Statewide Public Health Modernization Plan

A modern public health system for every person in Oregon

Oregon Revised Statutes, Chapter 431 • December 2016

Oregon Health Authority
PUBLIC HEALTH DIVISION

In 2015, the legislature passed House Bill 3100, which aims to increase the efficiency and effectiveness of Oregon's public health system while ensuring a basic level of public health service for every person in Oregon. This report provides an update on the progress toward fulfilling the requirements of Oregon Revised Statutes, Chapter 431, and outlines Oregon Health Authority's strategy for modernizing the governmental public health system in the coming years.

This report is provided by the Oregon Health Authority, in collaboration with local public health authorities and the Public Health Advisory Board. The Public Health Advisory Board, a committee of the Oregon Health Policy Board, advises and makes recommendations to the Oregon Health Authority and Oregon Health Policy Board on statewide public health policy and goals.

Special thanks go to the members of the Public Health Advisory Board for their contributions to this report.

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Executive summary

The need for a modern public health system

Eighty percent of what shapes our health happens outside the doctor's office. Public health promotes the health of all people in Oregon where they live, work, learn and play by:

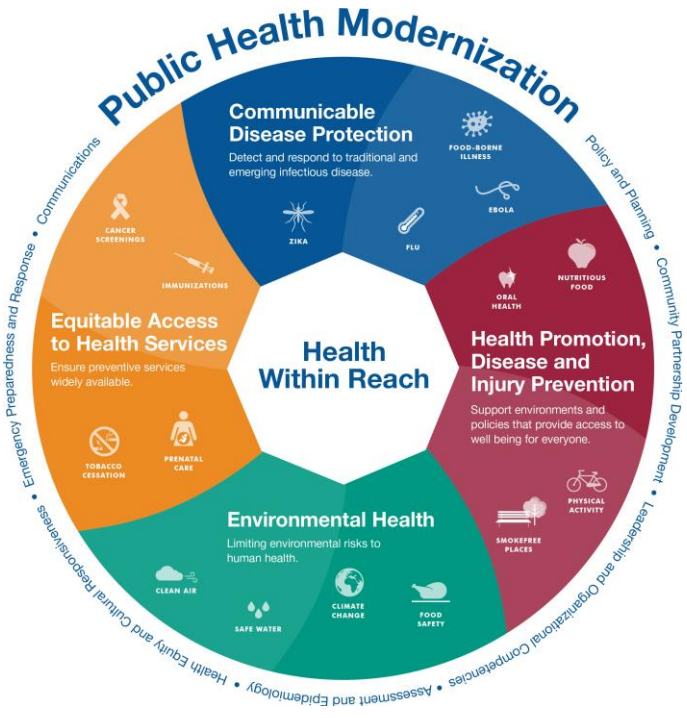
- Protecting people from communicable disease
- Preparing for and responding to emergencies
- Limiting environmental risks to human health
- Promoting health and countering the harmful impact of chronic disease and injury
- Ensuring equitable access to quality health care

Today, not every community in Oregon is equally equipped to provide these essential health programs.

Health system transformation and other factors are changing the landscape for public health in Oregon. The public health system must modernize to respond to changes in access to health services, shifts in socioeconomic factors and less stable funding sources for foundational public health programs. We need to modernize our public health system in ways that recognize how our physical environment, social and economic conditions, and health behaviors affect us.

A modern public health system in Oregon is nimble, resilient and able to adapt to needs as they arise. It requires that we hold ourselves accountable to measurable goals and demonstrate that a modern public health system can achieve improved health for every person in Oregon.

The public health modernization framework



A new framework for state and local health departments was adopted through House Bill 3100 (2015) for every community across Oregon. The public health modernization framework depicts the core services that must be available to ensure critical public health protections for every individual in Oregon.

State and local public health authorities completed an assessment of the existing public health system in 2016. The assessment found gaps between our current public health system and a fully modernized system that meets the health protection, prevention and promotion needs of Oregonians in every part of the state. The assessment identified that, **in more than one third of Oregon communities — home for more than 1.3 million people — foundational public health programs are limited or minimal**. The public health system in these areas may not be adequately able to respond to an emerging communicable disease or environmental health threat, run programs to reduce the impact of chronic diseases and injuries, or ensure every person in the community receives high quality health care.

The statewide public health modernization plan

The statewide public health modernization plan was developed by the Oregon Health Authority, Public Health Division in consultation with the Public Health Advisory Board and local public health authorities. This plan is based upon findings from the 2016 assessment and our collective understanding of public health in Oregon. It encompasses our long-term strategies for modernizing Oregon's public health system and our immediate work for the next biennium. The statewide public health modernization plan represents our best thinking to date and will likely evolve over time.

Our "Roadmap for Modernizing Oregon's Public Health System" describes Oregon's key priorities and strategies for building a modern public health system over the coming years.

Priority 1

Improve the public health system's capacity to provide foundational public health programs for every person in Oregon

- **Strategy 1:** Develop and implement a plan to phase in core public health functions, as described in the *Public Health Modernization Manual*, over the next three to five biennia. This roadmap serves as the initial plan.
- **Strategy 2:** Increase and use available funding to support implementation.
- **Strategy 3:** Apply a health equity and cultural responsiveness lens through all phases of implementation.
- **Strategy 4:** Work with Oregon's federally recognized tribes to align tribal, state and local public health programs.
- **Strategy 5:** Create incentives for cross-jurisdictional collaborations (county-county/state-county) through the local public health funding formula and/or planning grants.
- **Strategy 6:** Establish a process to award state matching funds for county investments in foundational programs and capabilities through the local public health funding formula.
- **Strategy 7:** Ensure all LPHAs submit a comprehensive modernization plan by 2023.

Priority 2

Align and coordinate public health and early learning, CCOs, hospitals, and other health partners and stakeholders for collective impact on health improvements

- Strategy 8: Establish new and innovative collaborative service delivery models with health care partners; scale and spread promising and best practices and effective models throughout the state.
- **Strategy 9:** Provide public health expertise and serve as the convener to support and promote evidenced-based prevention interventions across the health care and early learning sectors.
- **Strategy 10:** Align relevant public health priorities with OHA's *Action Plan for Health*.
- **Strategy 11:** Adopt shared metrics and incentives with the early learning and health care delivery systems for collective impact.

Priority 3

Demonstrate progress toward improved health outcomes through accountability metrics and ongoing evaluation

- **Strategy 12:** Establish accountability metrics and incentives for population health outcomes.
- **Strategy 13:** Use the local public health funding formula to award performance-based payments to LPHAs that achieve benchmarks or improvement targets for accountability metrics.
- **Strategy 14:** Evaluate and report on the effectiveness and population health impact of new and existing service delivery models.

When fully implemented in three to five biennia, all people in Oregon will be protected by an efficient and effective public health system that provides essential public health programs to all. Public health modernization is a long-term strategy that will be scaled up. We will continue to build upon existing opportunities, even as we work toward this long-term strategy supported by sufficient and sustainable funding.

Background

The need for a modern public health system

Oregon leads in its approach to health system transformation, which aims to provide better health and better care at a lower cost. A modern public health system in Oregon is nimble, resilient and able to adapt to needs as they arise. It requires that we hold ourselves accountable to measurable goals and demonstrate that a modern public health system can achieve improved health for every person in Oregon.

Health system transformation and other factors are changing the landscape for public health in Oregon. The public health system must modernize to respond to changes in access to health services, shifts in socioeconomic factors and less stable funding sources for foundational public health programs. Today we see the public health system modernizing in the following ways:

- Oregon's health system transformation allows greater access to health care. Governmental public health no longer needs to provide safety net clinical services in all areas of the state. This increases capacity for public health to implement policies so every individual has access to high quality and culturally appropriate health care.
- A growth in new and emerging health threats exposed the need for the governmental public health system to systematically collect and report on population health risks and health disparities, and implement policy changes to improve health and protect the population from harms.
- New cross sector collaborations are using an assets-based approach to solve population health challenges, whereby resources are shared efficiently across sectors to achieve collective impact on mutual goals.

The public health modernization framework

A new framework for state and local health departments was adopted through House Bill 3100 (2015) for every community across Oregon. The public health modernization framework depicts the core services that must be available to ensure critical public health protections for every individual in Oregon.

Oregon's modernized public health system is built upon seven foundational capabilities and four foundational programs. These foundational capabilities and

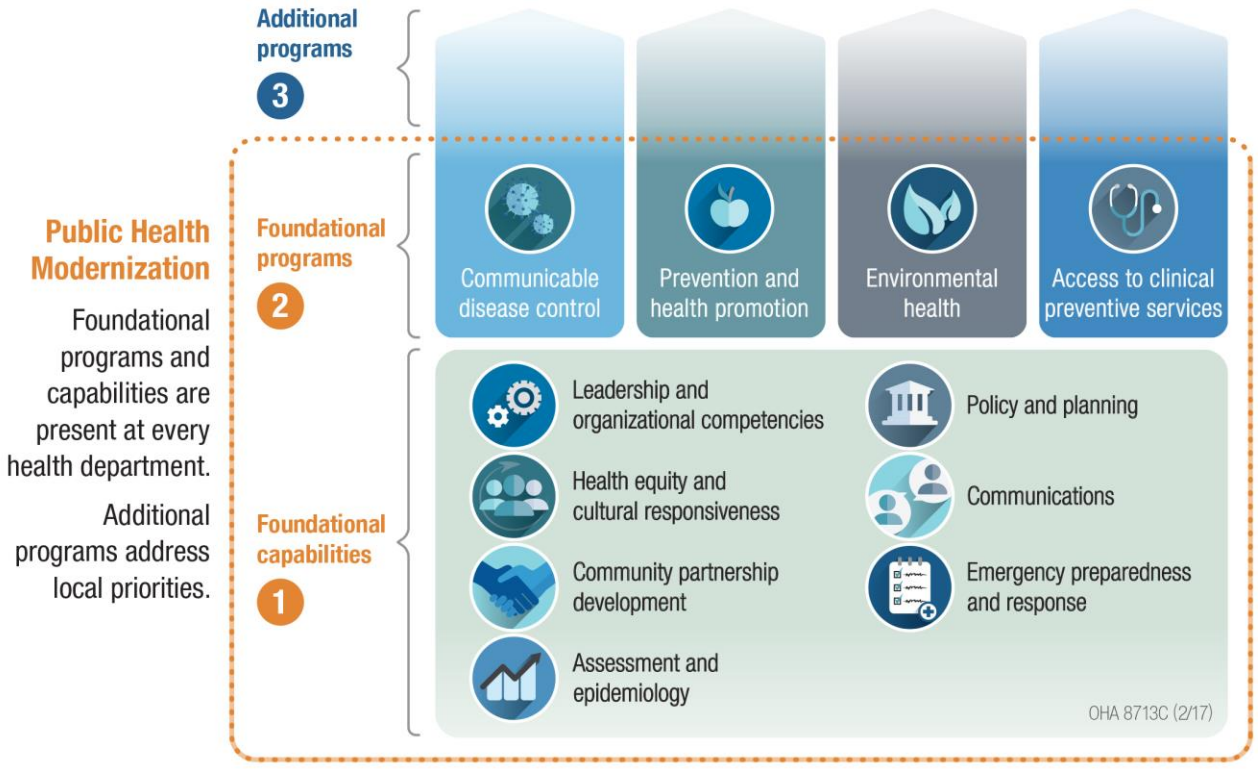
programs encompass the core public health system functions that must be in place in all areas of the state, and for every person in Oregon

Foundational capabilities are the knowledge, skills and abilities needed to successfully implement foundational programs.

Foundational programs include topic- and disease-specific work to improve health outcomes, such as a decrease in the prevalence of a particular disease or health risk behavior.

Foundational capabilities are:	Foundational programs are:
• Leadership and organizational competencies	• Communicable disease control
• Health equity and cultural responsiveness	• Environmental health
• Community partnership development	• Prevention and health promotion
• Assessment and epidemiology	• Access to clinical preventive services
• Policy and planning	
• Communications	
• Emergency preparedness and response	

Modernized framework for governmental public health services



This framework also acknowledges the need for each community to identify the additional programs necessary to address priorities within their communities.

Public health modernization considers the existing strengths and needs of different public health authorities and the communities they serve. The focus of Oregon's public health system is achieving a common set of health outcomes within the next three to five biennia.

Success in public health modernization will require deliberate and sustainable changes. By scaling up public health modernization over the next several years, Oregon's public health system will be able to:

- Improve the capacity of the public health workforce to take on new community health challenges.
- Develop traditional and non-traditional partnerships to improve delivery of public health programs and build collective impact on shared health priorities.
- Move to an outcomes-driven public health system from the current one based on activity.

Key findings from the public health modernization assessment

State and local public health authorities completed an assessment of the existing public health system in 2016, as required under ORS 431.115. The intent was to answer two questions: To what extent is the existing system able to meet the requirements of a modern public health system? What resources are needed to fully implement public health modernization?

The assessment found gaps between our current public health system and a fully modernized system that meets the health protection, prevention and promotion needs of Oregonians in every part of the state. The assessment identified that, **in more than one third of Oregon communities — home for more than 1.3 million people — foundational public health programs are limited or minimal**. The public health system in these areas may not be adequately able to respond to an emerging communicable disease or environmental health threat, run programs to reduce the impact of chronic diseases and injuries, or ensure every person in the community receives high quality health care.

Current gaps in capacity

Overall, there are gaps in all state and local public health authorities and for all foundational capabilities and programs. These gaps are not uniform and no clear patterns were identified in the assessment:

- Gaps do not appear in the same foundational capability or program for each public health authority.
- Some governmental public health authorities have larger gaps than others. The gaps are not tied to the size or population of the area served by the public health authority.
- Some foundational capabilities and programs have more limited or minimal implementation.
- The **least implemented area** across public health authorities is **health equity and cultural responsiveness**.

System-wide barriers

The assessment found system-wide barriers and challenges. Local public health authorities (LPHAs) frequently cited **lack of access to timely, accurate and relevant data** as a barrier to running effective programs and to ensure program and funding decisions are driven by data. LPHAs also frequently cited a need for access to epidemiologic and communications expertise.

Estimated resource needs for full implementation

The public health modernization assessment estimated **an additional $105M annually is needed to fully implement a modernized public health system**, which represents a 50 percent increase over current spending levels. This is a planning-level estimate that will be refined over time as the system changes and efficiencies are gained. However, upgrading the system to fully implement foundational programs and capabilities requires significant, sustainable funding over current levels.

The full public health modernization assessment report is available at: http://www.healthoregon.org/modernization.

The statewide public health modernization plan

The statewide public health modernization plan was developed by the Oregon Health Authority Public Health Division (OHA Public Health Division) in consultation with the Public Health Advisory Board (PHAB) and LPHAs. The PHAB was established in January 2016 and is responsible for making recommendations to the Oregon Health Policy Board on the development of this plan.

This plan is based upon findings from the 2016 public health modernization assessment and our collective understanding of the public health landscape in Oregon. This plan encompasses our long-term strategies for modernizing Oregon's public health system and our immediate work for the next biennium. It represents our best thinking to date and will likely evolve over time. As required in ORS 431.115, this plan will be periodically updated.

Refer to the "Roadmap for Modernizing Oregon's Public Health System" in this document for Oregon's key priorities and strategies for building a modern public health system over the coming years.

Investments in public health modernization planning to date

Public health modernization planning

Oregon Health Authority (OHA) received $500,000 from the Oregon Legislature for the 2015–17 biennium for public health modernization planning. This investment has been used for:

- ***Public Health Modernization Manual***. This manual defines the core functions and roles for Oregon's public health system; it is the guide for our day-to-day work. *(completed, December 2015)*
- ***Health and Economic Benefits of Public Health Modernization*** report. This report estimates the cost of health care and poor health outcomes of some of the most common and unhealthful public health conditions that will be improved by a modern public health system.

- **System-wide public health modernization assessment.** Findings from this assessment are the backbone of the implementation strategy for the coming years. *(completed, June 2016)*
- **Work with Oregon's federally recognized tribes** to understand how tribal, state and local public health programs can be aligned around the public health modernization framework. Moving forward, better alignment between tribal public health and state/local public health will ensure every person in Oregon has access to the same essential public health programs. *(in progress, to be completed by June 2017)*

21st century public health

Oregon was one of three states to receive a Robert Wood Johnson Foundation grant administered through the Public Health National Center for Innovations. Oregon received a two-year grant totaling $250,000 in March 2016 to advance public health modernization. The Coalition of Local Health Officials (CLHO) is the fiscal agent for the grant, with OHA Public Health Division serving as co-principal investigator. These grant funds support:

- **Meetings across Oregon** to engage local communities, health and education stakeholders, local elected officials and other community partners in strategies to advance a modern public health system. *(10 meetings, October 2016–January 2017)*
- **Technical assistance to LPHAs** to explore and adopt cross jurisdictional collaborations, and submit local modernization plans. *(October 2016–February 2018)*

The national perspective

Several national initiatives are also redefining the role of state and local public health. These initiatives, including Foundational Public Health Services and Public Health 3.0, outline the essential functions of the public health system and set forth a pathway to meet these functions. Oregon is on the forefront of this work. As we modernize Oregon's public health system, we are informing national conversations and providing valuable information for other states that follow in our path.

Roadmap for modernizing Oregon's public health system

This set of essential priorities and strategies is Oregon's roadmap to modernizing its public health system and meeting the requirements established in ORS 431.131–431.148. When fully implemented in three to five biennia, Oregon will have a modern public health system that will protect and improve the health of every person in Oregon.

Vision: Public health modernization means every person in Oregon receives essential public health preventive services critical to their health. Essential services include protection from communicable disease and environmental risks, health promotion, prevention of chronic diseases and injury, and responding to new threats to health.

Goal: By 2023 all people in Oregon will be protected by an efficient and effective state and local public health system that provides essential public health programs to all.

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The following sections describe the major bodies of work undertaken by state and local public health authorities to implement these modernization roadmap strategies.

Requirements to implement the public health modernization roadmap

State and local public health authorities, under the guidance of PHAB, have made significant progress for many roadmap strategies, while for other strategies preliminary work has begun.

Implementing the public health modernization model and required resources

Public health modernization in action

Modernizing the public health system is a long-term strategy. Scaling up capacity to meet the core public health functions for all foundational programs and capabilities will likely occur over 6 to 10 years. However, state and local public health authorities are capitalizing on opportunities to apply the modernization model to health priorities:

1. **Apply foundational capabilities to health priorities.** As we develop approaches to address health priorities, we can consider how to incorporate assessment and data, health equity, community partnerships, policy and communications into the overall approach. One recent example is the End HIV Oregon Initiative, which aims to end new HIV infections in five years through a comprehensive strategy of testing, prevention and treatment.
2. **Build opportunities for cross-sector collaboration.** State and local public health authorities are building new partnerships with the health care sector for shared health priorities, and are working across sectors to establish health in all policies. One example includes expansion of the Oregon Health Plan prioritized list to include multisector interventions, setting the stage for public health and coordinated care organizations to work together on community prevention initiatives.
3. **Establish accountability metrics, and evaluate the impact of the modernization model on health outcomes.** Evaluation and accountability tell us if we're making progress toward goals and, if not, how to change course to meet goals. This becomes even more important when resources are limited. OHA Public Health Division is currently conducting an analysis of

key programs to understand where duplicative work is occurring and to realign work within division programs to more efficiently meet goals.

We will continue to build upon existing opportunities, even as we work toward a long-term strategy supported by sufficient and sustainable funding.

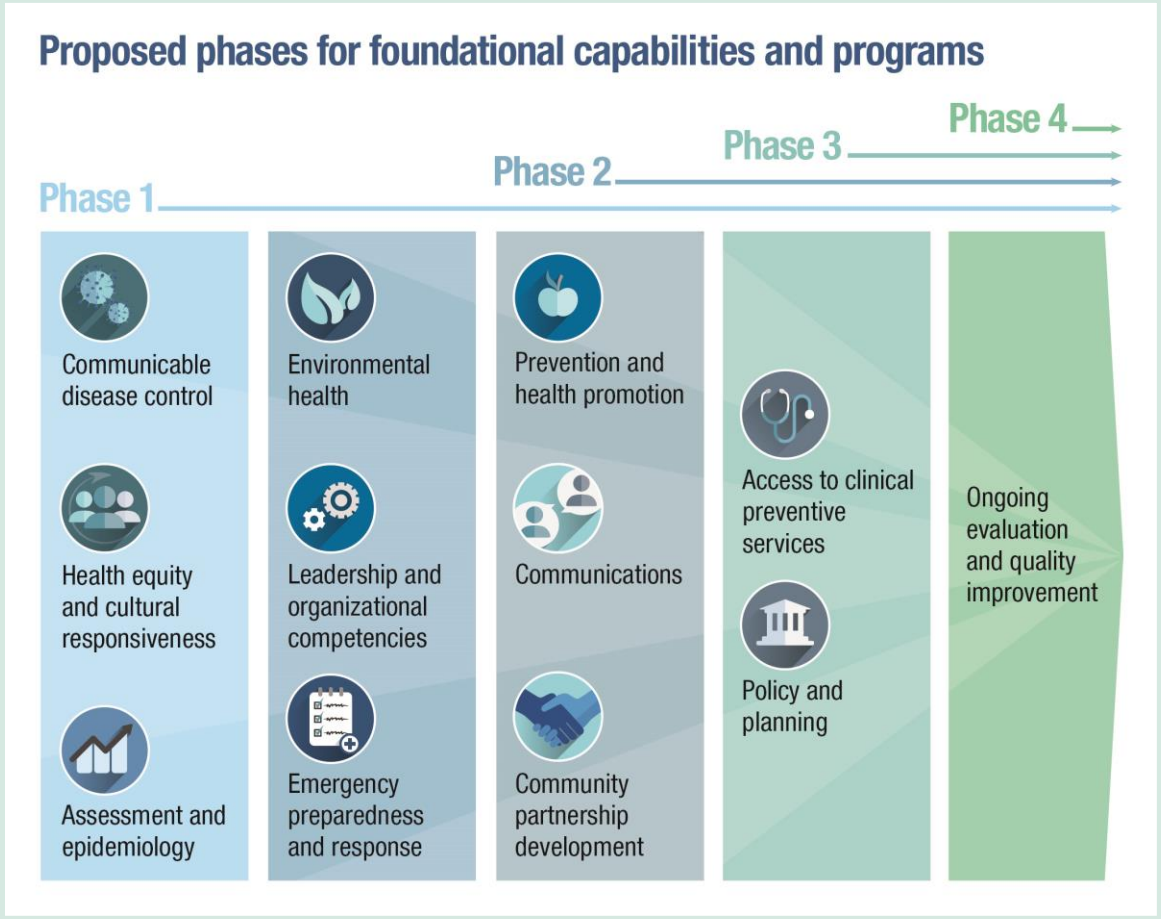
Scaling up foundational programs and capabilities

PHAB, OHA Public Health Division and LPHAs used findings from the public health modernization assessment to develop a plan to scale up capacity to fulfill the core system functions for each foundational program and capability over the course of three to five biennia.*

These criteria were used to select initial priorities:

1. **Population health impact:** The degree to which meaningful improvements in health can be expected.
2. **Service dependencies:** The degree to which OHA is dependent on LPHAs to implement a specific function and vice versa.
3. **Equity:** The degree to which underserved areas or populations of the state can access a public health program.
4. **Population coverage:** The percent of the population expected to benefit from full implementation of a foundational capability or program.

* Additional information about the rationale for implementing public health modernization in waves of foundational capabilities and programs simultaneously across the entire system is provided in Appendix B.



The initial priorities in the first phase of implementation focus on:

- Aligning work to respond to emerging and ongoing communicable disease and environmental health threats. This work falls under the areas of communicable disease control, environmental health and emergency preparedness and response.
- Increasing capacity to meet core public health functions for health equity and cultural responsiveness.
- Addressing systemic barriers identified in the public health modernization assessment. These include lack of access to population health data to inform program and financial decision-making, and insufficient capacity to engage local communities and partners in modernizing the public health system. These fall under assessment and epidemiology, and leadership and organizational competencies.

Additional foundational programs and capabilities will be phased in in waves, building upon previous progress. Ongoing evaluation and continuous quality improvement will ensure that we make progress and achieve goals.

A significant and sustained investment is essential to meet the core system functions for each foundational capability and program as described in the *Public Health Modernization Manual*. This plan to achieve full implementation of foundational programs and capabilities over three to five biennia assumes additional funding is scaled up as well. Implementation can be accelerated or slowed to match the level of financial and other resources available. However, we will continue to face challenges to improve population health if public health and prevention are not adequately funded.

Resource gaps identified in the public health modernization assessment

The public health modernization assessment looked at current (FY 2015) spending on foundational programs and capabilities and the additional spending needed to reach full implementation.

The additional spending figures are planning level estimates and will change over time as the public health system gains efficiencies. As the system is today, an estimated additional $105 million, or $26.81 per capita, would be needed annually to support a modern public health system.

Estimated cost of full implementation	Total estimated cost of full implementation	Current spending	Additional increment of cost	Per capita[1] annual additional increment of cost
Foundational programs	**$184,714,000**	**$129,616,000**	**$55,098,000**	**$14.13**
Environmental public health	$59,647,000	$45,214,000	$14,433,000	$3.70
Prevention and health promotion	$58,351,000	$40,908,000	$17,443,000	$4.47
Communicable disease control	$38,322,000	$25,404,000	$12,918,000	$3.31
Access to clinical preventive services	$28,394,000	$18,090,000	$10,304,000	$2.64
Foundational capabilities	**$129,068,000**	**$79,602,000**	**$49,464,000**	**$12.68**
Leadership and org competencies	$47,860,000	$34,959,000	$12,901,000	$3.31
Assessment and epidemiology	$31,984,000	$17,504,000	$14,479,000	$3.71
Emergency preparedness and response	$12,214,000	$8,966,000	$3,247,000	$0.83
Community partnership development	$9,941,000	$5,974,000	$3,967,000	$1.02
Policy and planning	$9,617,000	$4,415,000	$5,202,000	$1.33
Health equity and cultural responsiveness	$9,396,000	$4,411,000	$4,985,000	$1.28
Communications	$8,056,000	$3,373,000	$4,683,000	$1.20
Total	**$313,782,000**	**$209,218,000**	**$104,562,000**	**$26.81**

1. *Oregon's population based on U.S. Census Bureau, American Community Survey estimates, 2009–14. Oregon's estimated population was 3,900,243.*

Contracting mechanism and scope of work development

Work is underway to develop a new contracting mechanism for new monies made available for public health modernization. State and federal funds are currently distributed to LPHAs through Program Elements, which describe the work to be completed to receive funding. OHA Public Health Division is developing a performance-based contracting model whereby each LPHA will be contractually obligated to develop a strategy and plan for achieving a set of health outcomes. However, each LPHA will have the flexibility to design its own strategy, thereby accounting for local needs, assets and priorities.

State and local public health authorities, under the guidance of PHAB, will develop a scope of work that aligns with public health modernization funds available for 2017–19.

Key activities to advance the implementation plan:

- Identify existing funding and resources to support the public health modernization implementation plan in the 2017–19 biennium
- If funding is available, scale public health system work plan for 2017–19 to match available resources
- If funding is available, develop a scope of work and contracting process for LPHAs that receive funding through OHA
- Identify areas where the modernization framework has been effectively implemented at the local level
- Identify mechanisms and opportunities to expand effective local models across the system

Health equity

Certain Oregon communities experience a disproportionate burden of death, disease and injury. OHA Public Health Division and PHAB define health equity as the absence of unfair, avoidable or remediable difference in health among social groups.

> Health equity implies that health should not be compromised or disadvantaged because of an individual or population group's race, ethnicity, disability, gender, income, sexual orientation, neighborhood or other social condition.
>
> Achieving health equity requires the equitable distribution of resources and power for health, and the elimination of gaps in health outcomes between different social groups.
>
> Health equity also requires that public health professionals look for solutions outside of the health care system, such as in the transportation or housing sectors and through the distribution of power and resources, to improve health with communities. *(OHA Public Health Division Health Equity Committee draft definition shared with PHAB, October 2016).*

The core system functions to reduce and eliminate health disparities are outlined in the *Public Health Modernization Manual*.

The public health modernization assessment found health equity and cultural responsiveness is the least implemented foundational capability or program. More than half of Oregon communities are served by a public health authority with minimal or limited capacity to provide the core functions outlined in the *Public Health Modernization Manual*.

State and local public health authorities are beginning to build a framework for and enhance capacity for health equity and cultural responsiveness.

PHAB will use its role as an oversight body to build a public health system equipped to advance health equity and reduce or eliminate health disparities. PHAB is developing a health equity review policy and procedure to use with every deliverable or decision. PHAB will also evaluate the impact of decisions to ensure they make a meaningful improvement for communities experiencing disparities.

OHA Public Health Division has formed a health equity committee to develop priorities and a work plan aligned with the core system functions outlined in the *Public Health Modernization Manual*. This initial work of the OHA Public Health Division may become the backbone of a system-wide approach toward achieving health equity.

Some **LPHAs** have policies and plans in place to improve health equity and are actively working with their communities to implement those plans. For example:

- Multnomah County Health Department has developed a comprehensive health equity lens that informs planning, decision-making and resource allocation. The Multnomah County Equity and Empowerment Lens is a resource for other agencies seeking to develop an equity approach.
- Crook County Health Department has invested in ongoing training for its staff to integrate health equity into all department activities and programs.

In 2017, state and local public health authorities and PHAB will align and coordinate work across the system to develop a strategy to advance health equity. This strategy will build on existing resources to meet the core system functions for health equity and cultural responsiveness. Initial work may include workforce development and recruitment, engaging communities disproportionately affected by health disparities, and working with organizations that serve these communities to develop shared priorities. OHA's Office of Equity and Inclusion is a resource and partner in this work. The public health system's health equity strategy will be aligned and coordinated where possible with OHA Office of Equity and Inclusion, the regional health equity coalitions and community organizations that represent or serve populations disproportionately impacted by health disparities.

The public health system currently lacks the ability to collect timely and relevant data on health disparities for local communities. With sufficient resources, collecting the data needed to inform decision-making will be a top priority. Similarly, with funding, the public health system will conduct a comprehensive health equity assessment to identify current assets and barriers for achieving health equity.

Key activities to improve health equity:

- Develop a public health system strategy to advance health equity
- Review and update strategies in the State Health Improvement Plan intended to reduce and eliminate health disparities
- Establish accountability metrics for health equity
- Develop framework for conducting statewide and local health equity assessments
- Conduct health equity assessments; use findings to develop statewide and local action plans
- Develop framework for enhancing data collection
- Enhance data collection

Oregon's federally recognized tribes

While the public health modernization legislation addresses state and local governmental public health, public health modernization creates an opportunity to transform Oregon's entire governmental public health system, including tribal public health. OHA Public Health Division held a Tribal Consultation in June 2016 with Oregon's nine-federally recognized tribes to identify if aspects of public health modernization can be used to assist tribes in meeting their health goals.

Since the Tribal Consultation, OHA Public Health Division held individual meetings with four tribal health directors, their staff and partners. These meetings provided an opportunity for each tribe to inform OHA Public Health Division on if and how they would like to engage in building a modern public health system.

Some tribes expressed interest in completing a modified version of the public health modernization assessment. The assessments will give tribal health authorities a deeper understanding of areas where they are already providing core functions of a modern public health system and highlight opportunities to work closely with local public health, other tribes and partners to provide essential public health programs.

Key activities for aligning tribal, state and local public health programs:

- Upon request, help tribes complete a public health modernization assessment
- Encourage opportunities for local planning to increase alignment between tribal and local public health services

Cross-jurisdictional sharing and state/local service delivery models

Current cross-jurisdictional sharing in Oregon

Nationally, state and local governments and public health agencies are increasingly adopting cross-jurisdictional sharing arrangements to improve the efficiency and effectiveness of the local public health system. Cross-jurisdictional sharing can present opportunities to improve or expand services while making better use of resources.†

In 2016, CLHO conducted a survey asking LPHAs to provide detail on the types of collaboration, shared services and other partnerships that allow them to deliver essential public health programs. Most LPHAs reported some level of collaboration and sharing with other jurisdictions. Some of the most commonly cited partnerships include:

- **Community health assessments**. Cross-jurisdictional partnering for community health assessments occurs in many regions of the state. These efforts also include partnerships with coordinated care organizations (CCOs), early learning hubs, local hospitals and other community organizations.
- **Communicable disease surveillance and sharing**. Some partnerships include formal agreements to share access to Orpheus, an electronic disease surveillance system, for case investigation and follow up.
- **Environmental health sharing**. Several rural jurisdictions share environmental health staff to ensure mandated restaurant, water and other inspections are carried out as required.
- **Technical assistance and other support**. LPHAs offer varying levels of assistance to each other on a regular basis, including general program or operational advice, resource sharing, partnering for staff training or job shadowing for new staff.
- **Emergency preparedness**. Regions throughout the state partner to hold preparedness exercises and to ensure critical resources will be available in a large-scale bioterrorism event or natural disaster.

† Public Health Activities and Services Tracking (September 2016). Cross-jurisdictional sharing in local public health systems: implications for costs, impact and management capacity. Available at: http://phastdata.org/sites/phastdata.org/files/DIRECTIVE_researchbrief.pdf

Future sharing in Oregon

The CLHO survey asked LPHAs to identify opportunities for future shared services that could potentially create efficiencies and improve effectiveness across jurisdictions. Some of the most commonly cited potential future shared services include:

- **Assessment and epidemiology**. Several LPHAs identified a regional approach to data collection and analysis as the most efficient and effective method of fulfilling the elements listed in the new modernization framework.
- **Prescription drug overdose prevention grant**. Six regions throughout the state will be collaborating on prevention efforts related to prescription drug and heroin overdose.
- **Environmental health**. Shared environmental health specialists to prevent, assess and address emerging environmental public health issues.
- **Emergency preparedness.** Regional efforts to ensure communities are prepared and able to respond to and recover from public health threats and emergencies.

There is great potential for future cross-jurisdictional sharing to move LPHAs toward formalized arrangements. Those arrangements will be designed by LPHAs and local governing bodies; it could be shared capacity with joint oversight or full consolidation of local public health agencies.

From October 2016 through January 2017, 10 meetings will take place across Oregon to discuss opportunities and barriers to cross-jurisdictional sharing.

A regional approach for health officers

Multnomah, Clackamas and Washington counties conceptualized and developed the Tri-county Health Officer Program which began in 2006 out of acute need, and formally launched in 2008. This model provides a dedicated health officer for each county to focus on consultations for individual public health situations such as tuberculosis cases, consultation with public health programs such as environmental health, and agency-level consultation and leadership on existing and emerging community-level public health issues. As a multicounty program, this model also supports a regional approach to develop consistent and up-to-date policies, procedures and risk communication. The central structure allows for 24/7 coverage with both a primary and back-up health officer for expert management of urgent public health issues whenever they arise. The team structure also allows for shared coverage and communication around regional and statewide bodies such as the Regional Disaster Preparedness Organization, the Cleaner Air Oregon Task Force, Public Health Advisory Board, the Immunization Program Advisory Team and OHA School Immunization Law Advisory Committee. Since the Tri-county Health Officer Program covers three contiguous counties, it can easily serve as a convening group for regional issues such as the Ebola response and the Opioid Safety Initiative.

State and local public health service delivery models

The *Public Health Modernization Manual* demonstrates how the distinct yet complementary roles for state and local public health are essential to fulfill the core system functions. The following are two examples:

- OHA Public Health Division has core responsibilities for maintaining statewide data systems that are accessible and interoperable to the extent possible with local data systems and to conduct statewide analysis on data collected. OHA Public Health Division also fields statewide surveys of health behaviors to monitor trends in health-harming or health-promoting behaviors. LPHAs report data to these statewide systems and may field surveys locally to understand the health behaviors in their communities. **The public health system of state and local public health authorities ensure population health data are collected, analyzed, reported and used** to develop community health improvement plans, evaluate the impact of local interventions and to inform decision-making and resource allocation.
- OHA Public Health Division works with statewide partners and other areas within the OHA to set statewide policy. LPHAs work with local partners to implement statewide policies or set local policies tailored to their community. Local policy often sets the stage for state policy. **State and local public health authorities work closely on policy initiatives to ensure consistent and mutually supporting approaches.**

The public health system will continue to identify areas of mutual reliance and prioritize efforts to ensure both state and local public health authorities are able to fulfill their core functions at the highest level. This requires a coordinated and strategic approach. As stated previously, insufficient access to timely, accurate and relevant population health data was identified as a barrier for LPHAs to fulfill core functions in most foundational capability and program areas. Therefore, state and local public health authorities will need to work closely to prioritize enhanced statewide data collection to support local functions.

Finally, OHA Public Health Division and individual LPHAs may form relationships, similar to cross-jurisdictional sharing, whereby the state would conduct some functions for the LPHA, based on gaps and available resources.

Key activities to expand cross jurisdictional sharing and new state/local partnerships:

- Hold modernization meetings across the state to discuss opportunities and barriers for sharing functions and services across county lines
- Develop or modify existing resources to support the adoption of formal cross-jurisdictional sharing agreements
- Provide technical assistance to LPHAs to adopt formal cross-jurisdictional sharing agreements
- Develop opportunities to share innovative models or promising new approaches for sharing functions and services
- Establish accountability metrics for increased use of formal sharing agreements
- Conduct ongoing evaluation of cross-jurisdictional sharing

Cross-sector collaborations

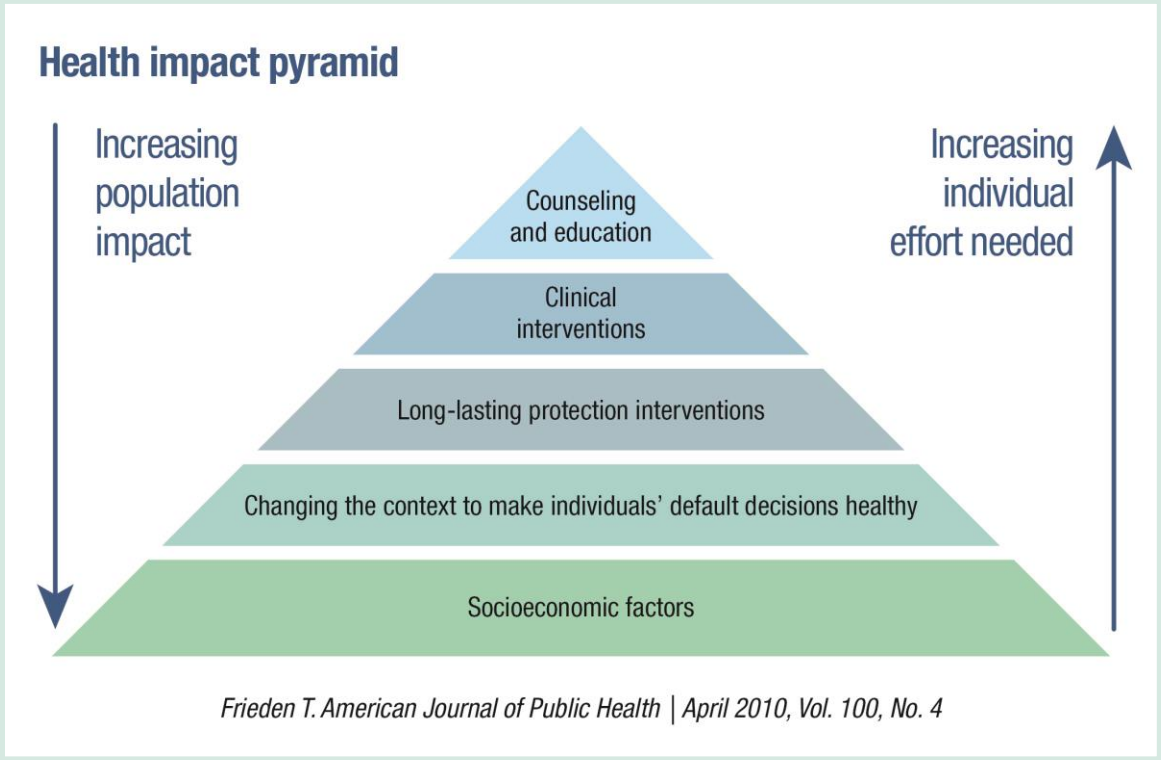
The public health system serves a critical function in a transformed health system. Its focus on upstream prevention and creating healthy communities through policy, system and environmental changes directly complements clinical health care.

Oregon's *Action Plan for Health* describes Oregon's approach to improving health for all Oregonians. This plan specifically identifies public health and prevention as essential components of a transformed health system. The public health system will continue to align with relevant sections in the *Action Plan for Health* as it modernizes.

The health impact pyramid

The health impact pyramid demonstrates the spectrum of interventions that can be applied to health priorities. The tiers at the top of the pyramid most often occur within the health care system, whereas the lower tiers rely on the expertise and strategies of the public health system.

A modern public health system focuses on these lower tiers of the pyramid while acting as conveners with local stakeholders to ensure interventions at the top of the tier are available to all community members. Public health authorities also provide technical assistance and promote best and evidence-based practices for improving population health. These core functions for public health set the stage for collective impact and improvement in community health priorities.



New examples of innovative cross-sector partnerships between public health, CCOs and others, where each bring forward assets to achieve shared outcomes are common. Innovative funding models allow public health to fulfill its functions for prevention and for reaching underserved communities.

Coos County preconception health

The Coos County community health improvement plan (CHIP) coalition is a community-wide collaborative of local public health, the CCO and other community partners. One goal of the CHIP is to increase the timeliness of prenatal care, and the Coos County CHIP coalition identified One Key Question, a pregnancy intention screening intervention, as a key strategy to meet this goal. This project is piloted both at the primary care provider practices and across public health programs. Because this program shows improvement in early access to prenatal care and uptake of long-acting reversible contraceptive methods, the CCO has adopted the project as one of its required performance improvement projects that could have a significant impact on the CCO's ability to achieve incentive measure benchmarks.

Sustainable Relationships for Community Health (SRCH)

The SRCH grants are designed to develop sustainable community-based models to address community health priorities. The SRCH teams are a collaboration between local public health, CCOs, clinics and community-based organizations to develop closed loop referral systems, through community-clinic linkages, data sharing and partnerships to reduce the prevalence of chronic disease and related risk factors. Now in its second iteration, SRCH teams are addressing two of four CCO incentive metrics included in the grant (tobacco cessation, diabetes, hypertension and colorectal cancer screening). These grants have demonstrated the value of dedicated time and space to co-create local approaches to address chronic conditions.

Key activities for building collaborations across sectors:

- Identify effective cross-sector collaborations and partnerships at the state and local level
- Identify mechanisms and opportunities to expand effective collaborations and partnerships across the system

- Provide opportunities for health care partners to learn about innovative collaborations or emerging best practices to achieve shared goals
- Expand opportunities and incentives for shared community or regional health improvement plans across LPHAs, CCOs and nonprofit hospitals
- Establish accountability metrics for formal collaborations and partnerships between public health authorities, CCOs and early learning
- Align public health system priorities with relevant statewide health priorities outlined in Oregon's *Action Plan for Health*

Local public health authority funding formula

Legislative requirements

ORS 431.380 requires OHA to submit a funding formula to Legislative Fiscal Office by June 30 of every even-numbered year.

The local public health funding formula is comprised of three components, listed below. This funding formula is intended to equitably distribute monies made available to fund implementation of foundational capabilities and programs.

Baseline funds

Awarded based on county population health status and burden of disease

State matching funds

For local investment in foundational capabilities and programs

Performance-based incentives

To encourage the effective and equitable provision of services

Baseline funds. This component awards funding to LPHAs based on their county population, health status and burden of disease. Counties with a larger population will receive a larger portion of the pool of available funding. Similarly, counties with a greater burden of disease or poorer health status will receive a proportionally larger portion of the pool of available funding.

State matching funds for county investments. This component awards state matching funds for local public health authority investment in foundational programs and capabilities.

Performance-based incentives. This component uses performance-based incentives to encourage the effective and equitable provision of public health programs and capabilities by LPHAs.

OHA submitted an initial framework for the funding formula to the Legislative Fiscal Office on June 30, 2016. The funding formula described below was built from this framework. This funding formula will continued to be developed over the coming months and will be finalized at the conclusion of the 2017 legislative session.

PHAB has formed an incentives and funding subcommittee to develop the local public health funding formula. This subcommittee has met monthly since May 2016.

Guiding principles

The incentives and funding subcommittee has applied these guiding principles to decisions made about the funding formula:

- The funding formula should advance equity in Oregon, both in terms of health equity and building an equitable public health system.
- The funding formula should be designed to drive changes to the public health system intended to increase efficiencies and effectiveness.
- Decisions made about the funding formula will be compared with findings from the public health modernization assessment to ensure funds will adequately address current gaps in implementation of foundational programs.

Funding formula recommendations

The incentives and funding subcommittee makes the following recommendations:

1. All monies initially made available for implementing foundational capabilities and programs should be directed to the baseline component of the funding formula. Monies will be used to fill critical gaps that result from the historical un- or under-funding for foundational public health work. Payments to LPHAs for the other two components of the funding formula (state matching funds and performance-based incentives) will be incorporated into the funding formula in future biennia.
2. This funding formula dictates how funds will be distributed to LPHAs and does not inform how funds are split between state and local public health authorities. OHA Public Health Division and PHAB intend for the majority of funds to be distributed to LPHAs to address gaps and priorities locally. Dollars that remain with OHA Public Health Division will be specifically used to address statewide requirements to support local improvements, and to monitor implementation and accountability.
3. The funding formula must provide for the equitable distribution of monies. Some counties may receive proportionally more or less than an "equal" share based on need. While extra small and small counties will receive a proportionally larger per capita payment, extra-large and large counties will receive a proportionally larger total dollar amount of funding[‡]. This is

[‡] Counties were divided into five size bands based on county population in the public health modernization assessment report. County size bands are as follows: extra small = fewer than 20,000 residents; small = 20,000–75,000 residents; medium = 75,000–150,000 residents; large = 150,000–375,000 residents; extra large = greater than 375,000 residents.

consistent with the financial resource gaps identified in the public health modernization assessment.

4. The subcommittee recommends implementing three additional indicators to the baseline funds component of the funding formula: racial/ethnic diversity, poverty and limited English proficiency. These indicators may be linked to poorer health outcomes and also indicate increased demand for LPHA resources.
5. The subcommittee recommends incorporating a floor, or base, payment per county into the funding formula. This floor payment ensures each LPHA has the resources needed to implement the modernization framework, gain efficiencies and improve health outcomes. The subcommittee recommends using a tiered floor amount, based on county population.
6. The subcommittee recommends allocating all remaining funds across the six indicators included in the baseline funds component.

These initial recommendation will continue to be developed by the PHAB Incentives and Funding subcommittee in 2017.

See Appendix C for a funding formula example and methodology.

Key activities to complete the funding formula:

- Finalize indicators and data sources for 2017–19 funding formula
- Develop method to collect standardized information on county expenditures; establish method to validate expenditures data
- Develop funding formula components for state matching funds and performance-based incentives
- Submit revised funding formula to Legislative Fiscal Office

Accountability metrics

In 2014, the Task Force on the Future of Public Health Services called for a set of state and local metrics to track improvements and changes to the public health system. These metrics would be established and monitored by PHAB.

ORS 431.380 requires the use of incentive payments as a component of the local public health funding formula to encourage the effective and equitable provision of public health services. Through this requirement, LPHAs will be eligible to receive performance-based incentive payments for achieving a set of accountability metrics.

PHAB has started to establish a set of accountability metrics to monitor improvements across Oregon's public health system for all foundational capabilities and programs. A subset of these will be selected as performance-based incentive measures for LPHAs. LPHAs will be eligible to receive incentive payments no sooner than the 2019–21 biennium.§

PHAB accountability metrics subcommittee

PHAB formed a subcommittee to develop a set of accountability metrics to demonstrate progress toward achieving improved health and system outcomes. The PHAB accountability metrics subcommittee has met monthly since June 2016.

Key activities to date

The subcommittee has completed the following key activities:

- Developed criteria for measure selection
- Reviewed existing state and national measure sets to identify areas for alignment
- Identified measures for five foundational capabilities and programs

§ PHAB's incentives and funding subcommittee has recommended all initial monies made available to implement foundational capabilities and programs be directed toward base funding for LPHAs. This will allow LPHAs to develop capacity and make changes to their current operating structure before being eligible to receive incentive payments. Also, this will allow time to set up data collection and reporting systems and collect baseline data.

Measure selection criteria

The subcommittee applied the following criteria to proposed measures to determine whether each would be an appropriate measure of a modernized public health system:

Must pass criteria
Promotes health equity
Respectful of local priorities
Transformative potential
Consistency with state and national quality measures, with room for innovation
Feasibility of measurement
Additional criteria to be considered
Consumer engagement
Relevance
Attainability
Accuracy
Reasonable accountability
Range/diversity of measures

The subcommittee is developing a recommended measure set that balances:

- Process and outcome measures
- Measures that monitor our current core work and aspirational measures we will work toward
- Measures that monitor the progress of the entire public health system and measures of LPHAs to be used to award performance-based incentive payments

The final set of recommended accountability metrics will require all state and local public health authorities to work toward a common set of accountability metrics. LPHAs may select additional metrics that align with local priorities identified in the community health improvement plan.

Next steps for establishing and implementing accountability metrics:

The PHAB accountability metrics subcommittee will continue to meet in 2017. Key activities to be completed include:

- Identify and recommend accountability metrics for all foundational capabilities and programs
- Solicit input through a survey of stakeholders on recommended measures

- Develop an annual process for collecting and reporting on metrics; includes developing or modifying existing data collection methods
- Develop funding formula component for performance-based incentives
- Collect baseline data on accountability metrics; set statewide benchmark and LPHA improvement targets
- Issue annual accountability report
- Review and make changes to measures and targets

Initial proposal for accountability metrics	
Achieving improved health for all people in Oregon requires comprehensive, multi-sector approaches. The public health modernization accountability metrics measure roles and functions for which the governmental public health system holds primary responsibility. As we meet these accountability metrics and work across sectors, we will achieve improved health outcomes for health priorities included in Oregon's State Health Profile Indicators. The PHAB subcommittee will continue to develop this initial set of accountability metrics in 2017.	
Communicable disease control	**Increase capacity to respond to epidemiological changes and communicable disease threats** • Documented provision of timely and relevant epidemiological information to community members • Evidence that outbreak summaries have been made available to community members **Demonstrate public health expertise by providing health education resources and technical assistance for vaccine-preventable diseases, health care-associated infections, antibiotic resistance and related issues.** **Increase partner notification for HIV, syphilis and gonorrhea** • Number of sexually transmitted infection (STI) contacts followed by the public health authority in the past 12 months • Number of FTE trained and employed to conduct STI case management including: client interviewing, partner notification and referral, untreated patient referral, education, and consultation for individuals diagnosed with an STI • The portion of cases that had at least one contact that received treatment (all syphilis and gonorrhea cases who are HIV co-infected) • 100% of Oregonians diagnosed with HIV are in medical care within 30 days • The percentage of people diagnosed with HIV in a given calendar year that had one or more documented medical visits, viral load or CD4 tests within three months after diagnosis **Convene health care, early learning and other partners to develop state and community strategies to improve childhood and adolescent immunization rates** • Documented state and local plans to improve childhood immunization rates that include ongoing evaluation and reporting
Environmental health	**Demonstrate public health expertise by providing timely, accurate and culturally appropriate technical assistance to partners and the community on environmental health hazards.** • Documented assessments of environmental health hazards and protection recommendations • Documented health analyses prepared for other organizations

	Demonstrate public health expertise to address challenges in health resulting from changes to the built and natural environment • Documentation of reports on projected changes in health resulting from changes to the built or natural environment • Documentation of trained state and local public health staff in health impact assessments **Demonstrate local planning for environmental health and environmentally-related disease** • Evidence that state and local community health assessments include data and information on environmental health and environmentally related diseases • Evidence that state and community health improvement plans include strategies to address environmental health threats and reduce environmentally related diseases
Emergency preparedness	**Increase state and local capacity to respond during an event** • Evidence of training for all state and local staff that would be called upon to assist during an event • Evidence of current emergency preparedness plans in all state and local jurisdictions that meet established state and federal guidelines **Increase community engagement in emergency preparedness activities** • Evidence of community engagement strategy in emergency preparedness plans • Documented evaluation of community needs and engagement efforts in situational assessments and after-action plans
Health equity	**Health equity will be a component in metrics for all foundational program and capabilities, in addition to being a stand-alone set of metrics.** **Reduce health disparities by ensuring measure sets for all 2017–19 priority areas include a focus on achieving health equity.** **Increase capacity for state and local public health authorities for advancing health equity. This will be measured by:** • Evidence of increased workforce recruitment from communities adversely affected by health disparities *(NACCHO measure)* • Increased percentage of state and local public health authorities with policies for training, engagement and recruitment *(Public Health Modernization Manual)* • Increased percentage of state and local public health authorities that have fully integrated health equity into the strategic plan and state or community health improvement plan *(Public Health Modernization Manual)*
Public health system change	**Increase public health leadership, expertise and involvement in state and local policy that may affect health. This will be measured by:** • Prepared issue briefs and recommendations for policymakers *(NACCHO measure)* • Technical assistance provided to legislative, regulatory or advocacy groups *(NACCHO measure)*

	• Evidence of health in all policies **Increase the efficiency and effectiveness of the public health system through cross-jurisdictional sharing. This will be measured by:** • Increased percentage of LPHAs with memoranda of understanding (MOUs) or contracts for cross-jurisdictional sharing with other LPHAs or the Oregon Public Health Division **Increase the impact of health interventions by forming cross-sector partnerships and collaborations. This will be measured by:** • Increased percentage of state and local public health authorities with MOUs, contracts or shared work plans in place with health care and early learning providers, CCOs and other community partners • Evidence of evaluation of shared projects or initiatives

The health and economic benefits of public health modernization

OHA Public Health Division contracted with Program Design and Evaluation Services in 2016 to conduct an evaluation of the anticipated outcomes of a modern public health system. This report, *The Health and Economic Benefits of Public Health Modernization*, estimated the cost of health care and poor health outcomes of some of the most common and unhealthful public health conditions: tobacco use, foodborne illness, physical inactivity and unintended pregnancy, as well as the cost of medical care and poor health outcomes due to health disparities.

The report showed the economic burden of population health conditions far exceeds an additional investment to close the gap in foundational public health programs associated with those conditions. Investment in evidence-based prevention interventions offers the best opportunity for achieving this benefit.

- Tobacco is Oregon's leading cause of preventable death and costs Oregon $2.5 billion in medical expenditure and lost productivity every year. Evidence shows for every dollar spent on science-based tobacco prevention programs in Oregon, $4 are saved in medical costs.
- Oregon's medical costs related to physical inactivity are estimated at $1.3 billion a year. If physical inactivity is reduced by 1/8 of one percent through proven public health programs, it would offset an investment of $1.6 million in physical activity programs.
- Foodborne illness sickens one in six people a year with a cost to Oregon of $229 million. Lowering the cost of foodborne illness by two percent, a modest improvement, would fully cover the investment in identifying and preventing foodborne illness.
- Oregon's total cost of health care, illness and death from health disparities is estimated at $1.1 billion. Reducing this burden by 0.4 percent through proven public health practices would offset increased spending.

The *Health and Economic Benefits of Public Health Modernization* report is part of a growing body of evidence suggesting upstream investment in the public health system of community organizations, health care providers, public health departments and the public can promote longer, more productive lives for all people in Oregon. Since Oregon is among the first wave of states to modernize its public health system, we can continue to add to this growing body of knowledge of how funding foundational public health and building a coordinated health system grounded in prevention can lead to improved health and reduced spending.

Key activities for ongoing evaluation:

- Conduct ongoing evaluation of public health modernization, addressing efficiency and effectiveness, health outcomes, and public health system capacity

Local comprehensive modernization plans

ORS 431.115(3)(b) requires all LPHAs to submit a local modernization plan by 2023 and allows OHA to set a schedule for local plans to be submitted.

These local comprehensive modernization plans will describe the LPHA's strategy for ensuring the core roles and functions for each foundational program and capability are available for every person residing in the jurisdiction. Because the public health modernization assessments for each LPHA showed unique assets and gaps, each plan will be uniquely tailored to address those gaps, building upon existing assets.

Local modernization plans will describe the structure of how public health programs will be provided, which may include cross-jurisdictional sharing, developing agreements with health care organizations and more. These plans will also specify the LPHA's strategies to meet accountability metrics.

As previously described, Oregon was one of three states to receive a grant through the Robert Wood Johnson Foundation to progress toward modernizing the public health system. CLHO is the grant recipient of Oregon, which uses the funds to support these planning activities:

- Hold 10 meetings across Oregon engaging local communities, health and education stakeholders, local elected officials and other community partners in moving forward public health modernization
- Create a set of tools to navigate and overcome barriers to public health modernization
- Develop a comprehensive local modernization plan template

OHA Public Health Division, under the guidance of PHAB, will develop criteria for local comprehensive modernization plans. OHA Public Health Division is responsible for reviewing and approving plans, once submitted.

Key activities to develop local comprehensive modernization plans:

- Develop a template for local comprehensive modernization plans
- Develop a schedule for LPHAs to submit local comprehensive modernization plans
- Develop criteria for reviewing and approving local comprehensive modernization plans

Timeline of implementation activities

This section provides a comprehensive list of key activities for all components of public health modernization described previously.

Activity	Responsible agency(ies)	Time to complete	Deliverables
Implementing the public health modernization model and required resources			
Identify new and existing funding to support the public health modernization implementation plan in the 2017–19 biennium	State and local public health authorities	January–September 2017	Available funding distributed to LPHAs Catalog of effective application of the public health modernization model
If funding is available, scale public health system work plan for 2017–19 to match available resources	State and local public health authorities, PHAB	April–September 2017	
If funding is available, develop a scope of work and contracting process for LPHAs that receive funding through OHA	OHA Public Health Division	April–September 2017	
Identify areas where the modernization framework has been effectively implemented at the local level	State and local public health authorities	April 2017–ongoing	
Identify mechanisms and opportunities to expand effective local models across the system	State and local public health authorities	July 2017–ongoing	
Health equity			
Develop a public health system strategy to advance health equity	State and local public health authorities, PHAB	January–September 2017	Public health system health equity strategy Improved State Health Improvement Plan health equity strategies Health equity accountability metrics Health equity assessments and action plans Expanded state and local data on health disparities
Review and update strategies in the SHIP intended to reduce and eliminate health disparities	OHA Public Health Division	July–December 2017	
Establish accountability metrics for health equity	PHAB	January–June 2017	
Develop framework for conducting statewide and local health equity assessments	State and local public health authorities	July–September 2017	
Conduct health equity assessments; use findings to develop statewide and local action plans	State and local public health authorities	Pending available funding	
Develop framework for enhancing data collection	State and local public health authorities	October–December 2017	
Enhance data collection	OHA Public Health Division	Pending available funding	

Oregon's federally recognized tribes			
Upon request, help tribes complete a public health modernization assessment	OHA Public Health Division	January–June 2017	
Encourage opportunities for local planning to increase alignment between tribal and local public health services	State and local public health authorities	January 2017–ongoing	
Cross-jurisdictional sharing and state/local service delivery models			
Hold modernization meetings across the state to discuss opportunities and barriers for sharing functions and services across county lines	Coalition of Local Health Officials (CLHO) and LPHAs	October 2016–January 2017	Catalog of opportunities and barriers to cross-jurisdictional sharing Toolkit of resources for cross-jurisdictional sharing Mechanism established for learning opportunities Cross-jurisdictional sharing accountability metrics Evaluation reports
Develop or modify existing resources to support the adoption of formal cross-jurisdictional sharing agreements	CLHO	January 2017–February 2018	
Provide technical assistance to LPHAs to adopt formal cross-jurisdictional sharing agreements	CLHO	April 2017–ongoing	
Develop opportunities to share innovative models or promising new approaches for sharing functions and services	State and local public health authorities	April 2017–ongoing	
Establish accountability metrics for increased use of formal sharing agreements	PHAB	January–June 2017	
Conduct ongoing evaluation of cross-jurisdictional sharing	State and local public health authorities	January 2018 - ongoing	
Cross-sector collaborations			
Identify effective cross-sector collaborations and partnerships at the state and local level	State and local public health authorities	April 2017–ongoing	Catalog of existing cross sector collaborations and partnerships Mechanism established for learning opportunities Shared or regional community health assessments and health improvement plans
Identify mechanisms and opportunities to expand effective collaborations and partnerships across the system	State and local public health authorities	July 2017–ongoing	
Provide opportunities for health care partners to learn about innovative collaborations or emerging best practices to achieve shared goals	State and local public health authorities	July 2017–ongoing	
Expand opportunities and incentives for shared community or regional health improvement plans across LPHAs, CCOs and nonprofit hospitals	State and local public health authorities	July 2017–ongoing	

Establish accountability metrics for formal collaborations and partnerships between public health authorities, CCOs and early learning	PHAB	January–June 2017	Formal partnerships and collaborations accountability metrics
Align public health system priorities with relevant statewide health priorities outlined in Oregon's *Action Plan for Health*	OHA Public Health Division	January–June 2017	
Local public health authority funding formula			
Finalize indicators and data sources for 2017–19 funding formula	PHAB	January–June 2017	Final local public health funding formula for 2017–19 System for collecting standardized county expenditures data 2019–21 local public health funding formula
Develop method to collect standardized information on county expenditures; establish method to validate expenditures data	State and local public health authorities	April–December 2017	
Develop funding formula components for state matching funds and performance-based incentives	PHAB	January–June 2017	
Submit revised funding formula to Legislative Fiscal Office	OHA Public Health Division, PHAB	June 2018, and biennially thereafter	
Accountability metrics			
Identify and recommend accountability metrics for foundational capabilities and programs	PHAB	January–July 2017	Complete set of accountability metrics Initial statewide benchmarks and LPHA improvement targets Annual report on accountability metrics Updated measures and targets
Solicit input through a survey of stakeholders on recommended measures	PHAB	March–June 2017	
Develop an annual process for collecting and reporting on metrics; includes developing or modifying existing data collection methods	State and local public health authorities	April–September 2017	
Develop funding formula component for performance-based incentives	PHAB	January–June 2017	
Collect baseline data on accountability metrics; set statewide benchmark and LPHA improvement targets	OHA Public Health Division and PHAB	September–December 2017	
Issue annual accountability report	OHA Public Health Division	January 2018 and annually thereafter	

Review and make changes to measures and targets	PHAB	January–April 2018 and annually thereafter	
The health and economic benefits of public health modernization			
Conduct ongoing evaluation of public health modernization, addressing efficiency and effectiveness, health outcomes, and public health system capacity	OHA Public Health Division	January 2018 - ongoing	Evaluation reports
Local comprehensive modernization plans			
Develop a template for local comprehensive modernization plans	CLHO, OHA Public Health Division	April 2017–February 2018	Comprehensive local modernization plan template Schedule for submission of local modernization plans
Develop a schedule for LPHAs to submit local comprehensive modernization plans	OHA Public Health Division	October–December 2017	
Develop criteria for reviewing and approving local comprehensive modernization plans	OHA Public Health Division	January–April 2018	
***Public Health Modernization Manual*, public health modernization assessment and statewide modernization plan**			
Update *Public Health Modernization Manual*	State and local public health authorities	July–December 2017	Updated *Public Health Modernization Manual*
Update public health modernization assessment	State and local public health authorities	2019	Updated public health modernization assessment
Update statewide public health modernization plan	OHA Public Health Division	2019	Updated statewide modernization plan
Rulemaking			
Issue Oregon administrative rules for ORS 431.110–431.382	OHA Public Health Division	July–December 2017	Administrative rules files

Monitoring and accountability

Accountability — for ensuring an efficient and effective public health system and for achieving improved health outcomes — is a central tenet of public health modernization. The public health system has in place a number of mechanisms to ensure system-wide accountability.

The Public Health Advisory Board

The Public Health Advisory Board (PHAB) is established by ORS 431.122 as a body that reports to the Oregon Health Policy Board. The purpose of the PHAB is to be the accountable body for governmental public health in Oregon. This includes oversight of public health modernization, development and implementation of accountability measures for state and local health authorities, and development of a funding formula that builds an equitable governmental public health system.

PHAB meets monthly and convenes subcommittees as needed.

Accountability metrics

Accountability metrics will function both as an assurance that state and local public health authorities are providing foundational public health programs and capabilities for all people in Oregon, and as an incentive to encourage LPHAs to transform the local public model to best provide foundational capabilities and programs to community members. Public health accountability metrics will be similar to statewide performance measures established through the CMS 1115 waiver and the CCO incentive measures.

Data on accountability metrics will be collected and reported on annually.

OHA Public Health Division is an active partner with LPHAs to support achievement of incentive measures. In this capacity, OHA Public Health Division will do the following:

- Provide accurate and timely population health data
- Convene learning opportunities to discuss best practices and innovation that can be spread across local public health jurisdictions
- Provide technical assistance

CLHO will also actively support LPHAs to achieve incentive measures by convening learning opportunities and providing technical assistance.

Evaluation of implementation

OHA Public Health Division will ensure initial and ongoing evaluation of public health modernization.

State and local public health authorities will update the public health modernization assessment during the 2019–21 biennium. This update will demonstrate changes in the public health system, including whether we have increased capacity and expertise in communities across Oregon, and any changes to the financial resources needed to implement the modernization model.

Annual work plans and progress reports

LPHAs that receive public health modernization funding through OHA will submit an annual work plan. Progress reports will also be submitted annually.

Appendices

Appendix A: Progress to date

Define foundational capability and programs — completed, December 2015

The *Public Health Modernization Manual* outlines the core functions of the governmental public health system and outlines the separate but mutually supportive roles for state and local public health authorities.

Establish the Public Health Advisory Board (PHAB) — completed, January 2016

PHAB has oversight for Oregon's governmental public health system and reports to the Oregon Health Policy Board. PHAB has established two subcommittees: the incentives and funding subcommittee, which informs the development of an equitable funding formula for LPHAs; and the accountability metrics subcommittee, which leads the development of quality measures to track the progress of state and local public health authorities in meeting population health goals over time.

Conduct statewide public health modernization assessment — completed, April 2016

Each state and local public health authority completed a comprehensive public health modernization assessment between January and April 2016.

Publish the Public Health Modernization Assessment Report — completed, June 2016

The findings from each state and local public health authority's modernization assessment was compiled into a summary report. The findings from this assessment identified the timing and sequence of work over future biennia to fully modernize Oregon's governmental public health system.

Develop public health modernization funding formula — initial draft completed, December 2016

PHAB developed the initial funding formula for the distribution of funds to LPHAs as outlined in ORS 431.380. Based on available funds, the formula may be updated in July 2017.

Expanded statewide public health modernization plan — completed, December 2016

The statewide public health modernization plan is included in this document.

Establish metrics to ensure accountability and improved health outcomes - measure selection to be completed in July 2017

PHAB has developed an initial list of accountability metrics for state and local public health authorities, as well as measure selection criteria. Accountability measures will be finalized by September 2017.

Conduct tribal consultations to identify interest in engaging in public health modernization — ongoing: OHA is conducting tribal consultations with Oregon tribes interested in pursuing opportunities for public health modernization.**

** Tribes, as sovereign nations, define their own service populations and are not obligated by state statute to provide public health services. Historically, tribes have not been funded for public health. Under HB 3100, the public health system (state and local government) is required to meet certain standards of capacity and expertise related to the public health foundational capabilities and programs. Given tribal sovereignty, the state is not and cannot mandate tribes to act. The public health modernization requirements outlined in HB 3100 apply only to the state and county public health system. Tribes are not required to complete the modernization assessment or demonstrate sufficient capacity on the public health foundational capabilities and programs. However, tribes are committed to promoting and protecting the health and well-being of members and all people residing within their self-defined service populations. As LPHAs begin to develop their plans to build capacity and expertise to fulfill the requirements of modernization, it may be helpful for LPHAs, in collaboration with OHA, to participate in consultation with tribes regarding any potential impact upon tribes. LPHAs should gauge tribes' interest in engaging in capacity-building related to modernization of their individual public health efforts and determine what assistance can be provided. OHA participated in the SB770 Tribal Consultation meeting on Jun. 20, 2016. During this meeting, a brief presentation and discussion of public health modernization was presented to tribes, opportunities for questions and answered were provided and a process outlined for initiating consultation with interested tribes.

Appendix B: Rationale for system approach to implementing foundational capabilities and programs

ORS 431.115 described waves of implementation across LPHAs, in which an initial group of LPHAs would adopt the complete modernization framework in the 2017–19 biennia, additional LPHAs would adopt the framework in 2019–21, and all LPHAs would move toward the modernization framework by 2023 (with the submission of local comprehensive modernization plans). This implementation plan was recommended by the Future of Public Health Services Task Force based on the idea that modernization could begin as a pilot and expand across the system over subsequent biennia.

The public health modernization assessment showed risks of following this implementation model due to:

- Risk of creating a two-tiered system as some LPHAs provide service and receive funding under the modernization model while most continue to provide services and receive funding under the existing model.
- Potential to further increase health inequities, where individuals living in a "modernized" area of the state would receive a higher level of service than those living in other areas of the state.

The assessment did indicate there could be challenges to implementing by foundational capability or program across the entire state because currently gaps in capacity vary across LPHAs, and gaps exist in different areas for each LPHA. This challenge will be addressed by building a system that requires system-wide focus on a set of foundational capabilities and programs but allows for local flexibility to determine the best way to meet the unique needs of the local community. We will "rise all boats" while narrowing the largest implementation gaps that exist today.

An implementation strategy focused on a rolling out a prioritized set of functional capabilities and programs is critical for other reasons. Focusing resources on a handful of counties will reduce opportunities for innovation across county lines, but spreading resources across the system will drive all areas of the public health system toward innovation. Also, many of the health issues we face in public health — like disease outbreaks or natural disasters — cross county lines. Counties need to be equally equipped to address these issues. Finally, the public health system is poised to move forward in unison. Conversations about how we could do our work differently have already begun, and are opening opportunities to make immediate changes, like expanding data sharing agreements or improving communication channels during disease outbreaks. We need to encourage and sustain these conversations rather than build a system where most counties will need to wait years to receive resources to do this work.

Appendix C: Local public health funding formula model

Funding formula methodology

Purpose:

Method with which to distribute funds to local public health authorities.

Formulas:

Total funding = baseline + matching funds + incentives

Baseline = county floor payments + burden of disease pool + health status pool + race/ethnicity pool + poverty pool + education pool + limited English proficiency pool

County indicator pool payment = (LPHA weight/sum of all LPHA weights) * Total indicator pool

Indicator	Allocation
Burden of disease	20%
Health status	20%
Race/ethnicity	20%
Poverty	10%
Education	10%
Limited English proficiency	20%
Total indicator pool	**100%** of available funds to be distributed across funding formula indicators

LPHA weight = LPHA population * LPHA indicator metric percentage

Explanations:

The county floor payments are broken into five tiers based on LPHA sizing established in the Public Health Modernization Assessment Report.

All remaining baseline funding, after county floor payments have been established, is to be distributed among the baseline indicator pools (burden of disease, health status, race/ethnicity, poverty, education, and limited English proficiency). Every baseline indicator pool is tied to a metric that every LPHA reports on.

All indicator pools are calculated using a weighted average taken by multiplying the individual LPHA population and the individual LPHA indicator metric percentage. To solve for the payment for each LPHA, multiply the total indicator pool by the individual LPHA weight divided by the sum of all LPHA weights.

Data sources:

Indicator	Data source
County population	Portland State University Certified Population estimate, Jul. 1, 2015
Burden of disease	Premature death: Leading causes of years of potential life lost before age 75, Oregon. Oregon death certificate data.
Health status	Quality of life: Good or excellent health, Oregon. Behavioral Risk Factor Surveillance System. Note: The Public Health Advisory Board will explore alternative data sources to measure health status in 2017.
Race/ethnicity	U.S. Census Bureau, American Community Survey population five-year estimate, 2012
Poverty	U.S. Census Bureau, American Community Survey population five-year estimate, 2012. Note: The Public Health Advisory Board will explore alternative measures of poverty, such as income inequality, in 2017.
Education	U.S. Census Bureau, American Community Survey population five-year estimate, 2012
Limited English proficiency	U.S. Census Bureau, American Community Survey population five-year estimate, 2012

Local public health funding formula model example

Local public health funding formula model: This model includes a base/floor payment for each county. Awards for each indicator (burden of disease, health status, race/ethnicity, poverty, education and limited English proficiency) are tied to each county's ranking on the indicator and the county population. **This funding formula example assumes a $10 million investment. This is an example only.**

County group (size bands):				
Extra small	Small	Medium	Large	Extra large

County group	Population[1]	Floor	County population	Burden of disease[2]	Health status[3]	Race/ ethnicity[4]	Poverty[4]	Education[4]	Limited English proficiency[4]	Matching funds[5]	Incentives[6]	Total award	Award %	% of total population	Award per capita	Avg award per capita
County 33	1,445	$ 30,000	$ -	$ 568	$ -	$ 171	$ 321	$ 297	$ 67	$ -	$ -	$ 31,425	0.3%	0.0%	$ 21.75	
County 31	7,100	$ 30,000	$ -	$ 3,353	$ 1,067	$ 592	$ 1,197	$ 945	$ 235	$ -	$ -	$ 37,388	0.4%	0.2%	$ 5.27	
County 12	7,295	$ 30,000	$ -	$ 4,652	$ 4,422	$ 1,078	$ 1,872	$ 1,735	$ 270	$ -	$ -	$ 44,029	0.4%	0.2%	$ 6.04	
County 11	7,430	$ 30,000	$ -	$ 2,787	$ 1,657	$ 806	$ 1,394	$ 1,731	$ 286	$ -	$ -	$ 38,661	0.4%	0.2%	$ 5.20	
County 18	8,010	$ 30,000	$ -	$ 3,992	$ 2,039	$ 1,993	$ 1,733	$ 2,240	$ 1,033	$ -	$ -	$ 43,030	0.4%	0.2%	$ 5.37	
County 24	11,630	$ 30,000	$ -	$ 4,539	$ 7,642	$ 12,890	$ 2,729	$ 5,302	$ 10,291	$ -	$ -	$ 73,393	0.7%	0.3%	$ 6.31	
County 1	16,425	$ 30,000	$ -	$ 8,673	$ 6,412	$ 2,007	$ 3,659	$ 3,232	$ 1,038	$ -	$ -	$ 55,020	0.6%	0.4%	$ 3.35	$ 5.44
County 7	21,085	$ 45,000	$ -	$ 9,707	$ 7,873	$ 5,124	$ 5,328	$ 6,193	$ 2,713	$ -	$ -	$ 81,937	0.8%	0.5%	$ 3.89	
County 15	22,445	$ 45,000	$ -	$ 13,862	$ 11,266	$ 14,596	$ 5,689	$ 6,769	$ 9,583	$ -	$ -	$ 106,765	1.1%	0.6%	$ 4.76	
County 8	22,470	$ 45,000	$ -	$ 15,280	$ 13,784	$ 4,519	$ 4,197	$ 3,986	$ 1,551	$ -	$ -	$ 88,318	0.9%	0.6%	$ 3.93	
County 13	24,245	$ 45,000	$ -	$ 7,658	$ 8,465	$ 24,510	$ 4,615	$ 8,304	$ 27,291	$ -	$ -	$ 125,843	1.3%	0.6%	$ 5.19	
County 28	25,690	$ 45,000	$ -	$ 12,659	$ 11,337	$ 8,275	$ 5,504	$ 5,196	$ 5,651	$ -	$ -	$ 93,622	0.9%	0.6%	$ 3.64	
County 30	26,625	$ 45,000	$ -	$ 11,545	$ 10,781	$ 3,760	$ 6,085	$ 4,702	$ 3,931	$ -	$ -	$ 85,804	0.9%	0.7%	$ 3.22	
County 26	30,135	$ 105,000	$ -	$ 15,489	$ 16,075	$ 14,911	$ 6,014	$ 8,096	$ 14,857	$ -	$ -	$ 180,441	1.8%	0.8%	$ 5.99	
County 22	31,480	$ 45,000	$ -	$ 13,844	$ 20,228	$ 34,104	$ 10,862	$ 12,053	$ 21,200	$ -	$ -	$ 157,291	1.6%	0.8%	$ 5.00	
County 4	37,750	$ 45,000	$ -	$ 20,438	$ 15,927	$ 9,976	$ 7,236	$ 6,627	$ 7,412	$ -	$ -	$ 112,616	1.1%	0.9%	$ 2.98	
County 20	47,225	$ 45,000	$ -	$ 28,909	$ 21,871	$ 13,019	$ 9,820	$ 10,554	$ 9,491	$ -	$ -	$ 138,665	1.4%	1.2%	$ 2.94	
County 5	50,390	$ 45,000	$ -	$ 23,353	$ 25,658	$ 7,405	$ 8,053	$ 10,058	$ 3,682	$ -	$ -	$ 123,209	1.2%	1.3%	$ 2.45	
County 6	62,990	$ 45,000	$ -	$ 38,344	$ 27,492	$ 12,038	$ 13,782	$ 13,814	$ 5,416	$ -	$ -	$ 155,886	1.6%	1.6%	$ 2.47	
County 17	67,110	$ 45,000	$ -	$ 39,167	$ 38,077	$ 25,122	$ 15,161	$ 16,302	$ 15,280	$ -	$ -	$ 194,110	1.9%	1.7%	$ 2.89	$ 3.50
County 27	78,570	$ 60,000	$ -	$ 28,270	$ 29,148	$ 33,073	$ 16,267	$ 14,405	$ 22,998	$ -	$ -	$ 204,162	2.0%	2.0%	$ 2.60	
County 29	79,155	$ 60,000	$ -	$ 35,353	$ 42,033	$ 65,744	$ 16,434	$ 25,414	$ 41,455	$ -	$ -	$ 286,432	2.9%	2.0%	$ 3.62	
County 16	83,720	$ 60,000	$ -	$ 48,681	$ 35,322	$ 18,691	$ 20,021	$ 18,279	$ 6,366	$ -	$ -	$ 207,360	2.1%	2.1%	$ 2.48	
County 2	90,005	$ 60,000	$ -	$ 24,940	$ 32,736	$ 20,226	$ 24,789	$ 9,388	$ 19,428	$ -	$ -	$ 191,507	1.9%	2.2%	$ 2.13	
County 34	103,630	$ 60,000	$ -	$ 38,754	$ 36,686	$ 52,654	$ 21,040	$ 26,496	$ 44,178	$ -	$ -	$ 279,807	2.8%	2.6%	$ 2.70	
County 10	109,910	$ 60,000	$ -	$ 63,924	$ 64,760	$ 18,241	$ 26,278	$ 25,153	$ 7,203	$ -	$ -	$ 265,558	2.7%	2.7%	$ 2.42	
County 21	120,860	$ 60,000	$ -	$ 53,922	$ 54,801	$ 32,735	$ 28,631	$ 24,335	$ 19,677	$ -	$ -	$ 274,101	2.7%	3.0%	$ 2.27	$ 2.57
County 9	170,740	$ 75,000	$ -	$ 61,851	$ 40,572	$ 43,408	$ 31,155	$ 23,424	$ 29,362	$ -	$ -	$ 304,771	3.0%	4.3%	$ 1.79	
County 14	210,975	$ 75,000	$ -	$ 96,357	$ 96,173	$ 80,527	$ 45,631	$ 45,562	$ 50,295	$ -	$ -	$ 489,544	4.9%	5.3%	$ 2.32	
County 23	329,770	$ 75,000	$ -	$ 132,122	$ 170,316	$ 275,697	$ 76,427	$ 104,449	$ 238,020	$ -	$ -	$ 1,072,031	10.7%	8.2%	$ 3.25	
County 19	362,150	$ 75,000	$ -	$ 153,750	$ 144,889	$ 95,062	$ 89,647	$ 62,298	$ 71,544	$ -	$ -	$ 692,191	6.9%	9.0%	$ 1.91	$ 2.38
County 3	397,385	$ 90,000	$ -	$ 137,903	$ 139,715	$ 106,736	$ 47,083	$ 54,889	$ 116,185	$ -	$ -	$ 692,510	6.9%	9.9%	$ 1.74	
County 32	570,510	$ 90,000	$ -	$ 161,260	$ 182,600	$ 305,107	$ 81,987	$ 103,795	$ 357,130	$ -	$ -	$ 1,281,878	12.8%	14.2%	$ 2.25	
County 25	777,490	$ 90,000	$ -	$ 315,095	$ 309,174	$ 286,202	$174,859	$ 149,478	$ 465,885	$ -	$ -	$ 1,790,693	17.9%	19.4%	$ 2.30	$ 2.16
Total	**4,013,845**	**$ 1,845,000**	**$ -**	**$ 1,631,000**	**$ 1,631,000**	**$ 1,631,000**	**$ 815,500**	**$ 815,500**	**$ 1,631,000**	**$ -**	**$ -**	**$ 10,000,000**	**100.0%**	**100.0%**	**$ 2.49**	**$ 2.49**

[1] Source: Portland State University Certified Population estimate Jul. 1, 2015

[2] Source: Oregon State Health Profile. Premature death, 2010–14. Oregon death certificate data.

[3] Source: Oregon State Health Profile. Good or excellent health, 2010–2013. BRFSS

[4] Source: American Community Survey population five-year estimate, 2012

[5] Limitations exist for calculating current county contributions for public health. An updated process will be developed to address these limitations. Matching funds will be awarded based on actual, not projected expenditures, and will be limited to county contributions that support public health modernization. Given the change in process, matching funds will not be awarded until 2019.

[6] The accountability metrics subcommittee will define a set of accountability metrics. Following selection of accountability metrics, baseline data will be collected. Funds will not be awarded for achievement of accountability metrics until 2019.

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