Public Health Modernization Implementation

Interim Evaluation Report
September 2018
About this report

Welcome to the Oregon Health Authority’s (OHA) Public Health Modernization Interim Evaluation Report.

In 2017, the OHA received an initial $5 million legislative investment to begin public health modernization in the three areas of communicable disease control, health equity and cultural responsiveness, and assessment and epidemiology.

Local public health authorities are using $3.9 million to implement regional communicable disease control interventions, and OHA is using the remaining $1.1 million to improve the collection and reporting of population health data.

This report highlights changes resulting from the legislative investment in the first six months of the funding period.

For questions or comments about this report, or to request this publication in another format or language, please contact the Oregon Health Authority, Office of the State Public Health Director at:

(971) 673-1222 or PublicHealth.Policy@state.or.us

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Dear Colleagues,

We know that the majority of what influences health happens outside of the doctor’s office. In recent years, the landscape for public health has changed dramatically as the ways that we live, work, play and learn have created a series of new, complex public health issues. Examples include escalating opportunities for the spread of international disease outbreaks and new demands on communities to be prepared for and respond to events like wildfires and water toxins. At the same time, Oregon’s health system transformation creates an opportunity for the public health system to refocus on population-wide interventions to protect and improve health, working in tandem with the health system to address population health priorities.

In 2017, Oregon’s Legislature made an initial investment of $5 million to begin implementing modern approaches to public health. The majority of these funds were allocated to regional partnerships of local public health authorities and their partners to develop new systems for communicable disease control, with an emphasis on eliminating communicable disease-related health disparities.

The Public Health Modernization Interim Evaluation Report for 2017-19 highlights the successful models and changes we’re seeing within the first six months of the funding period that can be expanded in other areas of the public health system and shows the challenges of developing and using new models. It celebrates the work that has been accomplished to date, and gives clear direction on how to move forward.

Public health is our health.

Respectfully,

Lillian Shirley, BSN, MPH, MPA
Public Health Director
Oregon Health Authority, Public Health Division
Dear Colleagues,

As Chair of Oregon’s Public Health Advisory Board, I am pleased to present this interim evaluation on public health modernization for the 2017-19 biennium. Oregon’s public health system is at a pivotal moment, and the initial work of state and local public health authorities to demonstrate new approaches for solving population health problems is instrumental for defining the future course for public health in Oregon.

To understand the future of public health, it’s important to know where we’ve been. The history of public health can be divided into three phases.

Public Health 1.0 – during the 19th century and into the 20th century – was a period of great improvements to population health through prevention measures including sanitation, clean food and water, vaccinations, and antibiotics.

During Public Health 2.0, which spanned from the mid- to late- 20th century, the public health system organized around public health programs to address emerging threats like the rising burden of chronic disease and emerging infectious disease like HIV/AIDS.

We now find ourselves in a third phase for public health – Public Health 3.0 - that calls on us to think beyond traditional public health departments and disease-specific programs. Oregon’s public health system will accomplish this through public health modernization. A modern public health system will move upstream to address and mitigate the impacts of new challenges and emerging threats – whether they be acute diseases resulting from a changing environment or social issues like substance use or suicide – through robust partnerships, using data to inform policy, and an unyielding focus on eliminating the disproportionate burden of death and disease that falls on certain populations.

The Public Health Advisory Board looks forward to ongoing work in the coming years to bring Oregon into the future of public health.

Sincerely,

Rebecca Tiel, MPH
Chair
Oregon Public Health Advisory Board
In 2017, the Oregon Health Authority (OHA) received an initial $5 million legislative investment to begin implementing public health modernization in 2017-19. Eight regions of local public health authorities (LPHAs) are using $3.9 million for regional communicable disease control interventions, and OHA is using the remaining $1.1 million to improve the collection and reporting of population health data.

This report examines outcomes of the legislative investment during the first six months of the funding period.

Increasing coordination, capacity, and sustainability

- Local public health authorities (LPHAs) have used modernization dollars to establish intergovernmental partnerships; LPHAs have created formal policies for coordination and resource sharing, including memoranda of understanding and cross-jurisdictional agreements.
- LPHAs’ funded projects aim to lower rates of communicable diseases, including hepatitis C, gonorrhea, and vaccine-preventable diseases.
- Increased capacity for assessment and epidemiology, through hiring of specialized staff, has provided regional surge capacity for outbreak response and coverage for ongoing communicable disease case investigation in counties with fewer resources.
- LPHAs are better prepared for public health emergencies because of policies for formal coordination and sharing and improved capacity for epidemiology and assessment.

Supporting meaningful partner engagement

- LPHAs have established or expanded upon partnerships with Coordinated Care Organizations, Tribes, and Regional Health Equity Coalitions for participation in communicable disease planning and outreach.
- LPHAs have also provided partners with trainings for communicable disease prevention, including trainings on immunization quality improvement for CCOs and health care providers, infection prevention to long-term care facilities, and communicable disease reporting for LPHA and tribal health department staff.

Identifying and addressing health disparities

- LPHAs are working with partners on health equity assessments to identify communities experiencing communicable disease disparities and inform action plans to address identified disparities.

“Modernization is a heavy lift to get where we truly need to go and one shot funding is not going to be enough when we’re talking about core fundamental issues related to health disparities.”

- Tri-County Public Health Modernization Collaborative
Executive Summary

Supporting innovative practice and a new focus on prevention

- LPHAs are using funds to implement innovative practices; one LPHA is advancing a local approach to identifying health disparities and allocating needed resources, and two regions are forging Academic Health Department partnerships with Oregon State University to strengthen the link between public health practice and academia and provide the next generation of the public health workforce with hands-on experience.

- In addition, LPHAs are working with partners on communicable disease prevention interventions that were not possible without funding; these include pneumococcal vaccinations in hospitals and infection prevention training and assessment in long-term care and childcare facilities.

State public health’s role

- OHA has used funds to collect and report on collect and report on population-health data to inform clinical and community decision-making.

- Specifically, enhancements to the state immunization information system (ALERT IIS) support clinical decision-making for providers, and stopgap funding for crucial youth and adult risk behavior surveys ensure communities have data for program and policy decision-making.

- OHA staff have provided more than 200 documented in-kind hours of technical support and subject matter expertise, including consulting on development of health equity assessments and training on best practices for improving childhood immunization rates and communicable disease reporting.

Early successes:

Overall shared coordination:

- 30 local public health authorities,
- 4 Regional Health Equity Coalitions, 3 CCOs, 1 tribe, and 1 school of public health are represented in regional policies for coordination and resource sharing.

In communities across the state:

- 60 hours of communicable disease investigation logged by a new disease investigator covering a 13-county area.

- 19 long-term care facilities received infection prevention trainings (63% of facilities in region).

- 18 CCO-participating clinics implemented a quality improvement program to increase childhood vaccination.

- 16 staff from 9 clinics participated in training on “root causes” of low immunization rates and developed plans for improvement.

- 2 local doctors recruited as “medical champions” to advocate for strategies to reduce STI, Hepatitis C, and HPV health disparities.
Introduction

Background

Public health modernization means that every person in Oregon has access to the same basic public health protections, and that the public health system is accountable for being efficient and driven toward health outcomes.

In 2017, the Oregon Health Authority (OHA) received an initial $5 million legislative investment to begin implementing public health modernization in the three areas of communicable disease control, health equity and cultural responsiveness, and assessment and epidemiology.

Of this investment, eight regions of local public health authorities (LPHAs) are using $3.9 million (reaching 33 of Oregon’s 36 counties) to implement communicable disease control interventions focused on mitigating disease risks in their jurisdictions with an emphasis on reducing health disparities.

OHA is using the remaining $1.1 million to improve collection and reporting of population health data and metrics to evaluate the outcomes of the 2017–19 legislative investment, and to provide support to LPHAs implementing public health modernization.

Evaluation approach

Local public health administrators and OHA Public Health Division staff were convened as an evaluation advisory group to determine a shared evaluation purpose, evaluation questions, and evaluation data collection methods. The purpose of the evaluation is to characterize the outcomes of the legislative investment to address communicable disease control and related health disparities.

The advisory group selected the following aspects of the grant for evaluation:

- Local use of funds;
- Regional governance structures;
- Addressing communicable disease risks;
- Partnerships development and maintenance;
- Identifying and addressing health disparities;
- Sustainability of funded work; and
- The role of state public health.

Data for the evaluation were collected through quarterly online reporting and key informant interviews with LPHA representatives.

Public health modernization implementation and evaluation timeline

- **July 2017**: Legislature allocates $5 million for Public Health Modernization in 2017-19
- **November 2017**: OHA awards funds to eight regional partnerships of LPHAs for communicable disease control strategies
- **July-August 2018**: LPHAs complete first evaluation reporting
- **September 2018**: Interim evaluation report published for first six months of funding period
- **January 2019**: LPHAs to complete second evaluation reporting
- **July 2019**: Funding for 2017-19 ends; final evaluation reporting
The table below provides a brief description of $3.9 million in awards to local public health authorities that span from December 1, 2017 through June 30, 2019.

<table>
<thead>
<tr>
<th>Regional partners</th>
<th>Project description</th>
<th>Award amount</th>
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</table>
| North Coast Modernization Collaborative                      | • Convene partners to assess regional data on sexually transmitted infections and develop priorities.  
• Identify vulnerable populations and develop regional strategies to address population-specific needs.                                                                                                                                                                                                                                             | $100,000     |
| Clatsop, Columbia and Tillamook counties                     |                                                                                                                                                                                                                                                                                                                                                       |              |
| Central Oregon Public Health Partnership                     | • Form the Central Oregon Outbreak Prevention, Surveillance and Response Team that will improve:  
⇒ Communicable disease outbreak coordination, prevention and response in the region;  
⇒ Communicable disease surveillance practices; and  
⇒ Communicable disease risk communication to health care providers, partners and the public.  
• Funds will be directed to communicable disease prevention and control among vulnerable older adults living in institutional settings and young children receiving care in child care centers with high immunization exemption rates. | $500,000     |
| Deschutes, Crook and Jefferson counties                      |                                                                                                                                                                                                                                                                                                                                                       |              |
| South West Regional Health Collaborative                     | • Improve and standardize mandatory communicable disease reporting.  
• Implement strategies for improving 2-year-old immunization rates.  
• Focus on those living in high poverty communities and with health inequities.                                                                                                                                                                                                             | $468,323     |
| Douglas, Coos and Curry Counties: Coquille Indian Tribe; Cow Creek Band of the Umpqua Tribe of Indians, Advanced Health CCO, and Umpqua Health Alliance CCO |                                                                                                                                                                                                                                                                                                                                                       |              |
| Jackson and Klamath counties; Southern Oregon Regional Health Equity Coalition; Klamath Regional Health Equity Coalition  | • Work with regional health equity coalitions and community partners to respond to and prevent sexually transmitted infections and hepatitis C, focused on reducing health disparities and building community relationships and resources.  
• Promote HPV vaccination as an asset in cancer prevention.                                                                                                                                                                                                                                           | $499,923     |
| Lane, Benton, Lincoln and Linn counties; Oregon State University | • Establish a learning laboratory to facilitate cross-county information exchange and continuous learning.  
• Implement an evidence-based quality improvement program, AFIX, to increase immunization rates. Pilot three local vaccination projects, including:                                                                                                                                                  | $689,517     |
Regional Partnership Funded Projects

The table below provides a brief description of $3.9 million in awards to local public health authorities that span from December 1, 2017 through June 30, 2019.

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</tr>
</thead>
<tbody>
<tr>
<td>Coast-to-Valley Regional Partnership</td>
<td>⇒ Hepatitis A vaccination among unhoused people in Linn and Benton counties;</td>
<td></td>
</tr>
<tr>
<td>Lane, Benton, Lincoln and Linn counties; Oregon State University (continued)</td>
<td>⇒ HPV vaccination among adolescents attending school-based health centers in Lincoln County; and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>⇒ Pneumococcal vaccination among hospital discharge patients in Lane County.</td>
<td></td>
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<tr>
<td></td>
<td>• Establish an Academic Health Department model with Oregon State University to support evaluation.</td>
<td></td>
</tr>
<tr>
<td>Marion and Polk counties; Willamette Valley</td>
<td>• Focus on system coordination and specific interventions to control the spread of gonorrhea and chlamydia.</td>
<td>$463,238</td>
</tr>
<tr>
<td>Community Health CCO</td>
<td>• Increase HPV immunization rates among adolescents.</td>
<td></td>
</tr>
<tr>
<td>Eastern Oregon Modernization Collaborative</td>
<td>• Establish a regional epidemiology team.</td>
<td>$495,000</td>
</tr>
<tr>
<td>North Central Public Health District; Baker, Grant, Harney, Hood River, Lake, Malheur, Morrow, Umatilla, Union and Wheeler counties; Eastern Oregon CCO; Mid-Columbia Health Advocates</td>
<td>• Create regional policy for gonorrhea interventions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Engage community-based organizations to decrease gonorrhea rates through shared education and targeted interventions.</td>
<td></td>
</tr>
<tr>
<td>Tri-County Public Health Modernization Collaborative</td>
<td>• Develop an interdisciplinary and cross-jurisdictional communicable disease team to focus on developing and strengthening surveillance and communications systems.</td>
<td>$679,999</td>
</tr>
<tr>
<td>Washington, Clackamas and Multnomah counties; Oregon Health Equity Alliance</td>
<td>• With leadership and guidance from the Oregon Health Equity Alliance, this cross-jurisdictional team will develop culturally responsive strategies that:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>⇒ Identify and engage at-risk communities; and</td>
<td></td>
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<tr>
<td></td>
<td>⇒ Reduce barriers (e.g., language, stigma, access to care) to infectious disease control, prevention and response.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Both qualitative and quantitative evaluation methods are included in the overall design. Evaluation results will guide implementation of best practices across the region focused on reducing and eliminating the spread of communicable diseases.</td>
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</table>
Evaluation Areas

This section describes findings from all eight regional partnerships of LPHAs across evaluation areas, including use of funding, addressing communicable disease risks, the role of partners, and identifying and addressing health disparities.
Local Use of Funds

Local public health authorities are strengthening local systems for communicable disease control and creating structures for ongoing coordination.

A modern public health system requires funding to provide communities with the information to identify, respond to and prevent leading causes of death and disability and to eliminate health disparities.

Highlights

- The majority of funds have been used to hire new shared and local staff to implement strategies to reduce communicable disease rates. These positions have been instrumental in implementing strategies including engaging health care providers in immunization quality improvement and infection prevention trainings and assessments in long-term care and childcare facilities.

- LPHAs are using funding to create formal policies for inter-governmental coordination and resource sharing, including memoranda of understanding and cross-jurisdictional agreements.

- Several LPHA partnerships used funds to compensate community partners for their participation in planning and implementing strategies.

- Several LPHA partnerships used funds for internal staff trainings on health equity, as well as trainings to partners on immunizations quality improvement and infection control assessment and response.

Lessons Learned

- In-kind time required by existing staff to begin modernization projects was more than expected.

- Several LPHA partnerships experienced hiring challenges due to truncated project timelines requiring less desirable limited-duration positions and the inability to provide competitive salaries for specialized positions.

"Any time you are taking on a prevention project of this scale it takes people more than anything else."

- Jackson & Klamath Counties

What positions are needed for the modern public health systems?

The diversity of expertise required for public health modernization implementation demonstrates the complexity of cross jurisdictional interventions. Some positions hired, include:

- Epidemiologist
- Data Analyst
- Public Health Informatics Coordinator
- Communicable Disease Investigator
- Infection Prevention Nurse
- Community Outreach Educator
- Communications and Outreach Liaison
A modern public health system ensures all local public health authorities have the capacity to provide foundational public health to the community.

Filling Gaps

- New cross-jurisdictional positions have provided less-resourced LPHAs with additional capacity for routine communicable disease investigations.
- Inter-governmental governance has also provided less-resourced LPHAs with access to existing staff and resources, including epidemiologists who have supported data analysis, and sharing of best practices on clinical outreach and harm reduction.
- LPHAs with fewer resources have generally benefitted from centralized project coordination, more robust communications infrastructures, and systems for peer-to-peer sharing.
- One LPHA with fewer resources noted funding provided the opportunity to consider upstream approaches to communicable disease control rather than solely responding to disease reports.

Leveraging Funds

- One LPHA leveraged modernization funding to acquire $18,000 in CCO Community Benefit Funds for a pneumococcal vaccination project.
- One LPHA partnership “braided” modernization and CDC HIV intervention funding to pay for a full-time position for their regional health equity coalition; several other regions have aligned modernization and HIV intervention strategies to broaden the impact and reach of services.
- One LPHA has aligned modernization funding with Kresge Foundation funding focused on collaboration with clinical care partners.

What is Braiding Funding?

Braiding is a process for coordinating two or more sources of funding to support the total cost of a service. While recipients coordinate funding from individual sources, each individual funding source keeps its specific identity. Braiding is a financing strategy that federal, state, and local policymakers and program administrators can use to integrate and align discrete categorical funding streams to broaden the impact and reach of services provided. Learn more at [https://nashp.org/wp-content/uploads/2016/02/Jean1.pdf](https://nashp.org/wp-content/uploads/2016/02/Jean1.pdf).

“...We wouldn’t have had the capacity to invest time in future planning and upstream and outreach approaches without modernization funds. ”

- North Coast Modernization Collaborative
A modern public health system looks for effective ways to use resources within and between counties for common goals.

**Highlights**

- LPHA partnerships established governance structures through formal policies, including memoranda of understanding, cross-jurisdictional sharing agreements, and organizational charts.
- Several LPHAs indicated these formal structures supported alignment of job descriptions, policies and procedures between counties for coordination of communicable disease response.
- One LPHA noted the intergovernmental agreement (IGA) for modernization led to work on a broader cross-jurisdictional sharing IGA that resolved liability issues, staffing costs, and how LPHAs request staff from one another.

**Lessons Learned**

- Significant time and resources are required to coordinate across counties, including navigating the “red tape” of multiple governing boards.
- LPHA partnerships in regions comprised of larger geographical areas or larger population centers note the difficulty of keeping large numbers of stakeholders coordinated and engaged.
- One LPHA indicated that cross jurisdictional work has focused on population centers, to have the largest reach, at the expense of rural areas.

“We have a commitment to our communities and we know that people and diseases don’t stay within political boundaries, so we know we’re going to have healthier communities if we work together.”

- Marion & Polk Counties

**What is Cross-Jurisdictional Sharing?**

Cross-jurisdictional sharing (CJS) is the deliberate exercise of public authority to enable collaboration across jurisdictional boundaries to deliver essential public health services and solve problems that cannot be easily solved by single organizations or jurisdictions. The spectrum of CJS ranges from as-needed assistance to regionalization/consolidation. Learn more at [https://phsharing.org/what-we-do/](https://phsharing.org/what-we-do/)
A modern public health system is prepared to address communicable disease threats by using comprehensive strategies for identifying, responding to, and preventing the spread of communicable disease.

**Highlights**

- LPHAs are using modernization funds to implement **prevention strategies for the following communicable diseases**: hepatitis A, hepatitis C, gonorrhea, chlamydia, syphilis, HIV/AIDS, pneumococcal disease, HPV and other vaccine-preventable diseases, and latent tuberculosis.

- LPHAs are implementing strategies intended to improve **Public Health Accountability Metrics**, including improvements to rates for two-year-old immunizations and gonorrhea.

- Communicable disease prevention interventions focus on both **internal quality improvement and external partnerships**; internally-focused work includes communicable disease reporting trainings to improve data quality and standardizing cross jurisdictional procedures for tracking treatment of gonorrhea, while externally-focused work includes partnerships with hospitals on pneumococcal disease prevention and school-based health centers on HPV prevention.

- In addition to communicable disease prevention, new specialized staff have provided **geographic surge capacity for outbreak response** and coverage for routine communicable disease case investigation in counties with fewer resources.

- Hiring new and sharing existing epidemiologists has **enhanced local data analysis to identify communicable disease disparities**, which provides a focus for future prevention and outreach work.

"Outbreaks don’t have county lines and I feel we are so much stronger in just 6 months that if we had a regional outbreak we would know how to respond and we would know how to work with each other for it."

- Central Oregon Public Health Partnership

**What are communicable disease control **accountability metrics**?**

The 2017 Legislature passed House Bill 2310, which required the adoption of a set of accountability metrics to demonstrate LPHAs are implementing strategies intended to improve:

- Two-year-old immunization rates; and
- Gonorrhea rates

Learn more at [https://www.oregon.gov/oha/PH/ABOUT/Pages/AccountabilityMetrics.aspx](https://www.oregon.gov/oha/PH/ABOUT/Pages/AccountabilityMetrics.aspx)
A modern public health system recognizes that vibrant partnerships are essential for achieving common goals.

**Highlights**

- Some LPHAs are partnering with local Coordinated Care Organizations (CCOs), Tribes, and Regional Health Equity Coalitions (RHECs) for communicable disease planning, outreach and implementation.

- In addition, some LPHAs are working with health care providers and community health centers to promote communicable disease control strategies, including implementation of CDC’s immunizations quality improvement program (called AFIX).

- LPHAs have provided partners with resources and trainings, including trainings on immunizations quality improvement to CCO staff, infection prevention to long-term care facilities, and communicable disease reporting to staff of a tribal health department.

- Two LPHA partnerships are partnering with Oregon State University to implement an Academic Health Department partnership to support evaluation, strengthen the link between public health practice and academia, and provide the next generation of the public health workforce with hands-on experience.

- One LPHA noted that the ability for local public health to commit funds to joint work has enabled more meaningful conversations with CCOs.

"We don’t want to ask community partners to be at the table unless we’re compensating them as part of our health equity policy."

- Tri-County Public Health Modernization Collaborative

**What is an Academic Health Department?**

An academic health department (AHD) partnership is formed by the formal affiliation of a health department and an academic institution that trains future health professionals. AHD partnerships can enhance public health education and training, research, and service. AHD partnerships help to strengthen the links between public health practice and academia and to lessen the separation between the education of public health professionals and the practice of public health. Learn more at [http://www.phf.org/programs/AHDLCPages/](http://www.phf.org/programs/AHDLCPages/)
A modern public health system provides communities with the information they need to understand where disparities exist and supports local strategies to eliminate disparities.

**Highlights**

- LPHA partnerships are working with partners to conduct **health equity assessments**, including identification of internal capacity building needs, assessment tools, additional partners, and sources of local data.

- Some LPHAs are **providing financial support to community partners** to ensure community engagement expertise is embedded in strategies to reduce communicable disease rates.

- Several LPHAs are conducting **community listening sessions** and interviews with affected populations to understand barriers to accessing communicable disease services.

- One LPHA leveraged funding to support and evaluate existing work on **Health Equity Zones**, a local approach to identifying health disparities and allocating resources accordingly.

- One LPHA used funds for **translation services** to ensure communicable disease risk communications are in Spanish for equitable access to information.

**Lessons Learned**

- Several LPHAs noted the limitation of working on **health equity from a communicable disease perspective**, and wanted to look more broadly at the root or underlying causes of health inequities.

- Several LPHAs identified a **lack of local data on disparities** or data systems that do not capture adequate information to assess disparities.

"It wasn’t like we discovered the lack of hepatitis protection in homeless and other marginalized populations through this grant, but it certainly provided an opportunity to address the problem."

- Coast-to-Valley Regional Partnership

What are **Regional Health Equity Coalitions**?

Regional Health Equity Coalitions (RHECs) are collaborative, community-led, cross-sector groups organized to identify and address health equity issues. The basis for the RHEC model is that increased and authentic community engagement, strengthened organizational capacity, and social norm and environment change are the foundation for policy and system change leading to increased health equity. Learn more at [https://www.oregon.gov/oha/OEI/Pages/RHEC.aspx](https://www.oregon.gov/oha/OEI/Pages/RHEC.aspx)
Work on Other Programs & Capabilities

Local public health authorities have leveraged current funding to support other foundational programs and capabilities.

**Highlights**

- Hiring epidemiologists to cover geographic regions and other data scientists to analyze local data has bolstered the assessment and epidemiology capability; improved capacity to analyze and report on local data ensures data-based policy and planning.

- Increased capacity to report on local communicable disease data and funding for partner engagement support core system functions for community partnership development.

- The hiring of communications liaisons and work to establish cross jurisdictional communications infrastructures for disease response have strengthened the communications capability.

- Formal intergovernmental partnerships, project coordination, and bolstered systems for epidemiology and communications have improved outbreak response capacities and likely the overall emergency preparedness and response capability.

- LPHAs noted aspects of funded work aligning with the environmental health foundational program, specifically infection prevention outreach to long-term care facilities.

**Lessons Learned**

- Several LPHA partnerships indicated that job descriptions of new regional positions were crafted to be broad in order to leverage the increased capacity for other foundational programs as opportunities arise.

“**We’ve been more intentional with modernization work to align positions and job descriptions and policies between the health divisions to respond more effectively.**”

- Central Oregon Public Health Partnership

**What is the Emergency Preparedness and Response capability?**

The Oregon Health Authority, Public Health Division (PHD) develops, trains, exercises and maintains statewide public health and medical preparedness and response plans for natural or man-made disasters or emergencies. Local public health authorities work closely with their jurisdiction’s emergency management organization, community partners, OHA and other local, state, tribal and federal entities to coordinate, collaborate and provide response and recovery efforts to local emergencies. Learn more at [https://www.oregon.gov/oha/PH/ABOUT/TASKFORCE/DOCUMENTS/public_health_modernization_manual.pdf](https://www.oregon.gov/oha/PH/ABOUT/TASKFORCE/DOCUMENTS/public_health_modernization_manual.pdf)
Sustainability of Funded Work

Sustainability describes aspects of the work that can be continued and built upon in future years.

A modern public health system leverages the gains achieved through any one project or intervention for future work.

Highlights

- While **new intergovernmental partnerships** provide a template for ongoing coordination; LPHAs indicated that most progress on communicable disease intervention is **not sustainable without continued funding**; modernizing public health systems and processes relies on new staffing levels, partner engagement, and time-intensive coordination.

- In particular, increased **capacity for communicable disease response** could not be maintained without the new regional positions.

- LPHAs noted some aspects of the work that **could be sustained** without continued funding, including *some* outreach to providers for immunizations quality improvement, continued cross jurisdictional coordination of communications, and maintaining newly-purchased technology for sharing materials.

- Most LPHAs indicated that **work to address health inequities would lessen** in the absence of regional staff who support community engagement and data analysis, and the ability to fund community partners for their participation in planning and implementing communicable disease interventions.

- One LPHA who received **capacity building funds** is relying on sustained funding for work on implementation in the next grant period.

- One LPHA was concerned that funding may not be available to **continue meaningful engagement** of community partners, which would break community trust built during the funding period.

"The problem with communicable disease is that once you get a handle on it it doesn’t go away, so it needs to be a maintained effort and needs ongoing investment to sustain."

- Central Oregon Public Health Partnership

How much will it cost to sustain and expand?

The Oregon Health Authority estimates that **$47.7 million** is necessary to sustain and expand current work on communicable disease control, as well as begin implementation work in the following areas: environmental health, emergency preparedness and response, and leadership and organizational competencies. Learn more at [https://www.oregon.gov/oha/PH/ABOUT/TASKFORCE/Documents/public-health-modernization-report.pdf](https://www.oregon.gov/oha/PH/ABOUT/TASKFORCE/Documents/public-health-modernization-report.pdf)
State Public Health Role

This section describes how the Oregon Health Authority, Public Health Division has used the $1.1 million investment in 2017-19 to improve the collection and reporting of population health data, and provide technical assistance to local public health authorities for communicable disease control.
State Public Health Role
The Oregon Health Authority, Public Health Division as improved the state's ability to collect and report on population health data.

A modern public health system requires the state to operate statewide public health data systems, and ensure access to local data.

**Highlights**

- Funds have been used to enhance the state's ability to collect and report on population-health data to inform clinical and community decision-making.

- Enhancements to the state immunization information system (ALERT IIS) have improved data quality and ease of use to support providers in determining vaccine eligibility and prevent missed vaccination opportunities.

- Funds are also being used to update an online vaccine education training required of parents seeking vaccine exemptions for their children; the training helps parents understand the value of being vaccinated and risks of being unvaccinated.

- Funds are supporting regional immunizations quality improvement meetings where participants will share lessons learned from local interventions, and will receive training on how to access and use data in ALERT IIS to drive quality improvement planning.

- The legislative investment also filled an unexpected funding gap for statewide youth and adult risk behavior surveys; data from these surveys are used by public health authorities and community partners to identify local health disparities and inform program and policy decisions.

- Oregon Health Authority staff have provided more than 200 documented in-kind hours of technical support and subject matter expertise, including consultation on regional health equity assessments and training on immunization quality improvement practices and communicable disease reporting.

“Enhancing quality, timeliness, and accuracy of data will give providers the full view of an individual, which will lead to better clinical decision support and hopefully prevent missed opportunities to vaccinate an eligible child.”

- Oregon Immunization Program

**How investment in state public health data systems supports local decision-making**

- $1.1 million investment in state data systems
  - Enhance state Immunization Information System
  - Ensure fully-funded statewide youth and adult behavior surveys
  - Annual information on health outcomes, behaviors, and disparities
  - Improved clinical decision support for providers
  - Consistent access to population health data for communities
  - Reduced missed opportunities to vaccinate children
  - Increased use of data in local program and policy decisions
Regional Partnerships

This section describes how eight regions, representing 33 of Oregon’s 36 counties, have used the $3.9 million investment in 2017-19 to improve local communicable disease control and health equity and cultural responsiveness.
• Convene partners to assess regional data on sexually transmitted infections and develop priorities.

• Identify vulnerable populations and develop regional strategies to address population-specific needs.

Highlights

• Received $100,000 capacity-building grant funding.

• Funding allowed staff to **invest adequate time for regional planning**, including convening monthly planning and coordination meetings.

• Created **four-party memorandum of understanding** that includes the two counties, the Public Health Foundation of Columbia County, and Columbia Pacific Coordinated Care Organization (CCO).

• Ongoing **meetings with Columbia Pacific CCO** leadership to communicate grant work and receive feedback on project work plan.

• Developing a list of community partners for engagement for implementation phase of work.

• Developing **tools to evaluate** regional work.

“**I’ve appreciated that capacity building was a [funding] option and that it gave us time to be methodical...We are in the right place right now for our community.**”

“**This has given us the opportunity to say there is some funding and some hope of continued funding...so then we can have a real conversation about strategy and not a fantasy conversation about what we would do one day if money appeared.**”

Lesson Learned

• The ability for the region to commit funds to joint work has enabled **more meaningful conversations** with Columbia Pacific CCO about upstream communicable disease prevention work.
• Form Central Oregon Outbreak Prevention, Surveillance and Response Team.

• Direct funds to interventions among older adults in institutional settings and young children in childcare centers with high immunization exemption rates.

Highlights

• Formed Central Oregon Outbreak Prevention, Surveillance, and Response Team, which included hiring a regional Infection Prevention Nurse and Epidemiologist.

• Infection Prevention Nurse provides additional capacity for routine communicable disease case investigation to under-resourced counties.

• Provided infection prevention trainings to 19 long-term care facilities and 11 childcare facilities, including implementation of CDC Infection Control Assessment and Response Program (ICAR).

• Regional Epidemiologist is conducting active surveillance and creating quarterly communicable disease reports for providers to inform clinical decision making.

• Provided training for communicable disease surveillance and case investigation to regional staff and Confederated Tribes of Warm Springs.

• Completed regional health equity assessment to inform plan to address health disparities.

• Used funds for translation services to ensure risk communications are available in Spanish.

She’s [Infection Prevention Nurse] in all three counties and knows all the players, which has created more depth in our region to do quicker communicable disease response and more prevention work.

What is ICAR?

The Infection Control Assessment and Response Program (ICAR) is a CDC-sponsored program to improve infection prevention and control capacity in health care facilities. The ICAR process typically includes a comprehensive infection prevention assessment; an in-person visit to review the assessment; tailored resources and training; and ongoing consultation with infection preventionists. Learn more at https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html.
• Improve and standardize mandatory communicable disease reporting.

• Implement strategies for improving 2-year-old immunization rates.

• Focus on those living in high poverty communities and with health inequities.

Highlights

• Hired Epidemiologist to support project implementation.

• Grant team includes representatives from Umpqua Health Alliance CCO, Advanced Health CCO, Coquille Indian Tribe, and the Cow Creek Band of Umpqua Tribe of Indians.

• Conducted interviews with healthcare providers about communicable disease reporting practices and knowledge of reporting requirements.

• Provided “root cause” workshop to regional vaccine providers to guide quality improvement plans for increasing immunization rates, with major support from Umpqua Health Alliance CCO.

• Created Vaccine Campaign Community Group that will guide work plan objectives to increase childhood vaccination rates.

• Plan to collect additional demographic information on communicable disease case interviews to identify disparities related to infections.

• Coordinating work with Umpqua Community Health Center on outreach program for STD control, testing, and treatment.

We want to look at the root causes, to keep drilling down to the root causes. Funding is giving us a chance to look at the issues around health disparities and we have found a lack of data.

What is Root Cause Analysis?

Root cause analysis (RCA) is a method of problem solving used for identifying the root causes of faults or problems. RCA is applied to methodically identify and correct the root causes of events, rather than to simply address the symptomatic result. For Umpqua Health Alliance, RCA was used to identify the causes of inadequate 2-year-old immunization rates and develop work plans for quality improvement.
• Respond to and prevent sexually transmitted infections and hepatitis C.

• Promote HPV vaccination as an asset in cancer prevention.

Highlights

• Developed an intergovernmental agreement (IGA) between the two counties to support coordination and resource sharing.

• Hired Community Outreach Educator to coordinate grant activities in each county.

• Recruited two doctors to serve as “medical champions” to advocate for inclusion of hepatitis C risk factor screening and sexual health history question on electronic health records.

• Working with Klamath Regional Health Equity and Southern Oregon Health Equity Coalitions to reach marginalized populations and ensure a health equity lens is applied to grant-driven efforts; this grant is the first time the counties and Coalitions have worked together on communicable disease prevention.

• Continuing work with the Klamath Tribes to provide community education and county-wide services in a culturally-appropriate manner.

• Developing provider survey and outreach strategies to raise awareness and generate interest in AFIX immunization quality improvement program with goals of enrolling 3-4 pilot clinics and increasing HPV immunization rates.

“Having doctors in the same room as [county] staff and health equity coalitions discussing how to do the work provides a lot of energy and innovation.”

What is a Medical Champion?

A medical champion is a local provider instrumental in healthcare innovation and transformation through advocacy, networking, and implementation. Medical providers who support local public health initiatives will provide outreach and training to the medical community through a peer-led education model. This model has been especially successful for seeking buy-in and support for new endeavors from the medical community.
• Implement an evidence-based vaccination improvement program with healthcare clinics.

• Implement three prevention projects to reduce hepatitis A, HPV, and pneumococcal disease.

• Establish a learning laboratory to identify and address communicable disease disparities and share best practices across counties.

Highlights

• Hired four new staff, including a Regional Coordinator, to implement communicable disease prevention projects.

• Implemented AFIX, an immunizations quality improvement program, with 18 clinics to improve clinical practices and increase immunization rates.

• Additional funding will support the expansion of AFIX and other immunization improvement initiatives across the health system and region.

• Promoted vaccination and increased awareness of communicable diseases (e.g., hepatitis A, HPV) among healthcare clinics, community members and groups, and other key stakeholders.

• Within one month, increased pneumococcal vaccination in two participating hospitals; leveraged modernization funding to acquire $18,000 in Hospital Community Benefit Funds to purchase pneumococcal vaccines.

• Leveraged Academic Health Department partnership with Oregon State University to increase epidemiology capacity, conduct evaluation, and advance shared goals.

We hope to have lessons learned from AFIX implementation with clinical partners that we can use with other priority conditions and behaviors, like tobacco use.

What is AFIX?

The CDC’s Assessment, Feedback, Incentives, and eXchange (AFIX) is a collaborative approach to improving immunization practices and rates at the clinic level. This evidence-based quality improvement program supports Vaccines for Children (VFC) providers in improving immunization rates by:

⇒ Reducing missed opportunities to vaccinate; and

⇒ Improving immunization delivery practices at the provider level.

Learn more at https://www.cdc.gov/vaccines/programs/afix/index.html.
• Focus on system coordination and interventions to control the spread of gonorrhea and chlamydia.
• Increase HPV immunization rates among adolescents.

Highlights

• Hired a Program Coordinator to connect with providers and educate about proper treatment of gonorrhea and chlamydia.
• Hired a Public Health Nurse to conduct communicable disease field work.
• Implemented an intergovernmental agreement for cross-jurisdictional sharing that resolved liability issues, and staffing costs and requests.
• Aligned job descriptions, policies, and procedures between counties to support regional communicable disease response.
• Included Willamette Valley Community Health Coordinated Care Organization on steering committee for funded work.
• Shared resources to conduct TB testing event at a worksite; tested 350 people over 3 days.
• Provided presentations on high rates of STIs to community organizations to increase awareness and identify partners for local communicable disease coalition.
• Plan to conduct community listening sessions with college students, and Hispanic and Micronesian communities to inform approach to funded work.

“We’re able to go out into the field more. We met a pregnant woman in the field who had gonorrhea and connected her to prenatal care and treatment, which we would have never had the capacity to do before.”

What is an Intergovernmental Agreement?

An intergovernmental agreement (IGA) is any agreement that involves two or more governments in cooperation to solve problems of mutual concern. Governments use IGAs for cooperative planning, development review, resource sharing, joint planning commissions, building inspection services, and more.
• Establish regional epidemiology team and regional policy for gonorrhea interventions.

• Provide and promote capacity building opportunities for communicable disease equity, inclusion, and diversity to decrease STI rates.

**Highlights**

• New **Communicable Disease Investigator** has already logged ~60 hours of disease case investigation across a 13-county region.

• Included representative from **Eastern Oregon Coordinated Care Organization (CCO)** on steering committee, and representatives from the **Confederated Tribes of the Umatilla Indian Reservation** and the **Confederated Tribes of Warm Springs** on work plan committee.

• Provided **Passport to Partner Services** training to local public health staff and two representatives from the Confederated Tribes of Warm Springs.

• Partnered with **Mid-Columbia Health Equity Advocates** to deliver four-hour health equity training to Baker County public health staff.

• Working with **AIDS Education Training Center** and the Eastern Oregon Center for Independent Living to coordinate provider trainings on STD/HIV screening and treatment standards.

• In the process of conducting a **health equity assessment** among staff in all eastern Oregon counties to inform internal health equity capacity.

• Plan to conduct provider outreach on disease reporting at Eastern Oregon **Clinician Summit**.

“Everyone was thrilled with the training [CDC’s Passport to Partner Services] and they feel like they will be able to do better interviews, partner services, and case management now.”

**What is Passport to Partner Services?**

Passport to Partner Services is a national curriculum developed by CDC’s Division of HIV/AIDS Prevention and Division of STD Prevention. Passport provides training for disease intervention specialists and other partner services providers, including medical providers. Passport teaches participants how to interview cases, collect sexual health and drug-using histories, notify partners of exposure, and connect cases to services. Learn more at [https://www.cdc.gov/std/training/passport-partner-services.htm](https://www.cdc.gov/std/training/passport-partner-services.htm).
• Develop an interdisciplinary and cross-jurisdictional communicable disease team.

• Develop strategies that identify and engage at-risk communities and reduce barriers to infectious disease control, prevention and response.

Communities need access to easily understood localized data to make the best decision about their health needs.

Highlights

• Funded expanded regional partnerships through intergovernmental agreements beyond the quad-county communicable disease group and regional health officer program.

• Funded full-time Oregon Health Equity Alliance position to ensure equity expertise and meaningful community engagement.

• Hired regional staff to modernize data systems through informatics coordination and data visualization, which supports the appropriate use and timely communication of data.

• Using Health Equity Zones to geographically tailor local health equity interventions in Clackamas County communities.

• Counties are implementing three different frameworks for communicable disease prevention: a geographic approach to hepatitis A; a community-level/social services approach to hepatitis C; and policy and systems change within the health care setting for latent TB.

• Exploring partnership with Virginia Garcia Memorial Health Center to conduct latent TB outreach among the Latino Community.

What is Data Visualization?

A core function of public health communicable disease programs is to track and analyze disease patterns across populations and share that information in an understandable way. Data visualization makes complex data more accessible by applying best practices for health communication. Easy-to-understand public health data helps providers to make clinical decisions, community members to make health choices, elected officials to evaluate policy decisions, and community organizations and health departments to assure effective programming and secure funding. Learn more at: http://www.vizhealth.org.
This section describes methods used to evaluate state and local use of the $5 million investment in public health modernization in 2017-19.
Evaluation Methods

Evaluation Stakeholders

Stakeholders internal to the Oregon Public Health Division, as well as local public health administrators responsible for local grant implementation were engaged in evaluation planning through two stakeholder phone calls on December 20, 2017 and January 11, 2018.

This stakeholder group was tasked with: 1) developing a shared evaluation purpose; 2) creating a high-level logic model to describe activities and expected outcomes of the grants; and 3) identifying appropriate evaluation data collection methods and measurements.

The stakeholder group was also engaged in jointly interpreting evaluation findings for this interim report.

Evaluation Purpose

The purpose of the evaluation is to characterize the outcomes of a legislative investment in the governmental public health system to address communicable disease control and related health disparities.

Evaluation Logic Model

The logic model (on page 34) depicts resource investment, activities, outputs, and expected outcomes associated with the implementation grants. The model is not meant to reflect the specific work of each local grantee, but rather the high-level work and expectations for these modernization efforts overall. The logic model was used to guide consideration of evaluation domains and questions.

Use of Evaluation Findings

Evaluation findings will be used to: 1) inform ongoing performance management of local projects; 2) describe the effects of the legislative investment on communicable disease control and related health disparities; 3) inform the Oregon legislature’s consideration of ongoing, sustainable funding for public health modernization efforts; and 4) inform public health modernization efforts in other jurisdictions.

Evaluation Questions

Evaluation stakeholders identified several areas of grant funding on which to focus evaluation questions. These evaluation areas and related question are on page 35.

Data Collection & Measurement

Data sources for the evaluation include quarterly performance management reporting by grantees on project work plans, bi-annual reporting on evaluation measures, quarterly budget expenditure reports, and key informant interviews with grantees. Quarterly and bi-annual reporting were conducted online through Smartsheets, a cloud-based information sharing tool. Grantee deliverables were also be used to draw conclusions for the evaluation (e.g., using regional partnership organizational charts and policies to describe governance structures).

Oregon Public Health Division staff also tracked the number of hours dedicated to grantee technical assistance and training each quarter.

Modernization Implementation Logic Model

The logic model below depicts resource investment, activities, outputs, and expected outcomes associated with the implementation grants. The model is not meant to reflect the specific work of each local grantees, but rather the high-level work and expectations for these modernization efforts overall. The logic model was primarily used to guide consideration of evaluation domains and questions.

<table>
<thead>
<tr>
<th>Resources</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing LPHA infrastructure</td>
<td>Form regional partnership of LPHA and stakeholders</td>
<td>Policy describing regional relationship between LPHA and strategic partners</td>
<td>Short-term</td>
</tr>
<tr>
<td>State TA and training capacity</td>
<td>Implement regional strategies to control communicable disease</td>
<td>Organizational chart for regional partnership</td>
<td>Established effective regional governance structure</td>
</tr>
<tr>
<td>State epidemiology and evaluation capacity</td>
<td>Implement health equity lens to reduce disparities</td>
<td>Regional work plan</td>
<td>Applied health equity lens to foundational program work</td>
</tr>
<tr>
<td>Modernization implementation grant funds</td>
<td>Develop and monitor regional work plan</td>
<td>Regional health equity assessment</td>
<td>Improved understanding of public health issues</td>
</tr>
<tr>
<td></td>
<td>Participate in learning communities</td>
<td>Regional policies for implementation of best or emerging practice</td>
<td>Mid-term</td>
</tr>
<tr>
<td></td>
<td>Leverage modernization funding for additional funds</td>
<td>County-level and health disparities data (state)</td>
<td>Sustained benefits of modernization award</td>
</tr>
<tr>
<td></td>
<td>Collect population health and accountability metrics data (state)</td>
<td>Implementation of immunization quality improvement initiatives (state)</td>
<td>Achieved prioritized foundational program outcomes</td>
</tr>
<tr>
<td></td>
<td>Improve data system functionality to more accurately collect and report local and state immunization rates (state)</td>
<td></td>
<td>Decreased identified health disparities</td>
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Contributed to modernizing public health systems
## Evaluation Areas & Questions

The evaluation stakeholder group identified the following evaluation areas and questions for assessment.

<table>
<thead>
<tr>
<th>Evaluation areas</th>
<th>Evaluation question(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local use of grant funds</td>
<td>1. How has public health used funds to implement modernization?</td>
</tr>
<tr>
<td></td>
<td>2. To what extent have LPHAs with fewer resources or larger gaps benefited from regional partnerships?</td>
</tr>
<tr>
<td>Regional governance structures</td>
<td>3. What does the regional governance structure look like for each grantee?</td>
</tr>
<tr>
<td></td>
<td>4. What are the strengths and challenges of the regional governance structure for modernization of communicable disease control?</td>
</tr>
<tr>
<td>Partnerships development and maintenance</td>
<td>5. What effect has modernization funding had on communicable disease partnerships?</td>
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<tr>
<td></td>
<td>6. What role have partnerships served in implementing regional strategies to control CD?</td>
</tr>
<tr>
<td>Identifying and addressing health disparities</td>
<td>7. What effect has modernization funding had on addressing communicable disease disparities?</td>
</tr>
<tr>
<td>Leveraging grant work for additional funding and foundational capacity</td>
<td>8. How has modernization funding been leveraged to acquire additional funds for foundational program work and support foundational capabilities?</td>
</tr>
<tr>
<td>Sustainability of grant work</td>
<td>9. Which elements of the modernization award should be sustained after the funding period and at what cost?</td>
</tr>
<tr>
<td>Generalizability of regional approach to other programs and capabilities</td>
<td>10. To what extent can the regional funding model for communicable disease control be applied to other foundational programs and capabilities?</td>
</tr>
<tr>
<td>State public health role</td>
<td>11. How has state public health supported grantees across evaluation domains?</td>
</tr>
<tr>
<td></td>
<td>12. What are the strengths and challenges of state support to grantees?</td>
</tr>
<tr>
<td></td>
<td>13. How has state public health used funds to implement state roles for modernization?</td>
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</tbody>
</table>