happen.” According to Chapman, accreditation pushed his agency to complete their state health assessment and state health improvement

plan and link it to their strategic plan and local partnerships—something he called “essential groundwork to be a high-performing organization.” This paid off when his agency achieved accreditation in 2014.

Accreditation Status

In final program reporting at the initiative’s end in 2014, seven awardees (five states and two local awardees) indicated having achieved accreditation. According to respondents, more than one-third of awardees (34%) submitted an application for accreditation and 8% submitted a statement of intent. Only one awardee reported that its organization had decided not to apply (Figure 6).

By April 2017, 29 awardees had achieved accreditation—20 states, the District of Columbia, 1 tribe, and 7 locals. Many awardees reported that they used NPHII to pay accreditation fees, thus helping them overcome one of the most frequently cited barriers in applying for accreditation.

Figure 6: Awardee Status in PHAB’s Accreditation Program Reported at End of 2014 (n=67)

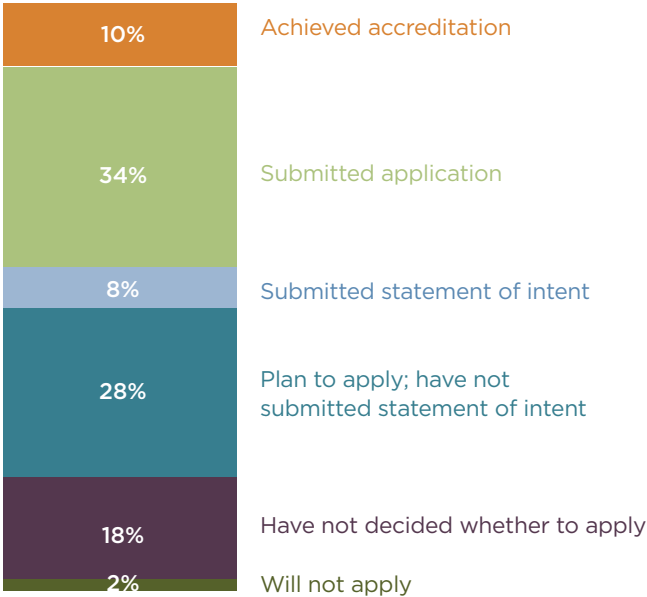
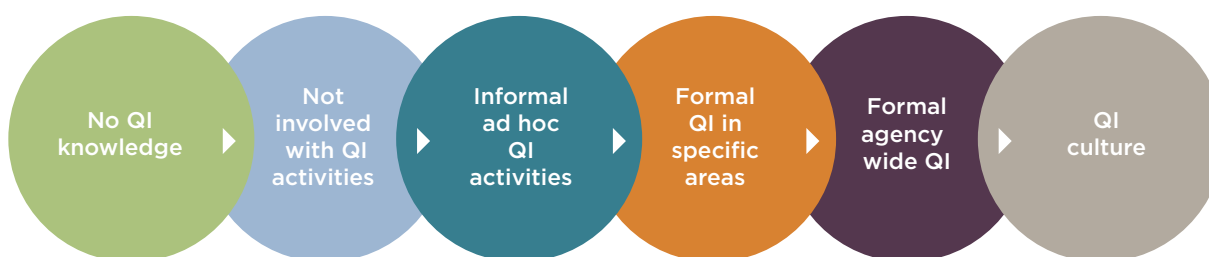


Figure 7: Roadmap to a Culture of Quality Improvement



Developed by National Association of County and City Health Officials

Quality Improvement

Throughout the four years of the program, NPHII focused heavily on helping awardees advance QI use. NPHII enabled awardees to learn about and implement more deliberate QI processes, instill a culture of quality, and increase efficiencies and effectiveness of programs and core business functions. The initiative's work to advance QI drew from lessons learned from recent and parallel efforts to define and foster QI in public health.¹⁷

NPHII placed a substantial emphasis on training and technical assistance to support the knowledge and use of QI. This included onsite QI training provided by partners directly to individual awardee health departments, QI training provided during awardee meetings, and development of tools to guide this work. For example, the Public Health Foundation provided PIMs with a book and training on the use of modular *kaizen* as a QI method at the inaugural awardee meeting.¹⁸ ASTHO developed a toolkit to support QI in state health departments and led efforts to estimate return on investment for QI in health departments. CDC, national partners, and select subject matter experts each played roles in planning and leading PIM Network webinars that provided overviews of QI tools and methods.

In addition, National Association of County and City Health Officials (NACCHO) used NPHII funds to develop a self-assessment tool for the Roadmap to a Culture of Quality, a project that was initially funded by the Robert Wood Johnson Foundation (RWJF) and was intended to provide a structured framework to assess and enhance QI culture maturity (**Figure 7**).

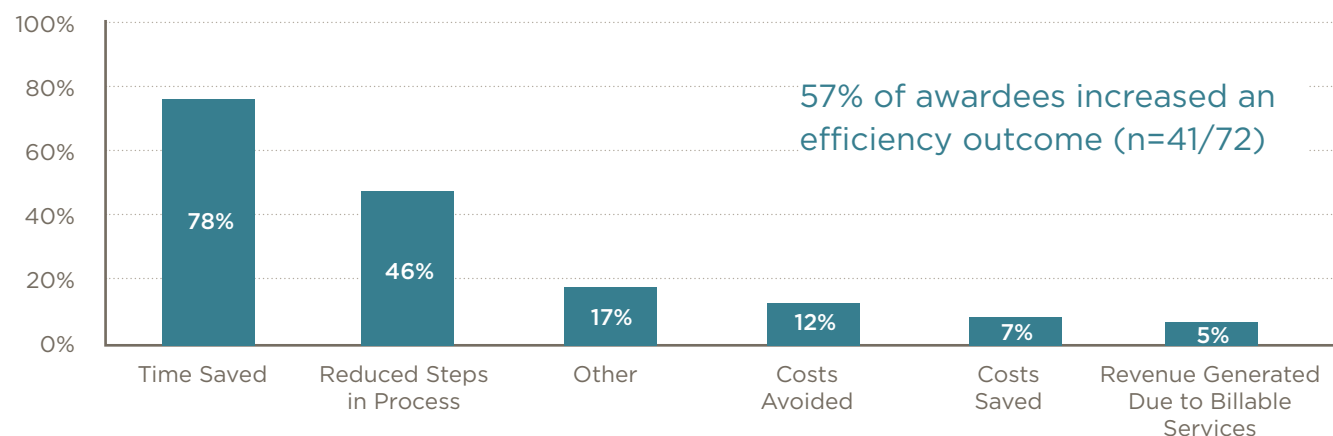
A DEFINITION OF QUALITY IMPROVEMENT IN PUBLIC HEALTH

"Quality improvement uses a deliberate and defined process (such as Plan-Do-Check Act) and is focused on activities that are responsive to community needs and improve population health.

It is a continuous, ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality services or processes, which achieve equity and improve the health of the community." (Riley et al., 2010).

The Roadmap and the NPHII-funded self-assessment tool describe six foundational elements of a QI culture that health departments should cultivate over time—employee empowerment; teamwork and collaboration; leadership commitment; customer focus; QI infrastructure; continuous process improvement; and resources.¹⁹ The self-assessment tool provides an in-depth assessment of the people, systems, and structures that support a quality culture; provides assessment results; and identifies tangible transition strategies for moving along the Roadmap toward a sustainable QI culture.²⁰

Figure 8: Percentage of Awardees That Increased Efficiencies



STANDARDIZED PUBLIC HEALTH QI OUTCOMES

Efficiency

- Time saved
- Reduced number of steps
- Revenue generated due to billable services
- Costs saved
- Costs avoided

Effectiveness

- Increased customer/staff satisfaction
- Increase reach to the target population
- Dissemination of information, products, or evidence-based practices
- Quality enhancement of services or programs
- Quality enhancement of data systems
- Organizational design improvements
- Increased preventive behaviors
- Decreased incidence/prevalence of disease

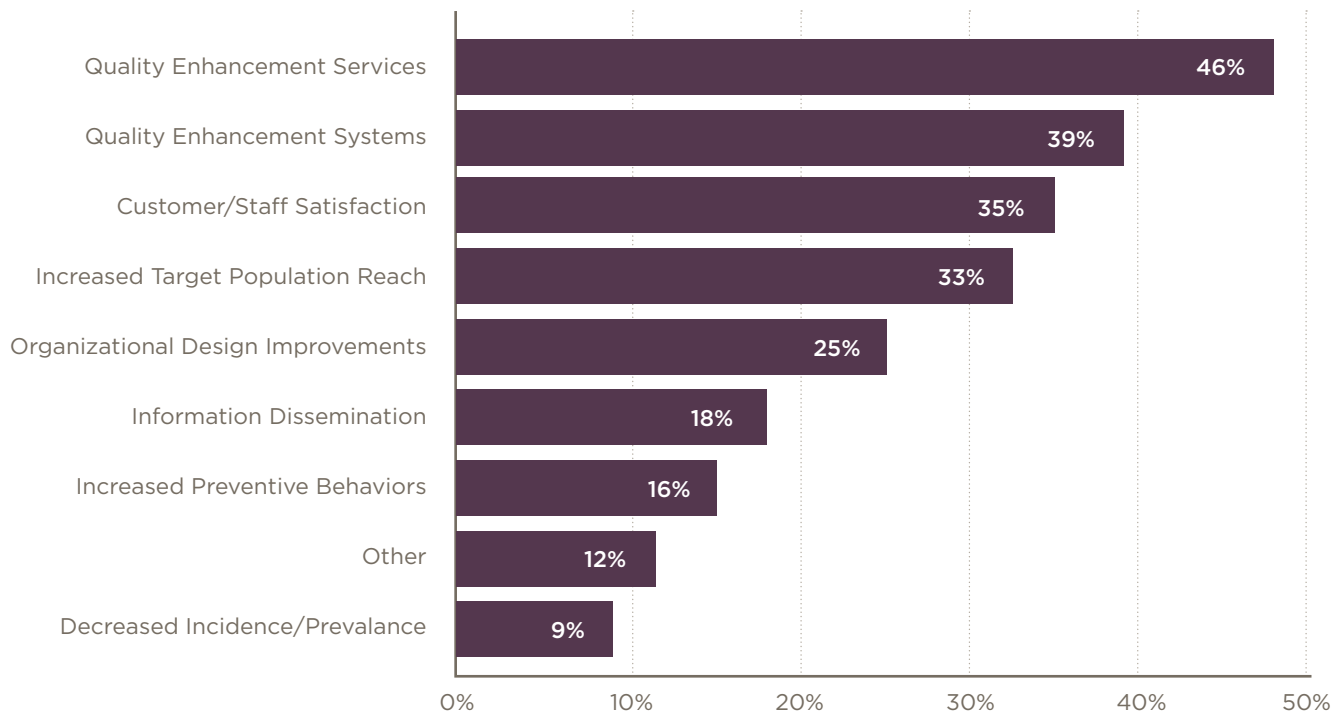
Awardees said that the strong focus on tools and training demystified QI and increased acceptance. When this occurred at the state level, local health departments felt the ripple effect. “We had more people here at the state health department embrace quality improvement,” said Joy Harris, the Public Health Modernization in Iowa coordinator, Iowa Department of Public Health. “So local health departments are hearing about quality improvement from more than just me or my program.”

Through implementation of CDC’s standardized framework to measure awardees’ QI outcomes, CDC was able to aggregate, for the first time, results associated with improved organizational efficiency and effectiveness through QI. Almost every awardee (99%) implemented at least one QI initiative through NPHII; 89% of awardees were able to report data on the outcomes of their initiatives. Almost two-thirds of the awardees (64%) completed three or more QI initiatives, and 72% plan to sustain their QI activities. Impressively, within NPHII’s final two years, 86% of the awardees made improvements in efficiency or effectiveness. “Efficiency outcomes typically reflect reductions in the amount of resources required to implement activities resulting from a QI initiative.”¹⁵ More than half (57%) of the awardees improved the efficiency of their organization’s processes, programs, or services (**Figure 8**). Of those who improved efficiency, most were likely to have saved time (78%) or reduced steps in a process (46%).

Effectiveness outcomes include short- or long-term results related to improved service or program delivery or better implementation of organizational processes to achieve a goal. They represent a range of improvements that diverse public health organizations could achieve within

many programs or service delivery settings.¹⁵ Seventy-nine percent of the awardees increased the effectiveness of organizational processes, programs, or services as measured through eight specific outcomes (**Figure 9**).

Figure 9: Percentage of Awardees That Improved Effectiveness (n=57)



Effectiveness examples:

- The Sexually Transmitted Disease Unit at the Michigan Department of Health and Human Services used QI to improve the unit's ability to locate clients with syphilis by 12%.
- In Tooele County, Utah, the percentage of tobacco vendors with a valid permit increased from 42% to 74% just 9 months after implementing a QI solution.

Efficiency examples:

- The Office of Vital Records at the Arizona Department of Health Services reduced the turnaround time for mail-in requests of vital records from 27 days to fewer than 7 days.
- The Puerto Rico Department of Health is responsible for inspecting more than 400 healthcare facilities. Using QI, it reduced the time taken to submit healthcare facility inspection reports from 5 months (150 days) to 14 days.

See Awardee Stories for further information.

Performance Management

NPHII also encouraged a considerable focus on PM by supporting awardees' efforts to build organization-wide PM systems and capacity. The initiative drew from the work developed through the Turning Point Performance Management Excellence Collaborative.

The national model, released in 2003, had four core components:²¹

- 1 Performance standards
- 2 Performance measures
- 3 Quality improvement
- 4 Reporting of progress

Although the 2003 model remained relevant, early work of NPHII awardees and other sites reviewing the PM-related accreditation standards jumpstarted an opportunity to “refresh” the national model and resources.

Using NPHII funding, the Public Health Foundation (PHF) undertook a two-year effort to update or “refresh” the Turning Point PM framework. PIMs provided feedback through interviews and electronic responses to a series of questions. In 2012, a think tank consisting of national partners, PIM Network representatives, original Turning Point Collaborative members, and accreditation leaders updated the framework by improving its usability, linking to materials relevant to public health accreditation, and addressing current challenges and innovative practices.

The updated framework (**Figure 10**) reflects a continuous process that can begin at any of the steps or stages (represented by a circle with

Figure 10: Public Health Performance Management System



arrows), and recognizes visible leadership as a core component that surrounds the other elements. Through this effort, CDC and PHF developed updated materials that supported PM and left a legacy of resources, including a toolkit, a self-assessment tool, talking points, and overviews of PM applications in public health.²²

During the four years of NPHII, almost all awardees established or made progress toward at least one of the organization-wide PM system components (**Figure 11**). They were most likely to have established performance measures (67%) or routine performance reporting (62%). More than one-third of the awardees (36%) established all four components of an organization-wide PM system.

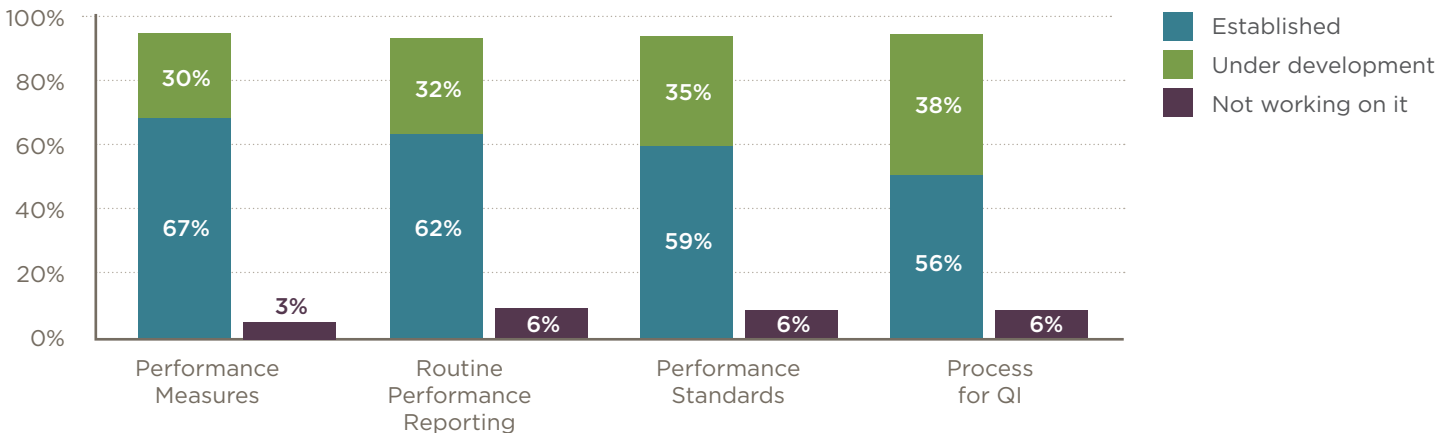
PIMs played an especially crucial role in advancing each of their agency’s ability to implement PM—perhaps underscoring the important addition of “visible leadership” to the PM framework. “I think the single most important thing is actually bringing on the performance improvement manager,” said the deputy director of one state health department. “Being able to have [someone] dedicate their time to these initiatives has given it life. Prior to that, it becomes layered on to somebody else’s job and that’s why it never was able to take root.”

According to one tribal awardee, its PIM’s ability to lead projects, ensure tribal involvement, and hold partners accountable was instrumental in ensuring that it reached its cooperative agreement goals and objectives.

The Public Health and Safety Division within the Montana Department of Public Health and Human Services used NPHII resources to successfully implement a PM system. All programs have logic models and core activity plans to monitor and keep track of their performance and their day-to-day work activities. The department holds regular PM meetings every six months, where the programs present on their core activity plans, activities to achieve their key objectives and performance metrics. “We’ve come a long way where people know this is a part of the job,” said Todd Harwell, Public Health and Safety Division Administrator, Montana Department of Public Health and Human Services. “We use this as part of daily management of our programs, and that our performance management review process is helping us identify opportunities for program improvement and collaboration across programs.”

Martha Gelhaus, Bureau Chief, Iowa Department of Public Health Bureau of Planning Services, credited NPHII resources with helping them introduce staff to the idea of and concepts behind PM. The use of PM helped her agency review what its programs were trying to accomplish, how it determined

Figure 11: Progress Toward Establishing Organization-Wide Performance Management System Components (n=66)



success, and the measures and data. Iowa used this information to initiate some QI techniques and tools to address weaknesses. “This work has helped us look at performance management from a more systematic approach, and kind of a cyclical approach, and that helped us tremendously,” Gelhaus said.

Given the breadth of PM, some awardees focused on specific areas. For example, the Los Angeles County Department of Public Health (LAC DPH) used some of the funds to develop the information technology needed to track its performance measures. This new PM system enables LAC DPH to link its strategic plan to the individual performance measures in each program. “That makes reporting on strategic plan implementation and its progress more efficient than before and more accurate than going to each of the programs and [asking], ‘Have you met your milestones?’” said Virginia Huang Richman, LAC DPH Interim Director, Office of Planning, Evaluation, and Development.

Extending the Reach of NPHII to Benefit Other Health Agencies

Many awardees used NPHII funding to increase their capacity to coordinate with, train, and provide support to other health agencies within their jurisdictions. In 2014, more than half of awardees (52%) used NPHII funds to support accreditation readiness, PM, or QI activities by other health organizations in their jurisdictions.

This helped extend the reach of NPHII funding to others in the governmental public health system. “Without NPHII, I feel our performance management work would have been somewhat restricted to the state health department,” said Julie Cox-Kain, Deputy Secretary of Health and Human Services and Senior Deputy Commissioner, Oklahoma State Department of Health. “It expanded our capacity and our performance management program to have a statewide scope.”

Most awardees that provided support did so in the area of accreditation readiness. Almost half (46%) used NPHII funds to provide approximately \$1.5 million for sub-awards and other types of financial support to 199 health agencies during 2014. Similarly, 47% of awardees provided training or technical assistance to 697 health agencies (Figure 12). This included facilitating conferences and workshops, as well as providing support for other efforts, such as collaboration with hospitals on community health needs assessments.

In some cases, the support provided to other agencies helped foster cross-jurisdictional sharing and strengthened collaboration among public health agencies. For example, states such as Massachusetts, which depend on a local public health infrastructure composed of more than 350 municipal boards of health, used NPHII support to provide District Incentive Grants that considerably advanced the exploration and creation of regional public health districts. Providing support and engaging in NPHII-funded efforts helped strengthen

Figure 12: Number of Public Health Agencies Receiving Indirect Support to Conduct NPHII-Related Activities

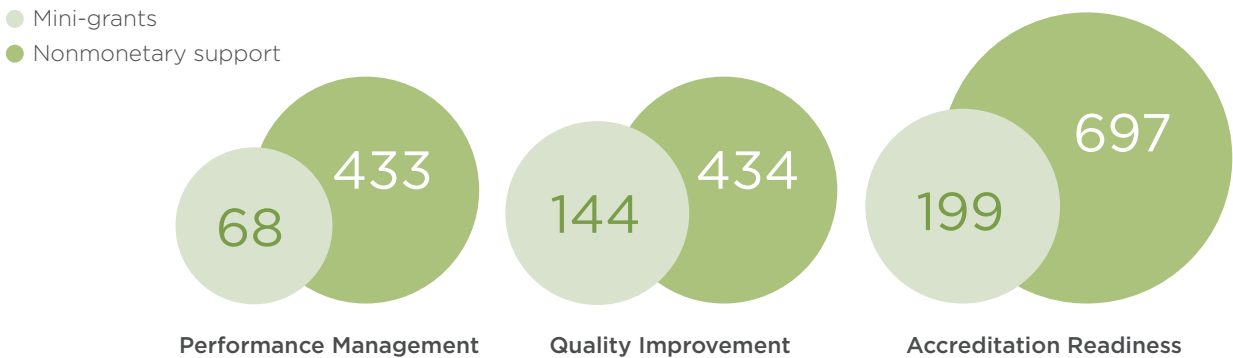
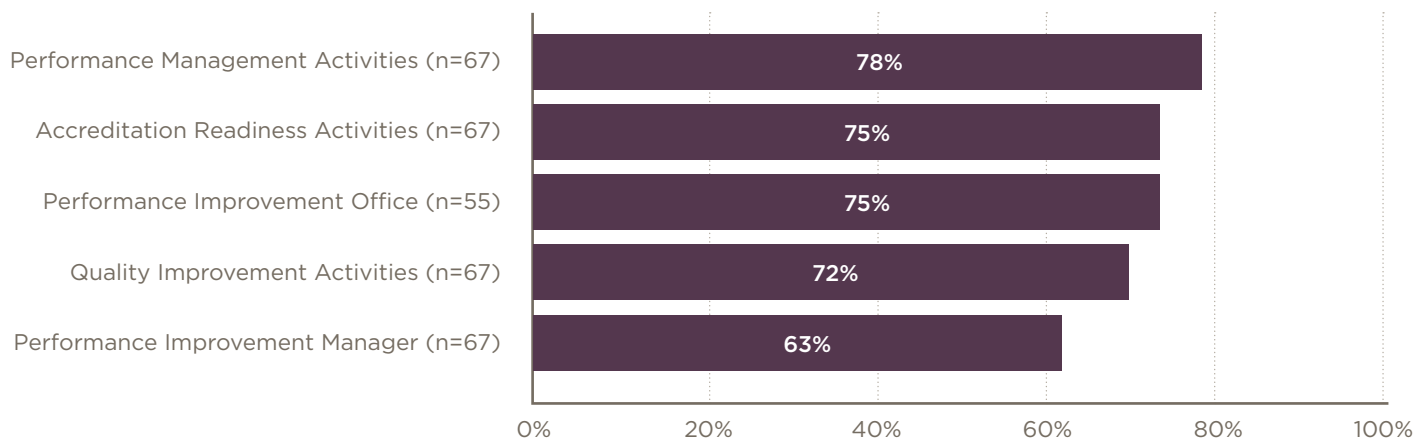


Figure 13: NPHII Awardees Plan to Sustain Activities



state and local health department relationships and collaborations. Minnesota and Wisconsin are two other examples of states that used NPHII funding to foster dialogue and activities to support collaboration, cross-jurisdictional sharing of services or staff, and in some cases, regionalization. Wisconsin’s work in supporting accreditation readiness among tribes is also notable.

THE IMPACT BEYOND ACHIEVING PROGRAM OBJECTIVES

Building and Sustaining Performance Improvement

NPHII’s four years of support helped awardees integrate performance improvement into their cultures in ways that positioned them to better sustain the efforts. A focus on workforce development reduced staff apprehension, boosted support for accreditation, and generated policies on QI and PM intended to institutionalize procedures and protocols.

When NPHII ended, 99% of awardees had a PIM. Recognizing the position’s value, almost two-thirds (67%) of awardees planned to continue the position. PIMs provided agencies with a needed champion who could devote time to spearheading, coordinating, and delivering hands-on technical assistance to staff and other partners as they implemented accreditation readiness activities and QI and PM projects.

In Year 4, NPHII awardees supported 283 positions focused on supporting performance improvement activities. NPHII enabled agencies to fund PIM positions and show their value. According to Dr. Jeffrey Gunzenhauser of LAC DPH, his department is willing to fund PIMs indefinitely. “For us, as a department, we’re going to be very aggressive in looking at funding opportunities in health care, performance, quality, . . . whatever has overlap with these key components that have been funded through NPHII,” he said.

Many awardees also created or supported an office for organization-wide performance improvement to strengthen their agencies’ infrastructures. These offices, often supported from a combination of NPHII and other funds, created a hub from which most of the performance improvement work could be completed. By the initiative’s end, 82% of the awardees had a dedicated office, and 75% reported their intention to sustain this office (**Figure 13**). Approximately 87% of the awardees plan to sustain at least one NPHII activity.

The networks and peer-sharing developed by CDC and its partners served as important contributors to building the nation’s performance improvement professionals. National partners continue to host learning communities for accreditation coordinators and performance improvement professionals. Perhaps the most important peer-sharing legacy of NPHII—the PIM Network—has evolved into a new and broader network open to other performance improvement professionals. Called the Public Health Performance Improvement

“You used to hear that we don’t have money to improve, but when the money started going away, people realized that you do not have an alternative but to improve when you’re losing resources and money. I think we probably came through these traumatic and drastic cuts to position programs better because people had the capacity to actually look at the efficiency and effectiveness of the systems.”

— DR. PAUL JARRIS

former ASTHO Executive Director

Network (phPIN), it builds on the successes and lessons learned from the NPHII PIM Network while opening up membership to those that had not been engaged through direct NPHII funding.

Reflections on NPHII

Outside specific achievements associated with program objectives, NPHII resulted in a focus on governmental public health infrastructure through well-trained, supportive leaders and staff members, and enhanced processes for planning and implementing QI and PM efforts. In addition, the initiative created positive connections across programs and among diverse agencies and facilitated deep cultural shifts within organizations. These changes strengthened the national foundation to support accreditation readiness, QI, and PM within public health agencies.

“When NPHII came along, that backbone for

public health, the governmental infrastructure in communities, was beginning to erode, largely because of lack of funding or reduced funding from federal [sources],” said PHAB President and CEO Dr. Kaye Bender. “NPHII’s number one achievement was to put that focus and emphasis right back on the governmental public health infrastructure, since it doesn’t get funds for that purpose from anywhere else.”

Awardees spoke about NPHII’s impact in terms of how these changes created space for high-level collaboration. “It’s clear that [there was] not a lot of collaboration on systems-level issues within health departments,” said Jaime Dircksen, former Deputy Commissioner, Chicago Department of Public Health Planning, Program Development & Quality Improvement. “This was a unique opportunity to bring the system thinkers together, outside of silo program areas, to systemically think how health departments operate.”

Awardees reported that NPHII led to increased knowledge about and support for accreditation, QI, and PM among both leaders and staff. As a result, they said that QI and PM principles and activities had become deeply embedded at both the leadership and department levels, giving way to a genuine change toward a culture that supports continuous QI and PM across many practice areas and divisions. Other awardees agreed and noted that the initiative has created cultural changes within their departments by fostering strategic planning and visioning.

In addition, NPHII compelled awardees to move beyond the push and pull of categorical funding that unintentionally separates portions of a health department from each other. “Much of what we’ve done has been driven by grants, and the grants force you in one direction,” said Dr. Marissa Levine, Virginia State Health Commissioner. “Parts of the [health department] may not speak to each other, because they live in two different grant worlds. [NPHII] helped us go across those boundaries and think in terms of what do we need to be organized, what processes do we need to have in place that are cross-cutting and supportive of the entire agency, as well as relevant for the entire agency. It has helped move us in a direction of breaking down the silos and being more horizontal in processes.”

Jay Butler, former Senior Director, Alaska Native

Tribal Health Consortium's Division of Community Health, also credits NPHII with building connections across his organization, which helped staff members prioritize work. "It may not sound like an operational change, but it has helped take a bunch of very siloed programs and build connections between those programs. Now, there's agreement on where we're going and what's important," he said. He indicated that this created more emphasis on overall success instead of the amount of secured grant money.

SUMMARY

Through four years of funding, technical assistance, training, and robust opportunities for peer-sharing, CDC and its partners were able to strengthen health departments' abilities to improve practices and work across the organization and with the community. The supportive environment built by NPHII played a strong role in reducing public health professionals' apprehension to undertake QI, PM, and accreditation readiness activities. In turn, it also laid a strong foundation for achieving national accreditation and institutionalizing QI as a core practice in health departments across the nation.

NPHII's contributions continue to be used and appreciated. Tools and trainings developed by CDC and national partners remain important contributions to the technical assistance resources available to state, tribal, local, and territorial public health agencies. National-level resources include an updated PM model, tools that assess the return on investment of QI, a framework for measuring the impact of QI, and countless accreditation readiness resources. Awardee-developed resources, such as PM systems that have been replicated among multiple agencies, accreditation readiness games for engaging staff, examples of accreditation documentation, and a plethora of QI stories and experiences, also ensure that experiences of peers can be built upon and leveraged. And, in many cases, the knowledge gained and impacts achieved through NPHII have been recorded through the peer-reviewed literature and provide new fodder for the growing science base around accreditation, QI, and PM in public health.

The design of NPHII can also offer much-needed

insights in the future. "NPHII serves as a successful prototype for funding opportunities aimed at building and maintaining core public health capacities, while also striving for measureable impact," said Dr. Craig Thomas, a division director in the Office for State, Tribal, Local and Territorial Support (OSTLTS). "Our successes and lessons learned, particularly how we balanced flexibility for awardees with a strong accountability framework, can provide a valuable guide and starting point for others."

Finally, but perhaps most importantly, NPHII's impact is evident in how it is contributing to current and emerging directions for the public health field. The objectives of NPHII focused on positioning health departments for challenges in leading within their organizations and communities, maximizing limited resources, managing in a data-driven manner, and achieving impact. In the same way that NPHII built upon predecessor efforts, emerging efforts are continuing the trajectory of this work. New visions, such as Public Health 3.0²³ and the RWJF Culture of Health,²⁴ new concepts such as the health department as a "chief health strategist,"²⁵ and new initiatives such as the PHAB Public Health National Center for Innovations,²⁶ continue to reinforce the value of accreditation, QI, organizational efficiency and effectiveness, and the leadership role that can be played by public health.

Given the issues facing public health today, health departments must be adept at working across silos, engaging partners, leveraging resources, and using data to inform decisions. NPHII, through its focus on meeting national standards and improving efficiency and effectiveness, played a valuable role in strengthening our nation's public health system and preparing health departments for the challenges of the 21st century.



STORIES FROM STATE, TRIBAL, LOCAL, AND TERRITORIAL AWARDEES

The following stories are “snapshots” of NPHII awardee accomplishments and offer insight into the diversity of awardees and the variety of priorities and strategies that they have addressed. Some stories describe how an organization-wide, multi-year effort helped achieve a major objective while others spotlight the success of a short-term project or initiative.

Every story shows how the awardee strengthened the foundation or capacity for increased efficiency and effectiveness. To improve service delivery and ultimately improve the public’s health, awardees focused on topics such as undertaking performance management and quality improvement, assessing the community’s health, developing plans for community health improvement, and improving performance against national standards. For many awardees, this work advanced their journey in meeting national standards or possibly helped them achieve voluntary national accreditation.

NPHII-funded projects fostered increased collaboration among stakeholders, and some awardees used NPHII resources to provide financial and other kinds of support to other public health organizations in their jurisdictions. Examples include an unprecedented collaboration between the Alaska Department of Health and Social Services and the Alaska Native Tribal Health Consortium to create a shared set of

health priorities known as Healthy Alaska 2020; a New Jersey quality improvement initiative that spurred more than 50 projects with dramatic results—including decreased costs, better user experiences, and more timely actions; and Houston’s innovative preparations for public health accreditation that led to 80% voluntary staff participation. Guam’s project brought together a diverse group of public health stakeholders who, for the first time on the island, identified shared public health goals and a joint strategy for improving the public’s health. And the Mille Lacs Band of Ojibwe Tribe in Montana strengthened its public health infrastructure and improved its capacity for emergency preparedness and response.

These stories are brief and do not begin to capture all of the awardees’ activities and accomplishments. They represent activities that are intended to be built upon and sustained. We hope the successes described in these stories will impress and inspire those who read them.



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Adopting a Culture of Quality Improvement

QUALITY IMPROVEMENT BENEFITS PATIENTS

*Alabama Department of Public Health
Montgomery, Alabama*

THE CHALLENGE OF IMPROVING CLINIC WAIT TIMES

A family planning clinic customer satisfaction survey showed that only 66% of the program's participants rated the wait time at the Alabama Department of Public Health (ADPH) Title X Family Planning clinics as "good." Some patients stopped using these health services because of the long wait times.

SIMPLE OPERATIONAL CHANGES REDUCE WAIT TIMES

A successful NPHII-supported quality improvement (QI) project reduced the average cycle time (time a patient spends in the clinic from arrival to departure) to 11 minutes. Less waiting means more satisfied patients.

• • • • •

To reduce wait times and increase the number of patients, the ADPH performance improvement manager coordinated training for clinic staff to teach them how to study client flow patterns and conduct QI projects. Results from the project showed that several factors contributed to long wait times in the clinics, including staff not scheduling enough time for appointments and not honoring scheduled appointment times.

ADPH made the following changes:

- Staff members
 - Arrive 30 minutes before the first morning appointment
 - Call patients to remind them about appointments
 - Double-book appointments only at times with high rates of no-shows
 - Schedule open time to accommodate patient "bottlenecks"
- Providers honor patients' appointment times before seeing walk-ins

These operational changes resulted in more patient visits and reduced wait times, without incurring increased costs. Rather, during the first three months after the changes, 88% of the clinics increased their number of patients.



“The beauty of this quality improvement project was that we were able to provide training for the clinic staff and let them analyze their own processes and come up with solutions.”

— ANNIE VOSEL, BSN, RN

Director, Division of Women's and Children's Health, Bureau of Family Health Services, ADPH



The Title X Family Planning program has 85 clinic sites statewide and serves about 100,000 clients per year.

HEALTHY ALASKA 2020 BRINGS DIVERSE PARTNERS TO THE TABLE

*Alaska Department of Health and Social Services, Juneau, Alaska
& Alaska Native Tribal Health Consortium, Anchorage, Alaska*

AN UNPRECEDENTED COLLABORATIVE PROCESS

The Alaska Department of Health and Social Services (DHSS) and the Alaska Native Tribal Health Consortium (ANTHC), both of which have statewide health authority, have a joint interest in improving the health of Alaska's approximately 735,000 residents, which includes 145,000 Natives. The two organizations leveraged their NPHII funds to undertake a comprehensive health improvement effort and—for the first time—create a shared set of health priorities for the state.

COLLABORATING ON A STATEWIDE HEALTH PLAN

ADHSS and ANTHC partnered to develop a new statewide health assessment, public health system assessment, and health improvement and implementation plan—which resulted in Healthy Alaska 2020.

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To develop Healthy Alaska 2020, ADHSS and ANTHC leaders formed teams of professionals from tribal, non-tribal, rural, and urban communities. Guided by assessment data, an advisory team identified health priorities and developed objectives. Other teams worked with content experts to identify strategies and actions for each objective and develop data collection methods to track progress. Community members provided input through statewide surveys.

Healthy Alaska 2020 set 25 health priorities, such as reducing the rates of cancer, suicide, interpersonal violence, and sexual assault.

The collaborative development process connected 130 partners that will play key roles in implementation, such as other state agencies

TO ENSURE COMPREHENSIVE IMPLEMENTATION, HEALTHY ALASKA 2020 INCLUDES



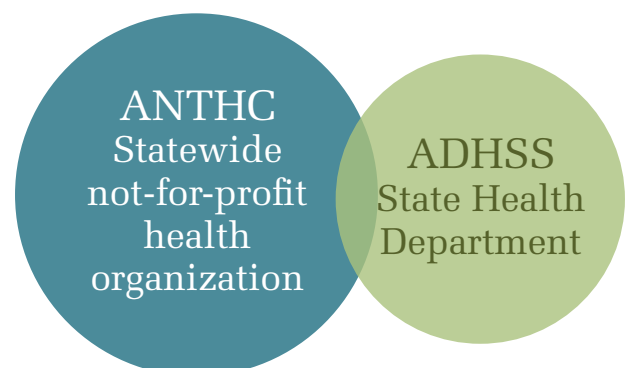
75 strategies
to achieve the objectives



166 action steps
to achieve the strategies

and tribal organizations; universities; and philanthropic, nonprofit, and religious organizations. "Leaders across the state see this as the framework to align their work," says Emily Read, former Operations Director, Division of Community Health Services, ANTHC.

Although the implementation is in its initial stages, organizations are already using Healthy Alaska 2020 to align their work with the health priorities, frame their goals and activities, and justify program resources.



USING EVIDENCE-BASED PRACTICES TO IMPROVE PUBLIC HEALTH

*American Samoa Department of Health
American Samoa*

American Samoa Department of Health and Human Services (AS-HHS) has been struggling to increase its use of evidence-based practices (EBPs). Using EBPs helps ensure that the health department's strategies are those that have been proven effective and that successfully meet the community's needs. Faced with a growing chronic disease burden, fragmented health system, and workforce shortages, AS-HHS determined that focusing on EBPs could help address these problems.

PUTTING THE EBP INVENTORY TO USE

With NPHII funding, AS-HHS completed its first ever inventory of EBPs for improving public health, convened an advisory EBP workgroup, and conducted pilot projects to increase use of EBPs in select programs. AS-HHS was able to build its capacity and implement EBPs to maximize health resources and improve workforce performance, service delivery, and community health.

.....



Children
with their
vaccination
booklets

Consists
of 5 main
islands totaling
76.8 square
miles

Through an inventory conducted during 2011–2012, AS-HHS and its EBP workgroup found that EBPs were used infrequently and inconsistently, and staff had a limited awareness of EBPs and were unsure how to implement them. A quality improvement (QI) prioritization method helped the EBP workgroup consider magnitude of disease, departmental priorities, and feasibility of implementation. Then the workgroup selected three program areas for pilot test: diabetes prevention, tobacco cessation, and immunization. To guide the pilot project and future activities, the EBP workgroup developed a three-part, interactive, skill-based training to teach staff 1) the definition of EBPs; 2) how to search EBP databases effectively; and 3) how to apply an evidence-based public health framework. They also created a AS-HHS Evidence Inventory to establish baseline measures and document currently used EBPs to inform decision-making and prioritization for pilot EBP implementation.

In addition to the pilot projects for EBPs for diabetes, tobacco prevention, and immunization, the EBP workgroup launched a pilot program based in a community health center. Staff created a protocol to remind health center clients and their caregivers about the need for HPV vaccination to increase coverage. AS-HHS also provided school-based HPV mobile vaccination clinics, which resulted in 319 students getting their first dose of the HPV vaccine.

SPREADING QUALITY IMPROVEMENT KNOWLEDGE AND ACHIEVING NEW RESULTS

*Arizona Department of Health Services
Phoenix, Arizona*

Arizona Department of Health Services (ADHS) leaders fully support quality improvement (QI) because it helps increase the department's efficiency and effectiveness. Before the dedicated staff and funding from NPHII, only a few employees knew how to do QI and only a few QI projects had been done.

LEADING THE WAY FOR OTHERS

Leaders throughout ADHS and from 7 of the state's 15 local health departments have completed the QI Foundations class, earning recognition of QI expertise. Seven employees have led at least two QI projects, mentored other teams, and completed additional QI training.

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ADHS hired a QI manager who expanded the QI program and training for employees to increase improvement across the agency, local health departments, and other state agencies. Eighty-six staff members from ADHS and 30 from local health departments, completed the QI Foundations class. Using skills and tools from the training, ADHS made concrete improvements in the areas such as

Office of Vital Records' Turn-Around Time Project

- Turn-around time for mail-in requests of vital records decreased from 27 days to fewer than 3 days.
- About 75 staff hours per month have been redirected to activities with a higher priority (22.5 weeks per year).

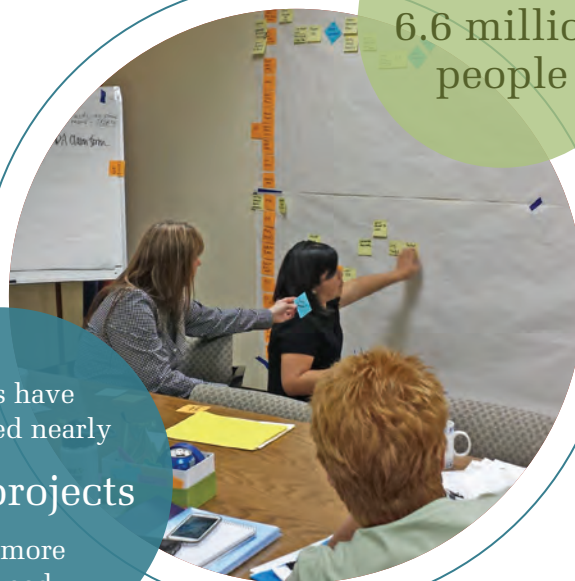
Arizona State Laboratory's TB Results Call Reduction Project

In one month:

- Inbound-call volume decreased per month from 420 calls to 61 calls (85.4%).
- Inbound-call duration decreased per month from about 37 hours to 3 hours (91.5%).
- Staff time handling phone calls decreased from about 41 hours to 3 hours.

Serves
6.6 million
people

Teams have
completed nearly
20 QI projects
with more
planned



TEXT4BABY TACKLES INFANT MORTALITY

*Arkansas Department of Health
Little Rock, Arkansas*

Is a unified health department, with a main office in Little Rock and 96 local health units in the state's 75 counties

Serves 2.9 million people

TAKING ON THE CHALLENGE OF INFANT MORTALITY

In 2012, Arkansas's infant mortality rate—the number of deaths among live births of infants aged <1 year—was 39th out of the 50 US states. The state has significant racial/ethnic disparities in infant mortality rates. For example, African American infants are twice as likely to die compared to Caucasian infants. Also, about 21% of pregnant Latina women are diagnosed with gestational diabetes—a risk factor for infant mortality—compared with 10% of Caucasian women.

SUCCESS IN ENGAGING ALMOST 12,000 WOMEN!

The Arkansas Department of Health's (ADH's) two-year awareness campaign successfully enrolled 11,968 pregnant women in Text4baby, a free national service providing timely health and safety tips to

pregnant women. In addition, community outreach and education campaigns taught hundreds of African American and Latina women about the risks of infant mortality and how to prevent it.

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As part of their NPHII-funded work, ADH increased awareness of infant mortality and use of pre- and post-natal care services among African Americans and Latinas.

In addition to enrolling nearly 6,000 pregnant women in Text4baby, ADH

- Trained 82 volunteers and screened 242 customers via the beauty and barber shop project
- Provided 133 Latina maternity clients with video education

Partnering with healthcare sites in northwest Arkansas, African American sororities, beauty and barber shops, and bilingual community health workers, ADH implemented **A MULTI-PRONGED APPROACH BY:**



Billboards

Placing 21 *Text4baby* billboards in 11 Arkansas cities



Brochures

Providing *Text4baby* brochures to 135 OB/GYN and primary care physicians



Videos

Developing pregnancy-focused educational videos in English and Spanish. Recruiting bilingual community workers to educate pregnant Latinas using the video.



Training

Recruiting and training African American sorority and fraternity members on infant mortality and behavioral interventions to reduce risk.



Collaborating

Collaborating with beauty and barber shops to provide health education and refer at-risk clients to health clinics.

CREATING A CULTURE THAT STRIVES FOR EXCELLENCE

*California Department of Public Health
Sacramento, California*

In 2013, with NPHII funding, the California Department of Public Health (CDPH) embarked on the national accreditation process, which challenged CDPH leaders and staff members to examine how they do business and how they collaborate across programs.

A CULTURE OF QUALITY IMPROVEMENT IS EMBRACED

During its two-year process of preparing an application to the Public Health Accreditation Board (PHAB), CDPH staff fostered internal working relationships and developed strategic and quality performance plans. Hundreds of CDPH employees engaged in this process with the goal of providing the best public health services to California's citizens. On December 9, 2014, PHAB awarded accreditation to CDPH.

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CDPH's senior leaders initiated and drove a strategic process to develop an application for accreditation. With the visible support of the state health director and buy-in from deputy directors, the CDPH-designated accreditation coordinator established working staff teams across programs. The teams focused on different sets of standards, which are grouped together by "domains." For each domain, the team determined whether CDPH was already meeting the standards, identified documents that could be used as evidence of meeting the standards, and suggested ideas for improvement. The meetings gave participants the chance to learn about each others' programs and led to partnerships that are helping to break down traditional public health silos.

During this process, CDPH leaders committed to prioritizing continuous quality improvement (QI). The accreditation coordinator facilitated QI training for CDPH staff members. Programs used QI tools

and methods, such as "Plan, Do, Check, Act," fishbone diagrams, and work process flow diagrams.

Practical use of these concepts and tools led to various improvements, such as

- Improving the communicable disease reporting process
- Creating more transparency to address employee satisfaction

CDPH leaders said that accreditation and use of QI led to a "new way of life" in the department. NPHII funding played a key role in their achievement of accreditation and laid essential groundwork for their ongoing efforts to make Californians the healthiest they can be.

Serves
38.8 million
people



INVESTING IN TRIBE-SPECIFIC PUBLIC HEALTH INFRASTRUCTURE

*Cherokee Nation Health Services
Tahlequah, Oklahoma*

A SURVEILLANCE SYSTEM IS BORN

Cherokee Nation Health Services (CNHS), with NPHI support, hired a performance improvement manager and surveillance coordinator to develop systems and processes within the Cherokee Nation to plan, implement, and evaluate public health initiatives.

MOVING TO TARGETED PROGRAMS

Using Cherokee-specific statistics, CNHS identified health disparities and used these data to develop new programs. For example, CNHS identified counties with high rates of childhood obesity and helped more than 40 schools in these counties develop body mass index databases and implement nutrition and physical activity programs.

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The Cherokee Nation has traditionally used its public health funds for direct healthcare services but did not have a system to prioritize areas of need. Beginning in 2011, CNHS conducted a tribal public health assessment, developed a surveillance system, completed a community health improvement plan (CHIP), and created a strategic plan.

To honor the tribe's tradition of oral learning, CNHS trained staff members and community stakeholders on digital storytelling—using multimedia and narrative voice to tell a story—a technique they used to gather and share qualitative data during the tribal assessment phases. Twenty-five digital stories were used to communicate their CHIP's goals and objectives.

THIS INCLUDES STORIES ABOUT



Raised-bed vegetable gardening—CNHS provided materials for gardens in more than 80 daycare centers in 14 counties



The importance of getting a colonoscopy—CNHS's medical director, along with a cancer patient and his family, developed a story on this topic that was shown in health centers

Cherokee Nation
has about
299,860 citizens
and most (189,228)
live within
Oklahoma

“Having a Cherokee-specific public health infrastructure has put our chronic disease dollars to much better use. Our surveillance department can now evaluate interventions and make necessary adjustments in real time.”

— LISA PIVEC

Senior Director, Public Health, CNHS

ACCREDITATION EFFORTS HELP INFUSE QI THROUGHOUT CDPH

*Chicago Department of Public Health
Chicago, Illinois*

MONITORING SYSTEM LEADS TO IMPROVEMENTS

The Chicago Department of Public Health (CDPH) needed to build a culture of continuous quality improvement (QI) to meet the rigorous standards for national public health accreditation. CDPH established a performance management and QI system to monitor programmatic and departmental activities and initiatives in order to improve services' efficiency and effectiveness.

EMPLOYEES EMPOWERED TO IMPROVE THE PROCESSES

By increasing its focus on continuous QI, CDPH created a culture of teamwork and employee engagement, which enabled the health department to achieve accreditation by the Public Health Accreditation Board in 2013.

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A CDPH interdisciplinary performance and quality improvement (PQI) team improved upon the existing performance management system's measures and standards by instituting a Balanced-Scorecard approach.

After conducting focus groups and an online survey for all staff, the team redesigned the PQI system to

- Better support work activities and problem solving
- Identify and implement QI projects

The PQI Team provided training on performance management and QI that included learning collaboratives in which staff members from more than 40 programs implemented QI projects. Outcomes from those QI projects included enhanced efficiency and standardization of food inspections, increased HPV vaccine ordering in high-volume adolescent clinics, and additional grant opportunities in both Immunization and school-based dental programs. The outcome



Chicago was the first big city to have an accredited health department

data from the HPV immunization QI project became available just as a funding opportunity from CDC was released. CDPH was able to leverage its results to apply for the grant and was awarded funding to expand the successful QI process to other programs.

CDPH also launched an annual employee satisfaction survey in 2013; results showed opportunities for improvements in training, communication, and employee appreciation. In response to the findings on employee appreciation, CDPH showcased staff members and programs in the Commissioner's Weekly Update and launched an award and recognition initiative for employees and programs. The 2014 employee satisfaction survey showed improvements in all three areas previously noted as needing improvement. The annual employee satisfaction survey continues to inform departmental initiatives to improve CDPH's culture and work environment.

"This is an important achievement and recognition that highlights the city of Chicago's ongoing commitment to health and wellness."

— CHICAGO MAYOR RAHM EMANUEL

Serves
5.3 million
people

CLEANING UP THE FOOD SAFETY INSPECTION PROCESS

*Colorado State Department of Public Health and Environment
Denver, Colorado*

In 2013, the Colorado Department of Public Health and Environment's (CDPHE's) food safety program engaged in a NPHII-supported quality improvement (QI) project to standardize its food inspection violation codes, enabling the department to make better use of data and thereby improve food safety.

STANDARDIZATION LEADS TO SAFER FOOD

Standardizing violation codes and descriptions has allowed CDPHE's local public health agencies to identify which establishments in their service areas had the highest violation rates for the four most commonly cited food-borne illness violations. As a result, local public health agencies can now provide these establishments with interventions to address the violations and improve food safety.

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CDPHE's statewide food safety program manages inspections for the state's 25,000 retail food establishments. However, each county has its own system for recording inspection data and producing reports. Counties collect food inspection data in 11 different database systems in 35 local public health agencies and the state health department. Each system counts and describes inspection codes and violations in slightly different ways. Before the QI project, there were 76 different violation codes and 647 different violation descriptions across the different local systems. Without standardization, it was difficult to identify establishments with problems or group and compare inspection data.

CDPHE's QI team began by standardizing codes and descriptions for 15 common food-borne illness violations (e.g., food held at improper temperatures). After the pilot program's success, all 63 food safety violations were standardized.

Violations can now be counted and sorted to identify problem areas or industry sectors, such as restaurants, grocery stores, or convenience stores. CDPHE uses the data to prioritize food safety inspectors' work to ensure that problems are addressed to reduce food safety violations.

“In 2015, a state law was passed requiring the creation of a stakeholder group to identify how to ensure adequate resources for the food safety system. Thanks in part to this NPHII-funded project, we now have standardized statewide data from 35 agencies that can illustrate resource needs.”

— JEFF LAWRENCE

Director, Division of Environmental Health and Sustainability, CDPHE

INFUSING QUALITY IMPROVEMENT INTO A HEALTHCARE SYSTEM

*Commonwealth Healthcare Corporation
Capitol Hill, Saipan
Commonwealth of the Northern Mariana Islands*

Using funding from NPHII and the program's strong focus on performance improvement, Commonwealth Healthcare Corporation (CHCC) of the Commonwealth of the Northern Mariana Islands (CNMI) established a home for quality improvement (QI) and provided staffing to support the effort. This provided the right foundation when, in 2012, the Centers for Medicare & Medicaid Services (CMS) identified the need for CHCC to adopt a performance improvement process to measure and improve the quality of its services.

ENGAGING STAFF TO SPREAD QI

As of 2015, all three of CHCC's divisions—CNMI's hospital, public health, and mental health and substance abuse service divisions—were monitoring performance. CHCC's goals were integrated across the agency through QI trainings for employees and staff participation in QI projects. In 2014, CMS identified no citations to the Quality Management Program.

• • • • •

CHCC hired a full-time performance improvement manager and created an Office of Corporate Quality and Performance Management (CQPM) with NPHII funding. In 2013, CQPM piloted a project to develop a system for measuring performance for the hospital division.

As of 2015, CQPM had eight staff members working with leaders from all three divisions to develop performance measures and QI projects. All CHCC employees now participate in biannual performance improvement training and are seeing improvements. For example, in late 2013, CQPM studied hospital readmission within 30 days of discharge. The program set a monthly target goal of less than 20%, and the 2014 data show CHCC has consistently exceeded its target.

“The concept of quality improvement and measuring performance is new to our staff. Obtaining the buy-in of the staff and providing education and training was an essential first step in this process.”

— CINDY P. HOEPNER

*Director/NPHII Performance Improvement Manager,
CHCC, CNMI*

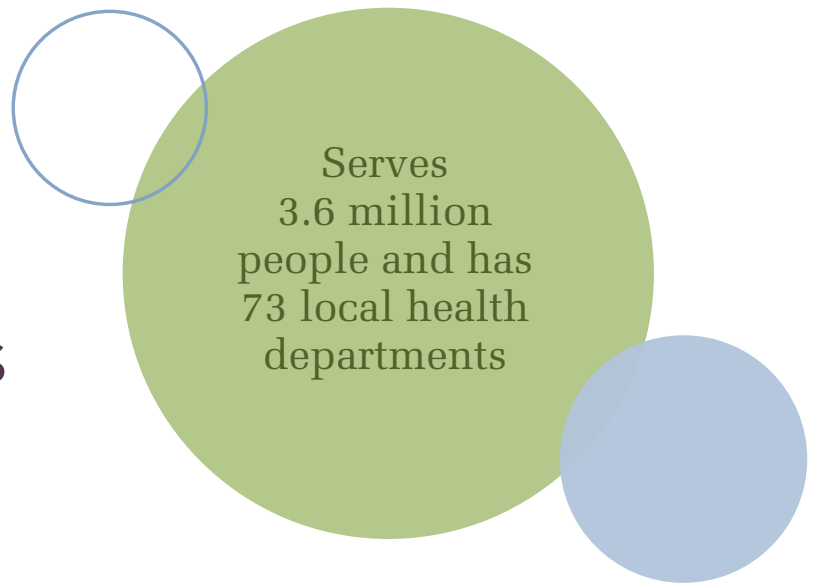


1 of 5

inhabited US territories, consisting of 15 islands in the western Pacific Ocean, located about three-quarters of the way from Hawaii to the Philippines.

PUBLIC HEALTH PLANNING ENGAGES THE COMMUNITY

*Connecticut Department of Public Health
Hartford, Connecticut*



OPPORTUNITY TO LEARN FROM THE COMMUNITY

Though Connecticut historically ranks as one of the healthiest states in the nation, the state is challenged by profound health disparities among different demographic and socioeconomic groups. While developing a statewide health improvement plan, the Connecticut Department of Health (CDPH) engaged community groups and residents in its health planning efforts using NPHII funds.

COMMUNITY HEALTH FORUMS OFFER HELPFUL INSIGHT

More than 300 residents participated in 10 community health forums, where 25 CDPH staff members shared data on the health status of individual communities.

The forum approach had several positive outcomes in addition to stakeholder participation, including

- Increased engagement of DPH staff members in the health improvement planning process
- Creation of a DPH speaker's bureau
- Validation of the preliminary findings of the state health assessment and strengthening of the state health improvement plan the state health improvement plan

• • • • •

In fall 2014, DPH convened health forums in each of Connecticut's eight counties. Forums were structured to provide information on health status and risks and get resident feedback. DPH staff members presented community-specific data on health indicators and shared information about available public health programs. Spanish-speaking DPH employees held a webinar forum for Spanish-speaking stakeholders to maximize community involvement.

The forums fostered new partnerships with community organizations, strengthened existing partnerships, and revealed real-life examples to support the public health data. DPH now has a state health improvement plan driven by significant input directly from the communities.

DPH continues to work with partners to identify priorities for the state plan and link them to a performance dashboard that displays data and information. The dashboard allows the agency and partners to monitor how Connecticut residents are faring in these health improvement target areas.

CULTURALLY COMPETENT HEALTHCARE PROVIDERS EQUAL BETTER PATIENT CARE

*Dallas County Health and Human Services
Dallas, Texas*

The Dallas County Health and Human Services (DCHHS) Refugee Clinic in Texas provides general health screenings, TB screenings, and vaccinations for adults and children. In 2011, DCHHS began using NPHI support to provide cultural competency training to the clinic's staff. "Culturally competent" health care means delivering services that are respectful of and responsive to the health beliefs, practices, and cultural and linguistic needs of diverse patients.

INCREASE IN VACCINATION AMONG REFUGEES

This cultural competency training provided knowledge and practical techniques to better understand and communicate with the county's refugee populations. One year after the training, the Clinic saw a notable increase—from 10% to 30%—in clients returning to complete a series of vaccines.

• • • • •

Approximately 10,000 refugees from more than 30 different countries come to Texas each year. DCHHS's Refugee Clinic is often one of the first places refugees go after they arrive. Staff members help the refugees access TB screening, vaccines, and other needed healthcare services.

During the cultural competency training, clinic staff discussed cultural differences and how to connect with patients, ensure patients receive a full vaccination series, and help them access treatment and other healthcare services. Trainees discussed how different cultures think about time and how some cultures are not used to appointments. For example, in Myanmar (Burma), a person might walk hours to get to a health clinic and be seen on arrival.

Clinic staff reported that this training reinforced the importance of understanding each patient and taking the time needed to ensure the best possible health outcomes.

“The training was great. One thing that stuck with me was when the trainer said, ‘We aren’t a melting pot, but rather a salad.’ Meaning, we are different veggies living in the same bowl. For some refugee populations we serve, it is important to invite the head of the patient’s household to a meeting to discuss lab results. For others, it is important to administer vaccines in a private room.”

— CONNIE DUNLAP, RN

DCHHS

In 2010,
the Refugee Clinic
administered more than
19,000 vaccines
to greater than 8,000
refugees from about
30 countries.

BECOMING A MORE STRATEGICALLY FOCUSED ORGANIZATION

*Delaware Division of Public Health
Dover, Delaware*

While the Delaware Division of Public Health (DDPH) always supported assessment efforts and careful planning for public health programs, the state health department had never looked strategically at their overall public health priorities and performance.

SUCCEEDING IN AN ORGANIZATIONAL CULTURE SHIFT

In August 2014, DDPH completed a three-year strategic plan with funding from NPHII. The process shifted the culture to one of quality improvement (QI) and collaboration for results.

.....

DDPH staff began developing a strategic plan to increase productivity, maximize resources, and achieve outcomes. It was a challenging process that successfully engaged all staff members and created a culture of shared goals and objectives across the division.

Serves more than 935,000 people and has approximately 650 employees



DPH director and key staff members working on a strategic priority

The strategic plan provides a clear vision, cohesive mission, and shared core values. Most importantly, it outlines the health outcomes that DPH staff expect to improve in Delaware throughout the next three years.

The strategic planning stimulated productivity and laid the foundation for subsequent DPH accomplishments, including

- Establishing a QI training program
- Implementing a performance management (PM) system
- Designing a workforce development plan
- Establishing a state health improvement plan
- Applying for national accreditation

QI training offered DPH employees useful tools to analyze programs and implement improvement plans. Results from QI projects include

- 10% decrease in no-show rate at the Immunization and Child Health Clinic over a six-month period
- 36% increase in fee collections at clinics over a comparable six-month period
- Major decrease (from 40 days to 15 days) in wait times for appointments at the New Castle County WIC clinics

Serves
659,000
residents



Has both state
and local health
department
responsibilities

ENGAGING EMPLOYEES PAYS OFF

*District of Columbia Department of Health
Washington, District of Columbia*

In July 2012, the District of Columbia Department of Health (DC DOH) seized the opportunity to take the agency to a higher level of efficiency, productivity, and accountability. DC DOH leaders began preparing to apply for national accreditation from the Public Health Accreditation Board (PHAB).

STAFF DEDICATION LEADS TO ACCREDITATION

On March 4, 2015, PHAB awarded accreditation to DOH, an accomplishment that resulted from the accreditation team's dedication and the engagement of hundreds of staff across the 600-person department.

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With support from NPHII, DC DOH hired an accreditation coordinator to lead the accreditation efforts. Early on, DC DOH learned that success depended on the buy-in of employees across all divisions. Staff from across the health department participated through teams and played important roles in identifying how standards are being met and areas for improvement.

To engage and educate employees about accreditation, the accreditation team decided to implement an internal marketing strategy by

- Hosting an accreditation launch conference for DC DOH staff and a closing meeting with DC's deputy mayor

- Organizing more than 45 in-person briefings with staff members, supported by a staff "Champions" group that promoted accreditation
- Creating one-page fact sheets called "The Toilet Paper" and posting them in bathroom stalls to reach "captive" audiences
- Producing detailed newsletters and YouTube videos targeting various staff audiences
- Holding an all-staff pre-accreditation site visit that offered prizes for employees who demonstrated knowledge of key accreditation facts

These activities generated excitement and camaraderie among staff. Programs shared ideas and brainstormed ways to strive for continuous quality improvement. More than 150 of DC DOH's 600 employees participated in departmental accreditation teams. This high level of participation was crucial to the department achieving accreditation in 2015.

PATIENTS BENEFIT FROM FASTER LAB RESULTS

*Federated States of Micronesia Department of Health and Social Affairs
Palikir, Pohnpei, Federated States of Micronesia*

An independent sovereign island nation and a US-associated state consisting of 4 states of about 607 islands spread across the Western Pacific Ocean

MOVING TO AN ELECTRONIC SYSTEM

The Federated States of Micronesia Department of Health and Social Affairs (FSM DHSA) purchased a laboratory information management system to replace its paper-based system. The new system lets users retrieve all patient data easily and quickly.

NEW SYSTEM PROVIDES MANY BENEFITS

The new electronic system—which would not have been possible without NPHII support—has enabled providers to easily access all laboratory data from their clinic desktop computers. Improved access helps providers target treatment and monitor its effectiveness.

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Previously, laboratories had used a paper-based process to record tests and share results with providers. The paper-based process caused several challenges:

- Test results were not available for at least 2 days.
- Poor handwriting contributed to mistakes and to possible misdiagnoses.
- Tests sometimes had to be repeated when results were lost, leading to increased costs and a possible surge in community infections.
- Information required for public health action was often not asked for or recorded.

FSM DHSA installed a laboratory information management system (LIMS) in the nation's four state laboratories. LIMS is linked to the laboratory's analyzers, and test results are sent automatically to the system. After a laboratory technician validates test results, approved clinical providers and public health staff members can view the results immediately through local area networks.

In addition to quicker results, LIMS allows for

- More comprehensive lab reports
- Automatic “urgent” flagging of positive test results for reportable diseases (e.g., dengue fever) for lab technicians to address
- Pre-programming to order follow-up tests automatically when necessary
- Readily available aggregate data from public health clinic screenings, such as HIV and hepatitis B
- Fewer repeat tests for patients

“The biggest benefit of the laboratory information management system is the interpretive information that accompanies test results. For example, a report with a positive test for dengue fever tells us if it is an acute, active, or past infection and if the patient is currently infectious. Our providers really appreciate this information.”

— LISA BARROW

National Laboratory Coordinator, FSM

ENGAGING COMMUNITY PARTNERS FOR BETTER PUBLIC HEALTH PRACTICES

*Florida Department of Health
Tallahassee, Florida*

The Florida Department of Health (FDOH) provided mini-grants to its 67 local health departments (LHDs) to develop county-specific community health assessments (CHAs) and community health improvement plans (CHIPs). Community partners joined the effort to address public health issues in each county.

ACCREDITATION AND COMMUNITY-SPECIFIC PLANS IN ACTION

With 100% CHA and CHIP completion rates in all 67 Florida LHDs, public health priorities specific to each community were established. LHDs and community stakeholders are now working together to address them.



With funding from NPHII, FDOH empowered its 67 LHDs to identify and address their communities' public health needs. Throughout the process, LHDs engaged community partners and developed coalitions of government, business, school, healthcare, faith-based, and civic organizations. The plans outlined strategies for improving health and monitoring and reporting on progress. County coalitions continue to collaborate to implement their CHIPs.

The county CHAs and CHIPs also represent significant requirements for meeting national accreditation standards. In 2013, FDOH submitted applications for the state and all 67 LHDs to the Public Health Accreditation Board for national accreditation. In June 2014, the state health office was accredited; the counties were accredited as a system in March 2016. Florida was the first state to implement this kind of statewide accreditation effort.

THE FOLLOWING ARE TWO NOTABLE EXAMPLES



Leon County's Capitol Coalition for Health recognized low-income residents' need for access to dental care and applied dental sealants to the Leon County second-grade population



Okaloosa and Walton Counties worked to fully implement the 2-1-1 service (a telephone information hotline that connects people to health and human services)

Florida's
67 counties are
demographically and
culturally diverse,
presenting unique
public health
challenges.

LASTING IMPROVEMENT WITH MORE EFFICIENT CONTRACT PROCESSING

*Georgia Department of Public Health
Atlanta, Georgia*

Executing any one of the thousands of contracts needed each year for public health work in Georgia was taking about six months—crippling the Georgia Department of Public Health’s (GDPH’s) ability to function efficiently. “We needed to execute contracts expeditiously because grants are time limited,” says Christine Greene, DPH’s deputy chief of staff.

IMPROVING PROCESSES AND PREPARING FOR ACCREDITATION

When DPH was moved out of the Georgia Department of Community Health and became its own state agency in 2011, improving the contract process was a top priority. Through a NPHII-supported quality improvement (QI) process, contract execution time was reduced from 6 to 2 months.

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The performance improvement manager formed a team to map and analyze the contract process steps. After identifying inefficiencies, they streamlined the contract process using a web-based application that provides a central repository for all contract-related documents. Employees

can easily access, review, and publish information in the repository, enabling them to efficiently manage the contract process together.

Cutting the contract process time allowed DPH to execute contracts more efficiently and get more work accomplished. “The improved system has greatly reduced our time and effort. It’s wonderful to be able to get money out into our community and local health departments much sooner,” says Greene.

DPH can use this effort to show a successful QI project when it applies for accreditation. NPHII funds have already helped DPH begin work on other requirements of accreditation, including a state health assessment, state health improvement plan, and strategic plan.



“Resources are so limited in public health. We always try to put every dime directly into programs. This has given us an opportunity to work on QI and help us move toward accreditation.”

— CHRISTINE GREENE

Deputy Chief of Staff, DPH

FIRST FORMAL ASSESSMENT BUILDS CONSENSUS ON PRIORITIES

*Guam Department of Public Health and Social Services
Mangilao, Guam*

COLLECTIVE PRIORITIES PROVIDE A MAP FOR ACTION

Beginning in 2010, with NPHI support, the Guam Department of Public Health and Social Services (Guam DPHSS) embarked on a process to complete a community health assessment (CHA) and community health improvement plan (CHIP), which are needed for accreditation by the Public Health Accreditation Board. These efforts allowed Guam DPHSS to gather the data needed to build a strong support network for public health initiatives.

BROADENING THE NET OF PUBLIC HEALTH PARTNERS

The stakeholder group identified 10 critical health issues based on the CHA process. Those issues then went through a prioritization process in developing the CHIP, which resulted in Guam DPHSS prioritizing the following health issues under the CHIP:

- Vaccine use; incidence of vaccine-preventable diseases
- Diabetes and cardiovascular disease mortality
- Cancer screening; lung and cervical cancer

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DPHSS is Guam's primary health agency, providing basic public health and social services to approximately 10,000 residents per month through three regional health centers.

The DPHSS team's goal was to engage stakeholders from all levels of government, as well as healthcare associations and councils, academia, community groups, nonprofit organizations, and the military. They facilitated community meetings over 18 months. Through the CHA process, the group identified 10 priority health issues, including

- Risk-taking behaviors, particularly marijuana use and riding in a vehicle with a driver who has been drinking alcohol
- Low vaccination rates and high rates of vaccine-preventable illnesses
- High rates of lung and cervical cancer, tobacco use, diabetes, and cardiovascular mortality

DPHSS then used the data collected from the CHA to develop a CHIP that will serve as a five-year action plan to address the critical health issues. In fall 2015, DPHSS launched an outreach and social marketing campaign to promote eight health behaviors, leveraging the numerous partnerships created during the CHA process to disseminate the campaign messages.

“Engaging so many partners in the CHA has allowed us to better understand the factors that contribute to poor health in Guam. With everyone on the same page about the most critical public health issues, we can really begin to make a difference.”

— JAMES GILLAN

Director of Public Health, Guam



Serves
165,000 people
and has more
than 400
employees

IMPROVING THE CONTRACTING PROCESS SAVES TIME AND MONEY

*Hawaii State Department of Health
Honolulu, Hawaii*

The Hawaii Department of Health’s (DOH’s) contracting process was cumbersome and inefficient. Some contracts took up to 180 days to review and approve. Support from NPHII helped DOH improve the process.

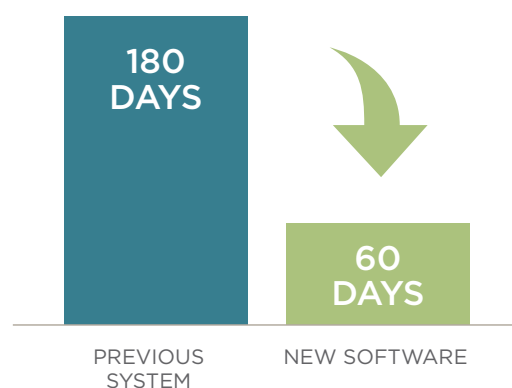
AWARD-WINNING WORK

Using a customized contract software program reduced the time it took to process a contract by nearly 70%—from 180 days to fewer than 60 days—saving significant staff labor hours.

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Hawaii’s DOH took on the challenge of improving the state’s contracting process, starting with its competitive contracts for behavioral health. Staff members mapped the process to identify problem areas and hired a software engineer to design an electronic template that could reduce human error and standardize formatting. The program also included links to other government sites where information could be quickly located and accessed.

The new contract management software reduced the time needed to process a contract by nearly 70%—from 180 days to fewer than 60 days. The project caught the attention of Hawaii state legislators interested in improving government processes. Also, the Governor’s Office of



Information Management and Technology recognized the project with a Business Process Automation Award.

Building on the system’s early positive results, DOH is expanding it to process noncompetitive contracts and contract modifications. Additional funding has been committed to the project to expand capabilities and, if successful, possibly expand to other state government departments.

Hawaii had the first board of health in the nation, established by then King Kamehameha III in 1853.

“Response from staff on the new contract software has been extremely positive. One staff member produced 10 contracts ready for final approval in one month. She said this would have normally taken four or five months of re-work before getting to that stage.”

— MAILE SAKAMOTO

Performance Improvement Manager, Hawaii DOH

A FUN ACCREDITATION PROCESS GETS RESULTS

*Houston Health Department
Houston, Texas*

SEEKING STAFF PARTICIPATION

Having a large number of employees (1,000) at the Houston Health Department (HHD) was both a great resource and a big challenge in the department's efforts to prepare for national public health accreditation through the Public Health Accreditation Board (PHAB). Early in the process, the department's accreditation team did a mock accreditation site visit and found that of the 36 sample PHAB measures reviewed, just 16% were "fully met" according to PHAB requirements. With only 3.5 full-time employees working directly on accreditation efforts, the accreditation team realized that staff-wide participation was necessary to obtain accreditation.

MAKING ACCREDITATION OBTAINABLE

With NPHI support, the accreditation team began an effort to engage employees in the accreditation process. They also substantially improved the quality of the accreditation documents they submitted. HHD became PHAB-accredited on December 12, 2014.

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HHD's accreditation team recognized the need to cultivate its best chance of achieving national accreditation: the agency's staff. Armed with tools from quality improvement trainings, the accreditation team developed a campaign to engage employees in the accreditation process.

The campaign used fun and interactive activities, including "Good Doc, Bad Doc," a game designed to train staff members on how to recognize and create documentation that fulfills accreditation requirements. The team also created Accreditation Kart, a game inspired by Super Mario Bros™, and developed a website, ThinkAccreditation.com. Staff members scored points by correctly answering

Serves
2.2 million
people



quiz questions and participating in accreditation activities. Rewards included low-cost items like T-shirts, as well as another good motivator, bragging rights.

The innovative initiative not only successfully secured the voluntary participation of 80% of the department's 1,000 employees in the accreditation process, but also sparked interest about staff engagement efforts from national organizations and health departments around the country.

“Our staff engagement activities created a sea change in how people felt about accreditation. Making the process fun with friendly competition motivated our staff and got the job done.”

— DR. RAOUF ARAFAT

Assistant Director, HHD

REMOTE X-RAY PROGRAM PROTECTS PATIENTS AND SAVES MONEY

*Idaho Department of Health and Welfare, Division of Public Health
Boise, Idaho*

The Idaho Division of Public Health (DPH) Radiation Control Program (RCP) has two radiation physicists who inspect nearly 1,600 X-ray devices across the state. Idaho's size and geography posed a challenge to keeping travel times down while increasing the number of inspections.

INCREASING CAPACITY WITHOUT INCREASING STAFF

DPH's three-month, NPHII-funded, pilot quality improvement (QI) project used remote dental X-ray evaluation, which resulted in a 15% increase in monthly X-ray inspections. The new approach also reduced inspector travel by nearly 2,600 miles per month and resulted in 43 more hours that could be spent performing additional inspections—time previously spent driving.

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DPH's radiation control program contracted with a company that provides X-ray evaluation cartridges. The company mails cartridges to dental offices, where staff members test the cartridges in X-ray machines. The dental office then returns the cartridges to the company for analysis, and the company sends results to the radiation control program to review and approve or follow-up with dental offices.

During the three-month project, 45 X-ray devices from 27 dental offices were inspected. Not only did data from the pilot save the program staff time and allow more inspections, but it also helped justify new fee rules that the Idaho State Legislature approved in 2015.

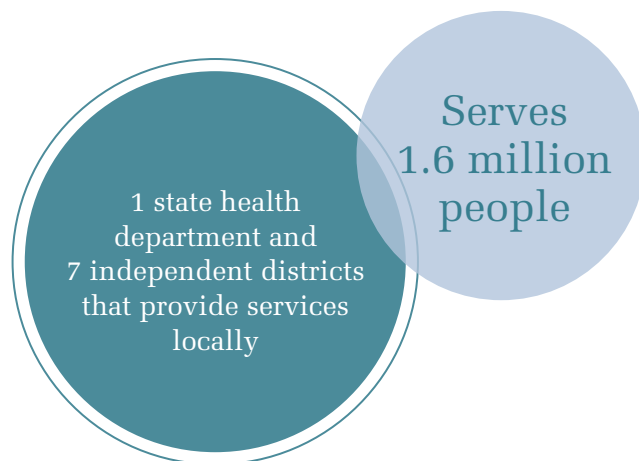
The licensure fee rules provide a stable funding source, creating a sustainable inspection program. The radiation control program can expand use of

remote dental X-ray evaluation to nearly 80% of Idaho's dental practices. This expansion will allow program staff to spend less time behind the wheel and more time ensuring the safe operation of X-ray devices statewide—ultimately improving patient safety.

“For every dollar spent in remote dental X-ray evaluation, the Idaho Radiation Control Program saved \$2.50 in travel costs.”

— CHRISTOPHER L. BALL

Chief, Idaho Bureau of Laboratories



CLOUD-BASED GRANTS MANAGEMENT SYSTEM SHOWING GREAT BENEFITS

*Illinois Department of Public Health
Springfield, Illinois*

Serves
12.8 million
people and has
102 counties with
97 local health
departments

OUT WITH THE OLD

In 2012, the Illinois Department of Public Health (IDPH) used a paper-based process to manage nearly 3,300 grants to organizations across the state. With NPHII support, IDPH contracted with a vendor to create the Electronic Grants Administration and Management System (EGrAMS), a customizable system that allows users to store and access data over the Internet.

IN WITH THE NEW

EGrAMS went live in July 2013 and provided immediate benefits to both IDPH staff and grantees. Because staff can post requests for applications, review applications, and assess compliance in the post-award phase online, the process is vastly more transparent and efficient than the paper process. The “one-stop shop” lets grantees view and submit applications, review their application status, request amendments, and submit progress reports.

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IDPH uses EGrAMS to create, submit, score, approve or deny, monitor, evaluate, and close out grants. Because EGrAMS is web-based, grantors and grantees can interact, which improves awareness, accountability, and analysis throughout the grant lifecycle.

The system has built-in checks and balances to ensure that grant applications are complete when submitted, eliminating the need for staff members to conduct an initial technical review. EGrAMS also sends automatic reminders when grant reports are due or delinquent.

After the second year of implementation, IDPH had released and managed more than 230 grant applications through the system. IDPH reported more than 99% compliance with only 2 of its 140 annual grant programs receiving exemption.

In its pursuit of continuous quality improvement, IDPH has a user survey for applicants, grantees, and IDPH staff on the EGrAMS system. Feedback is shared with the system vendor and regularly used to identify areas for improvement.

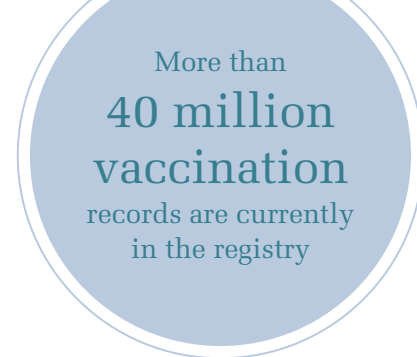
“This grants management system will become more valuable the longer it is used. It aligns with our state’s Budgeting for Results initiative and increases transparency and accountability in grants management.”

— ESTRELITTA HARMON

*Chief, Division of Grants Management and
Administration, IDPH*

IMMUNIZATION REGISTRY DATA IMPROVEMENT PROJECT DRASTICALLY REDUCES ERRORS

*Indiana State Department of Health
Indianapolis, Indiana*



DATA ERRORS AFFECTING CHILDREN'S EDUCATION

With support from NPHII, the Indiana State Department of Health's (ISDH's) immunization program staff worked to improve the quality of data in Indiana's State Immunization Registry. Errors in immunization records could keep children out of school and adults out of work. Also, people whose records are not included in the registry could end up receiving unnecessary vaccinations.

submitted. Only an inquiry about a record or a data discrepancy could help identify or analyze errors.

The Immunization Registry Data Improvement Project began using a new software program that automatically identified errors when data were imported. The project team used quality improvement tools to design an automated process to send an email alerting the data provider. The email explained the error so the data provider could correct the issue quickly.

SIMPLE FIXES MAKE DRAMATIC DIFFERENCES

The Immunization Registry Data Improvement Project dramatically reduced error rates in data imported from facilities that consistently had errors in their data reports.

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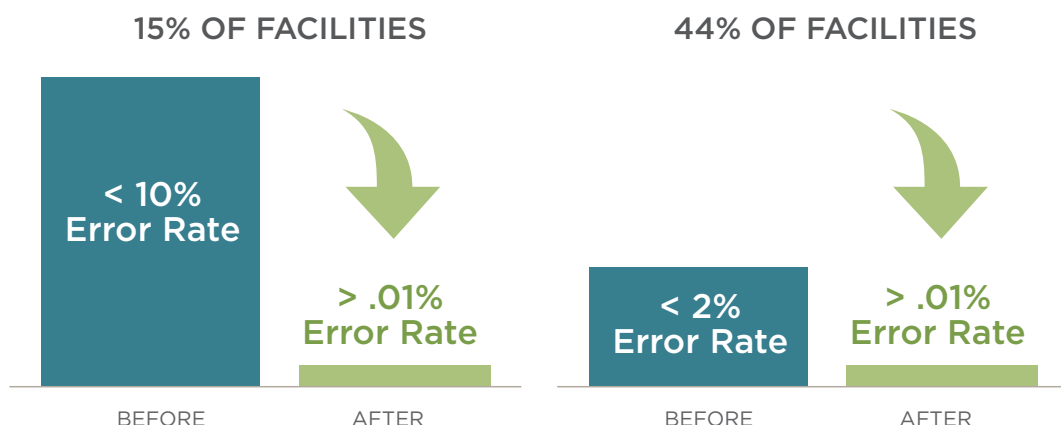
Indiana's State Immunization Registry receives more than 67% of its data electronically from hospitals, health centers, and healthcare providers. The registry had no process in place however, to identify data errors in the information when it was

"It's important to have up-to-date, accurate data in the Immunization Registry. If we have a communicable disease outbreak in a school, the first place we check is the registry."

— BRITTNEY SANDERS, MPH

Former Deputy Director of Immunizations, ISDH

Before the project's implementation, 44% of facilities had an error rate greater than 2%, and 15% of facilities had an error rate greater than 10%. After the project's full implementation, these facilities' overall error rates declined to less than .01%.



USING QUALITY IMPROVEMENT TO KEEP AIDS PATIENTS ENROLLED IN DRUG ASSISTANCE PROGRAM

Serves
3.1 million
people

*Iowa Department of Public Health
Des Moines, Iowa*

With NPHII funding, the Iowa Department of Public Health (IDPH) hired performance improvement staff members who trained program personnel on identifying and achieving program outcomes. As a result, IDPH's Ryan White AIDS Drug Assistance Program (ADAP) identified the need to improve client re-enrollment rates.

GOING ABOVE AND BEYOND

Iowa exceeded its 85% target for timely ADAP re-enrollment in April 2014 (94%)—more clients now take their medication without interruption, which means they are less likely to transmit HIV to others.

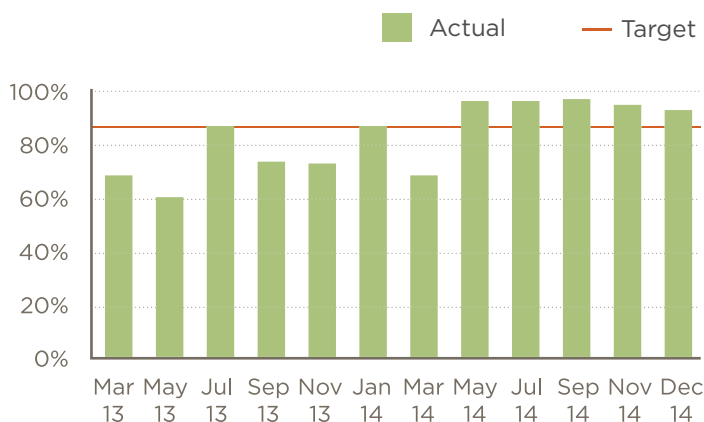
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ADAP collaborates with local health departments and community-based organizations to provide medications and essential health and support services to low-income people living with HIV/AIDS. Clients must re-enroll in ADAP every 6 months to continue receiving services. Staff members sometimes face challenges re-enrolling clients in

a timely manner, causing interruptions in client services and medication coverage. Missing a dose of an anti-retroviral drug can increase a person's HIV viral load.

In May 2013, the ADAP re-enrollment rate was 61%, well below the 85% target. A month later, ADAP staff members used their newly acquired quality improvement strategies to train providers throughout Iowa. The trainings emphasized taking early steps to re-enroll clients and frequent follow up to ensure clients were enrolled on time. After surpassing the 85% target for re-enrollment in April 2014, staff continued to exceed the target every month through December 2014, the end of the project period.

ADAP CLIENTS RE-ENROLLED/RECERTIFIED ON TIME



“Using QI strategies to address the issue of low re-enrollment in our Ryan White AIDS Drug Assistance Program allowed us to increase timely client re-enrollment from 61% to 94%.”

— JONN DURBIN

Planning Manager, IDPH

ONLINE PERFORMANCE MANAGEMENT TOOL BECOMES PART OF AGENCY CULTURE

*Kansas Department of Health and Environment
Topeka, Kansas*

In 2012, the Kansas Department of Health and Environment (KDHE) used funding from NPHII to develop Catalyst, an online performance management system. KDHE used Catalyst to develop a strategic plan and work plans, which allowed staff members to easily crosscheck goals and objectives with their action plans.

A TOOL FOR MANAGING PERFORMANCE AND SUPPORTING ACCREDITATION

KDHE uses Catalyst for more than just performance management and grants management. KDHE also created an accreditation readiness section in Catalyst to manage its accreditation documentation.

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In 2015, KDHE began using Catalyst to manage its grant procurement process. Catalyst provides a single portal that lets grantees view opportunities, awards, and amendments and submit applications and progress reports. KDHE awarded 600 grants during the 2014–2015 grant cycle.

After one year of using Catalyst for grants management, KDHE staff members and grantees have given positive feedback. The system allows staff members to quickly segregate grant strategies and view grantees' work plans within each strategy. The Catalyst structure also provides an easy way to discuss and make work plan revisions.

The ability to share documents in Catalyst can now help with accreditation preparation as well. In that section, Kansas's local health departments (LHDs) preparing to apply for accreditation can share, review, and edit documents required for accreditation.

KDHE is using Catalyst to realize its long-term goal to link the agency's strategic plan, the individual bureau plans, program plans, and grant plans.

KDHE and 100
independent LHDs serve

2.9 million

people living in
105 counties

“Catalyst has created a culture change at KDHE. The system's interactivity allows program staff to see how goals, objectives, and activities intersect across programs. Programs can now more easily identify areas for collaboration toward common goals.”

— JANE SHIRLEY

Director, Bureau of Community Health

KENTUCKY MEETS ACCREDITATION CHALLENGE HEAD-ON

*Kentucky Department for Public Health
Frankfort, Kentucky*

Serves
4.4 million
people

Currently has
9 accredited local
health departments
and close to half of the
rest plan to apply in
the next 5 years.

NPHII funding has helped Kentucky become a model for statewide support of accreditation of local health departments (LHDs). As of August 2015, 41% of Kentucky LHDs (n=61) were either accredited or formally engaged in the accreditation process.

ACCREDITATION PREP LEADS TO NEW STATEWIDE COLLABORATIONS

In February 2013, three LHDs in Kentucky were among the first group of just 11 health departments awarded national public health accreditation status by the Public Health Accreditation Board. Kentucky's House of Representatives adopted House Resolution No. 148 on March 7, 2013, recognizing the national accreditation of these three Kentucky LHDs.

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To support accreditation, the Kentucky Department for Public Health (KDPH) has successfully developed a culture of quality improvement (QI) among staff members at both the state and local levels. Public health staff members continuously seek new ways to increase their departments' efficiency and improve the population's health outcomes.

KDPH built an accreditation readiness infrastructure at both the state and local levels. This infrastructure included

- An accreditation coordinator workgroup that meets monthly to share best practices and challenges
- QI skill building training by KDPH staff
- Personalized technical assistance and support to LHDs, including one-on-one trainings and creation of a website to share resources

- QI mini-grants that led to successful projects across the state, such as
 - Online food handler certification classes
 - WIC vouchers at the local farmer's market
 - Same-day scheduling
 - Increased successful home visits for new or expectant parents
 - Improved flu vaccination rates
- QI teams at the state with successful project implementation, including
 - Expansion of Kangaroo Care, a breastfeeding promotion program
 - An orientation program for new KDPH hires
 - A new insurance billing process that is saving the state almost \$1,000 per month
 - Standardization of the grant process, including a resource website

IMPROVING OUTCOMES WITH EVIDENCE-BASED PRACTICES

*Los Angeles County Department of Public Health
Los Angeles, California*

AN OPPORTUNITY FOR IMPROVEMENT

In 2010, with NPHII support, the Los Angeles County Department of Public Health (LAC DPH) hired a performance improvement manager (PIM) and data analyst to help staff members plan program activities using the science of evidence-based practices (EBPs). Research and data have shown that these interventions and policies achieve the best results to drive decision-making and program planning.

THE STAGE IS SET TO ACHIEVE GREATER OUTCOMES

All 29 of the LAC DPH's programs now use EBPs to drive program planning, and more than 50% of the programs implemented a performance improvement project in fiscal year 2013–2014.

EBPs have led to positive outcomes, including

- The Acute Communicable Disease Control program increased phone drill responses from 77% to 94% and were able to reach all employees within 1 hour during an emergency.
- Staff members in the Tobacco Control and Prevention and Oral Health programs increased referrals to the smokers' quit line by 300%.

“Our goal was to infuse the science of evidence-based practice into our workforce. We are making great progress. During fiscal year 2013–2014, more than 50% of the department's programs implemented a quality improvement project.”

— KAREN SWANSON

Performance Improvement Director, Los Angeles County DPH

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The PIM and data analyst trained staff members in each of LAC DPH's programs to use a web-based performance improvement application to track health indicators and measure outcomes. The web application now houses 387 performance measures and 167 population indicators, enhances programs' data analysis and reporting capabilities, and supports LAC DPH's application for national accreditation.

Additional engagement activities to encourage EBP use include

- Training employees on EBP use and on economic analysis principles so they can analyze the cost effectiveness of public health interventions
- Holding annual science summit conferences for employees to share their research, learn about best practices, and hear what others in the department are doing. Since 2010, 240 LAC DPH employees have presented at the 5 science summits.

Serves
10 million
people



INSPECTIONS ARE UP AND COSTS ARE DOWN

*Louisiana Office of Public Health
Baton Rouge, Louisiana*

Serves
4.6 million people
with 1 state health department,
68 parish health units, and
3 specialty clinics

The Louisiana Office of Public Health (LA OPH) retail food inspection program was running behind on inspections. Inspection inventory data from 2012 showed that 43% of establishments were overdue for an inspection.

IMPROVING INSPECTIONS WITH LEAN SIX SIGMA

Lean Six Sigma (LSS) is an internationally known quality improvement method that focuses on increasing quality while reducing waste. Within 6 months of implementation of the LSS project, Louisiana eliminated overdue retail food inspections statewide.

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NPHII funding allowed LA OPH to analyze and improve its sanitarian services procedures. In 2012, LA OPH piloted the LSS project in a small number of sanitarian service units. In just four months, the pilot offices improved productivity and had an 11% decrease in past-due inspections. LA OPH then expanded the project across Louisiana.

The LSS program improvements have continued successfully since 2013 and specific achievements include

- Completed inspections increased by 60% from August 2012 to September 2013, the number of inspections per day increased by 41%, and the cost of each inspection decreased by 29%.
- LA OPH adjusted sanitarians' responsibilities so they no longer had to collect permit renewal fees and thus had more time for inspections. This adjustment saved \$330,000 per year in staff costs.
- LA OPH tracks inspection results over time and prioritizes higher-risk establishments, which reduces the chances that these vendors can continue their unsafe practices.

“The Lean Six Sigma tools have become a permanent part of field sanitarians’ daily activities. They provide guidance, accountability, and a feeling of successfully completing assignments. Inspections are up and costs are down.”

— DR. TAMMY A. HALL

Performance Improvement Director, LA OPH

STREAMLINING THE STATE'S HEALTH INSPECTION APPLICATION PROCESS

*Maine Center for Disease Control
Augusta, Maine*

SIMPLIFYING A COMPLEX PROCESS

With NPHII support, the Maine Center for Disease Control (MCDC) took on improving the application process for the state's health inspection program, which inspects and licenses the state's eating, lodging, campground, and youth camp facilities. The original process was complex and unnecessarily burdensome for both applicants and the health department.

ONE QI PROJECT LEADS TO MANY SOLUTIONS

An improved health inspection application process became a "one-stop shop" for applicants. Eliminating a separate septic system application also saved applicants from paying an extra \$20 fee.

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MCDC's health inspections previously included three separate review processes—the Health Inspection Program application, the Drinking Water Program review, and the Subsurface Wastewater Unit application. Each of these processes had complex instructions, caused

some duplication of applicants' efforts, and led to multiple reviews of applications.

In May 2011, prompted by NPHII-supported quality improvement (QI) opportunities, the leaders of MCDC's Environmental Health Division, Health Inspection Program, and Drinking Water Program reviewed the processes and discussed ways to streamline the application review. Using QI approaches, the team reviewed the application forms, simplified questions, merged fee schedules, and integrated the drinking water and subsurface wastewater reviews. A new application form was adopted and a standard operating procedure (SOP) was created. The SOP covers the process from receipt of an application through approval or denial of an operating license.

Staff members from the three environmental health programs can now better monitor every application's status and determine exactly where it is in the process. This process saves time and offers applicants better customer service.



*Licenses
and inspects
more than
8,000 facilities*

**Serves
1.3 million
people**

“NPHII gave us the opportunity to examine how we do business in the Health Inspection Program. The resources to analyze our process allowed us to make some simple changes that benefit both our staff and customers.”

— LISA SILVA

Program Manager, Health Inspection Program, MCDC

WORKING TOGETHER TO ADDRESS THE COMMUNITY'S HEALTH NEEDS

*Maricopa County Department of Public Health
Phoenix, Arizona*

Across Maricopa County, a large metropolitan jurisdiction with 10 non-profit hospital systems, each system originally conducted its own CHA and CHIP

With NPHII assistance, the Maricopa County Department of Public Health (MCDPH) built a community collaborative of public health partners to leverage resources and engage in a shared community health assessment process.

HARNESSING THE POWER OF COLLABORATION

MCDPH established the Maricopa County Community Health Assessment Center and successfully engaged 20 of the 26 nonprofit hospitals and 3 of the 8 federally qualified health centers (FQHCs) in the county in the collaborative.

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Health departments, nonprofit hospitals, and FQHCs all are required to conduct community health assessments (CHAs). Starting in 2013, MCDPH staff members and consultants led an 18-month effort to engage these partners in coordinated community health work in Maricopa County. They created a new county-wide process for conducting CHAs and community health improvement plans (CHIPs). This process resulted in cost- and time-savings and reduced redundant efforts.

The Maricopa County Community Health Assessment Center was structured so that each participating facility contributed to a general MCDPH-administered fund. The fund would support staff and pay for contracts to complete a single, comprehensive community process to meet all partners' needs.

Cross-sector workgroups were developed to assess and identify health indicators. The partners also gave input on focus group protocols and questions to meet the needs of their respective, distinct sectors. The workgroup's initial successes include consensus on a common list of health indicators and a framework for targeting community health improvement in five priority areas: obesity, diabetes, lung cancer, cardiovascular disease, and access to care.

“This collaborative is producing a community health assessment for the county that brings the major healthcare partners together in consensus of the priority population health conditions that should be addressed in a concentrated and organized way.”

— EILEEN EISEN-COHEN, PHD

Performance Improvement Manager, MCDPH

BUILDING LOCAL COALITIONS TO IMPROVE COMMUNITY HEALTH

*Maryland State Department of Health and Mental Hygiene
Baltimore, Maryland*

Health departments and hospitals are expected to develop community health needs assessments and plans to meet national requirements for accreditation and for IRS reporting. This gave Maryland an unprecedented opportunity to build partnerships among public health and healthcare leaders and foster statewide collaboration throughout its counties.

Serves
6 million
people

*Fran Phillips,
Deputy Secretary for
Public Health Services,
MDHMH, speaking at
Maryland's SHIP
launch*



“The beauty of having the local health improvement coalitions implement the state health improvement plan is that they are the people on the ground in touch with the population every day.”

— ANN M. WALSH, MHS, CHES
DHMH

COALITIONS WORKING TOGETHER ON SHARED GOALS

With funding from NPHII, 21 local health improvement coalitions (LHICs) serving Maryland's 24 counties are carrying out county-specific action plans based on the state health improvement plan (SHIP).

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The Maryland Department of Health and Mental Hygiene (DHMH) realized that collaborating with hospitals and other public health stakeholders would create efficiencies and better health outcomes for Maryland's residents.

DHMH facilitated the creation of county-level LHICs, each of which is co-led by the local health officer and a local hospital leader. Healthcare providers and representatives from community organizations, hospitals, businesses, and academic institutions participate in the coalitions. DHMH met with LHICs to present state and local data on residents' health status and supported them to shape their county-specific action plans.

The SHIP's 39 measures are aimed at achieving its goals to focus action to help people live, work, and play in health-supporting environments. From providing access to prenatal care to reducing fall-related deaths, Maryland's measures focus on ensuring its residents' health from before birth through old age. Counties have numerous activities in motion. For example, Allegany County is working to decrease the number of pregnant women who smoke, and Mid-Shore County is working to reduce adolescent obesity rates.

DISTRICT PARTNERSHIPS IMPROVE PUBLIC HEALTH IN MASSACHUSETTS

*Massachusetts Department of Public Health
Boston, Massachusetts*

OPPORTUNITY FOR SHARING RESOURCES

With 351 municipal health departments spread across a state smaller than some western US counties, public health in Massachusetts faces unique challenges. Regional approaches—such as sharing services across municipal lines and leveraging local resources—have long been considered a possibility, but no concrete explorations occurred until NPHII support made it possible.

INCENTIVE PROGRAM FOCUSES ON PARTNERSHIPS

The Massachusetts Department of Public Health (MDPH) awarded grants to groups of municipalities seeking to create regional public health districts. Five districts encompassing 48 cities and towns are now being formally established and benefiting from shared resources.

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In 2010, MDPH launched a district incentive grant program and awarded 11 planning grants to help communities assess the feasibility of establishing local health districts. Of these, five districts received implementation grants and have established governance structures and signed inter-municipal agreements. All five have completed a community health needs assessment and are using the results to set priorities and improve performance.

DATA FROM 2012 HIGHLIGHTED MEASUREABLE IMPROVEMENTS AMONG THE FIVE DISTRICTS



Formal training for Board of Health members increased by an average of 57% across all five districts



The percent of indicators completed for routine communicable disease investigation increased in all five districts (65% district average vs. the 53% state average)



80% of district towns submitted food inspection data to MDPH in 2012, compared with only 61% statewide



95% of district beaches met sampling requirements in 2012 (up 20% since 2010)



Four districts successfully collaborated on grants supporting prevention efforts in such areas as chronic disease and substance abuse

“In 2005, public health advocates formed the public health regionalization project to address the challenge of limited local resources. When the NPHII opportunity arose in 2010, we could devote tangible assistance to the endeavor, and now we’re seeing positive outcomes.”

— MICHAEL COUGHLIN, MS

Accreditation Manager, Commissioner’s Office, MDPH

BENEFITS OF PRIMER EXCEED EXPECTATIONS

*Michigan Department of Health and Human Services
Lansing, Michigan*

AN OPPORTUNITY TO IMPROVE PERFORMANCE

In 2011, Michigan Department of Health and Human Services (MDHHS) used NPHII funding to engage in quality improvement (QI) and performance management (PM) efforts, including creation of *Embracing Quality in Public Health: A Practitioner's Performance Management Primer*—a free, online PM/QI training module for state and local health departments (LHDs) and tribal agencies.

PRIMED FOR PRIMER

Primer training has been used widely since its launch in 2013 and has helped several of Michigan's LHDs build capacity to achieve national accreditation. Currently, five Michigan LHDs are PHAB-accredited. More than 1,500 public health professionals across the United States have completed *Primer* training, representing more than 200 state and LHDs nationwide.

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Primer describes basic PM and QI principles, gives examples of how PM can be used in public health, gives guidance on creating performance measures, and offers tools to help agency staff start PM projects. After the training, staff members receive certificates of completion that apply toward meeting national accreditation standards.

Training and tools highlighted in *Primer*—such as the Plan, Do, Study, Act (PDSA) method—have helped MDHHS staff create internal QI projects with some measurable results:

- MDHHS's Sexually Transmitted Disease Unit increased by 12% the percentage of clients with syphilis they were able to locate.
- MDHHS's Tobacco Unit increased by 150% the number of organizations representing populations most affected by tobacco use who are more likely to apply for funding (from 6 organizations to 16).



Serves
9.8 million
people

Operates the
oldest and longest
running state public health
accreditation program in the
nation and accredits all
45 Michigan LHDs on
a recurring basis
since 1998

“It was important to develop an easily accessible performance management and QI training. MDHHS staff engagement in the Primer training has helped build a QI culture within programs.”

— DEBRA TEWS

Director, Office of Performance Improvement and Management, MDHHS

BUILDING PUBLIC HEALTH EMERGENCY RESPONSE CAPACITY

*Mille Lacs Band of Ojibwe
Onamia, Minnesota*

After high-heat and high-wind weather emergencies, tribal public health officials realized they needed to strengthen their emergency preparedness and response policies and procedures. Leveraging funds from NPHII, the Mille Lacs Band of Ojibwe (MLBO) Public Health Department updated the tribe's emergency response plan and trained the staff on emergency preparedness and response.

PREPARING FOR PUBLIC HEALTH EMERGENCIES

To prepare for public health emergencies, including severe weather conditions and disease outbreaks, all public health staff members took Federal Emergency Management Agency emergency preparedness and response training.

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Through collaborative efforts with MLBO's public safety officials, the tribe's emergency response plan was updated to include

- Plans to help housebound tribal members, including maps of their locations and how to get medications, clean water, and meals to them
- Evacuation plans and memoranda of understanding with the tribe's casinos, community centers, and schools to be used as shelters
- Designated locations in each of the tribe's four districts from which to distribute medications during a disease outbreak

To improve emergency response rates, MLBO started monthly Health Alert Network email drills. Emails were sent to the tribe's network of emergency responders, and their response times were tracked. The rate of responses received within two hours of an alert increased from 80% to 94%. Typical emergency responses include evacuation, transportation, provision of safe drinking water, and medication delivery.

Additionally, public health nurses educated community members on emergency preparedness issues, such as high-heat conditions, power outages, and gas leaks.

MLBO is a federally recognized American Indian tribe located in East Central Minnesota with more than 4,300 members



BRINGING QI TO THE LOCAL LEVEL

*Minnesota Department of Health
St. Paul, Minnesota*

Serves
5.4 million
people living in
48 local health
jurisdictions

To further strengthen public health throughout the state, the Minnesota Department of Health (MDH) focused on helping its 48 community health boards (CHBs) meet the national public health accreditation standards. CHBs are the legal governing authority for local public health in Minnesota. They have statutory responsibility under the Local Public Health Act to address and implement critical local public health activities.

SETTING THE FOUNDATION FOR ACCREDITATION

In June 2014, MDH was among the nation's first five state health departments to gain national accreditation by the Public Health Accreditation Board (PHAB). As a result of MDH's efforts to help CHBs meet the national public health standards, 99% of the state's 48 CHBs now have formal strategic plans.

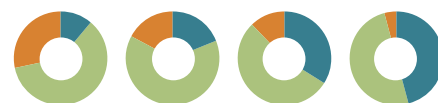
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In 2011, MDH tasked existing public health nurse consultants to help CHBs meet PHAB standards. They used NPHII funding to hire QI consultants and provided training and resources for community health improvement planning, facilitated strategic planning sessions, and convened forums to learn and apply QI tools. Minnesota implemented system-wide performance measures (based on national accreditation standards) to monitor improvement and determine where to direct capacity building efforts across the state.

Over three years, the system's capacity increased, including

- An increase of 35% in the percentage of CHBs engaged in formal QI processes
- An increase (from 10% to 99%) in the percentage of CHBs that completed strategic plans

CONTINUUM OF QI MATURITY AMONG MINNESOTA CHBS, 2011-2014



	2011	2012	2013	2014
Formal, Org-wide QI	11%	19%	34%	46%
Informal or ad-hoc QI	60%	64%	54%	50%
Minor involvement in QI	28%	17%	12%	4%

“Minnesota’s governmental health system has a strong state-local partnership. Using NPHII funding to support and build capacity of our CHBs was an obvious choice for us.”

— DEBRA BURNS

Health Partnerships Division Director, MDH

QI PROCESS SHORTENS PATIENT WAIT TIMES

*Mississippi State Department of Health
Jackson, Mississippi*

The Harrison County Health Department (HCHD) serves 199,000 people in Mississippi's second most populous county. HCHD's clinic wait times were notoriously long; in fact, many clients waited more than two hours for services. HCHD and performance improvement staff at the Mississippi State Department of Health (MSDH) collaborated to improve the process.

SIMPLE CHANGES MAKE BIG DIFFERENCES

After MSDH and HCHD staff changed the clinic check-in process and the locations for some of HCHD's services, wait times for patients were reduced by nearly half—from more than 120 minutes to an average of 63 minutes.

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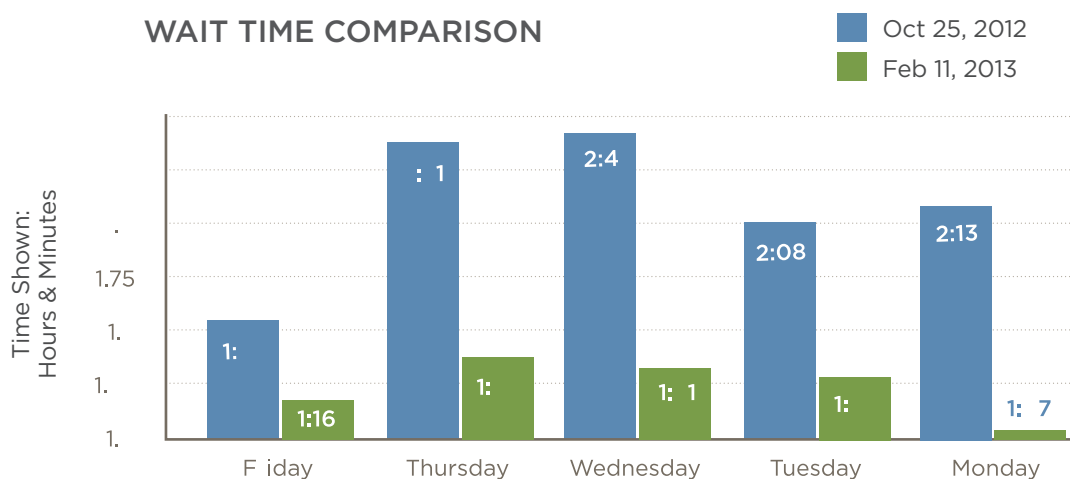
HCHD provides immunizations, WIC services, genetics counseling, child health screenings, and maternity and reproductive health services. In reviewing HCHD's clinic wait time data, MSDH leaders learned that patients often had long waits to see a provider in the clinic, regardless of the services they sought.

Prompted by NPHII's focus on quality improvement (QI), and using tools like process mapping and flowcharts, MSDH's QI team analyzed the clinic's intake process and other business practices. The

team learned that when patients entered the clinic, a bottleneck started immediately because all patients were directed to the same window for check-in and were required to complete the same form, regardless of the reason for their visit. Patients seeking more than one service had even longer wait times.

The QI team worked with HCHD staff members to create separate check-ins for different types of services to speed up the process and avoid unnecessary paperwork. Also, department service offices were set up to give patients hassle-free, "one-stop shopping" for different services.

Some HCHD staff members were initially skeptical of the QI project and changes. After seeing the positive effect on patients, however, they embraced the changes and continue to be motivated to shorten wait times wherever possible.



Serves
3 million
people

IMPROVING WORKFORCE SATISFACTION IN THE STATE LABORATORY

*Missouri Department of Health and Senior Services
Jefferson City, Missouri*

NPHII support and assessment tools helped the Missouri State Public Health Laboratory (MSPHL), a division within the Missouri Department of Health and Senior Services (DHSS), determine opportunities for improvement. An assessment revealed that employee satisfaction was a key area for attention.

SELF-ASSESSMENT LEADS TO INCREASED SATISFACTION

MSPHL conducted an employee satisfaction survey in 2012 and again in 2014. Results showed employee satisfaction increased 10% (from 82% in 2012 to 92% in 2014). When asked if they would recommend MSPHL as a “good place to work,” 76% of staff said “yes” in 2012 and 90% said “yes” in 2014.

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In 2012, MSPHL used the nationally recognized Baldrige model for performance excellence to assess seven areas, including leadership, customer focus, and workforce focus. MSPHL received high marks for a well-trained workforce and a management team that continually worked to improve services. Results also showed that MSPHL could improve employee satisfaction and engagement. Employees were feeling the “silo”

effect of an organization—where 14 of its units primarily operated independently.

MSPHL used its assessment results to develop a performance improvement plan to help reduce employee isolation. Each MSPHL unit held a tour and explained its work to other employees. To showcase their work, state laboratory employees created “Outbreak Shutout,” a video demonstrating their process during an *E. coli* outbreak. Other activities included scavenger hunts to learn about MSPHL’s strategic plan and contests aimed to increase employee interaction and encourage them to have fun.

“Outbreak Shutout” won an award in an American Society of Clinical Pathology contest. MSPHL’s QI team won the director’s Quality Award in 2013 for their workforce development and performance improvement efforts.



The state lab
performs more than
6 million
reportable tests
each year

“Research shows that happy employees work harder. We’ve infused a little fun into the workdays. From photo contests to playing NBC’s ‘Minute to Win It’ during meetings—it’s about improving morale so our employees are happy to work here.”

— LAURA NAUGHT

Quality Systems Officer, DHSS

COORDINATING EFFORTS TO COMBAT CHRONIC DISEASE

*Montana Department of Public Health and Human Services
Helena, Montana*



Too often, health problems are combatted in isolated or program-specific ways, without recognition of the connections among health issues. In 2011, with NPHII assistance, the Montana Department of Public Health and Human Services (DPHHS) sought to fix this problem through a quality improvement planning process.

AN OPPORTUNITY TO CONNECT THE DOTS

The DPHHS project resulted in the five-year Coordinated Chronic Disease State Plan that is a win-win for both public health and Montana's residents. The plan saves internal staff time and resources and offers Montana's residents a one-stop shop for chronic disease prevention services.

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Although Montana's chronic disease programs (CDPs) have collaborated on various projects over the years, better coordination across programs was still needed, particularly because 58% of adults in Montana have at least one chronic disease.

Each CDP engaged in planning sessions to examine existing needs assessments, identify desired health outcomes, and develop coordinated workplans to accomplish their goals.

Staff were trained in process management and operational planning. The CDPs' workplans were aligned to ensure that resources would be maximized and public health clients would receive comprehensive services.

The planning process led to several coordinated efforts, including

- Outreach efforts to offer worksite wellness programs like those now offered by DPHHS's local area public health contractors
- A new school health website with resources and information on school health issues, such as tobacco use, vending machines with healthy options, physical activity, asthma, and diabetes

“The planning process was really about changing the culture and how we operate. Instead of just responding to our grant requirements, we needed to examine our residents' health needs. Now we are addressing those needs in a coordinated way rather than duplicating efforts.”

— LINDSEY KRYWARUCHKA

Organizational Development Specialist, DPHHS

Of the 50
US states, Montana
is ranked 4th in
geographic size but
44th in population and
48th in population
density

USING ASSESSMENT TOOLS TO IDENTIFY STRENGTHS AND GAPS

*Montana-Wyoming Tribal Leaders Council
Billings, Montana*

The Montana-Wyoming Tribal Leaders Council (TLC) and the Rocky Mountain Tribal Epidemiology Center (RMTEC), where the performance improvement manager is housed, used NPHII funding to identify and address public health gaps among member tribes. TLC and RMTEC expanded on previous assessment activities and supported the use of common tools among the tribes to collect more uniform information.

STRENGTHENING PUBLIC HEALTH CAPACITY

Member tribes used mini-grants to conduct community health assessment and planning activities with nationally recognized tools. TMC and RMTEC helped tribes develop roadmaps to meet national accreditation standards and provided expert support for establishing tribal health codes.

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Member tribes conducted community health assessment and health improvement planning activities using the National Public Health Performance Standards (NPHPS) assessment and Mobilizing for Action through Planning and Partnerships (MAPP) tools—processes that align with requirements in the national accreditation standards. While some tribes in the region had used the NPHPS assessment previously, not all were using the same tools, nor were they conducting assessments regularly. The mini-grants

and support from TLC and RMTEC ensured more uniform, routine, and comprehensive health assessments and plans, which can better identify gaps and opportunities for addressing them.

Serves all 10
Montana-Wyoming
Indian tribes on
8 reservations

A collective need was identified—the establishment and enforcement of tribal health codes at the local level. The goal of the tribal public health codes was to improve public health practice in tribal communities in response to community health, emergency preparedness, and research concerns. RMTEC provided additional training and support to member tribes for developing tribal public health codes. A tribal advisory board was established, with representation from tribal governments and health departments, to coordinate development of tribal health codes and performance measures. Individual tribes also formed their own advisory committees to guide their tribe's health department.

Collectively, these activities have played a key role in identifying gaps, strengthening tribal public health infrastructure, and providing direction for future activities.

“NPHII funding helped us continue assessing tribal members’ health, so now we have almost a decade of data to take action on identified priorities.”

— BETHANY FATUPAITO, MPH

Program Manager for the Montana-Wyoming Tribal Leaders Council



NEW PARTNERS AND LEGISLATION ADVANCE COMMITMENT TO NAVAJO NATION HEALTH

*Navajo Nation Department of Health
Window Rock, Arizona*

IMPROVING THE TRIBAL PUBLIC HEALTH SYSTEM

Previously, the Navajo Nation Department of Health (NNDOH) did not have a comprehensive process for identifying public health priorities and programs to improve the health outcomes of the people it serves. Data from multiple sources—including state health departments, the Indian Health Service, and the US Census on the Navajo population—was available but NNDOH did not have a system to analyze the data.

NEW LEGISLATION SUPPORTS PUBLIC HEALTH

The passage of the Navajo Department of Health Act on November 6, 2014, demonstrated the Navajo Nation's commitment to using assessment, policy and program development, and evaluation to ensure it meets the public health service needs of its communities.

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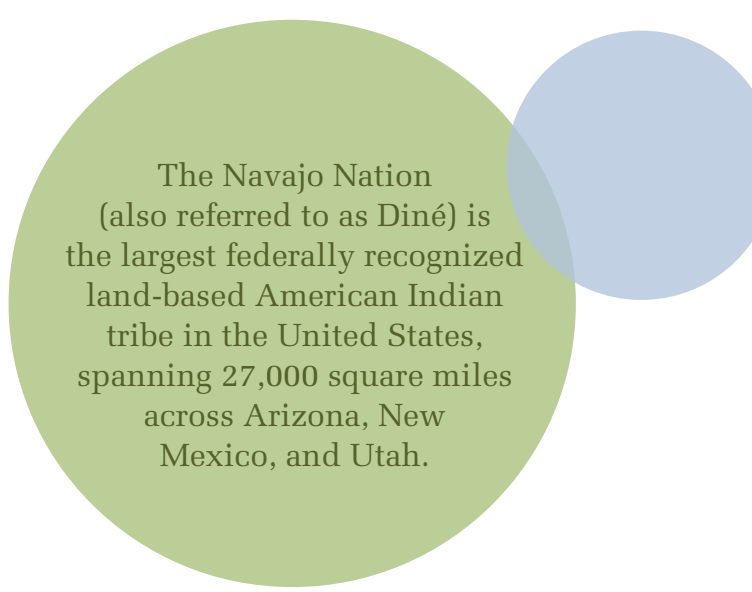
In early 2014, the NPHII-supported Public Health Infrastructure Improvement Program at NNDOH partnered with the University of New Mexico's Institute for Indigenous Knowledge & Development to complete a health systems assessment across the Navajo Nation. During three planning sessions, NNDOH used the 10 Essential Public Health Services framework and the Mobilizing for Action through Planning and Partnerships planning tool to engage key public health partners.

These sessions gave the Nation's many public health partners a forum to discuss health concerns and learn more about the 10 Essential Public Health Services. After the final planning session, the partners created action plans focused on cultivating public health champions, exploring legislative action, improving access to data, strengthening public health services, building workforce capacity, and developing and sustaining partnerships.

“This truly multi-partner planning effort included the Navajo Nation’s elected officials; tribal leaders; public health partners in New Mexico, Utah, and Arizona; the Indian Health Service; the University of New Mexico, and Diné College; traditional healers; and the 638 contractors within the Navajo Nation’s health system.”

— ANITA MUNETA, MPH

Performance Improvement Manager, NNDOH



The Navajo Nation (also referred to as Diné) is the largest federally recognized land-based American Indian tribe in the United States, spanning 27,000 square miles across Arizona, New Mexico, and Utah.

BUILDING A HIGH-PERFORMING PUBLIC HEALTH SYSTEM

*Nebraska Division of Public Health
Lincoln, Nebraska*

Serves
1.8 million
people living in 93
counties, with 1 state
health department
and 20 LHDs



Building on more than 10 years of progress in strengthening Nebraska's local public health agencies, NPHII funds allowed the state to further expand this work.

The Nebraska Division of Public Health (NDPH) offered mini-grants to the state's 20 local health departments (LHDs) to build capacity and advance efforts toward national public health accreditation.

ON THE ROAD TO ACCREDITATION

Nebraska's public health system has adopted the national Public Health Accreditation Board (PHAB) standards as a blueprint for its work. Two key areas of expectation in the national standards—quality improvement (QI) and performance management (PM)—are now more closely integrated into the public health work culture. As of the end of 2015, NDPH and four LHDs have applied to PHAB for national accreditation; eight others are working on their applications.

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In 2001, Nebraska's legislature passed a historic law that created a statewide local public health infrastructure to ensure all Nebraskans would have access to an LHD. With state and national grant funds, NDPH provided technical assistance to

LHDs to increase their capacity to meet the 10 Essential Services and strengthen LHD connections with local communities. Activities included conducting community health assessments and community health improvement plans every four to five years.

When NPHII funds became available in 2010, Nebraska was well-positioned to further develop its strong local public health network.

Key initiatives have included

- QI and PM trainings and one-on-one technical assistance from national QI experts
- Accreditation trainings taught by experts from national organizations
- Technical assistance around data collection requirements for accreditation
- Creation of a Community of Practice (CoP) made up of state and local public health representatives

The CoP meets regularly and maintains an online forum to discuss QI, PM, and accreditation activities. They share documents and lessons learned, and assist others at different stages in the process. The CoP has been a useful resource for the LHDs that represent small rural populations and have limited staff to work on PHAB's numerous accreditation requirements.

“We are building trust and credibility with stakeholders and Nebraskans by increasing the number of accredited LHDS in Nebraska.”

— COLLEEN SVOBODA, MPH
NDPH

COMMON STANDARDS GIVE A MORE COMPLETE PICTURE OF HEALTH

*Nevada Division of Public and Behavioral Health
Carson City, Nevada*

Because Nevada Division of Public and Behavioral Health (DPBH) didn't have a consistent statewide set of health indicators, the state and local health departments, hospitals, and other health organizations were comparing "apples to oranges" when looking at community health assessments (CHAs) and other data reports.

COMPARING APPLES TO ORANGES

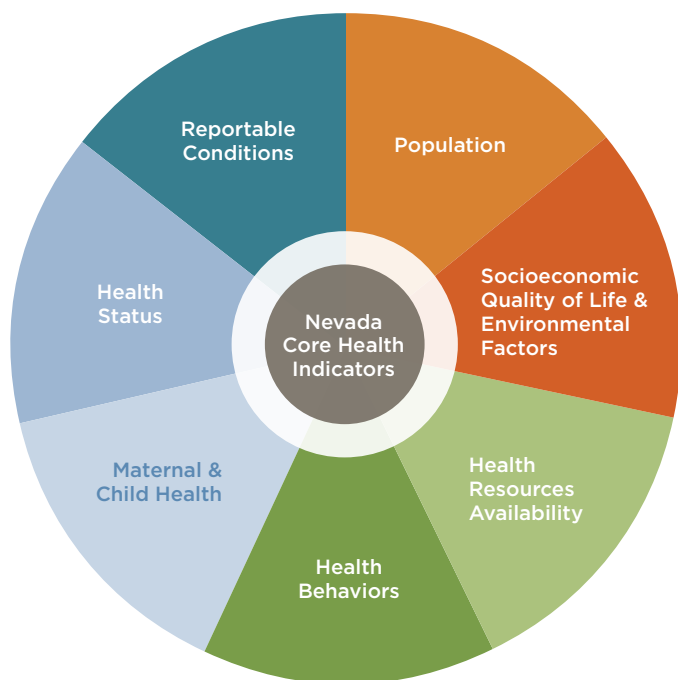
Using NPHII support, DPBH formed the statewide Nevada Health Data Committee to standardize the list of health indicators and data sources used in CHAs. The workgroup developed a single list of health indicators, and in 2014, the group put the Nevada Core Health Indicators on its website.

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The Nevada Core Health Indicators help public health programs provide education, support services, and health services more efficiently. By standardizing health indicators, Nevada now benefits from the following:

- **A consistent, standardized approach to understanding health challenges:** DPBH uses the new indicators in health assessments. Two county public health authorities plan to use the indicators in upcoming CHAs. These indicators are also important in CHAs, which the Internal Revenue Service requires hospitals to do, and which health departments need to complete when pursuing national accreditation.
- **Helpful resource documents:** Support documents guide the data collection process. For each health indicator, the documents explain measurement, data source, and year.
- **Empowered public health agencies:** Agencies can use the new statewide data to better determine unmet needs, demonstrate health outcomes, and secure funding.

NEVADA CORE HEALTH INDICATORS V 1.0



**Serves
2.7 million
people**

MORE EFFECTIVE CLIENT INTERACTIONS PREVENT DIABETES

*New Hampshire Division of Public Health Services
Concord, New Hampshire*

WOMEN AND INFANTS AT RISK FOR DIABETES

Women with gestational diabetes mellitus (GDM) have a higher risk for developing type 2 diabetes and an increased risk of GDM in future pregnancies. Babies born to women with GDM are more likely to have diabetes and be obese later in life. In New Hampshire, very few Women, Infants, and Children (WIC) program participants with GDM were receiving information about diabetes prevention, and fewer than half were referred for follow-up blood testing.

NEW PROCESSES YIELD RESULTS

A new standard intervention for WIC participants with a history of GDM—along with training for WIC staff and supporting materials—has led to education and referral improvements.

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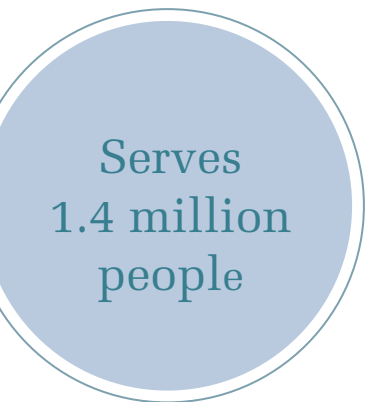
With NPHII support, the project team first looked at WIC nutritionists' knowledge and comfort levels addressing GDM. The team was composed of New Hampshire Division of Public Health Services

staff and a nutrition coordinator from a local WIC agency. They trained staff and created a standard intervention for WIC nutritionists to use with their clients. The intervention included noting “history of GDM” as a risk factor in the WIC participant’s record, determining whether postpartum blood sugar had been tested, discussing diabetes prevention, and explaining the importance of follow-up blood sugar testing. The team also created a tip card for WIC participants.

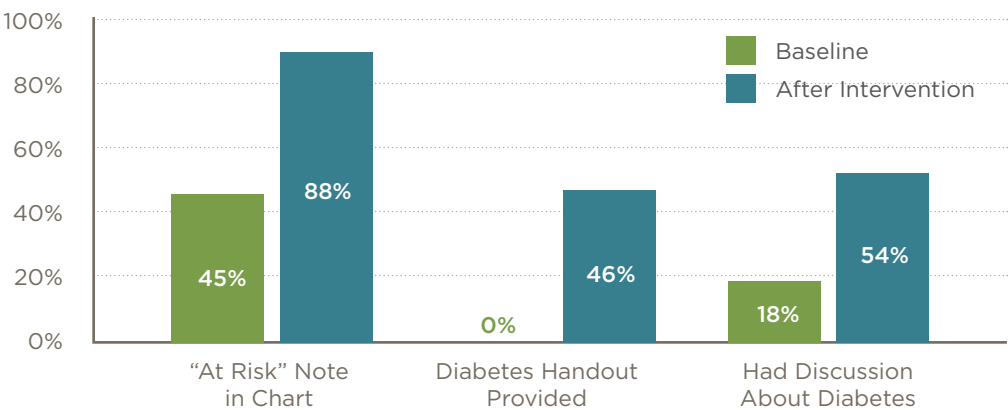
Six months after beginning a pilot project of the intervention, the project showed positive results:

- 88% of women with a history of GDM had a note in their chart related to GDM prevention and blood sugar testing (up from 45% before the intervention)
- 46% of WIC participants had received the new tip card
- 54% of participants were able to identify basic diabetes prevention topics (up from 18%)

The project also saved money and staff time by helping several programs coordinate their diabetes prevention efforts.



BEFORE AND SIX MONTHS AFTER INTERVENTION
(Women with a History of Gestational Diabetes)



NEW TRAINING JUMP-STARTS 50 QUALITY IMPROVEMENT PROJECTS

Serves
nearly
9 million
people

*New Jersey Department of Health
Trenton, New Jersey*

A QUEST FOR EFFICIENCY

The New Jersey Department of Health (NJDOH) used quality improvement (QI) methods to make its programs more efficient and effective and prepare the department for national accreditation. Previously, support for use of QI tools and QI training for staff had been limited.

QI TRAINING YIELDS RESULTS IN MANY AREAS

With NPHII funding, NJDOH trained more than 150 staff members through the QI initiative. As a result, NJDOH implemented more than 50 QI projects across its divisions, making programs more effective and efficient and ultimately improving New Jersey residents' health.

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NJDOH implemented its QI training initiative in 2012 after a successful pilot training program. At each training session, participants learned QI theory, practical processes for QI teams, and ways to apply various QI principles and tools to their work. NJDOH staff members started implementing QI projects immediately after the sessions.

The resulting QI projects brought the following tangible results:

- A comprehensive redesign of the NJDOH website, which was awarded “Best NJ Web Site” by the Documents Association of New Jersey
- Implementation of an electronic procurement tracking and payment processing system in more than 75 programs, reducing delays and eliminating backlogs associated with manual tracking and payment
- Increase in the Office of Emergency Medical Services’ rapid medical transportation by ambulance for patients within 10 miles of a specialty care center, resulting in 24% reduction in use of medical helicopters for these patients (which also helps reduce patient expenses while still ensuring they get appropriate medical attention)
- Reduction from 10 hours to 1 hour in the time required by the Cancer Epidemiology Services Unit to review pathology reports for rapid case detection



Example QI Project: New Jersey Department of Health's Redesigned Website

“The department of health has received a lot of positive feedback on the newly designed web pages. We look forward to building on this success and continuously responding to constituents’ concerns to improve the information we provide them every day.”

— COLETTE LAMOTHE-GALETTE, MPH

Director, Office of Population Health, NJDOH

A NEW APPROACH CREATES MORE EFFECTIVE PUBLIC HEALTH PROGRAMS

*New Mexico Department of Health
Santa Fe, New Mexico*

Serves about
2 million
people (the entire
population of
New Mexico) in
33 counties

The New Mexico Department of Health (NMDOH) must report how its programs have improved the population's health, but NMDOH couldn't do that without a single, consistent data set to measure impact. To measure success and areas for improvement, NMDOH needed an approach to evaluate programs that would work across the seven divisions, four public health regions, and several public health offices in the state.

USING DATA TO SHOW “YES, PEOPLE ARE BETTER OFF”

After examining several options, NMDOH selected the results-based accountability (RBA) model. NMDOH conducted six “train the coach” workshops about this new approach for NMDOH employees, community partners, and other state agencies. There are now about 200 trained RBA coaches statewide, all made possible through NPHII's support.

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NMDOH chose the RBA model because it focuses on results and is easy to use, is written in plain language, and takes a common sense approach. RBA asked program staff to use data and other evidence to answer three questions: How much did we do? How well did we do it? Is anyone better off? Answering these questions can help staff members determine whether the services they provided made a difference.

Using RBA has helped staff members organize data, describe the stories behind the data, collaborate with partners, use evidence-based research, and develop action plans to improve the effectiveness of their public health programs.

FOR EXAMPLE, RBA HAS BEEN APPLIED TO



Identifying strategies to lower smoking rates among adults, such as providing QUIT NOW services supported by media, training, and community outreach, and supporting smoke-free, multi-unit housing and community secondhand smoke education



Increasing physical activity opportunities before, during, and after school for 64% of students in public elementary schools that participate in Healthy Kids Healthy Communities (HKHC)



Increasing healthy eating opportunities for 83% of students in HKHC

A PICTURE OF HEALTH

*New York City Department of Health and Mental Hygiene
New York, New York*

IMPROVING ACCESS TO DATA

Despite being connected to more than 700 New York City medical practices through the Hub Population Health System (HPS), the New York City Department of Health and Mental Hygiene (NYC DOHMH) had limited ways to access the data. Data analysts would sometimes have to enter more than 200 individual queries to get just one dataset, making it difficult to produce timely health data reports.

QUERY GENERATOR DATA IN ACTION

With NPHII support, NYC DOHMH used a quality improvement (QI) initiative to increase the usability of HPS data—making it easier and quicker to run complex data reports. With the click of a few buttons, any staff member can now create complex queries in 15 minutes.

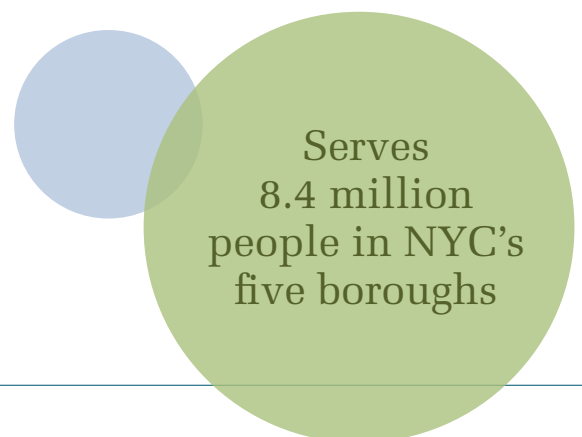
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NYC DOHMH built a “query generator” into HPS, allowing staff to choose health indicators and run a search on multiple indicators at the same time. The system contains pre-programmed templates for health indicators such as weight, blood pressure, immunizations, and smoking status.

NYC DOHMH uses data to power provider dashboards, allowing medical practices to track their six-month performance across a range of chronic disease priority areas.

NYC DOHMH’s new query generator is proving useful to illustrate NYC residents’ health. Here are some examples of how it is used:

- **Mapping the health status of NYC’s communities:** NYC DOHMH manages a public website that allows partners and the public to access maps showing the health statuses at the neighborhood level for health indicators such as high blood pressure and diabetes.
- **Evaluating policies:** HIV testing data from the query generator supported the evaluation of legislation requiring mandatory HIV testing by primary care providers.



“The ‘query generator’ allows us—with the click of a few buttons—to run complex reports on the health status of the city’s residents. Before, if we wanted to compare diabetes risk across 34 neighborhoods and across gender and age groups, our data analyst would have to manually enter 544 queries to the system.”

— REMLE NEWTON-DAME, MPH

Senior Manager, NYC DOHMH

IMPROVING VIRAL HEPATITIS REPORTING IN NEW YORK STATE

*New York State Department of Health
Albany, New York*

Serves
19.7 million
people; 8.4 million
of them live
in NYC

Building on the success of this quality improvement initiative, which saw completion rates increase from 18.5% to 65.9%, NYSDOH is planning on applying the same approach to more than 35 other diseases that require the use of a “Dear Doctor” letter.

BETTER REPORTING IMPROVES TRACKING

Cases of chronic hepatitis C in New York State (excluding New York City) fluctuated slightly during 2009–2013, with an annual average of 56 cases per 100,000 people. For chronic hepatitis C cases outside New York City, the New York State Department of Health (NYSDOH) Bureau of Communicable Disease Control uses a “Dear Doctor” letter (DDL) system to track the spread of disease and ensure patients receive adequate and timely healthcare. When NYSDOH receives a positive hepatitis C lab result, staff members send a DDL to the physician to request a report on the patient.

REPORTED CASES OF CHRONIC HEPATITIS C IN NEW YORK STATE

(excluding New York City, 2009–2013)



SIMPLIFIED “DEAR DOCTOR” LETTERS IMPROVE REPORTING

After implementing the new form, the rate of return increased from 66% to 69%, the turnaround time decreased from a statewide average of 29 days to 17 days, and the full completion rate increased from 18.5% to 65.9%.

.....

NYSDOH wanted to improve chronic hepatitis C surveillance, which represents more than 60% of general communicable disease reports received statewide every year. NYSDOH used their NPHII funding to focus their efforts on improving tracking and service delivery for chronic hepatitis C patients. By filling out DDLs, physicians report critical information to the NYSDOH about patients newly diagnosed with chronic hepatitis C.

To improve physicians’ response rates, the department simplified and shortened the DDL. Before using the new form, NYSDOH checked with physicians to ensure the updated DDL made sense clinically. In 2013, the department began using the new form across the state and saw dramatic improvements within three months.

Closing gaps in chronic hepatitis C surveillance data better equips NYSDOH to monitor the disease in New York, and direct attention to people with the greatest need.

TRANSFORMATION THROUGH EXPANDED TRAINING

*North Carolina Division of Public Health
Raleigh, North Carolina*

A HIGH DEMAND FOR TRAINING

The North Carolina Division of Public Health (NC DPH), in partnership with Population Health Improvement Partners (formerly Center for Public Health Quality), used NPHII funding to offer quality improvement training (DPH QI 101) as a foundational, hands-on learning experience. The benefits and positive outcomes of DPH QI 101 created high demand for training and a waiting list to participate.

CREATING AN IMPACT: VITAL RECORDS TO SMOKING RATES

The DPH QI 101 training improved employee morale and client satisfaction. It also freed up space, staff time, and resources to devote to better serving the public's health program for past DPH QI 101 participants—to help public health programs continue to build a QI infrastructure and culture.

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Webinars and a multi-day training workshop equipped public health professionals to become QI advisors who lead QI activities within their organizations.

With 92 NC DPH staff and 28 advisors trained through these programs, NC DPH's QI efforts have led to remarkable results:

- The NC Heart Disease and Stroke Prevention Branch reduced response time for informational requests from key stakeholders from 13 to 2 days.
- The NC Tobacco Prevention and Control Branch helped a partner primary care site increase the number of patients being asked about tobacco use from 9% to 100%, and increased the number of tobacco users getting help to quit from 9% to 42%.

- NC Vital Records decreased the wait time for walk-in customers looking for birth, death, marriage, and divorce certificates by 21% (from 34 to 28 minutes) while increasing customer satisfaction from 76% to 90%.
- The total economic impact of the DPH QI 101 projects (in 13 sections/branches) over a two-year period was estimated at \$6.2 million.

“One of the most important reasons our QI trainings have been so popular and successful is that participants can apply what they learn to real-world problems. People walk away with a deeper understanding of what it really means to add value for their workplaces, customers, and clients.”

— GREG RANDOLPH, MD, MPH

President and CEO, Population Health Improvement Partners

Serves
9.8 million
people; ranks 37th in
the US for overall
health

CREATING MORE EFFECTIVE TRIBAL PUBLIC HEALTH PROGRAMS

*Northwest Portland Area Indian Health Board
Portland, Oregon*

The majority of tribes in the region participated in one or more of the trainings offered by the Northwest Portland Area Indian Health Board, addressing such topics as tribal public health accreditation 101, quality improvement, and digital storytelling.

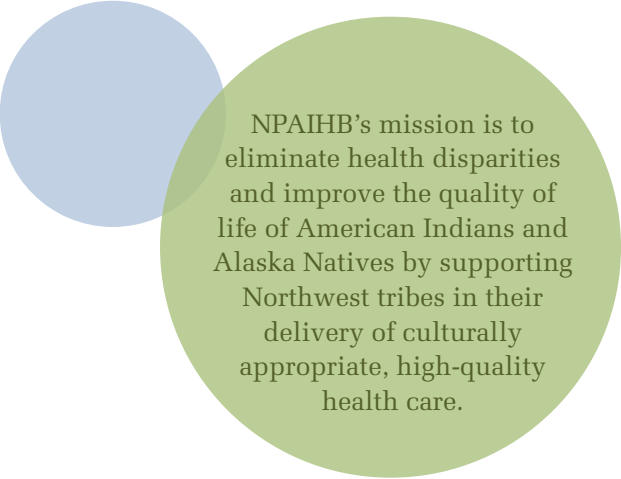
SUPPORT FOR A DIVERSE GROUP

The Northwest Portland Area Indian Health Board (NPAIHB) represents all 43 federally recognized tribes in Idaho, Oregon, and Washington. The tribal health departments vary widely in size and structure. The health departments wanted to better understand the public health challenges within their communities and design effective health programs that meet residents' needs—strategies that would also help tribes pursue public health accreditation.

ENHANCING READINESS TO IMPROVE PUBLIC HEALTH

NPAIHB sponsored 11 trainings and workshops over three years to help area tribes better serve their populations' health needs and enhance their readiness to apply for national voluntary public health department accreditation.

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NPAIHB's mission is to eliminate health disparities and improve the quality of life of American Indians and Alaska Natives by supporting Northwest tribes in their delivery of culturally appropriate, high-quality health care.

To improve the quality of public health services and support accreditation readiness, participants learned about

- Expanding and improving public health in tribes
- Understanding the process, benefits, and opportunities of the accreditation process
- Evaluating readiness for accreditation
- Conducting health assessments and creating plans for community health improvement

As a result, some tribes established new partnerships with their state and county health departments, as well as with the Northwest Tribal Epidemiology Center at NPAIHB, to get support for their efforts to create more effective health programs. NPAIHB offered technical assistance to tribes and provided direct funding to nine tribes to support accreditation readiness activities and quality improvement (QI) projects. Several Northwest tribes completed community health assessments and community health improvement plans, which helped them better understand and address tribal health needs.

The NPHII-funded project helped create an appreciation for the importance of QI among tribal health departments. These participating health departments now have the tools, support, and resources to continually evaluate and make public health programs more efficient and effective. The process enhanced tribal health departments' vision and clarity about their specific roles and responsibilities as public health leaders promoting community wellness.

PREPARING OHIO'S HEALTH DEPARTMENTS TO MEET NATIONAL STANDARDS

*Ohio Department of Health
Columbus, Ohio*

EMPOWERING LHDS THROUGH TRAINING AND NETWORKING OPPORTUNITIES

Ohio is one of a handful of states that incorporated accreditation into state legislation, requiring Ohio's local health departments (LHDs) to examine their ability to meet the national standards established by the Public Health Accreditation Board (PHAB). LHDs needed a way to share experiences and learn about the components of successful accreditation.

PREPARING FOR ACCREDITATION AND DELIVERING MORE EFFECTIVE SERVICES

With assistance from NPHII, the Ohio Department of Health (ODH) established an accreditation learning community for LHDs. The learning community supported in-person trainings on the accreditation process and 12 accreditation domains. All LHDs that advanced into the PHAB Statement of Intent step of accreditation (and beyond) participated regularly in the learning community. As of July 2016, 12 Ohio LHDs and the state health department had become accredited.

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ODH conducted seven trainings for the learning community. In each session, LHD staff learned

from experts and shared resources to help each other through the accreditation process. Ohio's LHD staff now has access to a large network of peers to support their accreditation efforts.

One of the more challenging domains includes standards addressing quality improvement (QI). This process ensures that LHDs are routinely improving services for the people they serve. ODH invited notable QI professionals to speak at the trainings about the principles of QI and process improvement.

The learning community has prompted Ohio's LHDs to initiate a wide range of improvements and helped them prepare for accreditation. In 2015

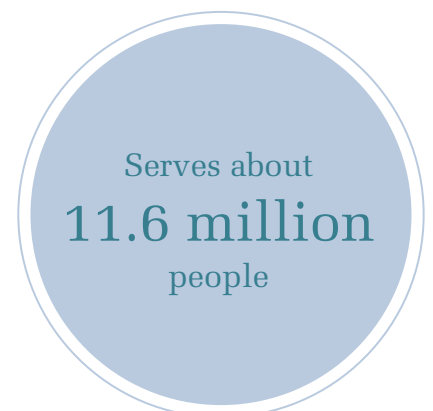
- 8 LHDs conducted community health assessments or created agency strategic plans
- 6 LHDs initiated performance management systems and QI plans
- 3 LHDs developed workforce development plans

Thanks to the learning community's influence, more LHDs are accredited and many others are on a strong path toward accreditation. It also fostered activities that showed clear results of QI implementation and helped programs become more cost-effective and better able to serve Ohioans.

“Before this project, there was some fear and apprehension about the accreditation process among public health staff. The Learning Community sessions changed that by empowering local public health departments so they can start on the accreditation path with confidence.”

— LUZ ALLENDE

Performance Improvement Manager, ODH



QI EFFORTS RESULT IN 96% DECREASE IN EARLY ELECTIVE DELIVERIES

Oklahoma State Department of Health
Oklahoma City, Oklahoma

Serves
3.8 million
people

In early 2011, there were about eight early elective deliveries per day in Oklahoma. After the Region IV and VI Collaborative Improvement and Innovation Network to Reduce Infant Mortality and NPHII initiatives, the state averaged one early elective delivery every 3.5 days.

EARLY ELECTIVE DELIVERIES PUT BABIES AT RISK

In 2011, Oklahoma had a pre-term birth rate of 13.2%, while the national average was 11.7%. Babies born by scheduled induction or C-section (when not medically necessary) before 39 weeks of pregnancy are at a higher risk for medical complications.

IMPROVING INFANT HEALTH IN OKLAHOMA

The Oklahoma State Department of Health's (OSDH's) Every Week Counts (EWC) initiative contributed to a 99% decrease (from 2011 to 2014) in the number of non-medically necessary scheduled deliveries (also known as early elective

deliveries), and a 17% decrease in births at 36–38 weeks gestation. Oklahoma also saw a 12% increase in births at 39–41 weeks.

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OSDH used NPHII funding, along with other resources, to work with partners to reduce the number of early elective deliveries in the state.

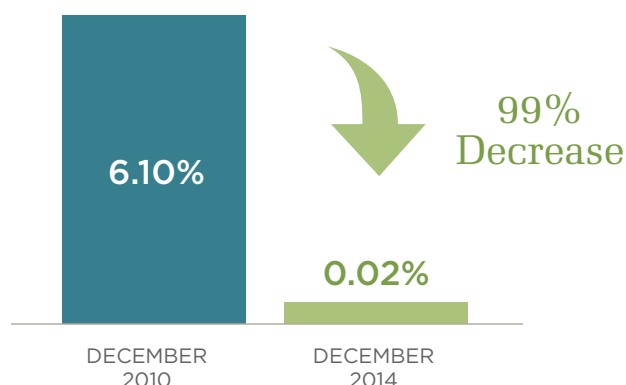
Major initiatives included

- Creating the EWC Collaborative among birthing hospitals and establishing a voluntary “hard stop” policy on early elective deliveries
- Educating patients on the risks of pre-term and early-term births using materials from the March of Dimes®
- Producing a public service announcement to raise public awareness of the risks of births before 39 weeks

Fifty-two of the state's birthing hospitals (about 95%) participated in the initiative, and their engagement was critical to the EWC Collaborative's success. OSDH ensured that birthing hospitals could participate in the EWC at no cost. Timely data and reporting from hospital partners was crucial because it allowed the EWC to provide quarterly reports on hospitals' progress and compare outcomes among hospitals. Stakeholders' collective efforts produced a comprehensive, statewide quality improvement initiative that reduced Oklahoma's early elective deliveries significantly.

SCHEDULED C-SECTIONS AND INDUCTION < 39 WEEKS

(Without a documented indication—as percentage of total deliveries)



MOVING LOCAL HEALTH DEPARTMENTS TOWARD ACCREDITATION

*Oregon Health Authority
Salem, Oregon*

“WHERE THE RUBBER MEETS THE ROAD”

Oregon’s 34 local health departments (LHDs) were at various stages of readiness to pursue national accreditation. Oregon’s vast geography and limited public health system funding presented capacity and resource challenges to pursuing national accreditation for all of its health departments. NPHII provided needed support and resources beyond what was normally available.

PUSHING THE GAS PEDAL

The Oregon Health Authority (OHA) hired a statewide accreditation coordinator who worked directly with 19 of Oregon’s 34 LHDs on their accreditation readiness. OHA also gave health departments mini-grants to help them prepare for accreditation.

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OHA held a state conference on accreditation and quality improvement, convening state and local health department leaders for shared learning. This conference was the first joint meeting of Oregon’s state and local health department leaders to focus on accreditation.

Oregon’s LHDs achieved the following:

- More than 90% of LHDs completed a community health assessment, almost 80% completed a community health improvement plan, and 44% completed an agency strategic plan—all of which were critical to address challenges and assess progress.
- All 34 LHDs completed the national Public Health Accreditation Board’s readiness checklist to determine accomplishments.

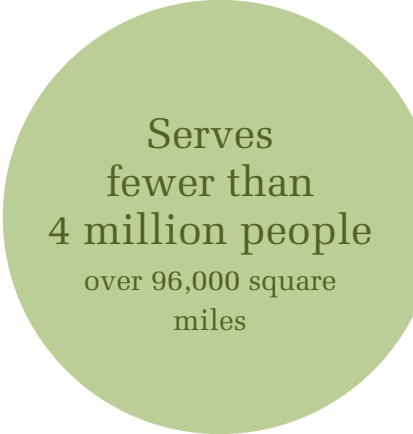
- 18 LHDs participated in five performance improvement training activities; all Oregon counties participated in at least one of these trainings.

As of the end of 2015, four county health departments had become accredited and 11 had started the formal application process. The accredited LHDs range in size and geography—from Clackamas County with 375,992 residents to rural Crook County with fewer than 20,000 residents.

“Accredited health departments and better state-local coordination will improve the health of all Oregonians. NPHII started a movement in Oregon by supporting new infrastructure and capacity, and the work continues today.”

— DANNA DRUM, MDIV

*Performance and Quality Improvement Manager,
Public Health Division, OHA*



Serves
fewer than
4 million people
over 96,000 square
miles

TAKING ON THE FIGHT AGAINST NON-COMMUNICABLE DISEASES

*Pacific Islands Health Officers Association
US-Affiliated Pacific Islands*

Home to more than 500,000 people who speak dozens of languages and live on hundreds of islands and atolls that span millions of square miles of ocean and cross five Pacific time zones

The USAPI's rates of non-communicable diseases (NCDs) and their risk factors, as well as its obesity rates, are among the highest in the world and are rapidly increasing. Additional factors include its high tobacco use, alcohol consumption, and injury rates.

MOBILIZING LEADERS FOR PROGRESS

US-Affiliated Pacific Islands (USAPI) includes six jurisdictions: American Samoa, Guam, Commonwealth of the Northern Mariana Islands (CNMI), Republic of Palau, Republic of the Marshall Islands, and Federated States of Micronesia (FSM). The Pacific Islands Health Officers Association (PIHOA) is a nonprofit organization led by the ministers, secretaries, and directors of health of the USAPI.

Using NPHII funds and working on behalf of the jurisdictions, PIHOA facilitated the commitment of leaders across the region to addressing the NCD epidemic. This commitment was critical to improving the region's overall health.

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In 2010, PIHOA declared a state of health emergency in the region due to the epidemic of NCDs—often referred to as slow-moving health catastrophes. PIHOA's declaration prompted high-level regional meetings that garnered the endorsement of leaders, endorsements by regional associations of governors and presidents, legislators and traditional leaders. Those meetings produced policy and surveillance work groups to develop recommendations and plans to measure progress toward reducing NCD risk factors.

With leaders' endorsement and new strategy guidelines, each USAPI jurisdiction is better positioned to address NCDs. Every jurisdiction is seeing results, especially around policy interventions:

- Tobacco tax increases have been implemented or are imminent in Guam, CNMI, Palau, Yap (FSM), and the Marshall Islands.

- Guam has additional alcohol sale restrictions.
- Guam and Palau have mandated universal annual obesity screening.
- The CNMI and Marshall Islands adopted church-led policies against serving junk food at religious banquets.
- Palau enacted restrictions against the sale of junk foods by “mom and pop” stores near schools.

Although the surveillance picture still has gaps, these efforts are starting to show progress, particularly with decreased tobacco use and alcohol use among youth in some jurisdictions.

“The Declaration of a Regional State of Health Emergency, due to the epidemic of non-communicable diseases, has mobilized a high-level response from the government and healthcare sectors of the USAPI. Guam, a leader in the challenge, is seeing significant decreases in youth drinking as a result of the enactment of policies and programs.”

— EMI CHUTARO, MSC
Executive Director, PIHOA

TRAINING BRINGS PENNSYLVANIA'S HEALTH WORKFORCE TOGETHER

*Pennsylvania Department of Health
Harrisburg, Pennsylvania*

PENNSYLVANIA HOSTS PUBLIC HEALTH TRAINING INSTITUTE

With funding from NPHII and assistance from the University of Pittsburgh's Center for Public Health Practice, the Pennsylvania Department of Health (DOH) hosted the Public Health Training Institute for public health professionals, healthcare providers, academics and others interested in improving public health practice across the state.

The Public Health Training Institute held three workshops in Pittsburgh, Allentown, and Harrisburg

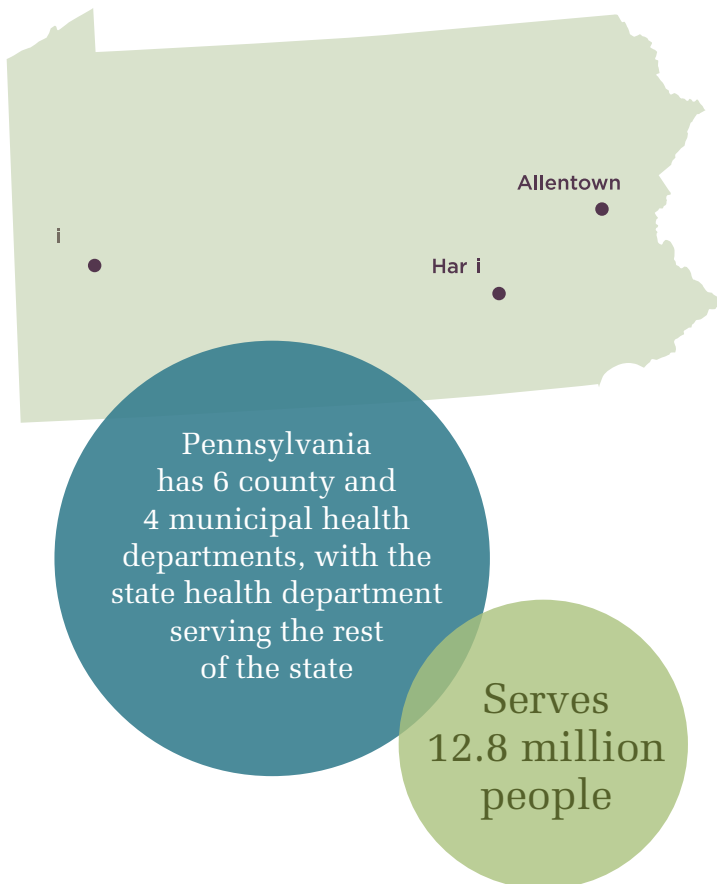
PENNSYLVANIA DELIVERS PUBLIC HEALTH EDUCATION TO 300 HEALTH PROFESSIONALS

The Public Health Training Institute held three workshops in Pittsburgh, Allentown, and Harrisburg and provided a wide range of trainings and seminars to about 300 participants. These workshops were designed to give participants a foundation of public health knowledge and tools to evaluate and improve public health programs and outcomes.

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DOH hosted the Public Health Training Institute to educate health professionals about public health issues and policies, advantages of performance management, grant writing basics, public health preparedness techniques, and other essentials of public health practice. This broad curriculum was intended to strengthen the public health foundation of Pennsylvania's health workforce.

The plenary sessions featured speakers from CDC who discussed the national standards for accreditation, need for community health assessments, importance of quality improvement and performance management, and these tools' importance to improving public health across the nation. This training also better equipped professionals to improve public health initiatives across Pennsylvania.



GENERATING A PORTRAIT OF ‘HEART-VULNERABLE’ ZIP CODES

*Philadelphia Department of Public Health
Philadelphia, Pennsylvania*

Philadelphia has a greater proportion of adults with high blood pressure than other large American cities. Cardiovascular disease, which affects the heart or blood vessels, has historically been the leading cause of death in the city. Philadelphia Department of Public Health (PDPH) used multiple data sources to identify parts of the city where people appear to be at greater risk for cardiovascular disease.

IDENTIFYING THE HIGH-RISK AREAS

After identifying 21 “heart-vulnerable” zip codes in Philadelphia, PDPH began using adult cardiovascular disease data to shape programs and services in those areas, particularly for the adult Medicaid population.

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PDPH formed an advisory group of stakeholders—regional hospital association, state Medicaid agency, insurers, health centers, healthcare providers, and public health experts—who helped identify data sources for the project and interpret the data. Using hospitalization and blood pressure data, PDPH generated a citywide, zip-code level “portrait” of cardiovascular disease.

This NPHII-supported project provided PDPH with the data it needed to apply for a grant

to collaborate with new and existing partners to combat high blood pressure, stroke, diabetes, and obesity in Philadelphia. The \$2.7 million grant was awarded in 2014.

Projects under way in the “heart-vulnerable” areas include the following:

- Screening hospitalized patients for high blood pressure and prediabetes
- Using electronic health record technology in health centers to target patients with high blood pressure, diabetes, or prediabetes for increased care and prevention services
- Working with the Pennsylvania Pharmacists Association to help Philadelphia pharmacists improve their skills in team-based care and medication therapy management



“Our goal was to find data sources that could help us paint a picture of heart health by zip code. Then we could target our interventions to those most in need.”

— CLAUDIA SIEGEL

Director, Office of Health Information and Improvement, PDPH

Serves
3.6 million
people

INVOLVING KEY PLAYERS IN THE IMPROVEMENT PROCESS

*Puerto Rico Department of Health
San Juan, Puerto Rico*

The Puerto Rico Department of Health (PRDH) inspects more than 400 healthcare facilities to determine whether they are meeting certain standards of care. With NPHI funds, PRDH focused on improving their healthcare facility inspection process by reducing the amount of time taken to complete the inspection reports.

QI LEADS TO FASTER INSPECTION REPORTING

Just two months after starting the quality improvement (QI) project, the inspectors and the QI office reduced the time taken to submit healthcare facility inspection reports from five months (150 days) to 14 days.

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In November 2014, PRDH assembled a QI team consisting of all 11 health facility inspectors, members of PRDH's QI office, and an external consultant to improve the healthcare facility inspection process.

The team used the commonly recognized Plan, Do, Check, Act framework and began by examining the initial inspection approach. Findings showed that the delays in reporting were mostly due to new inspectors being unfamiliar with inspection regulations or guidelines for entering reports into the computerized program.

The QI team met twice a month over three months to identify and implement potential solutions to the problem. During these meetings

- Discussions were held with inspectors to improve understanding of the regulations
- Detailed guidelines were created to explain how to prepare and submit reports
- Discussions were held with PRDH's Technology Division to improve communication methods for inspectors and provide enough printers to enable report submission

Data on the time taken to complete reports were collected at the beginning of the project and again after the new guidelines were implemented. The comparison showed that the average time for submitting reports decreased and that the overall quality of inspections increased. An additional outcome of the QI project was the development of a training program for new inspectors.

“Engaging the inspectors in the quality improvement process was the key to success. The sharing of expertise, questions, and ideas among the group increased knowledge for everyone and created guidelines that make sense.”

— DARIELYS CORDERO, MPH
PRDH

STRENGTHENING WORKFORCE DEVELOPMENT ON REMOTE ISLANDS

*Republic of the Marshall Islands Ministry of Health
Majuro, Republic of the Marshall Islands*

A UNIQUE OPPORTUNITY TO IMPROVE PUBLIC HEALTH

The Republic of the Marshall Islands (RMI) is an island country with a population of 68,480 people spanning 24 low-lying coral islands—posing unique challenges in public health service delivery. In 2011, with support from NPHI, RMI's Ministry of Health (RMI MOH) created mobile teams to travel by boat to RMI's outer islands to provide crosscutting training to health assistants. The project was developed to maximize limited staff and resources in a geographically challenging setting.

MOBILE HEALTH TEAM TRAINING EXPANDS RMI MOH REACH

The RMI MOH mobile team conducted eight two-week trips, visiting three outer islands per trip to train health assistants working in geographically remote areas. Health assistants from RMI's 23 outer islands received cross-cutting training about immunization delivery, HIV/STI screening and treatment, family planning, and communicable disease testing, diagnosis, and treatment (e.g., tuberculosis and leprosy). In addition, 20 health assistants traveled to Majuro, RMI's capital, for chronic disease management training.

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The ministry oversees RMI's two hospitals and the public health system. The system includes 52 jurisdictions, each with its own health department. Health assistants in each health department communicate over high-frequency radios to connect residents and the mainland's hospital and public health staff.

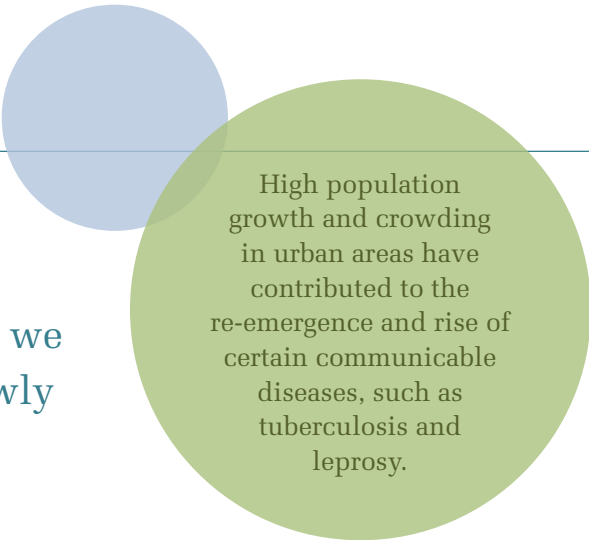
The health assistants dispense over-the-counter medications and antibiotics to patients and refer patients to one of the main island hospitals when needed. Most health assistants lack formal education and training in public health disease surveillance and reporting, immunization, and chronic disease management.

The trainings strengthen the health assistants' abilities to provide basic healthcare and chronic disease management services to outer island residents. This helps RMI maximize use of its limited staff and resources, reduces costs from traveling to the mainland for care, increases immunization rates, and results in proactive management of chronic diseases.

“Along with the training projects, we are also developing policies and procedures around healthcare service delivery. Moving forward, we will be able to measure the impact of our newly trained health assistants”

— RUSSELL EDWARDS

Interim Secretary of Health, RMI MOH



High population growth and crowding in urban areas have contributed to the re-emergence and rise of certain communicable diseases, such as tuberculosis and leprosy.

USING DATA TO DRIVE PUBLIC HEALTH PRIORITIES

*Palau Ministry of Health
Koror, Republic of Palau*

The indigenous population of Palau is approximately 12,855, or 73.5% of the population

In 2010, a NPHII-funded performance improvement manager helped the Palau Ministry of Health (MOH) initiate its first formal community health assessment (CHA). A community-driven process and careful look at a cross-section of data offered fresh insights about Palau residents' health status and needs.

COMMUNITY HEALTH ASSESSMENT LEADS TO REFOCUSED PRIORITIES

Palau is working on activities to address the top three priority areas identified in the CHA: obesity, alcohol abuse/underage drinking, and tobacco use.

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Palau's CHA findings showed that behavioral risk factors—including alcohol use and unhealthy eating—take a high toll on its population's illness, injury, and death rates. Non-communicable diseases like heart disease and diabetes also negatively affect those rates.

Palau's CHA is a tool to evaluate trends in public health and to prioritize the population's top health needs, including:

- Obesity in youth and adults
- Alcohol abuse and underage drinking
- Tobacco use

Palau's School Health Screening Program screens school-aged children for general physical, mental, and behavioral health issues, including alcohol and tobacco use, and provides referrals to services as needed. The Palau MOH worked with the program to measure the impact of those screening and referrals. They learned that it needs to improve availability of services that fully address children's needs, so it now collaborates with parents and community partners to ensure access to appropriate and comprehensive services.

More broadly, Palau is using the assessment findings to develop its community health improvement plan (CHIP). The CHIP will serve as a master work-plan for public health activities in Palau, helping to guide the community to better health.

“Doing a formal community health assessment in Palau gave us an opportunity to gather Palau-specific data. Being able to show our people that 67% of the population is obese and what that means for life expectancy is powerful.”

— INGER APPANAITIS

Performance Improvement Manager, Palau MOH

SETTING NEW EMPLOYEES UP FOR SUCCESS

*Rhode Island Department of Health
Providence, Rhode Island*

Serves
1 million
people

STANDARDIZING THE SYSTEM FOR NEW EMPLOYEES

A workforce assessment gap analysis showed the Rhode Island Department of Health (RIDOH) that approaches to new employees' orientations varied. In response, RIDOH established a quality improvement (QI) team to standardize employee orientation.

A CRITICAL STEP TOWARD ACCREDITATION—AND BETTER HEALTH

RIDOH used the train-the-trainers model to launch its QI efforts, which led to a multi-year assessment and improvement cycle. This played a role in meeting the Public Health Accreditation Board's workforce development standards for accreditation.

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A standard new employee orientation and onboarding process ensures that staff members are fully prepared to serve the public. RIDOH's QI team held new-hire focus groups and surveyed employees about onboarding. This helped pinpoint several root problems, such as poor understanding

of department structure and delays in receiving essential office supplies. For example, 44% of 2013 survey respondents did not have a computer or chair on their first day of work, resulting in losses in productivity.

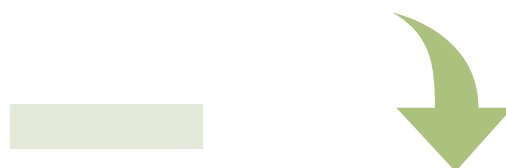
After analyzing the focus group and survey results, RIDOH piloted the orientation in 2014 and a year later conducted another evaluation. All new hires, including consultants and students placed at RIDOH are now offered orientation. Each new employee gets a mentor and receives a schedule of milestones for the first day, first week and first month of employment. After the first month, or at the end of the placement in the case of students, an evaluation is sent out to evaluate the orientation process.

As a result of the new orientation, all employees now receive certain standard information at the same time. They are given information about TRAIN (the learning management system), the department's organization chart, and also learn about key policies available in the Intranet (e.g., mileage reimbursement, dress code, and technology use) at the beginning of their employment.

44% OF EMPLOYEES
ON THEIR FIRST DAY DIDN'T HAVE A:



OR



**LOSS OF
PRODUCTIVITY**

STRENGTHENING THE WORKFORCE AND OPENING THE DOORS

*City of San Antonio Metropolitan Health District
San Antonio, Texas*

A workforce assessment found that many City of San Antonio Metropolitan Health District (Metro Health) employees had minimal professional public health training and lacked opportunities for professional development and training.

OPPORTUNITY FOR ADVANCEMENT

Metro Health used NPHII support to create a program for department employees to earn a graduate-level public health certificate from Texas A&M University's School of Rural Public Health. Participants' public health competencies increased significantly as a result of receiving training beyond their specified jobs.

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Metro Health covered \$2,500 of each employee's costs, which saved employees about 50% in out-of-pocket costs. To apply for this Metro Health-sponsored education program, employees had to earn at least a "B" in each of five required courses and commit to working with Metro Health for two years after completing the certificate program. Certificate program funds supported 25 employees.

Outcomes included the following:

- 4 employees earned graduate certificates the first year of the program
- 2 additional employees are completing the program
- 1 employee qualified for a promotion after earning a certificate
- Other employees have enrolled in masters of public health degree programs

The program also created stronger connections between Metro Health and Texas A&M University. Texas A&M students can now apply for a Metro Health internship, which connects public health students with real-world public health issues they would not likely encounter in academic environments.

Linking public health education and practice has benefited both groups, and it ultimately benefits San Antonio's residents as well.

“Public health hazards and emergencies are not going away. Training and education are essential for us to serve the public in the most appropriate, relevant ways.”

— SABRINA A. TOWNSEND, PHD

*Performance improvement
manager for Metro Health*

Serves
1.8 million
people

LIVE WELL SAN DIEGO

*San Diego Health and Human Services Agency
County of San Diego, California*

Live Well San Diego is a long-term vision to improve the health and wellness of San Diego's residents. The initiative brings together healthcare providers, businesses, school districts, local governments, and community and faith-based organizations to promote a safer, healthier, and thriving San Diego community; over 200 partners and 5 regional leadership teams are collectively driving positive changes across San Diego.

LIVE WELL SAN DIEGO PUTS CHIP INTO ACTION

NPHII funds were used to develop the community health improvement plan (CHIP) that activated *Live Well San Diego* at the community level, while simultaneously advancing San Diego's efforts toward accreditation by the Public Health Accreditation Board.

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The CHIP provided structure and focus so that San Diego County could meet its community health goals. The CHIP also was instrumental for the county to meet the community health improvement requirements for accreditation. *Live Well San Diego* supported the community's efforts to prioritize public health issues, identify resources, and take action.

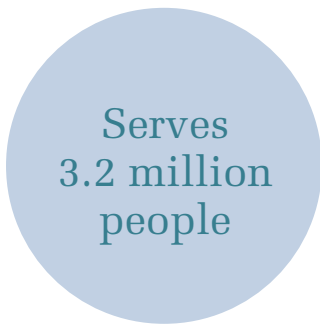
Staff and partners encouraged community engagement to promote healthy choices, improved the county government's quality and efficiency, and promoted worksite wellness programs. Among these wellness programs is "Live Well @ Work," which features a toolkit with a 12-month action plan for small and medium businesses to promote health in the workplace. Other unique initiatives have emerged from the region's work, such as expanding healthy food options and corner-store conversions, building school health-focused partnerships, and launching academies to empower residents to initiate or support positive change.

Live Well San Diego began as a single health strategy but is now a comprehensive vision for a healthy community that incorporates the efforts of the county's health, safety, and environmental departments, as well as community partnerships. Every county department and every sector's partners help advance *Live Well San Diego* because the initiative addresses not only health, but also the many different socio-economic factors that affect health.

"Bottom line: We could not have done all this without NPHII funding. It was absolutely essential in our work toward accreditation."

— DR. WILMA WOOTEN

*San Diego Health and Human
Services Agency Officer*



Serves
3.2 million
people

BUILDING A SYSTEM FOR ACCOUNTABILITY & IMPROVEMENT

*South Carolina Department of Health and Environmental Control
Columbia, South Carolina*

Serves nearly
5 million people
with a centralized model
for 8 regions and more than
70 individual reporting
sites among the
46 counties.

FINDING A MORE EFFICIENT WAY

The South Carolina Department of Health and Environmental Control (DHEC) needed a new way to compile and share public health data. The state's 8 public health regions and 46 counties, with more than 70 individual reporting sites, reported data via Excel spreadsheets, and information was loaded manually into a system that worked with only one Internet browser. Using assistance from NPHII, they were able to simplify this process with a Performance Dashboard, which was created and operational in less than a year.

THE DASHBOARD IS SHOWING PROGRESS

The Performance Dashboard tracks nearly 100 metrics for performance, quality, and outcomes and serves about 100 users, with the potential to serve 2,000 users across South Carolina. Five other state and local health departments have requested the code, formed a user group, and are building their own dashboards.

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DHEC hired information technology contractors to develop a flexible, web-based performance management system compatible with other department systems and based on the existing inventory management system. This option was more cost-effective and sustainable than purchasing a commercial solution with annual per-user fees.

The code is open-source, so other state and local health departments can use it. While the dashboard was being built, the department refined its reporting requirements to capture only the most meaningful measures, including information that leaders regularly requested. Staff received training to customize the Performance Dashboard to their needs.

Highlights of the Performance Dashboard:

- It links all metrics to the Public Health Accreditation Board's standards and measures, as well as Healthy People 2020 topics and objectives, providing easy reference to national public health standards.
- It encourages collaboration and transparency in public health across South Carolina's regions, counties, and sites due to its unprecedented access to performance data.
- It equips DHEC to make data-driven public health decisions that were not possible previously.

“NPHII allowed us to build a system for creating accountability, documenting success and identifying areas for public health improvement across the state. I can think of no better use of public funds.”

— JEREMY VANDERKNYFF

NPHII Principal Investigator and Director of Performance Management, South Carolina DHEC

COALITIONS MAKE STRONG STRIDES FOR ALL 95 COUNTIES

*Tennessee Department of Health
Nashville, Tennessee*

Serves
6.5 million
people

With the goal of empowering Tennessee communities to identify and act on county-specific public health priorities, coalitions of public health partners were enhanced in each of Tennessee's 95 counties. With NPHII support, the Tennessee Department of Health (TDH) provided local health departments and community coalitions with state data, helped them harness local data, and facilitated the development of community health assessments (CHAs).

INCREASING THE COMMUNITY'S CAPACITY FOR PREVENTION

Local communities, coalitions, health departments, health councils, and boards of health give Tennessee an infrastructure to develop and implement plans that address local health priorities. The coalitions' strength was a factor in the Tennessee legislature's decision to allocate funds to develop and implement community health improvement plans (CHIPs) in all counties of Tennessee.



In 2011, TDH began a two-year process of fostering the development of coalitions and councils in all Tennessee counties. Coalition partners included community organizations, healthcare providers, and schools. NPHII-funded staff facilitated the process of using state data, acquiring additional data in each county, and developing CHAs. One priority that emerged across Tennessee was the need to address the state's tobacco use problem. Tennessee has the 5th highest state rate of adult smoking in the United States, with 24.3% of adults reporting smoking.

In 2013, when the state's Master Tobacco Settlement funding became available, TDH promoted the coalitions and local councils as the ideal vehicles for investing the \$15 million in tobacco funds. The legislature allocated the funds to TDH to facilitate the coalitions' development of county-specific CHIPs, based on the already constructed county-specific CHAs.

Many coalitions and communities across the state successfully developed CHIPs and are now in the implementation phase. One far-reaching evidence-based program, Baby & Me—Tobacco Free, is currently being implemented in 85 Tennessee counties. The program gives pregnant women smoking cessation counseling sessions and 12 months of post-natal reinforcement.

“With NPHII support, we created local public health coalitions and empowered them with data to identify and address health priorities for their counties. When the tobacco money became available, the coalitions were well-positioned to use the funds.”

— BRUCE BEHRINGER

Deputy commissioner for continuous improvement and training, TDH

REDUCING RED TAPE TO GET THE GREEN LIGHT

*Texas Department of State Health Services
Austin, Texas*

Averages 1,800 grant contracts
annually, with about
600 contractors, valued
at \$1 billion.

With NPHII funding, the Texas Department of State Health Services (DSHS) was able to improve its contract management and procurement processes. The paper-based processes were labor intensive, time-consuming, inconsistent, and inefficient, needing 400 full-time employees to initiate and administer 1,800 contracts.

STREAMLINING THE CONTRACT MANAGEMENT PROCESS

DSHS's contract administration process was reduced from more than 170 steps to 70. Now, a single contract administration process flow can be used for 80% of the agency's contracts.

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In 2012, a team with a representative from each DSHS division was assembled and tasked with creating a faster, easier way to administer the department's contracts. Armed with tools from NPHII-funded quality improvement (QI) training, the team developed a "current state" process map that revealed many problems with DSHS's procurement process. Completing each contract needed 170 steps, including many unnecessary approvals. Next, the team developed a "future state" map and provided recommendations on transitioning from the current to the future state.

After the new map was finalized, DSHS contracted with a firm to develop an online contract management system. The system went live in 2013, allowing local health departments and other contractors to view their contracts, workplans, and budgets in the contractor portal. DSHS can also communicate tasks and send notifications through the portal. There is even an on-demand eLearning module that teaches both contractors and DSHS staff about the contracting process.

The efficiencies in the new system help DSHS provide public health services in the geographically diverse areas of Texas faster and more efficiently. Shortening the contract process reduces administrative costs for staff time spent completing the process.

"The improved communications abilities of the new contracting system benefit our local health departments. Staff members can view their contracts and budgets easily, and they have the option to e-sign."

— SUSANA K. GARCIA

*Director, Contract Management Unit for
Disease Control Prevention and Regional/Local
Health Services*

QI BOOT CAMP—GETTING THE JOB DONE

*Utah Department of Health
Salt Lake City, Utah*

In 2012 and 2013, driven by NPHII-funded efforts, the Utah Department of Health (UDOH) partnered with the state's 13 local health departments to establish a "QI Boot Camp" to expand training and awareness of quality improvement (QI) in public health.

QI BOOT CAMP SUCCEEDS ON MANY LEVELS

QI Boot Camp trained more than 200 state and local staff members and has been credited with 1) fostering new state-local collaboration on planning and shared goals for health improvement, 2) creating a peer network for performance improvement, and 3) paving the way for continued work on QI.

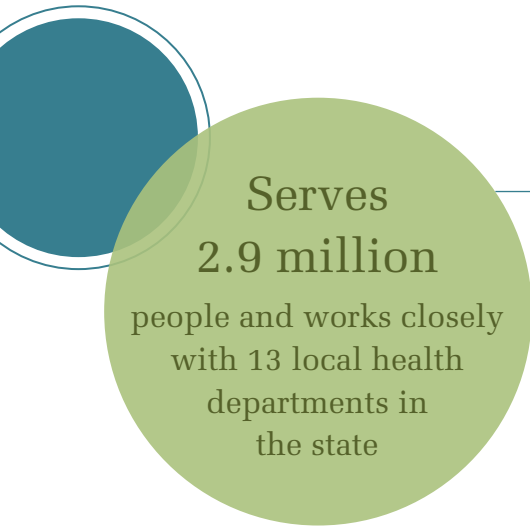
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Input from state and local public health practitioners and academic partners helped UDOH create QI Boot Camp. The program includes in-person training sessions, webinars, and modules covering QI methods and tools that address customer focus, evidence-based programs, community engagement, and strategic planning and evaluation.

One QI initiative was started to increase valid tobacco handler permits for tobacco vendors in Tooele County. These permits inform tobacco vendors why it is illegal to sell tobacco product to minors and the penalties associated with illegal tobacco sales. Nine months after implementing a QI solution, the percentage of tobacco vendors who had a valid permit increased from 42% to 74%.

Participation in the QI Boot Camp helped Utah's public health staff develop an appreciation for QI work. It also helped them form a successful collaboration on state and community health assessment and planning activities.

Utah's 2012 state health improvement plan was the first plan that contained shared goals and objectives among UDOH and all 13 local health departments.



Serves
2.9 million
people and works closely
with 13 local health
departments in
the state

"We wanted to find a model to help us build the capacity of Utah's public health workers to engage in quality improvement projects that wouldn't be so time consuming. QI Boot Camp did the job."

— LAVERNE SNOW

Former Performance Improvement Manager, UDOH

USING PERFORMANCE MANAGEMENT TO SET THE STAGE FOR SUCCESS

*Vermont Department of Health
Burlington, Vermont*

After developing an organizational strategic plan in 2010 and conducting a state health assessment in 2011, the Vermont Department of Health (VDH) designed a system to share local data and link priority health outcomes with performance accountability.

ALIGNMENT LEADS TO HEALTHIER VERMONTERS

VDH now has an electronic performance management system (PMS) that aligns with *Healthy Vermonters 2020*, as well as with national accreditation standards and evidence-based practices.

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In 2011, with NPHII funding, VDH hired a performance improvement manager (PIM) and data analyst to help program staff identify and prioritize health indicators and performance measures aligned with those indicators. The work resulted in the *Healthy Vermonters 2020* plan, which prioritizes 122 health outcomes to achieve by the year 2020, along with more than 180 program performance measures. VDH then migrated the data and information to an electronic PMS. The PIM and analyst trained staff on the benefits of the PMS, inputting program plans and updating and tracking program goals and objectives.

The PMS launched on VDH's website in 2013, allowing VDH staff, partner organizations, the legislature, and the public to view data in a consistent, interactive, and contextualized format. VDH leaders review performance measures monthly to inform resource allocation and program planning.

The success of VDH's PMS has led to its adoption by Vermont's largest state agency, the Agency of Human Services. This move has prompted collaboration across human services fields as related programs in different departments more easily recognize similar opportunities for efficiency. In 2015, VDH began using its PMS data in legislative testimony to further communicate and promote public health work.

Investing in this PMS has served many VDH needs and audiences while streamlining data management and reporting.

“Infusing data-driven decision-making into the health department through training staff and implementing a performance management system has created a culture of performance management and quality improvement. All levels of leaders are now working together toward integrated solutions to public health challenges.”

— HEIDI GORTAKOWSKI

Performance Improvement Manager, VDH

Serves
626,000
Vermonters

VIRGINIA *PLAN FIRST*: REDUCING UNINTENDED PREGNANCIES

Virginia Department of Health
Richmond, Virginia

Serves
8.3 million
people

LOW ENROLLMENT FOR FREE FAMILY PLANNING SERVICES

Virginia Department of Health's (VDH's) *Plan First* program successfully reduced the risk of unintended pregnancy; however, eligible participants faced barriers to enrollment that kept them from accessing family planning services.

QI EFFORTS REMOVE BARRIERS TO PLAN FIRST PARTICIPATION

Within a few years of NPHII funding to support quality improvement efforts that led to key changes, enrollment in VDH's *Plan First* program increased from 6,209 participants in 2011 to 99,686 participants as of June 2015. The program has also generated more than \$1.4 million in revenue for the state in Medicaid billing.

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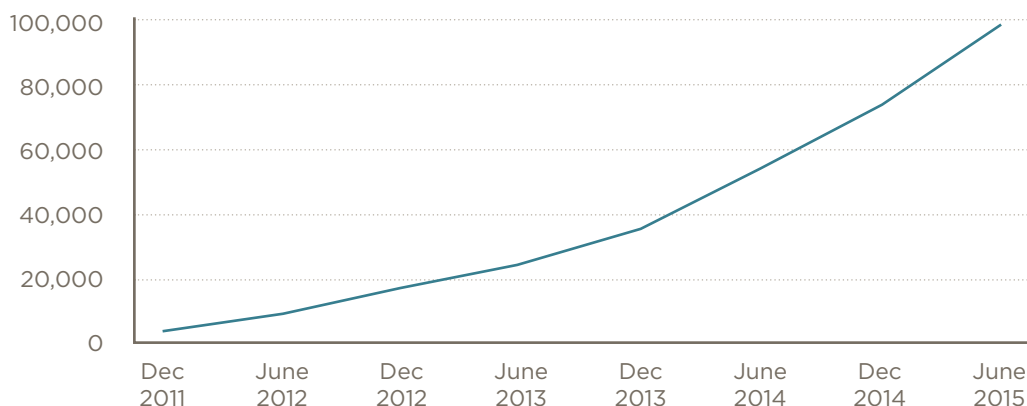
VDH's *Plan First* program provides free family planning services to low-income residents. The program is available to anyone with an annual income below 200% of the federal poverty level. In 2011, the pregnancy rate among participants

was 5.09 per 1,000 compared with 12.9 per 1,000 for those not in the program, showing that *Plan First* effectively decreased the rate of unintended pregnancies. Due to its initial success, former Governor Bob McDonnell and former Health Commissioner Karen Remley chose *Plan First* to receive one-time NPHII grant funding to increase enrollment and reduce the rate of unintended pregnancies across the state.

The quality improvement team identified many barriers to enrollment in *Plan First*, including a lack of familiarity with the program and the paper-based enrollment system. Improvement efforts have included staff training, presentations, developing outreach and marketing materials to increase awareness and enrollment, and ongoing collaboration with system partners.

Additionally, *Plan First* hired staff to increase provider participation statewide and to provide training and support to local health departments. These efforts have resulted in a dramatic increase in *Plan First* participants. The program currently provides family planning services to nearly 100,000 Virginians.

MONTHLY ENROLLMENT IN *PLAN FIRST* (December 2011 to June 2015)



Within two years of receiving NPHII funds, there was a five-fold increase in *Plan First* participants.

Serves
approximately
7 million
people and is one of the
first 11 nationally
accredited health
departments
in 2013



Public
health staff improve
a process using value
stream mapping, analyzing
the current state and
designing a more
efficient future
state.

RAISING THE BAR THROUGH REGIONAL CENTERS FOR EXCELLENCE

*Washington State Department of Health
Tumwater, Washington*

LOOKING TOWARD ACCREDITATION

Washington State has been a pioneer in establishing and implementing state and local standards for its health departments. Even so, the state's local and tribal health departments needed substantial assistance to meet the new national accreditation standards, particularly in the area of quality improvement (QI).

WASHINGTON PRODUCING EXCELLENT RESULTS

Washington established three Centers for Excellence, which were able to foster QI, provide training, and serve as consultants. As a result of these efforts, more than 18 QI projects were conducted throughout the state.

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Washington created mini-contracts with local health departments and one tribal health department. Recipients trained staff or executed QI projects. Specific outcomes of local and tribal health department QI projects included the following:

- Snohomish County reduced vaccine errors, such as administering the wrong vaccine, from 5.3 to 2.5 per 1,000, a 53% reduction.
- Clallam County Public Health Archives reduced the number of steps needed to respond to a request for public records from 29 to 15. The team now responds to 96% of requests within 5 business days. Clallam County Health and Human Services are replicating this improvement.
- Clark County reduced the cost of treating latent tuberculosis from \$1,500 to approximately \$600 with a telehealth project and increased the treatment completion rate from 81% to 100%.
- Kalispel Tribe of Indians reduced their uninsured population by 90% and also reduced healthcare expenses by almost \$34,000.

Washington created an online resource portal, making all trainings and slides available for free on their website. Fourteen training modules offer instruction on QI and performance management. The free portal allows staff members to refresh their skills and learn new ones to continually improve organizational processes.

EMPLOYEE DEVELOPMENT IS AN ESSENTIAL INVESTMENT

*West Virginia Bureau for Public Health
Charleston, West Virginia*

In 2012, the West Virginia Bureau for Public Health (BPH) used NPHII funding to engage staff in performance improvement efforts. BPH surveyed its staff members for feedback on improvement priorities. Survey results showed that staff saw the need for internal improvements, such as better internal communication and staff engagement in BPH's quality improvement (QI) processes.

“Employee forums have a two-fold benefit: We’ve been able to improve internal employee communication so employees now feel part of the larger organization. And by using QI as an anchor for forum topics, leaders and staff have learned about QI together and both have become invested in the process.”

— AMANDA MCCARTY

*Director, Performance
Management, BPH*

Serves
1.8 million
people



EMPLOYEE BUY-IN SPREADS

As of March 2015, BPH had convened seven employee QI forums focused on issues such as strategic planning and workforce development. Forum attendance grew from 98 employees at the first forum in 2013 (15% of employees) to 191 employees (30% of employees) at the forum in 2015.

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In response to employee requests to be more engaged in the QI process, BPH held a series of quarterly professional development forums. The goals of the forums were to improve internal communication, educate staff about QI, and ensure staff members were invested in BPH's QI initiatives. During the forums, BPH discussed its existing QI projects and shared QI tools.

The forums motivated employees to find ways to improve their work processes. Employee engagement in the QI process brought big improvements across the agency. For example, a QI initiative decreased the time for processing travel authorizations from more than 23 days to an average of 10 days. Staff also plan to develop an employee advisory committee to bring workforce development issues to the commissioner of public health.

USING QI TOOLS TO INCREASE USE OF PRE- AND POST-NATAL CARE SERVICES

*Wisconsin Department of Health Services
Madison, Wisconsin*

Using NPHII funding, Wisconsin collaborated with its county health departments to make changes at the local level, where the “rubber meets the road” in public health. For example, the Kenosha County Division of Health (KCDH) showed that quality improvement (QI) can have a major positive effect on services for pregnant and postpartum woman in the county.

IMPROVING THE WELL-BEING OF MOTHERS AND NEWBORNS

One year after implementing a QI project, the number of pregnant women enrolled in prenatal care during their first trimester increased from 37% to 46%. Postpartum care visits increased from 2% to 41%.



In 2010, southeastern Wisconsin had the highest infant mortality rates in the state, and the mortality rate of African American infants was 3 to 4 times higher than that of white infants. Providing pre- and postnatal care services help prevent infant deaths, so KCDH assessed its patients’ use of those services. KCDH found that 22% of the clinic’s patients with positive pregnancy tests immediately enrolled in prenatal care, and 37% of patients enrolled in prenatal care during the first trimester. Only 2% of patients were using postnatal care services, such as home-visiting programs for pregnant women and new mothers to promote mothers’ and babies’ health and well-being.

To increase enrollment numbers, KCDH staff used the Plan, Do, Study, Act framework to identify causes for low use and develop a plan to increase referrals and use. They determined that a barrier to program enrollment was that patients were not aware of the available services. A public health technician helped staff enroll pregnant and post-partum women in the programs.

“The NPHII project was instrumental in instilling a culture of quality improvement with our staff. Their participation in this project helped our staff realize that their work can improve health outcomes for people in our community.”

— CINDY JOHNSON

*Health Officer/
Director, KCDH*

Serves
5.7 million
people

ADOPTING A CULTURE OF QUALITY IMPROVEMENT

*Wyoming Department of Health
Cheyenne, Wyoming*

REGROUPING AROUND THE CULTURE OF QUALITY

In 2011, under a new agency director, the Wyoming Department of Health (WDH) restructured to create a unified agency with a public health division. The new director hoped to build a strong, shared culture of performance management (PM) and quality improvement (QI) within the agency. NPHII funding aligned perfectly with this vision.

DATA DRIVES QUALITY IMPROVEMENT

All WDH divisions now use data to drive decision-making using the agency's *HealthStat* process. PM and QI initiatives have become a regular part of daily business at the WDH and in the Public Health Division (PHD).

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With NPHII funding, the PHD hired a performance improvement manager (PIM) to lead PM and QI efforts. The PIM worked with PHD staff members on a multi-pronged effort to develop a quality-driven team.

As part of this process, the team

- Fully engaged in *HealthStat*, the agency's performance reporting system that captures data across programs; each program developed goals, objectives, and metrics to measure progress each program developed goals, objectives, and metrics to measure progress
- Incorporated performance metrics into contracts and employee performance evaluations

For several PHD programs, the QI efforts showed immediate results. For example, the Communicable Disease Unit Treatment Program worried that its long billing payment process discouraged healthcare providers from participating in the HIV

**Serves
584,000 people**

with 1 state health department
and local public health offices
or departments in all
23 counties

“Using data for program management has become part of the department’s culture. We’re attacking the issue collectively as an agency now.”

— KORIN A. SCHMIDT

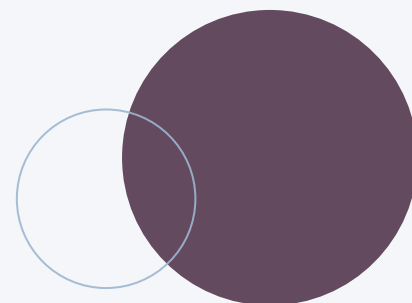
Deputy Director, WDH

services program. QI tools helped the program shorten the number of days in the billing payment process by 76% (from an average of 54 to 13 business days).

The Maternal Child Health Unit (MCH) collects and monitors data on children's vision screenings, which often result in referrals to eye doctors for diagnosis. Last year, despite a significant increase in referrals, the number of diagnoses did not increase, so MCH thought there might be a problem with the screening process. Prompted by a review of data findings and QI processes, MCH worked with its contract partners to tell manufacturers about the concerns. After investigating, one manufacturer adjusted its machines not only in Wyoming but also across the country. Now, the number of eye doctor referrals is closer to that of diagnoses, ensuring that children who need treatment can get it much sooner.

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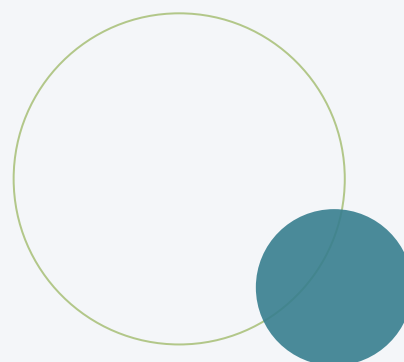
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APPENDIX A:

GLOSSARY OF COMMONLY USED ACRONYMS

AAIP — Association of American Indian Physicians

AC — accreditation coordinator

APHA — American Public Health Association

APR — annual progress report

ASTHO — Association of State and Territorial Health Officials

CHA — community health assessment

CHIP — community health improvement plan

CDC — Centers for Disease Control and Prevention

CBA — capacity building assistance

CEO — chief executive officer

CQI — continuous quality improvement

ES/EPHS — Essential Services/Essential Public Health Services

EBP — evidence-based practice

DPHPI — Division of Public Health Performance Improvement (CDC)

HHS — US Department of Health and Human Services

IOM — Institute of Medicine

IPR — interim progress report

LHD/SHD — local health department/state health department (“a” for agency is sometimes used instead of “d” for department)

MAPP — Mobilizing for Action through Planning and Partnerships

MCH — maternal and child health

NACCHO — National Association of County and City Health Officials

NIHB — National Indian Health Board

NNPHI — National Network of Public Health Institutes

NPHI — National Public Health Improvement Initiative (CDC)

NPHPS — National Public Health Performance Standards, sometimes referred to as “the Performance Standards”

OSTLTS — Office for State, Tribal, Local and Territorial Support (CDC)

PDCA/PDSA — Plan-Do-Check-Act/Plan-Do-Study-Act

PHAB — Public Health Accreditation Board

PHF — Public Health Foundation

PIM — performance improvement manager

PM — performance management

QI — quality improvement

RWJF — Robert Wood Johnson Foundation

SHA — state health assessment

SHIP — state health improvement plan

TA — technical assistance

APPENDIX B:

NPHII EVALUATION APPROACH

BACKGROUND

From 2010 to 2014, in collaboration with the National Network of Public Health Institutes, CDC conducted an evaluation of the National Public Health Improvement Initiative (NPHII) to assess the extent to which NPHII supported improved public health practice and performance through increased readiness for accreditation, improved efficiencies/effectiveness, and increased performance management capacity. The evaluation sought to understand the value of NPHII and lessons learned to inform current and future performance management and quality improvement initiatives.

Three overarching questions were posed:

- 1 To what extent did awardees achieve NPHII program outcomes?
- 2 Did awardees meet the program objectives for performance management, accreditation readiness, and quality improvement?
- 3 What aspects of NPHII are deemed most valuable and should be continued or sustained?

METHODS

CDC implemented a comprehensive, non-experimental evaluation approach designed to capture the awardees' progress toward program

objectives, program outcomes, and the value of NPHII. The data collection effort, which used quantitative and qualitative methods, captured the completion of key outcomes as well as the perspectives of stakeholders on NPHII's value, including performance improvement managers, awardee agency leaders, and national partners. Data analysis included simple descriptive statistics and thematic analyses. Missing responses were not included in the quantitative analysis.

LIMITATIONS OF THE DATA

All data are self-reported and there were limited opportunities for validation of the data.

USE IN COMPENDIUM

The compendium displays several key results from the evaluation effort, which reflect the status of awardee progress at the conclusion of the NPHII program. The data points included in the accomplishments section derive from the data sources in **Table 1**. All quotes and qualitative awardee examples are pulled from the Key Informant Interviews. Longitudinal quantitative analysis, such as comparisons from Year 3 to Year 4, derive from the respective interim progress report (IPR) and annual progress report (APR). Cross-sectional quantitative analysis, or end of program results, yield from the Year 4 APR.

Table 1: NPHII Data Sources Referenced in Compendium

DATA SOURCES	PURPOSE	METHODOLOGY	DATA COLLECTION TIMEFRAME
Progress Reports	Examine awardee interim and annual accomplishments and challenges related to the organization's proposed activities during the funding period	Content analysis of reports and descriptive statistics	Year 3 IPR: April-May 2013 Year 3 APR: November-December 2013 Year 4 IPR: April-May 2014 Year 4 APR: September-December 2014
Key Informant Interviews	Understand the value of NPHII from the perspective of health department leadership from NPHII-funded agencies at the state, local, territorial, and tribal levels; partners from select national agencies; and thought leaders in the fields of accreditation, QI, and PM.	55 interviews conducted Thematic analysis	August-October 2014

