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**Report 2 of 3**

# EXECUTIVE SUMMARY: PUBLIC HEALTH RESPONSE TO THE COVID-19 PANDEMIC IN OREGON

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# Executive summary

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## Study of Oregon's public health system response to the COVID-19 pandemic

This summary includes high-level key findings and recommendations.

The purpose of this study is to fulfill the requirements of Senate Bill 1554 (2022), which calls for a comprehensive study of Oregon's public health system response to the COVID-19 pandemic. This is the second of three legislatively mandated reports. Primarily focused on the government-led and government-funded public health system's response to the COVID-19 pandemic and the response in Oregon schools, this report is based on a narrow definition of the term "public health system's response" to mean activities undertaken to equitably control the spread of a deadly, infectious disease.

**Design and Limitations:** The study team used an exploratory sequential design for this study, a robust mixed-methods study design that integrates qualitative data to provide an enhanced understanding and interpretation of quantitative findings. Study findings, however, should be interpreted in the context of the limitations of this study. The most significant limitation in this phase of the study was time constraints (four months). Other limitations are the retrospective nature of this study, which covers over two years, introducing recall bias in which participants may not accurately recall past events. Public health workforce turnover, limited incentive availability for specific participant groups, documents lacking dates and other context, and reliance on self-reported data for online surveys are also limitations.

### Public health response in schools

#### Key findings:

1. The majority of School District Superintendents (SDs) and Education Service District Superintendents (ESDs) reported their district was highly or moderately prepared to respond to the COVID-19

pandemic; 31.0% of SDs reported their district was minimally or not at all prepared to respond. Prior experience in emergency response was cited as a strength in response, largely at the district-level. There was, however, a disconnect between preparedness at the district and school levels, as most Principals (53.2%) felt their school was unprepared for COVID-19 response. Outdated or non-existent Emergency Operations Plans (EOPs) at the school level, lack of prior training and experience in emergency preparedness, and inexperience as an administrator (i.e., COVID-19 hit during their first year as a school administrator) were all cited as reasons for unpreparedness.

2. Education sector study participants reported using state and non-state COVID-19 funding for an array of pandemic response activities at the district and school levels. SDs and ESDs were aligned in much of their utilization of COVID-19 funds; SDs and ESDs most frequently reported using funding to procure personal protective equipment (PPE) (94.0% and 100%, respectively). Similarly, Principals and School Nurses most frequently reported using COVID-19 funding to secure PPE (83.7% and 58.7%, respectively).
3. School districts and schools experienced a few challenges with funding during COVID-19 pandemic response:
  - Education sector study informants reported they were worried about having continued funding to support COVID-19 response in their school community.
  - Lack of clarity around allowable use of funds, short timeframe to spend funds, frequent changes to funding structure(s), inflexibility of funds, and administrative requirements associated with COVID-19 funding were all cited as barriers to efficient use of funds.
4. Strong collaborations and partnerships were a strength of Oregon’s response to the COVID-19 pandemic in schools. This included partnerships between the education and public health sectors, as well as partnerships within the education sector. Unclear roles in pandemic response hindered response in schools. Some education study participants reported that collaboration with Local Public Health Authorities (LPHAs) specifically was, at times, a challenge due to low capacity for collaboration or not having a pre-existing relationship with their LPHA.

5. Lack of clarity around responsibility of implementing public health mandates and guidelines was problematic for schools, particularly relating to contact tracing. Role uncertainty and associated changes to roles during the COVID-19 pandemic response hindered schools' response effectiveness. This was particularly seen in the onerous task of contact tracing, which became overly burdensome and unmanageable to schools during COVID-19 infection spikes.
6. Supply chain issues for PPE challenged schools. Although most study participants reported they had enough PPE to respond, a lack of clarity around the ordering process, the length of time it took to receive PPE, and receiving PPE that was not usable for children (e.g., adult-sized masks), hindered their response.
7. Study participants reported considerable success around vaccination uptake in their school community, though a lack of vaccine confidence was noted as a barrier that hindered the pandemic response in their schools. Many schools collaborated with their LPHA or other community organizations (e.g., local hospital or health care clinic) to coordinate vaccine clinics on or near school grounds. Many educational informants reported confusion around the prioritization of educators for the COVID-19 vaccination without the associated return to schools.
8. The vast majority of study informants reported using resources and frameworks developed by the Oregon Department of Education (ODE) and the Oregon Health Authority (OHA) to inform COVID-19 response in their district or school. Unfamiliarity with public health jargon, however, often made interpretation of these resources confusing. Further, unique challenges for serving populations with specific needs (e.g., students with learning or physical disabilities) added a layer of complexity to interpretation and implementation of guidance.
9. Access to local epidemiologic data to guide COVID-19 response in Stage 1 was a substantial barrier reported by most education sector study participants. As the pandemic progressed (in Stages 2 and 3), epidemiological data access at the local level increased. In Stage 4, however, local data access started to decline. Technical assistance (TA) to access, understand, or use local epidemiologic data varied across educational study participant groups and many SDs, ESDs, and School Principals reported never receiving TA at any time during the COVID-19 pandemic.

10. SDs, ESDs, Principals, and School Nurses reported they tried their best to adhere to Executive Orders and health mandates and used an array of enforcement methods, including behavior modeling, clear messaging, and punitive consequences. Overarching enforcement challenges included the politicization of mandates, the frequency with which public health mandates and associated guidance changed, and lag times between when a complaint Occupational Safety and Health Administration (OR-OSHA) was filed and follow-up. Additionally, there were many enforcement-related challenges specific to the school setting, including confusion about how public health mandates applied to schools, inconsistent enforcement across districts, and inability to implement specific measures with school-aged children. Enforcement was not consistently applied across all Oregon schools.
11. Education sector study participants reported numerous successes with COVID-19 public health messaging and communication, including creating clear messaging (e.g., meetings, signage, exposure letters) and translation of materials across multiple languages. Nevertheless, the frequency at which public health guidance and communication changed from state level agencies and LPHAs, as well as conflicting guidance across different agencies, posed substantial challenges.

### **Recommendations:**

Improve public health emergency response effectiveness in schools by:

1. Building out and investing in comprehensive emergency preparedness for schools at the district- and school-level to incorporate pandemic-level events, and include training for school administrators and frequent EOP updates.
2. Continuing to invest in partnerships between the education (e.g., SDs, ESDs, schools) and public health sectors (e.g., LPHAs, OHA), as this will enable a more timely and collaborative response to future public health emergencies in Oregon's schools.
3. Investing in sustained emergency operations funding for schools; with sustained effort, EOPs and communicable disease management plans in schools will be implemented with more efficiency and timeliness. Specific recommendations regarding funding for schools include:

- Invest in necessary school building infrastructure improvements (i.e., heating, ventilation, and air conditioning (HVAC), desks, filtration systems, outdoor access) to align with best practices to prevent or slow transmission of communicable diseases;
  - Streamline funding to reduce administrative burden for schools; and
  - Improve communication about emergency operations funding, including communication specific to allowable use of funds, timeline for spending funds, and duration of funding.
4. Clearly defining roles and expectations for all involved in public health response in schools in advance of emergency response.
  5. Supporting disease investigation training and resources in schools to effectively respond in future communicable disease related emergencies.
  6. Supporting both districts and schools to conduct an after-action review (AAR) of their response and to define areas of improvement to inform future public health emergency response.
  7. Involving schools when making decisions about public health mandates and other emergency response decisions that impact schools; it is imperative that the education sector is brought to the table to inform development of guidelines and recommendations for the school setting. School nurses, in particular, are a valuable resource that should be utilized when planning emergency response at both the district and school levels.
  8. Ensuring data availability at district and local levels that includes sub-population data and corresponding TA; a designated liaison at LPHAs to coordinate data availability and provide TA for each district would ensure greater availability and accessibility of TA to inform response for future public health emergencies. This recommendation may require additional resources for LPHAs.
  9. Public health protection mandate enforcement-related recommendations for schools are summarized as follows:
    - Comprehensively examining the benefits and risks of specific public health mandates in varied schools and population settings, including the long-term impact of using specific mandates in Oregon preschool and school settings on child health and educational outcomes.

- Re-examining the enforcement structure for public health mandates in schools to ensure schools are adequately equipped with the necessary resources to support enforcement.
  - Clearly articulating compliance roles and responsibilities; all parties involved in this structure should receive the necessary training to ensure successful follow-through in future public health emergencies.
  - Ensuring that enforcement-related messaging is clear, consistent, and takes into consideration the individualized needs of the populations(s) the district or school serves.
- 10.** Coordinating messaging across public health and education organizations before information is communicated to the public. This step is imperative to build trust and allow schools time to digest guidance. Further, schools need support (via additional funding, staffing, or otherwise) with translating and communicating information to be culturally-specific and tailored for the population served.
- 11.** Addressing the substantial challenges Oregon schools faced when transitioning to and maintaining distance learning, by:
- Sustaining investments in technology infrastructure to ensure that all Oregon students are able to access distance learning, should it ever be required in the future to respond to a public health emergency;
  - Regularly providing professional development for Oregon educators on best practices in distance learning; and
  - Maintaining clear distance learning protocols for districts and schools to enable a smoother, less interrupted transition to distance learning.
- 12.** Considering public health mandates and guidance for future public health emergencies that are flexible to allow for local school authority and decision-making regarding school closures.
- 13.** Continuing investment and support for Oregon schools to specifically address learning loss and socioemotional issues resulting from school closures and distance learning during the COVID-19 pandemic.

## Nongovernmental + community partners

### Key findings:

1. Community-based organizations (CBOs) made pivotal contributions to Oregon's COVID-19 pandemic response and played four primary roles:
  - Providing essential resources to community members;
  - Educating community members about COVID-19 and pandemic control measures;
  - Implementing or partnering to support emergency response activities; and
  - Elevating community needs with state and local partners through advocacy.
2. Most CBOs reported they were highly or moderately prepared for the pandemic and significantly grew their capacity throughout the pandemic. CBOs cited their capacity strengths as trust with the community, experience supporting community members to navigate services, strong communication channels, extensive partner networks, and flexibility. The top CBO capacity limitations were financial and staffing-related.
3. OHA and LPHAs provided significant support to CBOs, including funding via grants and contracts, resource allocation, training and technical assistance, and information and data-sharing.
4. CBOs identified several gaps in the support they received, including:
  - Lag in the prioritization of funding for and services to support vulnerable populations in the pandemic response;
  - Limited understanding of how to operationalize equity in response activities;
  - Need for more funding support
  - Limited buy-in from some local leaders for pandemic control measures; and
  - Lack of role clarity between LPHAs and CBOs which hindered partnerships.



## Recommendations:

Improve support to CBOs by:

1. Improving communication about funding opportunities;
2. Simplifying funding application and documentation processes, including tracking and invoicing systems, processes, and requirements;
3. Increasing flexibility of funding;
4. Prioritizing learning and capacity building around equity practices in a public health emergency response;
5. Designating OHA and LPHA staff contacts for CBOs, creating a clear and consistent chain of communication for support and efficiency; and
6. Fostering and maintaining relationships and collaboration between CBOs and OHA and LPHAs.

## Tribal Nations + Tribal Organizations

### Key findings:

1. Tribal Nations performed key public health functions for their Tribal and non-Tribal communities throughout the pandemic.
2. Tribal Nations implemented and enforced similar public health measures as state and local governments, such as mask mandates, stay-at-home orders, and remote work.
3. Tribal Organizations filled a critical supportive role for American Indians/Alaska Natives (AI/ANs) during stay-at-home orders and isolation/quarantine by providing food, traditional medicines, activities, and cultural connection.
4. Partnerships were an important way to coordinate COVID-19 testing and vaccination clinics; acquisition of PPE, testing, and vaccination supplies; and care for community members.

5. Funding provided to Tribal Nations and Tribal Organizations was often too specific in requirements for what it could be spent on and inconsistent with current needs of the community.
6. Both Tribal Nations and Tribal Organizations struggled with having enough staff/staff capacity to efficiently support their communities during the pandemic.
7. Tribal Nations reported a lack of accessible Tribal-specific data to support their decision-making related to COVID-19 response in their communities.

### **Recommendations:**

Improve support to Tribal nations and Tribal organizations by:

1. Implementing flexible funding streams for Tribal nations and Tribal organizations so they can identify and support their communities specific needs;
2. Developing data collection and reporting methods for Tribal-specific data;
3. Increasing communications between Tribal nations and Tribal organizations with LPHAs, OHA, Northwest Portland Area Indian Health Board (NPAIHB), and Indian Health Services (IHS) to better coordinate disease investigation and reporting processes; and
4. Maintaining new and strengthened partnerships that were built by Tribal nations and organizations during COVID-19 response to actively work together to eliminate health inequities in order to reduce the disproportionate impact of public health emergencies on Tribal communities in the future.

### **Local epidemiological capacity + data**

#### **Key findings:**

1. Not surprisingly, the COVID-19 pandemic stretched Oregon's epidemiological capacity. Many LPHA participants reported great difficulty hiring staff with the necessary skills and knowledge to perform critical data collection, interpretation, and dissemination functions.

2. OHA supported local epidemiological capacity in various ways, including:
  - Providing direct technical assistance;
  - Conducting statewide and regional meetings that provided an opportunity to share epidemiological data and get additional technical assistance;
  - Routing funding to LPHAs to increase staffing for local epidemiological capacity;
  - Sharing epidemiological data communication and messaging resources that aided LPHAs in addressing misinformation efforts in their communities; and
  - Setting up and streamlining systems for LPHAs to order and receive tests, vaccines, and other supplies.
3. Existing epidemiological data systems were severely strained by the surge of users trying to access the system at the same time. LPHA participants described these systems as all but unusable during peak stages of the pandemic, and OHA reported that modules had to be built and separated from the original system to improve useability.
4. When Oregon’s pandemic response officially began in March 2020, OHA was in the process of putting plans in place to improve collection and reporting of race, ethnicity, language, and disability data (REALD) and adding sexual orientation and gender identity (SOGI) as optional data, which meant that there were not strong practices in place or sufficient capacity to build and adapt standards across governmental public health entities and the array of partners engaged in pandemic response activities. These capacity challenges hindered the use of REALD and SOGI data to inform Oregon’s health equity work in response to the public health pandemic.

### **Recommendations:**

OHA can better support local epidemiological capacity by:

1. Investing in epidemiological data systems improvements; and
2. Continuing to prioritize the development of standards for the collection of and access to REALD and SOGI data.

## Hospitals, long-term care facilities and local public health programs

### Key findings:

1. Long-term care facilities (LTCFs) required special attention in Oregon's public health system response to COVID-19.
2. Previously established relationships and lines of communication were essential for successful role coordination between hospitals, LTCFs, and LPHAs.
3. Working together throughout the pandemic also strengthened previous relationships between LPHAs, hospitals, and LTCFs.
4. Role confusion occurred around enforcement of public health measures in LTCFs. Participants from several groups reported a lack of clarity around who had jurisdiction over LTCFs, which was a significant issue for public health protective measure enforcement.
5. Due to complexities with licensing and response authority, jurisdiction over LTCFs, was called into question, which, at times, created communication and compliance challenges.

### Recommendations:

Improve effectiveness of response efforts by:

1. Developing and maintaining relationships among LPHAs, LTCFs, and hospitals to improve communication in future public health emergencies; and,
2. Developing clear guidance for LTCFs around public health and infection control regulations outlining the roles of OHA and Oregon Department of Human Services (ODHS). Ideally, dissemination of this information would be co-created with LTCFs and LTCF advocacy groups.

## Public health workforce challenges

### Key findings:

1. Staffing challenges hindered pandemic response for governmental public health. Difficulty recruiting, onboarding, and retaining staff was a strong theme across individual interviews, group interviews, and surveys with LPHA administrators and staff. In the LPHA survey, 87.2% (n=34) of respondents reported that staffing shortages hindered the effectiveness of their pandemic response.
2. A majority of OHA Director interviewees ranked staffing capacity at OHA as a significant challenge that negatively affected OHA's ability to respond to COVID-19. At the beginning of the pandemic, OHA needed to hire numerous new staff to mount and coordinate an effective response; in addition, OHA reassigned many existing staff to new COVID-related work and roles. Small applicant pools for hiring and contracting and limited human resources administrative capacity to meet the hiring demand stalled hiring efforts.
3. Multiple respondent groups routinely reported working 60-70 hour work weeks for many months during 2020- 2022. Several OHA Staff and Manager interviewees indicated that maintaining overall workforce capacity after the Delta variant emergency was especially difficult because the workforce was already stretched thin.
4. Analysis of individual interviews, group interviews, and LPHA survey responses surfaced two themes within challenges to recruiting public health staff during the pandemic:
  - County-level administrative burden for hiring; and,
  - Overall public health workforce shortages, especially for nurses and epidemiologists.
5. LPHAs were able to relieve some of the burden on staff by turning to volunteers to assist with the work. Medical Reserve Corps were specifically named by several LPHAs as a helpful resource during the pandemic response. However, a few LPHAs noted that because individuals in Medical Reserve Corps were older, they were at higher risk for COVID-19 serious illness and therefore were not able to be as

involved. Other LPHAs were able to draw on community volunteers, including retired nurses, through the county government volunteer management department or through partnerships with CBOs.

6. Other solutions LPHAs used to augment staff capacity included:
  - Contracts with CBOs to facilitate major work areas such as contact tracing;
  - “Loaned” staff from other departments within county government;
  - Mobilizing graduating nurses directly to the LPHA’s pandemic response or working with university to intern PhD students for epidemiology support; and
  - Hiring temporary staff.
7. OHA also relied on reassignment of staff from other non-communicable disease programs and hiring temporary staff.
8. LPHAs and OHA demonstrated tenacity, creativity, and accountability in staffing up for the pandemic.

### **Recommendations:**

Mitigate workforce challenges by:

1. Planning for surge capacity within a large-scale, longer-term public health emergency using lessons learned from the COVID-19 experience. Mutual aid agreements, whereby jurisdictions establish the legal basis for sharing resources in the event of an emergency, are critical tools for preparedness planning, but may be of limited value in a geographically dispersed event; thus planning for hiring, reassigning, and limiting non-emergency response functions should be established.
2. Creating plans and protocols at every jurisdiction in the entire public health system that can be activated in a large-scale event, such as the COVID-19 pandemic, for streamlining hiring and worker reassignment processes.
3. Cooperatively, between LPHAs and city and county emergency management programs, create, review, and simulate surge capacity models and plans to outline the most efficient use of available human resources in a public health and medical services emergency.

- Models and plans should clarify roles and responsibilities for primary, supporting, and coordinating agencies to avoid duplication of efforts and provide a baseline for expanding workforce capacity in areas where it is most needed.
  - Planning should include additional partners such as CBOs, neighborhood associations, and other government agencies (e.g., housing, human services, volunteerism, and natural resources departments).
4. Emphasizing and creating local public health emergency preparedness relationships, especially as the public health leadership workforce rebounds from the strain of the COVID-19 pandemic and experiences an influx of new leadership.
  5. Improving local epidemiological capacity while recognizing that local capacity may come in the form of regional epidemiological services or other shared services models. Recognize that funding, in addition to Public Health Modernization funding, may be necessary to create the requisite capacity.