Washington State Department of
Health

COVID-19 IN-ACTION OPERATIONAL ASSESSMENT

Sept. 30, 2021

Washington Department of Health

Photo: The DOH COVID-19 Medical Surge Team conducted an inclement weather exercise in Wenatchee Oct 19-22.

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EXECUTIVE SUMMARY

Heroism in the Public Health Response

In 2019, when news of the detection and spreading of a novel virus in Wuhan, China circulated, no one could have predicted that this localized outbreak would turn into a global pandemic. Even more, no one would have suspected that the first case of SARS-CoV-2 (COVID-19) in the United States would occur in the state of Washington. Despite the unprecedented nature of COVID-19, Washington State Department of Health (DOH) rose to the occasion to carry out an immense public health response to the novel virus.

In addition to COVID-19, Washington experienced the consequences of the 2020 western U.S. wildfires, a fire season which saw more individual fires than any other recorded year.[1] With DOH trying to scale the COVID-19 response to meet the ever-growing severity of the pandemic, the state simultaneously responded to the Stanwood Bryant fire, Porter Creek fire, Colockum fire, Greenhouse fire, Taylor Pond fire, Palmer fire, Evans Canyon fire, and the historic Labor Day fires.

These fires resulted in safety burn bans, evacuations, major road closures, and more complications that impacted not only the response to these wildfires, but also the response to COVID-19.[2] Further, the charged political environment in 2020 led to civil unrest across the U. S. and in the state of Washington, bringing crowds of protestors together in a time where social distancing was paramount to the pandemic response. Ultimately, these "disasters within a disaster" further complicated the COVID-19 response, as already scarce resources were committed necessarily to address wildfires and civil unrest.

Overall for the world, the U. S., the state of Washington, and especially DOH, 2020 proved challenging as simultaneous disasters tested response infrastructures, led to immense resource scarcity, and called for collaboration across the state between both typical and nontraditional response partners at a level never before necessary. DOH was at the forefront of these efforts, finding solutions to challenges as they arose and never once wavered in the face of adversity. DOH has exhibited and continues to exhibit immense leadership, dedication, and self-sacrifice during a time of great uncertainty.

In-Action Operational Assessment Purpose

As a testament to DOH's commitment to their core values of *equity, collaboration, excellence*, being *human-centered*, and *seven generations*, DOH staff thought it valuable to assess their performance throughout the COVID-19 response to identify strengths that can be built upon and opportunities for future success that can be addressed throughout the sustained response.[3] As such, DOH contracted a third-party public health and crisis management consultancy, Constant Associates, Inc. (CONSTANT), to assess their response to COVID-19 thus far and document those findings in an In-Action Operational Assessment.

The purpose of the In-Action Operational Assessment is to provide an account of how DOH responded to COVID-19. To accomplish that goal, the assessment seeks to outline what elements of the response went well and what areas of the response remain as opportunities for future success. The assessment also includes detailed recommendations for potential implementation by DOH within the COVID-19 response and beyond, given that necessary resources (e.g., personnel, monetary, etc.) are available.

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[1] Joseph O'Sullivan,"Washington state's wildfires have now destroyed more than 626,000 acres, 181 homes", The Seattle Times. September 11, 2020, available online at: https://www.seattletimes.com/seattle-news/environment/washington-states-wildfires-have-now-destroyed-more-than-626000-acres181-homes/

[2] Katherine Long, "Coronavirus could make fighting Washington wildfires harder", Crosscut. March 27, 2020, available online at: https://crosscut.com/2020/03/coronavirus-could-make-fighting-washington-wildfires-harder

[3] Washington State Department of Health, "Vision, Mission, and Values", available online at: https://www.doh.wa.gov/AboutUs/VisionMissionandValues

Figure 1: DOH Vision, Mission, and Values

Vision, Mission, & Values

VISION

Equity and optimal health for all.

MISSION

The Department of Health works with others to protect and improve the health of all people in Washington state.

VALUES

Good organizations know what they do and how they do it. Great organizations know what they do, how they do it, and why they do it. Our values are:

- Human-centered: We see others as people who matter like we do and take into account their needs, challenges, contributions, and objectives.
- Equity: We are committed to fairness and justice to ensure access to services, programs, opportunities, and information for all.
- Collaboration: We seek partnership and collaboration to maximize our collective impact. We cannot achieve our vision alone.
- Seven Generations: Inspired by Native American culture, we seek wisdom from those who came before us to ensure our current work protects those who will come after us.
- Excellence: We strive to demonstrate best practices, high performance, and compelling value in our work every day.

Data Collection & Assessment Development Methodology

The In-Action Operational Assessment was developed through a multi-faceted data collection process. This included several online surveys, individual and group stakeholder interviews, and participation in DOH meetings to gain perspective and collect information. Stakeholder interviews and surveys were conducted not only with DOH personnel, but also with DOH partners. In addition, CONSTANT conducted a thorough documentation review of DOH plans and procedures, incident documentation, open-source data, and public communications DOH and other governmental entities issued throughout the response. From these data, themes emerged (e.g., activation, internal communications, interagency coordination, etc.), which serve as the organizational foundation for this assessment.

The "Analysis of Findings" section in the assessment consists of a summary, strengths, opportunities for success, and recommendations. The recommendations are further organized in a separate document for ease of viewing and tracking, called the Corrective Action Plan (CAP). This assessment was developed with the understanding that COVID-19 remains an active response. As such, continual data collection and evaluation and further reporting of findings will be necessary as the response continues and may warrant an After-Action Report once DOH deems this appropriate and feasible.

Findings Overview

DOH's most significant strengths and opportunities for success within each assessment theme during the reporting period of this document are provided below. Further explanation of each finding as well as additional strengths and opportunities for success can be found in the Analysis of Findings section.

Table 1. Significant Strengths and Opportunities for Success

Significant Findings		
Theme	Strengths	Opportunities for Future Success
Activation & ACC Operations	DOH activated quickly, scaling up their response to meet incident needs and bringing in additional staff to support operations.	Improvements could be made to the activation and Incident Management Team (IMT) onboarding process to help better define roles and responsibilities within the IMT and promote effective coordination.
Community Needs & Impacts	DOH undertook creative and innovative methods to address community needs, including leasing motels to use as more permanent isolation and quarantine facilities, conducting outreach to vulnerable populations, and coordinating with medical examiners and coroners to facilitate mass fatality planning.	Despite outreach, vulnerable populations still did not receive resources necessary to ease the disproportionate impact of the pandemic.
Continuity of Operations	Despite the challenges of a large-scale and multi-dimensional crisis, DOH maintained many elements of steady-state processes and functions.	Leadership communicated conflicting priorities, causing staff to feel pulled in several different directions and generating confusion.
Public Private Partnership	The public-private partnerships developed by DOH during the pandemic were enormously successful and were critical to the overall success of the response.	A formal process for public-private partnerships to flourish does not yet exist and needs to be developed.
Interagency Coordination – Local to State	The COVID-19 response fostered greater relationships between DOH and local communities.	There is a lack of understanding within DOH regarding the capabilities of local health care coalitions and associations which could have been capitalized on to support the COVID-19 response.
Interagency Coordination – State to State	The Governor's Office and DOH fostered a strong relationship throughout the response.	Other state departments and entities felt the lack of Unified Command during certain portions of the response and the associated impacts of overall situational awareness, as they saw most of the response coordinated directly between the Governor's Office and DOH.
Interagency Coordination – Federal to State	DOH and the Centers for Disease Control and Prevention (CDC) coordinated effectively.	The response to the COVID-19 pandemic by the 2020 federal administration made it difficult to obtain guidance from federal entities regarding testing, vaccination, quarantine, and potential funding streams in a timely and effective manner, negatively impacting the DOH response.

Significant Findings		
Theme	Strengths	Opportunities for Future Success
Internal Communications	DOH provided frequent updates to staff to maintain situational awareness and prioritized open and transparent communication during the initial phases of the response.	As operations transitioned into a sustained response model, communication became inconsistent, without clearly defined priorities or changes in workload despite the need to carry out response operations for an extended period of time.
Medical Surge	Volunteers assisted greatly in the rollout of mass vaccination sites and were a huge asset to site managers and DOH, enabling medical personnel to focus in on technical needs.	Some of the relationships between DOH and health care associations were not strong prior to COVID-19, and that impacted early decision-making and interactions regarding impacts to essential workers in health care.
Testing Operations	The Public Health Laboratories and Testing Branch operations team worked with partner organizations to create new processes and tools that improved laboratory operations and test kit assembly and distribution.	Development of communication tools and dashboards took a lot of time and resources when it seemed like, ultimately, these reporting mechanisms were not actually used or helpful. The lab-supporting data systems that were in place at the start of the response were insufficient to meet high-throughput needs and improving those systems took a lot of time and resources.
Surveillance & Information Management	DOH created a new Training Group to support an expansive case investigations and contact tracing training effort, and this group developed effective communication and training tools.	There are opportunities for increased collaboration between DOH and local health jurisdictions on building statewide data systems that best meet public health needs across the state.
Mass Vaccination Planning	Washington state excelled at deploying its mass vaccination program despite many unknown variables.	There is a need for continued education regarding the positive implications of receiving the COVID-19 vaccine. Public confusion regarding vaccine side effects and the quality of the single-dose vaccine could threaten vaccination goals.
Public Information & Messaging	DOH was committed to getting accurate messaging to the public while battling misinformation.	Trusted community partners who could support communications to vulnerable populations with technology accessibility were integrated into messaging efforts but not consistently or following a standard process.
Resource Management	Coordination with local health, health care, and private industry was a huge asset in getting health care workers the resources needed for personal protective equipment (PPE), testing, and vaccinations.	Funding for staffing surge was unclear early in the pandemic, which led to slow and cautious hiring in areas that needed immediate attention.
Staff Safety & Wellness	Staff exhibited great passion and commitment at DOH, which remains very high despite the longest-running disaster activation in the department's history.	The lengthy response to the COVID-19 pandemic took a dramatic toll on staff members. Staff members and supervisors described mission fatigue, change fatigue, burnout, and exhaustion.

Significant Findings		
Theme	Strengths	Opportunities for Future Success
Tribal Relations	The Tribal Liaison position within the IMT and DOH's strong relationship with the American Indian Health Commission (AIHC) helped tremendously to ensure that tribal representatives and leaders felt supported by the state in many ways during the pandemic.	There are still many opportunities for DOH staff to better recognize the sovereignty of tribal nations and distinguish those efforts from equity planning.
Demobilization	The Demobilization Unit continued to develop new tools and streamline the check-out process for deactivated IMT personnel throughout the pandemic, creating templates, training manuals, and employee tracking tools.	The demobilization process created an unnecessarily heavy administrative burden for staff taking short-term leave (e.g., 24-48 hours) and indirectly discouraged employees from taking shorter time off periods and instead waiting until they could take longer periods of time off.

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INTRODUCTION

Thanks and Acknowledgments

DOH would first like to thank all DOH personnel, including those staff members who were activated to the IMT, and those who have supported those activated while maintaining the day-to-day operations of the department, for their relentless and ongoing efforts in response to the COVID-19 pandemic. DOH would also like to thank all other state, local, tribal, and private-sector health care, emergency management, and public health workers across Washington for their partnership and their dedication to communities across the state throughout the COVID-19 pandemic response. Amidst unknowns, challenges, and long hours, the dedication of state employees, tribal nations, partner organizations, local health jurisdictions, health care coalitions, and volunteers contributed to the state's resiliency in the response to a previously unknown pathogen, and this dedication does not go unnoticed.

The authors of this In-Action Operational Assessment would also like to thank everyone who contributed to the development of this assessment. Thank you to everyone who completed surveys, identified potential interviewees, participated in interviews, participated in divisional debriefings, provided incident documentation, provided key input on this assessment, and provided overall project oversight.

The Project Planning Team deserves special thanks for their engagement and leadership in the development and finalization of this document. The Planning Team provided guidance and feedback on the document despite having incredibly busy schedules during the ongoing response and vaccine rollout and their dedication to the assessment is much appreciated. Planning Team members are listed in the appendices, along with other key contributors to this assessment.

This assessment was written by CONSTANT, which is a third-party, private sector, emergency management and public health consulting firm contracted to develop this assessment.

Scope

This assessment was written with the intent to comprehensively identify strengths and opportunities for success during the DOH response to the COVID-19 pandemic. It covers the period of January 2020 through August 2021 in the state of Washington and reviews the actions and capabilities of DOH through a comprehensive and data-driven process. This allowed relevant partners and stakeholders to share their observations and experiences. Because the COVID-19 pandemic response is ongoing, special attention was paid to emerging practices and processes that have benefited the pandemic response, and which should be continued or enhanced as the response continues.

The authors intend that this assessment will present recommendations for implementation to further improve COVID-19 response efforts in the state and to better prepare DOH for future health emergency responses.

Methodology

This assessment was developed using a mixed-methods data collection approach and an iterative draft review process. Data collection methods included: an online survey distributed to previously activated IMT personnel; a review of existing plans, reports, and incident documentation related to the DOH COVID-19 response; individual and small-group interviews with key response personnel and partner organizations; and debriefings with some of the department's divisions. Following the data collection phase, the assessment development team created an annotated outline of the assessment that the Project Planning Team reviewed and provided feedback regarding structure and tone. After the review of the annotated outline, the assessment development team began writing the assessment, developing iterative drafts in which DOH stakeholders provided feedback that was then incorporated into the next draft. Prior to finalization of the assessment, the development team conducted two After Action Meetings with the DOH Project Planning Team to review and approve the final version of the document.

All writing and data analysis was done by a team of third-party public health emergency management professionals to provide an objective analysis of the response and to develop realistic recommendations for corrective actions.

Data Collection Methods

Documentation Review

Members of the Project Planning Team and other stakeholders identified response-related documentation for the assessment development team to review. Through this review process, CONSTANT was able to substantiate information collection through the online survey and stakeholder interviews as well as identify specific areas to explore through other data collection methods. A sampling of the reviewed documents includes:

- American Indian Health Commission (AIHC) Tribal Communicable Disease Emergency Response Planning Project 2019-2020 Report
- "Weaving DOH Values in our IMT Response" Report authored by Jill Edgin, a DOH employee in the Division of Emergency Preparedness and Response
- Incident action plans (IAPs)
- DOH statewide situation reports
- DOH public news releases
- DOH public blog posts
- After Action Report for the COVID-19 Testing Operations Unit, authored by Tammi Leclerc, another DOH employee within the Disease Control and Health Statistics Division
- DOH emergency response plans and annexes, such as the Continuity of Operations (COOP) Plan, the Public Information Officer (PIO) Plan, the Command and Notification Annex, and more.

Stakeholder Interviews

Individual and small-group interviews were conducted virtually to review the response timeline and explore strengths, innovative processes and practices, and opportunities for success related to DOH's COVID-19 response efforts. the Project Planning Team identified an initial list of potential interviewees, and then additional potential interviewees were identified via snowball sampling.

These stakeholder interviews allowed participants to answer a series of open-ended questions where they were asked to outline preparedness activities that occurred prior to the pandemic, identify key strengths of departmental response, explain areas where the response could be or could have been improved, and identify

any innovative practices they saw implemented during the response that should be documented for future application.

In total, 58 individual and group interviews with key stakeholders were conducted. Interviewees included DOH leadership personnel, local health jurisdiction partners, partners from other state agencies, private sector partners, health care coalition staff, and federal partners.

Online Surveys

Based on feedback from the Project Planning Team, the assessment development team created an online survey using SurveyMonkey and disseminated it to a subsample of personnel who had previously been activated on the IMT, as well as to local emergency response coordinators (LERCs). The survey included seven mostly open-ended questions and was designed to allow respondents flexibility in the responses they could communicate while not over-burdening them. Survey participants were asked to share their observations of strengths and areas for improvement related to DOH COVID-19 response efforts, as well as any innovative strategies or tactics they noticed, and long-term concerns they have about the ongoing response. The survey provided a forum for a wider audience to contribute to the assessment and ensured the perspectives of a diverse range of stakeholders was captured. In June 2021, another survey was disseminated specifically to tribal health directors, tribal emergency contacts, and tribal clinic directors (roughly 100 potential participants), providing an additional opportunity for tribal representatives to give feedback on DOH response efforts and support to tribal entities.

The assessment development team used the positions respondents held during the response to group survey responses for analysis and inclusion in the write-up of key findings. In total, 158 individuals completed the general survey, and four individuals responded to the DOH tribal support survey. A more detailed summary of the survey findings may be found in the Appendices.

Division Incident Debriefings

Existing divisional leadership meetings were leveraged to conduct six virtual debriefings with various divisions of the department. These debriefings provided an additional source of data collection and focused on identifying divisional priorities during the early COVID-19 response and specific long-term concerns from the perspective of personnel in different divisions.

Organization of the Assessment

This assessment aims to provide an overview of DOH's response and recovery efforts during the COVID-19 pandemic. Overall, it aims to provide context to the conditions, events, and actions that occurred during response and recovery efforts.

This assessment is organized to include an Executive Summary and Introduction, Incident Overview, COVID-19 Timeline, and Analysis of Findings. All key findings are organized into specific themes that were identified from the data collection process, and each theme section addresses both strengths and opportunities for success identified by DOH staff and external partners through the various data collection methods employed. Recommended corrective actions are included at the conclusion of each theme section. These recommendations will also be indexed and given priority ratings in a separate document, the CAP.

Following the Analysis of Findings, there are several appendices including a survey data summary, acronyms, references, and further acknowledgments to key contributors.

INCIDENT OVERVIEW

Overview of the COVID-19 Pandemic

In December 2019, health officials in Wuhan, a metropolitan city in the Hubei Province of the People's Republic of China, identified cases of an unknown viral pneumonia.[4] Symptoms manifested most commonly in the upper respiratory system and included fever, dry cough, and trouble breathing. As cases began to cluster, the World Health Organization (WHO) launched an investigation that confirmed the existence of a novel coronavirus now known as SARS-CoV-2. The virus causes a disease now known by the global community as COVID-19 (**Co**rona**vi**rus **D**isease – 20**19**). As China instituted public health measures to contain the virus, officials found evidence of communal spread in surrounding countries. On Jan. 30, 2020, WHO declared a Public Health Emergency of International Concern. Countries implemented travel restrictions, stay-at-home orders, and controlled screenings for the virus. During the development of this assessment, there were 186,986,396 cases of COVID-19 worldwide, with the highest numbers of confirmed cases in the United States, India, and Brazil.[5]

COVID-19 presents several key challenges for responders across sectors, including an extended incubation period between infection and the development of symptoms, and asymptomatic carriers that may present no symptoms at all. The extended incubation period of the virus and lack of initial testing capability contributed to the initial spread of the disease. Leaders in public health, public service, public safety, education, and other sectors continue to implement multidisciplinary approaches and ongoing collaborative strategies to address the virus. They often sacrifice their own health and safety to ensure the well-being of the public during the ongoing global pandemic.

Challenges in the United States

As of July 12, 2021, there were a total of 33,857,814 confirmed cases of COVID-19 in the United States. Of those cases, 33,250,636 recovered and 607,178 died.[6] Federal and state public health and safety officials continue working tirelessly to promote and enforce continued physical distancing and good hygiene practices to reduce the spread of COVID-19.

Physical distancing remains one of the most effective tools to reduce the spread of COVID-19. Without public health interventions, the virus can spread easily and sustainably between people. Current research points to the virus spreading through respiratory droplets when an infected person coughs, sneezes, or talks. These droplets can reach up to six feet and aerosolized viral particles can remain suspended in the air for long periods of time, spreading the infection. People may also be infected with the virus but may not display any symptoms. These "asymptomatic carriers," without knowing they have the disease, may spread COVID-19 when in close contact with other people. [7]

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[4] World Health Organization. *Timeline of WHO's Response to COVID-19.* Accessed May 19, 2021. https://www.who.int/news-room/detail/29-06-2020-covidtimeline

[5] Coronavirus Resource Center. *COVID-19 Dashboard.* Johns Hopkins University. Accessed July12, 2021. https://coronavirus.jhu.edu/map.html

[6] Coronavirus Resource Center. *COVID-19 Dashboard.* Johns Hopkins University. Accessed July 12, 2021. https://coronavirus.jhu.edu/map.html

[7] Centers for Disease Control. *How to Protect Yourself and Others.* Accessed August 4, 2020. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention-H.pdf

Physical distancing measures address the main sources of community spread, which limits the number of people who can spread the disease. States that were early hotspots for COVID-19, such as Washington, California, and New York, responded by implementing strict stay-at-home orders. These orders focused state efforts on physical distancing public education to reduce both the overall number of infections and the number of cases occurring at once. This concept is known as "flattening the epidemic curve," which helps prevent hospitals from becoming overwhelmed.

Hospitals and health care facilities served on the frontlines of this global pandemic. Their employees have worked tirelessly during this unprecedented public health crisis to serve their communities, all while potentially exposing themselves to an invisible enemy. Their only protection against exposure is access to a supply of personal protective equipment (PPE), which includes face masks, face shields, medical gowns, and other protective gear. The increased demand for resources - including PPE, ventilators, antiseptics, and cleaning supplies - by the health care system, first responders, and the general public caused a worldwide shortage of supplies. This impact was especially felt in the U.S. The PPE supplies in the Strategic National Stockpile were approximately 90% depleted by April 2020, after distributing equipment to state and local governments.[8] The U.S. also experienced a shortage of ventilators in hospitals, hardest hit by the disease in the early months of response. The Federal Emergency Management Agency (FEMA) continues to lead the federal response for PPE requests, distributing N95 respirators, surgical masks, face shields, surgical gowns, and gloves to 53 states and territories. Additionally, the President of the United States used the Defense Production Act to boost the acquisition of N95 masks and the production of ventilators. Companies such as Ford Motor Company and General Motors moved from their regular activities to manufacture critically needed resources, including face shields and ventilators.[9]

Public health and safety officials continue to raise awareness of the effectiveness of physical distancing strategies through ongoing public information campaigns that provide continued public health guidance. Due to the fast-paced nature of the COVID-19 global pandemic, interactive tools such as the CDC's COVID-19 Data Tracker and the Johns Hopkins University of Medicine COVID-19 Dashboard have provided real-time updates on cases and infections in the U.S. and abroad. [10]

State and local health departments also expanded efforts to increase contact tracing of COVID-19 cases. Contract tracing is a public health strategy focused on identifying and isolating people exposed to an infection and is used to contain the spread of infectious disease. Internationally, countries such as China and South Korea that were among the first to be impacted by the virus benefited from ramping up contact tracing efforts to contain its spread. In the U.S., state governments have dedicated significant amounts of staff and resources toward expanding contact tracing efforts, including partnerships with university centers and local health departments. Increasing federal funding for expansion of contact tracing was a top priority in the fight to contain COVID-19.

The U.S. experienced challenges when expanding testing for COVID-19. Federal regulations continue to adapt to the need for robust screening across the U.S. The initial test the CDC provided to state and local health departments did not work correctly, forcing the CDC to send out new tests. State governors across the country reported a shortage of COVID-19 test kits and the reagents needed for those kits to function. As of the writing of this assessment, recent expansion efforts have made testing readily available.

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[8] Department of Health and Human Services. *Public Health Emergency.* Accessed August 5, 2020. https://www.phe.gov/emergency/events/COVID19/SNS/Pages/FAQ.aspx#sns-depleted

[9] Ford Motor Company. *Personal Protection Equipment Product Information.* http://corporate.ford.com/social-impact/coronavirus/ppe.html
General Motors. *General Motors Commitment.* https://www.gm.com/our-stories/commitment/face-masks-covid-production.html

[10] Centers for Disease Control. *COVID-19 Data Tracker.* https://www.cdc.gov/covid-data-tracker/index.html#cases
Johns Hopkins University of Medicine. *COVID-19 Dashboard.* https://coronavirus.jhu.edu/map.html

The potential for resurgence presented an ongoing dilemma to economic relief initiatives. Public leaders are tasked with finding a balance between economic recovery efforts and the physical distancing strategies that reduce the risk of increasing COVID-19 spread as well as encouraging residents to be vaccinated. Three COVID-19 vaccines received Emergency Use Authorization (EUA) approval in the winter of 2020 and early spring of 2021. States were faced with the monumental task of planning and executing the largest vaccination campaign as quickly as possible in the early months of 2021 to limit the number of cases and fatalities. States struggled to ensure that vaccine access was equitable and accessible to all while also struggling with vaccine hesitancy rates amid political debates and public misconceptions. However, as of the writing of this assessment, the U.S. has managed to achieve a 70% vaccination rate for all adults over the age of 16, which far surpasses vaccination rates in many other countries during additional surges and the emergence of COVID-19 variants such as the delta variant.

The Impact of COVID-19 on the State of Washington

The first case of COVID-19 in Washington was identified on Jan. 21, 2020. After returning from a trip to Wuhan, China, the patient developed symptoms and sought care at a medical facility within the state. Having the first confirmed case of COVID-19 in the U.S. immediately moved the state of Washington into the spotlight for COVID-19 coordination efforts early in 2020.

The state activated its State Emergency Operation Center (SEOC) on Jan. 22, 2020,[11] to conduct emergency operations and support local health jurisdictions responding to COVID-19 cases. At the state level, efforts to contain the disease continue by encouraging stay-at-home orders, contact tracing, PPE procurement, and increasing response funding.

Early on in the pandemic, a nursing facility in Kirkland was the focus of the state's cases due to the increased risk to residents with underlying health conditions.[12] On Feb. 29, 2020, the CDC reported the first death in the U.S. was related to this outbreak in King County. This Long-Term Care Facility (LTCF) outbreak was the first of many reported in the U.S. that led to multiple deaths in this vulnerable population.[13] Thirty-nine residents of this nursing home died in a four-week span.[14]

In addition to the LTCF outbreaks, tribal communities were affected early on in this pandemic. The state is home to 29 federally recognized Indian tribes. DOH, in coordination with a tribally-driven nonprofit organization, the American Indian Health Commission (AIHC), worked early on in the pandemic on behalf of these tribes to mitigate the risk to their communities.[15]

The state of Washington has a population of 7,614,893.[16] As of July 12, 2021, Washington recorded 417,687 confirmed cases and 5,997 deaths.[17] The counties with the highest confirmed cases include King, Pierce, and

[11] State Emergency Operations Center. Situation Report. November 5, 2020. https://lewiscountywa.gov/media/documents/SEOC_COVID19_SitRep_110520-181.pdf

[12] Weise, Harmon and Fink, New York Times, *Why Washington State? How Did It Start? Questions Answered on the U.S. Coronavirus Outbreak,* March 4, 2020

[13] CDC Newsroom, *Washington State Report First COVID-19 Death Media Statement,* February 29, 2020, https://www.cdc.gov/media/releases/2020/s0229-COVID-19-first-death.html

[14] History.com, *First confirmed case of COVID-19 found in U.S.,* Accessed May 5, 2021, https://www.history.com/this-day-in-history/first-confirmed-case-of-coronavirus-found-in-us-washington-state

[15] Lou Schmitz, American Indian Health Commission for Washington State, *AIHC Tribal Communicable Disease Emergency Reponses Planning Project 2019-2020*, March 11, 2020

[16] United States Census Bureau. *Quick Facts Washington.* Accessed May 19, 2021. https://www.census.gov/quickfacts/WA

[17] Washington State Department of Health. *COVID-19 Data Dashboard.* Accessed July 12, 2021. https://www.doh.wa.gov/Emergencies/COVID19/DataDashboard

Spokane. The state experienced surges in case counts on and off throughout the pandemic, with the largest surge occurring between December 2020 and early February 2021 (see Figure below), though it should be noted that the lack of available testing resources early on in the pandemic may have resulted in artificially lower data.

Figure 2: Epidemiological Curve of Confirmed COVID-19 Cases in the State of Washington[18]
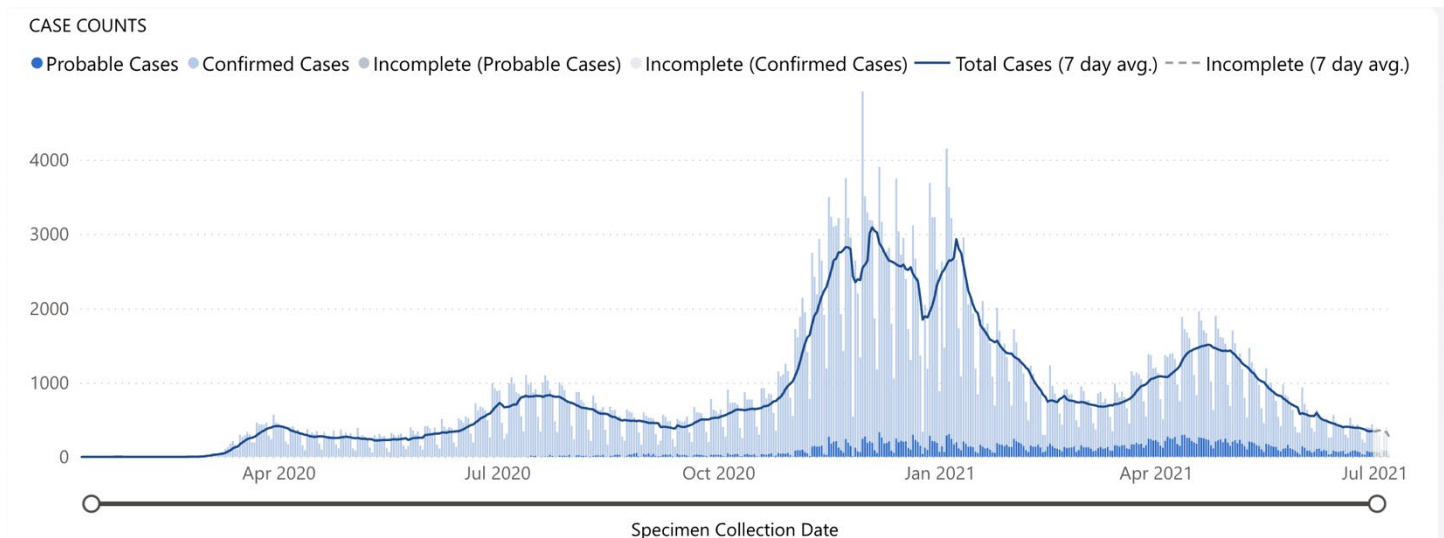
COVID-19 Response at DOH

DOH serves Washingtonians in ongoing response efforts and continues to collaborate with partners on local, state, tribal and federal levels. DOH continues to serve as a center for the ongoing measured response and recovery efforts during the COVID-19 pandemic. This assessment further reinforces the fact that DOH continued throughout the pandemic to embody their mission to "work with others to protect and improve the health of all people in Washington State." [19]

Early on in the pandemic (as of February 2020), DOH had a workforce of approximately 1,800 employees. These employees were focused on ensuring health equity and optimal health for all throughout the pandemic. COVID-19 has tested the limits of public health departments across the world, but at DOH, "the passion and commitment of the team is off the charts," said John Kahan, Vice President and Chief Data Analytics Officer for Microsoft, who worked with DOH on multiple pandemic-related programs (described later in this assessment). DOH resiliency has been dynamic, flexible, and universally acknowledged during the progression of this response and staff continue to respond as the pandemic persists.

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[18] DOH COVID-19 Data Dashboard. Accessed July 8, 2021.
https://www.doh.wa.gov/Emergencies/COVID19/DataDashboard
[19] Washington State Department of Health, Vision, Mission and Values, Accessed May 25, 2020,
https://www.doh.wa.gov/AboutUs/VisionMissionandValues

> "We will create a diverse and inclusive workplace, engage with underrepresented communities in all decisions, and ensure equitable access to services, opportunities, and information"
>
> Judy Hall and Megan Davis, Washington State Department of Health, Strategic Plan, January 2020.

Medical providers and public safety officials continue to work closely with DOH and coordinate with local partners to care for patients while under isolation. By working with local partners, providers have been able to expand testing and screening. DOH also held consistent press conferences and issued press releases to keep the community updated on new developments.

In addition to addressing public health and economic concerns, DOH seeks to address social anxiety surrounding the COVID-19 pandemic. DOH continues to provide education to reassure the public and dispel misconceptions while also empowering local communities to plan for coexisting with COVID using accurate and recent data. While physical distancing strategies and vaccination remain the most effective tools to reduce the spread of COVID-19, public health and safety officials continue to work to strike a balance for community members struggling to feel connected to their neighbors and community.

DOH also faced some unique contextual factors which influenced the COVID-19 response structure at the department. First, the structure of the Emergency Preparedness, Resilience, and Response (EPRR) division has changed on and off since 2013. EPRR (originally EPR) was created in 2013 as a combination of three other departments to better support emergency management capabilities from a public health perspective. As a relatively young division, EPRR has worked through previous emergency responses (e.g., wildfires, Measles, Zika, Ebola) and slowly adapted its operations and structure accordingly, building off lessons learned from each incident. Leadership within EPRR has also changed frequently over the last four years, some with emergency management experience and others without. This meant that EPRR's roles and responsibilities within DOH and relationships with external state departments (such as Emergency Management) have fluctuated as new leaders and staff have rotated in and out of the division. This made it difficult sometimes for EPRR to take a lead strategic planning role for DOH consistently across the pandemic. There were also some leadership transitions for DOH as a whole, as the State Health Officer and the Secretary of Health positions both changed hands in late 2020; however, there was significant support to transition planning between the outgoing and incoming personnel. This did result in some loss of "personal relationships" between key leaders and external stakeholders who were used to working together in previous activations.

In addition, it cannot be overstated enough how novel an event COVID-19 was for all public health entities across the country, including DOH. DOH had extensive experience and plans in place for wildfires, earthquakes, active shooter, pandemic influenza, and myriad other well-known and anticipated scenarios. However, with a novel virus, the typical approach for incident command and response was not able to scale up accordingly for the state of Washington. Elected officials became more involved than was typical for emergency response. Local health jurisdictions began to look for additional support from DOH in areas that are typically not handled by DOH, such as direct assistance with isolation and quarantine (these orders are typically handled at the local level). Assistant secretaries for DOH divisions changed roles, took on COVID-19 response duties in addition to their existing roles, and were used as policy advisors or agency administrators for other organizations when they did not have prior experience or training to do so. DOH not only had to quickly identify accurate guidance for a completely novel virus, but also simultaneously manage a fluid response model which took into account new stakeholders, new roles for DOH, and adaptations to current plans and policies for emergency response.

This was the first significant DOH-wide emergency response in the history of the department and for the state of Washington, and there were a limited number of individuals at DOH early on during the COVID-19 pandemic who understood the full complexities of large-scale emergency response. COVID-19 has changed that, as there is now a department-wide pool of staff who have direct disaster response experience. However, DOH will need to continue to educate senior leaders on their roles in large-scale responses and invest in further building out the role of EPRR in conjunction with other statewide partners.

Figure 3: DOH Employees at the Public Health Laboratory in Shoreline

The COVID-19 Data Review Team (a.k.a. Top Gun) at the Public Health Laboratory in Shoreline on a quick team-building break.

Figure 4: DOH COVID-19 Response Key Milestone Timeline

WASHINGTON STATE
DEPARTMENT OF HEALTH
COVID-19 TIMELINE

DECEMBER 31, 2019
The World Health Organization (WHO) picked up a media statement by the Wuhan Municipal Health Commission regarding cases of "viral pneumonia" in Wuhan, Hubei Province, People's Republic of China.

JANUARY 21, 2020
The Centers for Disease Control and Prevention (CDC) confirm the first case of the novel coronavirus in the United States in the state of Washington. The patient recently returned from Wuhan, China on January 15.

JANUARY 22, 2020
Washington's State Emergency Operations Center (SEOC) and WA DOH activated.

FEBRUARY 28, 2020
DOH Public Health Lab began doing their own COVID-19 PCR testing.

FEBRUARY 29, 2020
Governor Inslee declared a State of Emergency.

MARCH 1, 2020
Secretary of Health John Wiesman submitted his resignation to be effective January 10, 2021.

MARCH 12, 2020
First confirmed case in Department of Health (DOH) employee.

MARCH 13, 2020
President Trump declares a national emergency, making federal funds available to combat COVID-19.

MARCH 19, 2020
Governor Inslee issues a proclamation that restricted non-urgent medical and dental procedures.

APRIL 15, 2020
DOH, in partnership with Microsoft, launched an information dashboard, WA HEALTH

MAY 29, 2020
DOH issued Order 20-02 requiring widespread testing within long-term care facilities.

JUNE 26, 2020
DOH Order 20-03 goes into effect mandating the use of face coverings in public settings statewide.

DECEMBER 14, 2020
DOH announced vaccines are on the ground in the state, and vaccination was beginning.

DECEMBER 21, 2020
DDOH welcomes new Secretary of Health, Umair A. Shar, MD, MPH.

JANUARY 23, 2021
First case of U.K. COVID-19 strain found in the state.

JANUARY 25, 2021
Mass vaccination sites are open by appointment in Kennewick, Ridgefield, Spokane, and Wenatchee.

APRIL 15, 2021
Everyone 16 and older in-state are eligible for the vaccine.

ANALYSIS OF FINDINGS

Section Overview

The Analysis of Findings section is organized for ease of understanding and to provide context from the response. Recommendations for improvement are included at the conclusion of each theme subsection. The themes, strengths, opportunities for success, and recommendations are not meant to be completely comprehensive of all data collected, but instead are meant to focus on key patterns emerging from multiple stakeholders and on the most impactful recommendations for future pandemic or public health emergency response efforts. The sheer length of the activation for the COVID-19 response, combined with the unprecedented nature of the event, resulted in an overwhelming amount of data and input. The purpose of this assessment and the findings below are to distill the data collected thus far into key areas and to help prioritize future resource allocation and policy development in ways that are feasible for DOH.

Activation & Agency Coordination Center (ACC) Operations

Summary

DOH initially activated emergency operations effectively and in accordance with operational plans to respond to the COVID-19 pandemic. The department activated three IMTs and the Incident Command System (ICS) at the beginning of COVID-19 response efforts in January 2020. On Jan. 24, 2020, DOH activated their Agency Coordination Center (ACC) out of the Shoreline campus as a standard response to an outbreak of a novel virus and began tracking impacts and potential risks for COVID-19. As the response grew, DOH activated the ACC on their Tumwater campus, which allowed many of the activated IMT staff to operate closer to home. DOH then moved to a Unified Area Command model in conjunction with other activated state and federal entities through the April – June 2020 timeframe, before transitioning back out of Unified Command and returning to ACC-led operations in July of 2020. From the very beginning, DOH leadership emphasized that this novel virus would require a coordinated, whole agency, statewide response.[20]

While an informal process was utilized to activate individuals to staff positions within the initial IMTs, this process worked effectively based on previous activations and best practices which emerged from the 2019 measles outbreak, such as ensuring deputies were involved in the staff identification process. Overall, DOH successfully activated and has effectively staffed IMT positions throughout the entire COVID-19 response (almost 542 days at the time of the writing of this assessment, the longest public health emergency activation for DOH and any public health response organization).[21] While this is a tremendous achievement which should not be diminished by the following discussions, it is true that multiple challenges have arisen for DOH in staffing IMT positions, coordinating response activities with other statewide partners, and standardizing their operations over such long period of time. For instance, limited visibility over staff availability and skillsets remained when making decisions on who to activate to fill IMT roles. Noncompliance with the established process of working through DOH deputies to staff IMT positions also posed issues, as day supervisors lacked awareness of the IMT assignments being given to staff on some occasions. In addition, improvements to the activation notification and IMT onboarding process could be made to provide individuals the information and resources to successfully carry out their position roles and responsibilities. The activation process impacted staff well-being, created staff burnout, and posed challenges for transitioning to a sustained response structure.

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[20] Stakeholder interviews.
[21] As of July 16, 2021

The initial Agency Coordination Center (ACC) response was well organized, as existing teams were well trained for the response and had honed their skills during several previous activations. They were also able to quickly scale up operations into an Area Command model which leveraged best practices from previous disaster activations (such as wildfires) and re-allocate staff accordingly. External IMT members were even brought in from agencies such as the Coast Guard and the Environmental Protection Agency (EPA). Area Command was transitioned to the state EOC, which fed information back and forth to the activated IMTs at the Shoreline and Tumwater locations for operations and planning. Finally, after months operating at a Unified Command level, DOH identified trigger points for demobilizing back into ACC operations and out of Unified Command in order to better serve a long-term response model. There were also some key innovations in the planning section of the ACC, which allowed the creation of a brand-new automated IAP template to streamline response documentation efforts.

Despite challenges, staff responded effectively and rapidly to the emergency. They showed great dedication and determination in their approach to the response. The use of technology such as an app to track IMT and ACC activations to simplify and enhance the response was commendable. DOH staff and external partners identified several areas for discussion to improve future ACC responses. These included adequate staffing, employee wellness, training of staff, use of subject matter experts, and updated onboarding processes. Improvements in these areas will allow DOH to respond to future disasters more effectively, especially those considered novel and those which may require a large-scale response.

> "No one wants to be the first in the nation in these types of situations, but these are the types of situations that public health and its partners train and prepare for. Because of this, everything has been going along quite smoothly."
>
> Dr. Chris Spitters, Health Officer, DOH News Release, January 21, 2020

Strengths

1: DOH activated quickly, scaling up their response to meet incident needs and bringing in additional staff to support operations.

The Washington State Military Department activated the SEOC on Jan. 22, 2020, and DOH activated their IMT and ACC on Jan. 24, 2020 in response to the first confirmed case of COVID-19, not just in the state of Washington, but in the nation.[22] The case was confirmed on Jan. 21, 2020 and DOH quickly scaled their emergency operations and brought in staff to fill positions within the IMT. Almost immediately after establishing the initial IMT, they activated two additional IMTs to support the response. The success of rapidly escalating response operations was attributed to the pre-establishment and exercising of multiple IMTs that could be activated during a real-world incident. While it has never been necessary for DOH to operate at this scale, the department was well-prepared because of the infectious disease planning and preparedness efforts they participated in prior to COVID-19, and from multiple prior outbreak emergencies as well, including Ebola and measles. As such, the department was able to scale up quickly to meet the rapidly evolving situation surrounding the pandemic, and the process of activation and scaling the response was described as "very

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[22] Lewis County Washington. "Situation Report (SitRep)". State Emergency Operations Center. November 5, 2020. https://lewiscountywa.gov/media/documents/SEOC_COVID19_SitRep_110520-181.pdf; Stakeholder interviews.

routine, exercised, and practiced."[23] This was despite the fact that DOH had been in the process of revising their IMT activation protocols when the pandemic began and did not have a complete version.

While it was not until Feb. 29, 2020 that Gov. Jay Inslee declared a State of Emergency in the state of Washington, it is clear through the DOH activation on Jan. 24, 2020 that DOH anticipated the need to coordinate operations in response to initial cases of COVID-19 in the state early on in the incident. As local public health and response entities learned of the activation, the posture of DOH was mimicked locally as entities quickly began to activate their EOCs, public health Department Operations Centers (DOCs), and regional response frameworks to facilitate coordination throughout the duration of the response. The anticipatory activation of DOH set the state up for success in the COVID-19 response, and if it were not for the preparatory and planning efforts of DOH, the scaling of their activation would likely have faced far greater challenges.

2: The notification process utilized during the pandemic worked effectively to alert individuals of their activation to a position within the IMT.

During the pandemic, notification of the activation of DOH and their IMTs worked as intended. DOH typically uses a notification system called the Washington Secure Electronic Communications Urgent Response and Exchange System (WA SECURES) to alert individuals of the specific position to which they have been assigned in the IMT. While this process was not implemented initially since the process took place more informally (e.g., personal phone calls), as the response grew and more people were needed to staff the IMT, the ServiceCentral system was used to release activation notices, and individuals were notified via email of their assignment to an IMT position. This was done since ServiceCentral housed the names of all DOH employees across all DOH campuses that would be required to support response. WA SECURES had only the names of pre-identified IMT volunteers, and COVID-19 required a whole agency response. Additionally, ServiceCentral was connected to employee timekeeping to support accurate recordkeeping.

While the notification and activation process worked effectively during COVID-19, the process often occurred informally, despite having a Notification and Communications Annex and WA SECURES Alert and Notification Operations Appendix that were drafted in September and November of 2019 respectively. These documents remain in draft form, which may have contributed to the more informal activation process implemented during the COVID-19 pandemic. Further, the Notification and Communications Annex was developed for smaller, localized events. Although a planning assumption within the annex states that "notification of an incident may be scaled to match the complexity of an incident," the document emphasizes that incidents occur at the local level and focuses on the processes of DOH activation resulting from the duty officer being notified by a local entity requesting support for a public health response. Little guidance exists within the annex regarding the notification of DOH staff for a global pandemic or large public health emergency, which may require different processes than that of a small, localized incident.[24] Because DOH had to deviate from the processes in these documents, some staff felt confusion surrounding the entire notification process. However, DOH took steps to help alleviate this confusion by course correcting throughout the response.

For instance, in 2019, DOH determined that deputies should be included in efforts to identify individuals to staff IMT positions. Supervisors understand their staff members' capabilities, know how particular individuals work under pressure, and recognize if a person's family/personal life will accommodate an emergency activation. As such, during COVID-19, the Resource Unit Leader was well connected with the Deputy Assistant Secretaries, rather than just the Incident Commander (IC) or Planning Section Chief (PSC) to help identify individuals to staff the IMT.[25] This process helped finalize who could/should be assigned to the IMT.

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[23] Stakeholder interviews.
[24] Washington State Department of Health. "Notification and Communications Annex". Emergency Response Plan. September, 2019.
[25] Stakeholder interviews.

During the initial phases of the pandemic when there was substantial uncertainty surrounding the direction of the response, the informal process of utilizing phone calls and other informal means of communications (i.e., word of mouth) to activate IMT members sufficed. And overall, the notification process worked effectively to inform staff of a DOH activation initially and of their assignment to the IMT throughout the duration of the incident. However, improvements to the notification process could be made. For instance, because not everyone was activated initially, it was not clear what positions were mission critical and which were not. In addition, because acting assistant secretaries were assigned response roles, the Leadership Team also had to adjust for the resulting impacts to normal operations and, later on, implementation of continuity of operations planning (COOP) roles. Overall, the notification process worked well but could be further streamlined and socialized to ensure the process is understood and adapted agencywide.

> "DOH is a responder agency. DOH staff across the agency respond to public health threats through their day-to-day work, as well as responding as part of the DOH IMT, agency response team, or as a member of a response workgroup. It is crucial that appropriate staff have timely notification and on-going communication to be effective responders and to share that information with response partners. This notification also allows our agency to provide critical responder health and safety components, and to provide initial information to non-responders and agency leadership so they can begin coordinating in support of the response."
>
> - DOH Notification and Communications Annex

3: DOH successfully implemented remote work to respond to the COVID-19 pandemic.

A huge effort was carried out by Information Technology, Deputies, Facilities, and other stakeholders to help ensure that the department was operational throughout the pandemic in the remote work environment. Much of the established infrastructure was made possible by early DOH investments aligned with Gov. Inslee's 2016 Executive Order Building a Modern Work Environment, strengthening the adaptability for the changing work environment and enabling a mobile workforce across state government.[26] Some divisions, such as Disease Control and Health Statistics, implemented measures pre-COVID that supported an effective transition to remote work during the pandemic. For example, Virtual Private Networks (VPNs) were installed prior to COVID-19 to support remote work and cell phones were issued to staff for work-from-home purposes with associated mobile work agreements put in place by Human Resources. This eased the transition to the remote environment when the COVID-19 response began. In addition, Microsoft was embedded almost instantaneously into DOH to help establish the data systems necessary to effectively carry out the response. Remote work also necessitated migration of data to a cloud platform, which helped ensure continuity of operations. The COVID-19 response and the transition to a largely remote environment fast forwarded the implementation of many technology solutions that will set the stage for the future technology posture of DOH, adding efficiency to operations, further redundancy in data storage, and greater flexibility in where work can be

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[26]Executive Order 16-07: Building a Mobile Work Environment.
https://www.doh.wa.gov/AboutUs/WorkatHealth/MobileWorkforce

performed. While there were growing pains in implementing such systems and transitioning to the remote work environment, overall, the transition went smoothly, properly positioning DOH to respond to this novel disaster.

4: Integrating Human resources into the IMT was critical to the success of IMT operations and added a greatly needed human perspective to the response.

One of DOH's core transformational areas from its Strategic Plan is applying an "outward mindset" to "build an organizational culture in which we see others as people and focus on achieving agency objectives in ways that help our employees, partners, and customers achieve theirs."[27] Throughout the response, DOH leadership worked to integrate this concept into their IMT activation processes and response coordination activities to help their employees succeed as much as possible.

As such, leadership decided to bring in Human Resources to support the COVID-19 response early on in the incident. The intent was to ensure the human element of the response was respected and that individuals remembered that "people are people." Human Resources staff were brought into the activation and supported the response in multiple ways, proving to be a huge asset to the IMT. For instance, at the Shoreline and Tumwater campuses, Human Resources developed welcome packets that included resources such as a building layout, a frequently asked questions document on payroll, contacts for information technology support and instructions on getting connected to the printer, and other useful guidance for those staff deployed and activated as part of the IMTs. While this does take extra work and having pre-developed materials available to support the response would have been useful, these packets helped staff better acclimate to the IMT roles quickly and mentor others later in the response.

In addition, integrating Human Resources into the response helped to ensure that staff continued to have ready access to employee resources. As one example, prior to HR's integration there were instances where IMT-activated staff would report to the IMT, and leadership would indicate that they did not request the individual and try to send them back to their typical role at the DOH main office. Having Human Resources in place helped individuals take a step back to consider where additional help was needed and where these individuals could be placed within the response, so staff who had traveled out of their way to get to the facility were not sent back erroneously. In addition, IMT leaders who were unsatisfied with the performance of subordinates were not initially providing the mentorship necessary to allow for peak performance of staff and were not appropriately documenting subordinate documentation. Integrating Human Resources allowed these issues to be addressed and the appropriate processes implemented for leadership to supervise staff fairly and effectively.[28]

Overall, developing a position for Human Resources within the IMT was largely successful and helped ensure that the "human element" was respected throughout the COVID-19 activation.

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[27] Washington State Department of Health. Strategic Plan. Effective January 2020. https://www.doh.wa.gov/Portals/1/Documents/1000/820083-StrategicPlan.pdf
[28] Stakeholder interviews.

5: DOH was able to integrate lessons learned from prior activations and corrective actions to improve COVID-19 operations and scale up response operations very quickly and easily.

DOH was prepared for an emergency, as they have many staff who were well trained in ICS. In addition, several Incident Commanders were trained and available. IMT members were able to activate quickly, identify the need for Unified/Area Command operations, and adjust operations accordingly. DOH staff responded promptly to activation requests and started work immediately. Many IMT members were immediately able to shadow others in key positions in the first few weeks of ACC activation. Experience also played a huge role as many staff members were veterans of several earlier public health responses including Ebola, measles, and mumps. DOH was a lot better off than most states due to the "response" nature of the department's orientation.[29]

> "We have so few novel events, and it is even more rare when everyone experiences it simultaneously. So, we need to re-evaluate how incident management does the work of identifying those key stakeholders and experts-and move them with us in the direction of resolution towards a response, and how they help us develop objectives."
>
> Stakeholder interview, May 2021

6: DOH staff, working with ServiceNow, created two apps which effectively and efficiently supported administrative components of the response.

During the second week of the response, leaders realized that a great deal of manual work was required to keep the response going. This included travel arrangements, rostering, and communications that needed to go out. The deputy Chief Information Officer (CIO) and a development team from ServiceNow were assigned to determine if technology could be leveraged to automate these processes. In about four weeks, they developed an app to support rostering and notification of the IMTs including automated activation emails with required forms attached. A second app was developed by the same group which automated timekeeping. With any response, it is essential for staff to sign-in and out each day. This is a requirement for FEMA reimbursement and drives additional eligibility for other funding streams. The new app made the process easier, significantly reduced errors, and was a huge morale boost for activated personnel.

Opportunities for Future Success

1: There was limited visibility over who was available to staff the IMT and what their training, talents, and interests were.

Throughout the activation, there were challenges identifying skilled and trained individuals to fill IMT positions. While coordinating with Deputies aided in this process, challenges remained that could be improved upon for future activations. For instance, there was very limited visibility over who was available, what these individuals could offer, their talents, and their level of interest to fill IMT positions. In addition, the ability to capitalize on individuals' talents that may not be directly related to their day-to-day position within DOH was a missed

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[29] Stakeholder interviews.

opportunity. For example, someone who may be skilled in videography because of their personal hobbies could have supported communications efforts, or individuals across the entire department (not just from a single program) who have nursing or epidemiology backgrounds/skillsets could have been identified and assigned to appropriate roles within the IMT.[30] Because of the lack of visibility surrounding staff availability and skillsets, many times requested skillsets to staff IMT positions were unavailable because they were unknown. In addition, because of the short turnover time and rapid pace of operations, the needed skillsets often were not trained or acted upon, creating gaps within the response.[31] DOH could find greater ease in staffing IMT positions and filling needed skillsets if staff information was centralized in one easy-to-use system.

DOH did attempt to remedy this issue by developing a system to help define roles and responsibilities of the positions they were trying to fill and track hiring, recruiting, and staffing. The intent of this system was to help answer questions such as how many people are supporting the response, what is the cost, how many and what positions are being recruited for, and other personnel resource-related questions. The Human Resources Section Chief led this effort. Originally, a consulting firm was engaged to build out this system and they created an expansive Excel spreadsheet to track this information. Individuals were expected to keep the spreadsheet up to date. However, this did not occur and was unfeasible given the size of the active response. As such, a new application, the Resource Master Tracker, was developed. This tracker is connected to the department's ServiceCentral application, which more successfully meets DOH needs in this area. The system can develop and issue reports and provides the necessary information to effectively manage DOH IMT staffing needs.

2: Improvements could be made to the activation and IMT onboarding process to help better define roles and responsibilities within the IMT and to promote effective coordination.

As individuals were activated to the IMT, roles and responsibilities were not always widely understood. This caused confusion and misunderstanding. Many staff recruited from outside the initial pool of IMT volunteers generously gave their time but were not fully trained in ICS and did not completely understand the roles in which they were assigned. Challenges communicating IMT reporting and onboarding instructions exacerbated this lack of training. In addition, because so many people were activated so quickly, information in the activation email was not always relevant to every position, causing further confusion. Some individuals were also activated to the IMT on the day prior to pre-approved holiday leave. Further, staff were not always aware of who was staffing which positions. While an application eventually replaced the whiteboards and spreadsheets that were used as rosters, a lack of visibility persisted, causing confusion and impacting coordination, communication flow, and chain of command. Assigned personnel would have benefited from further guidance and clarity on the roles and responsibilities of their positions in the form of job role cards which could be disseminated in the activation email. A clear reporting structure in the form of an organization chart was also not communicated in the initial activation email. If individuals assigned to the IMT understood the organization and reporting structure of the IMT, some misunderstandings and confusion may have been avoided as personnel may have better understood communication pathways and the impacts of their position on others.

In addition, day supervisors, IMT supervisors/chiefs, and Human Resources (HR) IMT personnel were not always aware of assignments made to the IMT. For example, IMT supervisors and/or chiefs reaching out directly to staff to request that they return to or continue in a specific IMT role without day supervisor awareness was problematic and occurred multiple times throughout the response. This did not align with the established process of working through DOH Deputies to staff IMT positions and resulted in day supervisor approval and awareness being bypassed on multiple occasions. While the HR IMT position was largely successful as they helped coordinate payroll, scheduling, and onboarding, further potential to define the role and processes of this position to support a seamless activation and onboarding process exists. For instance, HR guidance was developed by deputies for IMT positions, but no formal process for sharing the information

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[30] Weaving DOH Values into IMT Response Report Out.
[31] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.

was instituted. In addition, a feedback loop with IMT staff and HR IMT personnel may have benefited the response to assist with identifying and addressing staff challenges as they arise. Implementing processes for identifying reasonable accommodations for staff and for providing access to all applications and equipment would have also benefited the activation and onboarding process.

On occasions when the request to staff IMT positions came through the appropriate channels and day supervisors were made aware of assignments, challenges persisted. Some staff felt obligated to fill the position because the request was coming from senior leadership. If the task was unable to be completed, a reason had to be provided. Others remained fearful, anticipating impacts of the pandemic such as layoffs or knowing that their position was not eligible for remote work and there was a possibility that they would lose their jobs if they did not participate. Much of this misinformation was quickly addressed by HR and strong communication from the Washington Federation of State Employees (WFSE) Council 28. However, this notion still created an atmosphere where staff felt as if they must fill an IMT position assignment even if they had valid reasons not to staff it, such as personal reasons or being in a compromised mental state due to the ongoing response.

Lastly, IMT assignees would have benefited from early guidance on logistical and procedural information such as where restrooms are located, processes and locations for taking lunch breaks, where meeting rooms are located and how they are used, where specific workspaces are, what their position entails, and what the impacts of their position may be. By creating a more comprehensive and structured onboarding process, IMT staff may be better prepared to come into the IMT to work, having already grasped the fundamentals to successfully carry out their roles and responsibilities. This would decrease the time required to prepare individuals to carry out their job once they have already reported to the IMT, as information would have been communicated ahead of time.[32]

An IMT Activation Protocol does exist in draft form as an attachment of the Command-and-Control Annex of the Emergency Response Plan. However, little onboarding information is provided outside of the initial briefing of the IMT.[33] DOH would benefit from defining a more robust IMT onboarding process for use in large-scale public health responses that require the activation of staff who may not be familiar with ICS structure and emergency operations.

3: Activation impacted staff well-being, caused burnout, and posed challenges to transitioning into a sustained response structure.

With the rapid scaling of the DOH activation initially, staffing proved challenging. For instance, individuals were assigned to both serve as a Deputy while also serving on an IMT, essentially assigning some individuals to fill two positions within the response.[34] Last-minute activations of individuals also had negative personal impacts on staff as many had to work extremely extended hours or operate out of alternative facilities far from their homes and drive back at night, causing concerns for responder safety and health. As the response continued, individuals staffed the IMT for different periods of time. Some were assigned to the IMT for one week, while others have been activated for the entire response; this caused immense burnout for some staff who have been activated for most of the incident. With the prolonged activation, personal and activation planning challenges resulted. Staff were commonly activated for months at a time but with the knowledge of the need for extended operations. This made it difficult for staff to move out of a short-term response model and into a sustained, long-term response model. While long-term assignments helped to build continuity within the response and confidence within key response areas, staffing and staff well-being challenges arose due to the long-term nature and structure of the activation.[35]

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[32] Weaving DOH Values into IMT Response Report Out
[33] Washington State Department of Health. "Department of Health Incident Management Team". Command and Control Annex, Emergency Response Plan. February 2018.
[34] Stakeholder interviews.
[35] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.

4: Epidemiology personnel were activated through a different channel than the IMT, causing coordination and staffing challenges, and opportunities existed to further supplement epidemiological tasks that were not capitalized on.

The initiation of the entirety of the DOH response to COVID-19 began out of the Office of Communicable Disease Epidemiology as case investigation, contract tracing, and limited infection prevention and control, but quickly grew to include all DOH departments. Because epidemiology initiated the DOH response to COVID-19, the activation pathways for epidemiology personnel differed from that used to activate individuals to the IMT, who were activated later in the response. Epidemiology is normally responsible for vetting and verifying an infectious disease outbreak initially and thus is normally among the first responders to such incidents. However, while the early activation of epidemiology for the COVID-19 pandemic aligns with the typical process of initiating a response to an infectious disease event and this process works well under most circumstances, the unprecedented and unpredictable nature of COVID-19 threatened the efficacy of this process and led to staffing and workload challenges.

Due to the separate activation pathways, there was a lack of transparency surrounding the assignments of epidemiology staff, which on some occasions resulted in staff being over-assigned tasks and over-worked. This was evidenced by staff being promised days off to rest, but this was not occurring for months at a time. Overall, there was a systemic issue in COVID-19 response operations staffing across DOH. This issue was exemplified by the separate activation pathways that existed between the IMT and epidemiology personnel.

Moreover, an opportunity existed to help supplement epidemiology staffing that was not initially capitalized on. For instance, other departments had staff with comparable skillsets to those being implemented by epidemiologists during the initial response. Environmental health staff, for example, had strong interviewing skills from completing tasks such as food questionnaires that could have translated well to tasks such as contact tracing. However, these individuals were not engaged to support initial efforts as the focus was on procuring those with experience in communicable disease epidemiology. This speaks to the larger issue of not having an effective means to track employees' skillsets in relation to an emergency response, even if those skills differ from their day-to-day duties, or are like their day-to-day duties but can be applied in a different context. If other staff were brought into the response sooner, the challenges with staffing epidemiology positions and the opposing activation pathways may have been resolved sooner.

5: Beyond ICS, comprehensive agency leadership training is necessary to ensure administrative functions and leadership roles of the IMT align with HR policies and ensure staff are properly trained to handle business operations and employee interactions.

Staff replacements throughout the response often arrived with little experience in emergency operations (this was a common problem in local and state health departments across the country during the pandemic). Many IMT staff did not hold management roles in their day-to-day positions, meaning they did not receive agency-wide supervisory skills training and lacked leadership capabilities to lead large teams. Adding to the stress of the incident, staff struggled with people in leadership roles who lacked leadership or management experience. As a result, teams could not work at optimal levels, adding to the stress of individuals occupying leadership roles and teams under their supervision.

Recommendations

1: Formalize/finalize the processes of notifying, activating, and onboarding individuals to the IMT and integrate these lessons into Attachment 5 – IMT Activation Process for Annex 1 to the DOH Emergency Response Plan on Command and Control. Consider developing these processes:

- The involvement and role of day supervisors, IMT supervisors/chiefs, and Human Resources IMT personnel; ensure that the activation of Human Resources personnel to the IMT is documented in appropriate planning documents with associated job action sheets or descriptions.

- Thresholds or a decision tree for implementing and uploading all DOH employees and partner state agency personnel to the WA SECURES platform for calling down individuals to staff IMT positions.
- Finalization of the Notification and Communication Annex, WA SECURES Alert and Notification Operations Plan, and IMT Activation Protocol; ensure lessons learned from COVID-19 are incorporated into these planning documents.
- Surge staffing alternatives for large-scale public health emergencies which may require long-term response and require additional IMT staffing pools.
- Access to a map/position description and organizational chart prior to reporting.
- Development of brief videos that provide a description of the position, expectation, impact of position on others, directions for completing forms, meetings that should be attended, etc.
- Require supervisor/management skills training for activated personnel in key IMT leadership positions who may not have previous management experience in their day-to-day positions.
- Development of template welcome packets that include logistical and procedural details; consider including samples of the activation or onboarding packets used during COVID-19 for IMT staff.

2: Continue to refine the Master Resource Tracker application to meet the personnel resource needs of large-scale IMT activation.

- Ensure that all relevant personnel are trained on how to use the system and integrate the system into future IMT activation trainings.
- Develop a policy for system upkeep and maintenance.

3: Discuss the impacts of extended activation on staff well-being and morale and identify a process for transitioning from a short-term crisis response to a sustained, long-term response. Consider:

- Some additional training for staff being asked to activate – impacts you may experience if it moves into a long-term response; some of the tools available (e.g., Employee Assistance Program, Behavioral Health Strike Team, etc.).
- Discuss implementation of policies which require structured staff time off and succession strategies to ensure staff PTO is feasible even during periods of surge.
- Having policies in place to ensure equitable assignment of staff to IMT activations to promote staff well-being and avoid (to the degree possible) the same individuals always being activated for long periods of time.
- Establish thresholds for streamlining IMT size and scale during periods of reduced activity or limited mission-critical responses.
- Mandatory "three-deep" identification for key IMT leadership positions to more equitably rotate shifts between at least three personnel and provide necessary coverage for staff to feel comfortable taking time off.
- Continue to train staff not usually activated in response or represented in IMT leadership to expand agency knowledge and technical skills; this may serve to both improve representation, which empowers staff, and lessen the impact of staff turnover.

4: Expand the number of staff who are formally trained to assume roles in the IMT within DOH by at least 15% from current numbers (including those who have been activated and trained as part of COVID-19 response). This may include volunteers or other supplementary staffing pools. Training for IMT staff should include:

- Basic ICS/NIMS training certifications: ICS 100, 200, NIMS 700 and 800. Leadership positions should ideally also have ICS 300 or 400 if and when possible (optional).
- Annual required exercises (tabletop or functional) of IMT activation processes and duties.
- Just-in-Time training for those assigned during activations, whether delivered live upon activation or via a pre-recorded webinar.
- Supervisory or leadership training module for those in command staff roles or other key leadership positions.
- A list of DOH staff who have filled the activated role previously and can act as mentors if/when needed for questions.

Community Needs and Impacts

Summary

As the COVID-19 pandemic continues to evolve, so have community needs. DOH significantly increased response capability during the pandemic helping to address both pre-existing and newly emerged needs in communities. Many of these efforts are aligned with the commitment outlined in the DOH Secretary's Directive 19-01, "to increase health equity ensuring a focus on diversity, inclusion, cultural humility, anti-oppression, and equity in agency decision-making and the allocation of resources".[36] During the pandemic response, DOH launched many new mental and behavioral health programs, and inclusive administrative practices in response to community needs and impacts. DOH successfully implemented many best practices and innovations to address primary needs of individuals with access and functional needs (AFN) for state-run response tactics such as mass vaccination. DOH also provided education, resources, and tools for local jurisdictions to address the unique challenges of response planning for individuals who may be disproportionately impacted by the pandemic.

However, several gaps still remain. Several critical community needs exist, including more planning, training, and engagement of communities and community leaders, in addition to monitoring the legal environment of public health emergencies to explore how laws and policy impact population health. DOH readily integrated opportunities for public health response partners to provide insight on community impacts from tribal governments, local health jurisdictions, health care coalitions, and health care organizations to submit input through the various forums and regular IMT coordination meetings. Despite outreach, not all populations received the resources necessary to ease the impact of the pandemic. Enhanced efforts to support additional planning and outreach were necessary to address considerable barriers and challenges experienced by local communities to safely access care and receive trusted health information to support individual decision making and protect the health and safety of Washingtonians.

Future state-level assessments, evaluation, and after-action reviews of state associations and community-based partners are planned by DOH and interagency response partners to comprehensively assess the community impacts and experience of the COVID-19 response.

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[36] Secretary's Directive 19-01: https://www.doh.wa.gov/Portals/1/Documents/1000/2019-01-SecDirect.pdf

Strengths

1: DOH was able to advance mental and behavioral health capabilities for the response and strengthen statewide resiliency.

The COVID-19 pandemic and the resulting economic recession negatively impacted the mental health of adults and adolescents, who in particular experienced a series of unfamiliar changes, including closure of schools and loss of connection to social networks. The mental and behavioral health impacts of the COVID-19 response have demanded additional capacity to be built and infrastructure to be leveraged to address the community needs and behavioral health impact from the pandemic.

DOH has been able to collaborate with partners such as the Washington State Health Care Authority (HCA), Washington Administrative Office of the Courts (AOC), Washington State Liquor and Cannabis Board, and the Washington State Department of Revenue to leverage a suite of reporting resources and syndromic surveillance data to help collect data and share information between reporting systems to forecast need based on indicators collected from across the state and reported in near real-time. The COVID-19 Behavioral Health Impact Situation Report is posted weekly; it presents the potential health impacts of the COVID-19 pandemic for Washington to inform planning efforts using data from statewide hospitals, clinics, and health centers for procurement of mental, behavioral, and neurodevelopmental services, in addition to referrals from telephonic support lines, number of crisis calls, court case filings, product sales of alcohol, cigarette, and cannabis taxes, as well as handgun background checks. The report summarizes data analyses conducted by the COVID-19 Behavioral Health Group's Impact and Capacity Assessment Task Force to determine the likely current and future impacts of the COVID-19 pandemic on mental health and potential for substance use issues. In addition to a weekly situation report, a monthly statewide high-level analysis of forecasted behavioral health impacts is posted. The intended audience for both reports includes response planners and organizations who are responding to or helping to mitigate the behavioral health impacts of the pandemic.

The development of new resources and information for the public has been a steady focus to overcome. DOH created a COVID-19 Behavioral Health Podcast. This free, multi-series program with disaster psychologist Kira Mauseth, PhD, and psychiatrist Doug Dicharry, MD, discusses how the COVID-19 pandemic impacts people beyond contracting the disease. Conversations center on coping with COVID-19 and asks relevant questions of its audience, including how individuals are feeling, why they are feeling that way, and what they can do about it. Another resource called WA Listens was developed as a free, anonymous service that offers nonclinical behavioral health support. It provides referral information to local resources based on caller needs shared. Since its inception in July 2020, a total of 3,164 WA Listens encounters have been completed.

2: DOH implemented best practices to establish contracts with community-based organizations (CBOs) for language services and community outreach.

During the pandemic, language services has played an essential role to ensure public health messaging and protective measures are able to be understood and accessible. Likewise, outreach to strengthen partnerships with communities that may be disproportionately impacted by the virus has been a cornerstone of the DOH response.

DOH offered contract opportunities to CBOs during the response. Entities submitted interest to provide language and outreach services to support DOH. Contract recipients were tasked to ensure messaging was culturally relevant and linguistically appropriate to reach communities disproportionately impacted by COVID-19.[37]

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[37] https://www.doh.wa.gov/Emergencies/COVID19/CommunityOutreachContracts

> "DOH recognizes that community-rooted and community-led organizations and groups are better positioned and equipped to listen, understand, and respond to the needs of their community members in the most culturally relevant and linguistically appropriate way."
>
> Emergency Outreach and Language Services Contracts Page

In addition to contract opportunities, DOH built a process around contracting activity which included convening a Community Engagement Task Force to support, review, and provide recommendations for final selection of CBOs in alignment with agency contract and procurement practices. More than 40 CBOs were awarded up to $500,000 to support this important mission for outreach and translation for communities.[38] This model helps to further strengthen whole community engagement and the unique contributions each organization brings to the partnership. The award helps ensure that CBOs and other community-rooted organizations are equitably compensated for their time and underscores the value of their expertise, skills, and resources of community partners they bring to the table and their unique contributions in their role working with DOH.

3: DOH met communities where they were and found creative solutions working with the Governor's Office and other state agencies to incentivize individuals to get vaccinated.

As of June 1, 2021, DOH launched an effort to support community partners and local health jurisdictions to increase vaccine access for priority communities with a mobile vaccination clinic called Care-a-Van. This new capability is a first for the state and aims to provide service to communities that are socially vulnerable, areas experiencing recent COVID-19 outbreaks, communities with higher-than-average COVID-19 infection rates, and to serve demographics with lower vaccination rates.

The Care-a-Van service helps reduce disparities and address many of the socioeconomic barriers individuals may face for access to vaccination. Communities are encouraged to request the Care-a-Van service visit 30 days in advance.

Like many states, Washington has been tasked to find creative solutions to increase vaccine rates. Pop-up vaccination sites have been one method to increase access and bring vaccines closer to where residents work, live, and socialize. Pop-up clinics can be found at traditional health care provider and clinical sites, as well as at innovative locations such as faith-based community sites, schools and universities, apartment complexes, Centers for Independent Living, farmers' markets, and popular summer events such as music festivals and fireworks displays.

As the pace of COVID-19 vaccines slowed in Washington nearing the July 4 national goal to have 70% Americans vaccinated, incentives were used to help boost vaccination rates and uptake for the mobile strategies implemented across the state for unvaccinated individuals to take the vaccine. The Washington State Lottery conducted "Shot of a Lifetime," partnering with sports teams, higher education, and technology companies to offer prizes for vaccinated individuals. Rewarding vaccinated individuals with lottery drawings, higher education tuition and expense assistance, sports tickets and gear, gift cards, airline tickets, and game systems have been popular ways to encourage residents to get vaccinated. Additional programs such as "A Heroes Thanks" for military, military staff, their family members, and veterans who were vaccinated through the

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[38] DOH, "Emergency Language and Outreach Services Contracts,"
https://www.doh.wa.gov/Emergencies/COVID19/CommunityOutreachContracts

Department of Defense, Veterans Affairs, or the National Guard have been offered. The Washington State Liquor and Cannabis Board even announced a program to give adults a joint in exchange for a COVID-19 vaccination. Data collection on each of these incentive methods is being carried out at the time of writing this assessment and more analysis regarding promising methods that should be maintained for future pandemic response is encouraged.

Figure 4: DOH Employees at a mobile vaccination clinic in Thurston County

Secretary Shah visited a mobile community vaccination clinic in Olympia, meeting with Thurston County Public Health officials and representatives of community organizations to discuss vaccine outreach for hard-to-reach populations.

Opportunities for Future Success

1: Administrative preparedness plans across DOH could be further developed to ensure prevention, preparedness, and community public health partners receive program funding at local and tribal levels.

Disruptions caused by the pandemic led to funding delays, which were felt by local health jurisdictions, tribal governments, health care partners, and other sub-recipients of federal funding passing through the state. Grant sub-awardees on many community health, prevention, preparedness, and environmental health programs had important questions regarding how the COVID-19 pandemic impacted these funding streams, which support many foundational public health strategies and other local programming. Partners required guidance regarding

recipient/subrecipient monitoring, what to do if they did not complete contract activities, and whether regular timetables for grants applications would be impacted. Delays in releasing funds did occur. This caused added tension for DOH and their partner relationships. Many of these questions led respective DOH programs to submit inquiries to federal funders to receive clarification and provide guidance for sub-awardees. This period of unknowns was difficult for many sub-awardees and staff funded by those dollars, who needed to determine if programs could continue and forecast abilities to support local capabilities. While much of the funding has been distributed, some jurisdictions continue to struggle with limited capacity to support local efforts.

2. There is a need for strengthened engagement and integrative planning for unhoused residents, agricultural workers, communities of color, American Indian/Alaska Native communities, immigrant and refugee communities, LGBTQIA communities, individuals in correctional and detention facilities, individuals in adult homes, and people with disabilities.[39]

Conducting intentional and culturally responsive outreach to disproportionately impacted communities will be key moving forward in pandemic response and recovery. From surveys, participants identified the need for further efforts and enhanced collaborative planning to reach populations to reduce health disparities and increase the likelihood of positive health outcomes.

Survey respondents shared a number of populations they felt concern for in terms of the ongoing impacts of the COVID-19 pandemic: individuals experiencing chronic homelessness, agricultural workers, people with access and functional needs, refugee communities, individuals in adult homes, individuals in jails and detention centers, and tribal nations.

DOH has made improvements for communities most impacted by COVID-19 based on feedback. For example, to uphold equitable access at state-led mass vaccination sites, DOH extended hours into the evening to improve access and ensure members of the community can coordinate with work schedules. However, more of this dialogue, purposeful listening, and outreach into communities disproportionately impacted by COVID-19 is required.

Additionally, more steady-state relationship building at the state level is required to help fill gaps in response operations and provide technical assistance to local health jurisdictions during the response to address the unique needs of the community and proactively overcome barriers that may further increase health disparities and access to lifesaving interventions.

Recommendations

1: Bolster DOH's ability to maintain a behavioral health response during large-scale emergency activations by:

- Consider continuing COVID-19 services for a steady-state environment, such as the Behavioral Health podcast and WA Listens anonymous help line, and consider identifying future funding streams to continue to staff and equip these services and scale them up during an emergency (and explore funding to better market these services to underserved populations).
- Continue using the Behavioral Health Impact Situational Report in any large-scale or long-term emergency activation, not just for COVID-19, and incorporate templates for it within the DOH Emergency Response Plan.

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[39] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.

2: Expand the use of CBOs via contract agreements/MOUs to provide translations services and outreach within individual communities by:

- Continue to convene the Community Engagement Task Force to support, review, and provide recommendations on final selection of CBOs in alignment with agency contract and procurement practices as well as to identify gaps in accessible services and find CBO partnerships for outreach.
- Identify additional funding streams to strengthen available CBO partnerships during this and other emergency responses.
- Develop a foundational training module (e.g., online or pre-recorded webinar) for contracted CBOs to learn more about individual and emergency preparedness as well as DOH's overall mission and approach to response.
- Have the Community Engagement Task Force identify CBO partnerships specifically to target outreach in the following communities which still experience gaps in engagement:
    - Unhoused residents
    - Agricultural workers
    - American Indian/Alaska Natives
    - Immigrant and refugee communities
    - LGBTQIA communities
    - Individuals in correctional/detention facilities
    - Individuals in adult homes
    - Individuals with disabilities
    - Communities of color

3: Support internal DOH equity positions across the organization that have pre-defined steady-state and response roles to ensure a pro-equity focus is maintained throughout the response and daily operations to help reduce disparities within the institutional system.

- Generously assign technical experts to the response to specifically address access and functional needs of populations through proposed response tactics and short/long-term recovery planning.
- Consider leveraging the CBO language access model to be managed by DOH equity positions to engage technical experts from the access and functional needs community to occupy roles both in steady-state planning and inform response operations as part of the IMT.

Continuity of Operations

Summary

As a response agency, DOH took purposeful measures to plan, train, and exercise employees to understand their role in emergencies. DOH was able to use established COOP plans to inform agency continuity operations during the COVID-19 pandemic. This helped senior leaders identify essential functions and services to prioritize with limited disruption for the public. Investments in leadership and ICS training had been made and trainings were offered to IMT members and state agency partners. These early efforts to develop trained IMT members in partnership with other state agencies helped to alleviate staffing surge.

Multiple state-level initiatives had previously strengthened agency continuity strategy and resiliency. Most notably, the Governor's Executive Order 16-07, *Building a Modern Work Environment*, helped the agency build the necessary foundations including IT/technology infrastructure and administrative policies and procedures to enable a mobile workforce years before COVID-19, minimizing the impact of the Stay Home, Stay Healthy orders in Washington for some employees. As an agency, DOH leveraged best practices to support critical infrastructure through closed PODs operations. These measures and mitigating actions added to the resiliency

of DOH during the COVID-19 pandemic, though there were challenges as the duration of the pandemic continued.

Most notably, there were changes of personnel at the executive levels of DOH during the course of the pandemic as the Secretary of Health, State Health Officer, and leadership within the Office of Emergency Preparedness and Response transitioned out of the agency. Despite ample notification and use of a purposeful executive transition plan, the loss of personnel in these key agency positions was still difficult for some employees, responders, and external partners to the agency. As the pandemic continued, the impacts of workforce attrition and rapid talent acquisition became a focus of HR to support sufficient workforce levels for the pandemic response and continuity of operations for the agency. The task of hiring and recruitment surged during several phases of the response as funding and resources allowed. New talent was entering an agency that had been able to retain its culture and values, but the physical environment had dramatically changed as the majority of DOH campuses closed, and remote work was used as a mechanism to support the safety of employees, the public, and continuity of the agency. However, the remote work environment has had its own set of challenges.

One interviewee stated they felt "less connected" to DOH during remote work, while also noting that handoff and transitions were handled well, but it was "difficult to remotely network and opportunities aren't as organic anymore."[40] The FY 2020 Office of Financial Management Employee Engagement Survey underscores this sentiment. Supplemental COVID-19 specific questions indicated that "respondents were much less satisfied when it came to finding ways to stay connected with each other."

While the 2020 Employee Engagement Survey provides insight into a segment of the COVID-19 pandemic experience, the 2021 Employee Engagement Survey results partnered with the Fiscal Year 2022 Statewide Exit Survey (open from July 1, 2021, and to close in June 2022) will continue to provide relevant data and information for leaders to create a more robust continuity strategy and refine internal and statewide capability for pandemic response and other all-hazard emergencies to ensure minimal disruption to government services and access to human capital to respond to the next disaster in Washington state.

Strengths

1: DOH was able to rapidly migrate essential services provided at walk-up counters to online formats for public access with minimal disruption to services.

During the early phases of the pandemic, the Assistant Secretary Deputies group met to identify COOP processes and plans, as well as identify essential public services. Prior to the pandemic in 2017, DOH planners finalized COOP plans at the agency, division, and office levels. This effort, in alignment with the Governor's Executive Order 16-07, helped to support present-day actions of DOH and interdepartmental IT staff to quickly establish essential services in online formats. Both staff and leadership worked to identify updates to workflows and policy updates as required, including customer fees.

DOH employees had to innovate not just within the agency, but with other key state agencies to ensure the public and customers were informed of lobby and in-person services closures and how to submit online inquiries, submit requests for information, report complaints, and apply for licenses.

For those offices that were not able to be fully transitioned, internal safety and risk management identified how to implement physical distancing measures and modify work environments as needed to support small teams of individuals to work onsite carrying on the administrative processes such as mail to continue vital services and record requests.

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[40] Stakeholder interviews.

2: Health Technology Solutions (HTS) and IT employees, in collaboration with senior leaders and IMT staff, worked to rapidly develop technology to assist the effectiveness and efficiency of response administration in support of agency continuity.

As mentioned, a strong collaborative effort by IT, Assistant Secretary Deputies, Facilities staff, and other stakeholders helped to ensure the DOH mission to protect the health and safety of Washingtonians throughout the pandemic. The agency had previous experience with activations exceeding 30 days in length, in addition to activating for response in virtual structures with staff participating remotely from across the state.

However, the speed in which newly built systems, processes, and policies were created required immense on-the-job and technical training and education to be conducted by and for DOH employees on the newly designed infrastructure for continuity. Additionally, new IT infrastructure was built for the response and partnerships with private sector organizations such as Microsoft will change the way DOH and other health departments and jurisdictions do their jobs and share information with public health partners moving forward. The advanced capacity continues to create a more resilient disaster response model for all-hazard emergencies and simultaneously manage steady-state and complex response functions.

As the response endured, efficiencies were needed to ensure accurate record keeping and documentation. Additionally, as more responders were activated to support the response from other state agencies, accountability for all active responders including safe check-in and check-out procedures were further enhanced. An example of this is the ServiceNow app that enables electronic timekeeping via a mobile phone. This helped responders who were deployed in multiple sites across the state and some individuals who were working alternate shifts to accurately document their time supporting responder safety and health measures.

3: DOH coordinated and operated a weekly closed Point of Dispensing (POD) to vaccinate DOH employees.

Closed PODS are sites staffed and managed by an organization to dispense medical countermeasures (MCMs) to their own populations while continuing operations during an emergency. Ultimately, this effort helps to support continuity of operations by increasing an organization's resiliency during an emergency within their response role. Additionally, closed POD operations have been able to help support the statewide agenda to protect critical infrastructure, demonstrate DOH's commitment to employees, help to achieve vaccination goals more rapidly, decrease the burden on open POD locations for MCM administration, and aim to achieve federal goals to vaccinate 70% of Americans by July 4.

For DOH, the vaccination clinic not only demonstrated continuity practices, but also helped mitigate many of the common barriers to vaccinations that employees would have otherwise faced. Employees were able to navigate the vaccination clinic in a familiar setting and gain access to COVID-19 vaccines. Using this model, established security measures and access points were leveraged to ensure safety and security while maintaining current public health mandates such as physical distancing. One employee stated: "It was so convenient and worked like a well-run machine. I had debated about trying to get an appointment in Olympia, but this was so much easier."[41]

Opportunities for Future Success

1: DOH should identify continuity strategies for IMT staffing through the lens of COOP to strengthen response structure and statewide resilience.

[41] Stakeholder interviews.

Throughout the pandemic, finding staff to support response operations was a challenge. Before the pandemic in 2019, a total of 374 individuals were reported on the IMT, which was an interagency effort of volunteers.[42] Internal DOH recruitment was based on interest, while other agency staff positions had direct connection to Public Health Emergency Preparedness (PHEP) and Hospital Preparedness Program (HPP) funding, or readily had a response function within their division. New Employee Orientation emphasized that DOH is a Responder Agency and that every employee has a role. One interview participant stated, "The novelty of this statement prior to COVID-19 had a much different meaning than it does now."

Deputies assisted in identifying and notifying DOH employees to serve on the IMT. This was a recent process that had been refined after a long-term 2019 measles response. However, the staffing need was unprecedented. Throughout the response, 1,615 DOH staff and 329 employees from 29 state agencies and other companies have been activated.

With many employees away from their desks supporting the response, DOH successfully maintained their responsibilities as the pandemic grew to ensure continuity of essential operations to the public even during the "Stay at Home, Stay Healthy" orders. However, managing both continuity operations and an active COVID-19 response has challenged the agency. Turnover in key leadership such as the Secretary of Health and State Health Officer positions proved difficult for some employees to process, which led to increased staff burnout.

2: DOH could leverage in-action response operations to pave the way for reconstitution and recovery.

As states begin to ease public health restrictions, an opportunity lies in supporting staff to effectively transition back to DOH campuses and resume normal operations. DOH has been able to support the resumption of services across the agency for paused and nonessential services. Welcoming employees back to DOH campuses will be an important step in the continuity processes. This will be especially important as many DOH employees may not be returning to their old offices, may have relocated to new buildings, or may be new employees who have never reported to DOH facilities. Employees may have difficulties adjusting and need additional support in the transition for return to work.

Recommendations

1: Support other state agencies in the development of public health emergency response plans and Closed POD plans for future state agency employee vaccination efforts through the following:

- Provide plan templates for state agency employee vaccination/Closed POD plan development and infectious disease response plans
- Provide technical assistance to state agencies on completion of the plans via webinars and/or presentations at existing meetings with other state agency partners
- Educate and train state agency partners on the benefits of closed POD infrastructure and when to activate
- Readily share success stories of DOH employees participating in vaccination clinics and the benefits this can have to protect critical infrastructure

2: Assess other state agencies to identify possible personnel surge capacity for DOH to tap into when limited personnel are available for large-scale activations through the following:

- Identify an interagency electronic platform to document workforce skills that is accessible across all state agencies (consider briefing other state agencies on the Resource Master Tracker and discussing possibilities of documenting other state agency personnel within the system).

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[42] 2019 Annual Report, Division of Emergency Preparedness and Response, January 2020. https://www.doh.wa.gov/Portals/1/Documents/1400/821097.pdf

- Convene discussions with other state agencies to discuss better processes for engaging other employees statewide for all-hazards emergencies, not only public health emergencies.
- Document how and where other state agency employees were leveraged within DOH's response in the DOH Emergency Response Plan for future reference.
- Ensure activation or onboarding packets include basic DOH information such as an org chart, DOH mission, etc. for those activated from other state agencies.

3: Invest efforts in the smooth transition of employees back to day-to-day operations for reconstitution.

- Survey employees to evaluate needs and interest to return to DOH campuses.
- Infuse DOH culture into return-to-work processes, for employees who have never been on campus and/or are returning for the first time in over one year (e.g., teambuilding activities, meet and greets, opportunities for introductions).
- Identify whether additional on-site equipment or supplies are needed for employees to return to DOH campuses.
- Anticipate some confusion and provide ways for individuals to suggest adjustments that may be needed as they return to the workplace.
- Consider development of videos featuring leaders at all levels of the department to walk employees through new processes or requirements as they return to DOH.

Public-Private Partnerships

Summary

Partnerships with public and private entities proved to be a massive success during the COVID-19 response. Major companies such as Microsoft, Amazon, The Gates Foundation, Starbucks, and many more provided resources pro bono to combat this pandemic.[43] The initial comments included the following: "We witnessed the magic of bringing together really smart people from public health and private companies." "The wins that we have had as Public/Private Teams together is the beauty of data science, health, science, and cloud computing."[44] DOH formed many partnerships with public and private agencies. These partnerships brought skilled technicians and processes not typically enjoyed by a public organization.

These partnerships allowed DOH to address the issues presented during the COVID-19 response successfully. The willingness of private partners to assist a government agency in a time of national emergency was truly inspiring. The bottom line was summed up by a senior member of a private company. He said, "This is our home and where our families and friends are."[45] Some of the private partners noted that the response work during COVID-19 was a career highlight for them.

The private sector never had the exposure that required public health to be front-facing until this pandemic; COVID-19 changed that. This engagement and relationship can and should be carried forward as other challenges are discussed.[46] Several partners have also said they would be interested in creating a longer-term partnership with DOH.

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[43] Stakeholder interviews.
[44] Stakeholder interviews.
[45] Stakeholder interviews.
[46] Stakeholder interviews.

Strengths

1: The Public/Private Partnerships developed by DOH during COVID-19 were enormously successful and critical to their overall success during the response.

Assistance from the private sector started to arrive soon after DOH was activated on Jan. 24, 2020. In coordination with DOH, partners provided personnel and technology to create and manage a host of projects that made the COVID-19 response easier to manage.

Several projects were undertaken, including the development of public-facing dashboards. This assisted in the management of several areas such as PPE and vaccine distribution. None of these dashboards existed prior to COVID-19. Microsoft built an entirely new system over a 35-day period and managed to incorporate every hospital in the state on WA Health, Washington's Health care and Emergency Logistics Tracking Hub. Amazon Connect helped manage the state's call center, 2-1-1.

The Vaccine Command and Coordination System (VACCS) was considered a crown jewel for data systems. This system was designed to help all eligible Washingtonians to find information about vaccines and make an appointment to boost state COVID-19 vaccinations. The Governor also announced a state partnership that included Kaiser Permanente, Starbucks, Costco, and Microsoft. Partners focused on different aspects of the vaccination process. Here, Kaiser was responsible for planning the mass-vaccination clinics, and Starbucks assisted DOH with the creation of the vaccination centers. Microsoft provided technical expertise, and Costco (a long-time DOH partner) assisted in vaccine delivery through pharmacies.[47] Partners rolled this out in six weeks after being told it was impossible to complete in such a condensed timeframe.

DOH IT partnered with ServiceNow and created an app for personnel management working in the IMT. This partnership led to this app being available to other jurisdictions free of charge. IT also developed a second app with the in-house ServiceNow development team called Time Tracker. This app allowed staff working the response to sign in and out online. This saved time, limited errors, and boosted morale. These apps were featured in Forbes magazine and will be utilized for DOH's future responses and day-to-day personnel management.

> "As the epicenter for COVID-19 in the U.S., the state of Washington's agencies, emergency responders, and public health professionals had to rapidly assemble an incident management structure to lead outbreak response and mitigate the spread and impact. Leveraging ServiceNow's Now Platform, we were able to digitize processes that allowed us to quickly resource Incident Management Team positions. This automated a manual and labor-intensive process that was fraught with errors while providing real-time visibility into resource allocations."
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> Chief Information Officer, Washington State Department of Health, ServiceNow News Release, March 17, 2020

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[47] Andy Rose, Christina Maxouris, CNN, "Washington state announces partnership with companies including Starbucks and Microsoft to boost vaccinations." January 19, 2021, Available online at: URL
https://www.cnn.com/2021/01/19/us/washington-state-vaccinations-plan-partnerships/index.html

2: The Director of Public/Private Partners position was created and staffed by DOH in February 2021.

During the pandemic, a new position was developed, Director of Public/Private Partnerships. This position immediately organized processes to support partners in providing critical resources to DOH. This made the process much easier and more direct for private partners seeking to assist DOH. Previously, private partners would make contact and hope for the best. For example, Starbucks would cast a net and hope someone would call them back.[48] With the new program in place, partners can speak directly to the designated point-of-contact (POC). A designated POC creates an additional advantage where relationships and trust can now be built.

Additionally, partnership coordination with other government agencies can be addressed through this Director to gain confidence in the evolving partnerships. Gov. Inslee's office communicates weekly with the Director of Public/Private partnerships for unified messaging to these partners among state agencies. This position will continue to engage partners and promote contractual relationships through formalized agreements.

3: The partnership with Microsoft strengthened the informatics technology in coordination with DOH IT to provide clear and concise information to the public.

When the pandemic hit, Gov. Inslee and Brad Smith, President of Microsoft, discussed the support needs of public health. Microsoft coordinated with DOH IT to support the information needs to provide the public COVID-19 data. Microsoft has been singled out for their tremendous commitment to the COVID-19 response. Company officials have estimated that they have more than 100 employees assigned to the public health effort. Each employee has contributed 100 to 200 hours and counting to the response. To conservatively estimate total hours donated, 100 employees working an average 150 hours would equal 5,000 hours to date. The value of the labor which Microsoft provided to DOH is estimated between $3 million and $4 million.[49]

DOH IT was singled out for their exceptional performance and understanding of the medical background serving as a backbone of the organization.[50] Many of the accomplishments from the Public/Private partnerships were data related. Forward-looking data management will remain a key component in the continued success of DOH. Once the partnership was formed with Microsoft, they instantly embedded themselves in the response efforts. Microsoft conducted meetings with DOH seven days a week. Microsoft "set the gold standard for relationships" with DOH.[51]

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[48] Stakeholder interviews.
[49] Stakeholder interview.
[50] Stakeholder interviews.
[51] Stakeholder interviews.

Figure 5: VACCS featured on "Recharge to Win.'

Secretary Shah was joined by staff from Microsoft Studios, Dan Laster (Vaccine Command and Coordination Center [VACCS] director), Julie Grauert (DOH), Lisa Stromme Warren (DOH), and Liz Perez (DOH) after the recording of "Recharge to Win."

Opportunities for Future Success

1: The relationships forged during the COVID-19 response must be formalized and codified to ensure all successes achieved during COVID-19 continue.

Although the foresight to add a Director of Public/Private Partnership position was successful, there are still many objectives this position must fulfill. The role of managing public/private partnerships should become a codified office within DOH along with the formal processes, including contract agreements with partners. During the writing of this assessment, only one partnership formed during COVID-19 had a contractual agreement established with DOH. Policies and procedures should be created around the roles and responsibilities of DOH staff and partners. Solicitation of resources should be coordinated with DOH's procurement team to address any legal concerns, including potential concerns with pro bono services and supplies. Formalized agreements will allow for clear, concise expectations and scopes of work for these forming partnerships.

2: Consistent engagement for partnerships between public and private entities has not been developed but will be instrumental for future responses.

Partners offered several services during the COVID-19 pandemic. If DOH understands what services are available from partners, they can use the partnership to help fill gaps within DOH. Relationships can be expanded to gain a better understanding of one another's mission and help to protect and improve the health of Washingtonians.

As several partners have shown interest in expanding their relationship with DOH, it is vital to formalize this process. To build these relationships and further public health engagement, DOH should provide regular collaboration between agencies. Consistent meetings, training, and drills would be beneficial and form trust between partners established during the pandemic. Building a solid relationship before an emergency brings

mutual understanding when resources are requested. Contacts who have worked together in blue skies collaborate more cohesively during emergency response. One ideal forum for this may be the Emergency Management Council run through the Emergency Management Division. Establishing a more formal role and presence in the Council would allow DOH an ability to more frequently engage with partners and local jurisdictions.

Recommendations

1: Define the Office for External Engagement's operational role during emergency response activations. Convene a meeting with the office to begin developing response procedures which ensure the Office can accomplish the following during a response:

- Provide critical maintenance of public/private relationships and coordination with public/private strike teams or task forces established through the Governor's Office or Emergency Management.
- Identify which DOH needs can be provided by partners during large- and small-scale responses.
- Develop a formal recognition process to acknowledge partners providing services.
- Promote partnership impacts via public messaging to further advertise partnership opportunities and benefits to other organizations.

2: Formalize or update contractual agreements with current public/private partners working with DOH during the pandemic based on lessons learned:

- Develop or update a formal MOU/MOA with partners to pre-identify services and resources available to DOH during an emergency activation.
- Solidify procedures for communication with partners.
- Identify costs to DOH and document in the formal agreement to avoid unexpected fees.
- Establish responsible parties in terms of liabilities to the partnership.
- Include organizations such as Microsoft, Costco, Amazon, Starbucks, Kaiser, ServiceNow, etc.

3: Build a more consistent presence for DOH on the Emergency Management Council, as this would be a good forum for DOH to better support ESF 8 in local jurisdictions and to engage with public and private partnership groups established via Emergency Management or the Governor's Office.

- Identify DOH positions to be a consistent part of the Emergency Management Council.
- Engage the Office of External Engagement as well in the Emergency Management Council's activities.

Interagency Coordination – Local to State

> "All incident responses begin and end at the local level. Local health jurisdictions, tribes, and healthcare coalitions have a finite amount of response resources, and during complex incidents may become overwhelmed and request additional resources through partner [DOH] notification."
>
> DOH Notifications and Communications Annex

Summary

Throughout the COVID-19 response, DOH went to immense effort to interact effectively with and provide support to local partners. For instance, DOH expanded the Liaison Officer (LO) role, installed representatives of local agencies into the DOH IMT, and held frequent teleconferences with local entities to ensure information was being shared in as timely a manner as possible. These actions were major strengths of interagency coordination and helped DOH become aware of and fill gaps and needs that local response agencies were too overwhelmed to address themselves. However, further coordination and collaboration is necessary, as local entities indicate a desire for a stronger understanding of DOH decision-making processes. Moreover, actions taken at the state level, such as issuing statewide health guidance and developing the Washington Medical Coordination Center (WMCC), supported effective health care operations during the response.

Challenges existed in aligning expectations between local entities and DOH, however, as some processes that were implemented, such as testing and vaccination, differed from the pre-established expectations surrounding local agency roles and responsibilities in these operations. Further clarity was also needed regarding the capabilities of health care associations and coalitions, as DOH did not fully understand how these organizations could support the COVID-19 response. This was a missed opportunity for DOH, as many of the gaps within the response could have potentially been filled by health care associations and coalitions. Lastly, the overall structure of the health system in the state of Washington made coordination at the local level difficult due to the number of agencies that DOH needed to coordinate with.

Strengths

1: DOH coordinated with local partners by having weekly Zoom calls, installing representatives from partners within DOH's operations, and expanding the role of the Liaison Officer (LO).

DOH took special care during the COVID-19 response to engage and build relationships with local partner agencies. For example, the role of the LO was executed successfully, even after the expansion of the role in the initial months of the response. To support this expansion, DOH secured effective LOs from national teams to augment DOH liaison efforts. This allowed DOH LOs to learn from the experience of these individuals and better execute their roles and responsibilities as LO. LOs were described as "immensely helpful for facilitating communication," underscoring the success of the LO position in facilitating effective coordination between state and local entities. Due to the success of this expanded position, there are further opportunities to leverage the LOs, including utilizing the LOs as regional resources that can filter information or resource needs up to DOH and push information back down to local entities, as opposed to the current process where there is one individual having to work with every county in the state. Overall, the LO position was an immense strength of the DOH response that has potential to be further leveraged in future responses.

Furthermore, key local representatives were embedded into the DOH response, which allowed these individuals to translate information back to their local agency. For instance, personnel from Public Health Seattle & King County and Snohomish Health District were integrated into the response at Shoreline, providing enhanced situational awareness and promoting effective coordination. This process was noted as an immense strength, and local agencies who provided staff to fill these roles underscored their appreciation toward DOH for implementing this practice.

Effective coordination was also fostered through DOH hosting weekly and bi-weekly touchpoints with local entities via videoconferencing. The implementation of these frequent virtual meetings allowed DOH to engage even agencies that may not typically be involved in emergency management and harder-to-reach communities, such as rural jurisdictions. Through the engagement of these local entities, DOH was able to scale their response more effectively across the state. Moreover, multiple types of calls were held to include "Epi to Epi," "Ops to Ops," and others that helped facilitate communications across the counties and up to DOH. Despite the chaotic nature of the response, counties noted feeling engaged and informed of the direction of DOH to the extent possible.

While the efforts executed by DOH to support effective coordination with local partner agencies were largely a success, a few opportunities for future success were noted including providing local entities with a list of all meetings where they might benefit from participation. This would have allowed local agencies to choose to be where they need to be to receive the most up-to-date recommendations and guidance and to make the necessary connections to continue to carry out their response in the most effective manner possible. In addition, communications with mayors or other county officials were noted as an additional opportunity for future success as further communication with these stakeholders may have helped to amplify DOH messaging and to dispel public fear and confusion as more information may have come from trusted sources.[52]

2: DOH was able to fill some response needs that overwhelmed local response capability.

DOH stepped up to fill many gaps that local governments could not fill within the parameters of their own resources and capabilities. For example, one county was initially overwhelmed when attempting to implement isolation and quarantine strategies. Residents of the county were being isolated in hotels because of a lack of appropriate isolation space, and this required the county to ensure these individuals were properly fed and had the resources necessary to carry out their isolation. This stressed the capacity of the county, but DOH stepped in and implemented their isolation strategy, where isolated individuals were housed in trailers, and in doing so lifted burden off the county. Similarly, many counties struggled to institute effective contact tracing due to a lack of adequate resources. DOH proved to be an extremely valuable resource in this scenario as well, as DOH supported local entities to ensure cases were tracked and potential contacts were followed up with.

In the COVID-19 pandemic, many local health departments experienced changes in leadership and staff. In August 2020, the Chelan-Douglas Health District experienced this type of change while case rates were accelerating quickly, agricultural workers were experiencing outbreaks, and community support for disease mitigation efforts was limited. Combined, these factors created a situation where the local board of health and DOH leadership agreed that providing a DOH employee to lead the health district was the best way to resolve the challenges. With this support, the health district was able to make significant improvements in both the emergency operations and in routine operations. For instance, the health district and the Latinx community developed a stronger relationship; a public health advisory committee was formed to advise the health district administrator on public health efforts; a multi-agency coordination (MAC) group was stood up to provide policy support to the emergency response efforts; the relationship between the health district and school districts improved; public-private partnerships were fostered (e.g., LifeLine Ambulance); relations between the district and local officials were strengthened; support from the sheriffs' departments developed; and key positions

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[52] Stakeholder interviews.

(including the health district administrator) were filled. DOH contributed to many of these successes which will continue to support the success of the health district moving forward.

While DOH supplemented many aspects of the local response to COVID-19, additional areas where localities could have benefited from DOH support also existed. For example, it was noted that some counties have a large population of non-English speakers, such as Spanish speakers. Some local entities noted that having DOH produce guidance in Spanish in addition to English would have benefited their local response and would have likely helped to amplify the public health messaging being disseminated by DOH. While the additional opportunities noted provide suggestions for further coordination and collaboration between DOH and local partner entities moving forward, given the limited resources DOH has operated with throughout the duration of the response, the extent of the support provided to local entities has been an impressive feat.[53]

3: The COVID-19 response strengthened relationships between DOH and local communities.

DOH has been described as "incredibly helpful" by partner entities regarding the COVID-19 response. Local entities noted that they have been able to make direct contact with key personnel at all levels within DOH and at all hours of the day to ask questions, gain clarification, and receive additional information. The strong relationship between local entities and DOH was attributed to "the personalities at DOH and their willingness to serve." COVID-19 has provided a unique opportunity to DOH to further expand their relationships at the local level. While DOH's relationship with most Local Health Jurisdictions (LHJs) has been described as "strong," COVID-19 has had impacts deep into the community and has allowed DOH to engage at the local level in a different way than ever before. DOH has fostered new and stronger relationships with key local entities that can be capitalized on in the future to support public health. For example, DOH increased its engagement with nursing homes throughout the COVID-19 response. Nursing homes had many questions for DOH regarding what their role is, what data DOH needed from them, and what the overall impact on the health care system from COVID-19 would be. This uncertainty allowed for new relationships to develop between DOH and nursing homes.

DOH also received many questions and complaints that did not clearly fall under the purview of one agency. For example, DOH received many questions regarding religious organizations since they are unregulated. DOH was able to expand into this space, take on roles they never had previously, and build relationships with stakeholders they have not engaged with before. DOH relations with religious institutions were especially complex as DOH had to establish clear guidelines for areas where no clear guidance existed. Addressing these unique challenges that arose during the COVID-19 response allowed DOH to foster new and valuable partnerships and build trust as the response continued, helping DOH to work with these stakeholder groups in a more efficient manner.[54]

> "State and local, local and schools, state and health care system, long-term care system – the relationships that have been built have been critical and will continue to be moving forward."
>
> Stakeholder Interview

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[53] Stakeholder interviews.
[54] Stakeholder interviews.

4: Coordination initiatives implemented at the state level supported effective health care operations, although challenges existed initially.

Coordination between state agencies and health care entities, as well as coordination within the health care system, posed some challenges throughout the response. This was attributed to a lack of full understanding by state departments concerning the role and needs of health care entities in the response, as well as initial challenges with consistency in issuing guidance relevant to these stakeholders. For example, the department faced an initial challenge around communication and coordination on crisis standards of care. The state had never experienced an event that required this level of attention to crisis standards of care, and health care entities were not receiving timely information on the topic. Another widespread challenge that has not been fully addressed through ongoing response operations includes the ability to procure surge nursing and medical staff support. While Emergency Management Assistance Compact (EMAC) provides a pathway to request government employees from other states to support an emergency response, it cannot be used to share private-sector health care personnel across state lines during emergencies. Because there are so few health care personnel employed by state governments, the existence of a national pathway to coordinate cross-state movement of private-sector health care personnel during an emergency could have at least initially benefited the COVID-19 pandemic response in Washington. While EMAC may not be the appropriate mechanism for this type of resource sharing, a process for sharing clinical staff across state boundaries could be useful for future widescale public health emergencies.

While challenges in health care operations and coordination certainly existed, many of these challenges were overcome, and processes and structures were developed which helped facilitate effective operations. For instance, when the Governor began to issue statewide decisions, this helped dispel the confusion of health care entities and promoted more effective multijurisdictional coordination. One event which helped bring health care coalitions together was the executive order cancelling elective surgeries signed into effect by the Governor. The state began to issue an extension to this order, but instead, health care associations and unions, which had not worked together to a great extent in the past, worked with some defined parameters and developed an executive order based upon their knowledge and expertise. These parameters included ensuring PPE for frontline workers was available, maintaining an ability to surge up to 20% of current capacity and ensuring that frontline workers were protected with access to testing. This process overall brought health care stakeholders together and supported coordination across jurisdictions.

Moreover, another challenge was presented when some patients needed to be transported across the state to help reduce the burden on overwhelmed health systems, for instance those in rural areas. However, many entities did not have any contracts in place with Emergency Medical Services (EMS) agencies to support this effort, and it was becoming more and more clear that the strongest mitigation tactic that health care could implement was even patient distribution. In response to this challenge, DOH created a WMCC specifically for COVID-19 to support the coordinated movement of patients throughout the state to balance patient load. This process worked well within state lines, but once again, coordination across state lines was not effective in this context despite certain health care entities having strong connections in neighboring states.

Although some challenges existed regarding health care operations and coordination, statewide decisions helped promote coordination and DOH's establishment of the WMCC addressed a critical coordination need of health care facilities. Additional opportunity exists to examine the ability to share clinical staff across state lines and to develop a process for moving patients across state boundaries to support patient distribution across the health care system. Health care entities overall recognized DOH's efforts in supporting their operations and appreciated DOH's forward-leaning stance early in the response.

Opportunities for Future Success

1: Further clarity and expectation setting is needed on how localities and DOH should coordinate during a health emergency response.

DOH interacted with local entities during COVID-19 more than it ever had previously. With this came certain challenges of establishing expectations and coordination pathways between DOH and local stakeholders. It was noted that, from an operational perspective, it would have been useful to have a more defined structure of how local entities and DOH were going to work together. While some structures were established based upon the coordination structure used with health care systems during previous outbreaks, further delineating the roles and responsibilities of local entities, health care, local health departments, etc., and DOH was paramount to the success of the COVID-19 response. Counties noted that they needed further understanding of how DOH works and makes decisions so they could promote effective support at the local levels. Many of these challenges were attributed to a lack of communication between DOH and local jurisdictions and improving local agency attendance at the weekly coordination calls was mentioned as an opportunity to gain further clarity on the coordination pathways between DOH and local partners. Furthermore, stakeholders noted that if the public health system of partnerships had been better coordinated pre-COVID-19, the state of Washington would have been better served during the pandemic.

Moreover, there was a lack of understanding among larger health departments, including DOH, about the capabilities of small and rural health departments. For example, in conversation with these smaller entities, DOH may assume certain positions or programs exist within the organization, but in reality they do not, and one individual is managing all of these responsibilities. This leads to a misunderstanding of local capability and capacity. In addition, some LHJs did not desire support from DOH and wished to maintain local control over the response. However, when these LHJs eventually became overwhelmed, the delay in receiving support from DOH negatively impacted the response. Further challenges arose with some local officials not enforcing public health guidance or complying with the Governor's orders to shut down businesses. Overall, improvements to the coordination and collaboration structure between DOH and local stakeholders are necessary to carry out a statewide pandemic response most effectively.[55]

> "Our work depends on being able to work with our local partners, so their struggle is our struggle as well."
>
> Survey Respondent

2: There is a lack of understanding within DOH regarding the capabilities of local health care coalitions and associations which could have been capitalized on to support the COVID-19 response.

While DOH had a relationship with the Washington State Hospital Association, there was a lack of understanding surrounding health care coalitions in the state and what each one could contribute to the response. As DOH began to scale the response in January and February of 2020, DOH was beginning to implement a stronger IMT structure. However, the department struggled to understand and predict what the health care needs of the incident were going to be, beyond recognizing the need for medical surge, due to the uncertainty surrounding COVID-19. This led to ambiguity regarding the use of health care liaisons, as it was unclear whether the purpose of these individuals was to serve as part of the IMT or to serve as subject matter experts. Different coalitions and associations were also engaged in the response to different extents, leading to

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[55] Stakeholder interviews.

overall confusion in the expectations of how health care coalitions would support the response. This lack of understanding directly impacted the effectiveness of the DOH operation. Many of the missing pieces of the health care response resided in health care coalitions and associations, so a more cohesive vision of how coalitions would fit into overall operation may have greatly benefited the response by DOH.

While there were certainly misunderstandings surrounding the roles and capabilities of health care coalitions, DOH did put immense effort into further building these relationships and determining the appropriate role of the coalitions. For instance, DOH worked to establish a relationship with each coalition and create opportunities to engage with them. In addition, despite the lack of understanding surrounding health care coalitions, DOH still exemplified strong leadership and acknowledged that their understanding of health care operations was limited. DOH worked to educate themselves on this topic and aimed to bring further cohesiveness to the state response across all response partners. Overall, further strategic positioning of the health care coalitions and understanding how best to utilize them in an infectious disease response is an opportunity for further growth.[56]

> "Dr. Lofy (State Health Officer) demonstrated a lot of leadership – she understood what she did not know about the healthcare aspect, educated herself, and took a very science-based approach. Her authority and leadership helped bring cohesiveness to the state's response, although she stepped in unknown areas, she was able to adapt and fill the role that was needed."
>
> Stakeholder Interview

3: The overall structure of LHJs in the state of Washington made coordination during COVID-19 more challenging.

The overarching structure of the public health enterprise in the state of Washington posed challenges for coordination during COVID-19. With 39 separate counties in the state of Washington, each having their own LHJ, coordination across each county proved extremely challenging. These LHJs operated relatively independently of one another despite not having the capacity to successfully manage an incident of this scale and severity alone. This required LHJs to coordinate with neighboring jurisdictions, other departments within their county (e.g., emergency management), and state entities, but not every LHJ was willing to partner to the extent necessary to successfully address COVID-19. Consensus was difficult to achieve across LHJs, and the operations of each jurisdiction were never fully aligned. The fact that the public health system does not promote easy coordination across jurisdictional boundaries is a symptom of the larger public health system across the country.

To promote alignment between LHJs and DOH efforts, DOH and the Governor's Office have had many difficult conversations about the hierarchy of public health, including discussions on the creation of a regional public health structure within the state of Washington. While DOH and the Governor's Office recognize that public health agencies at the local level know community dynamics and unique community needs better than anyone, the structure of public health in the state must evolve to allow for more effective coordination in the public health system in response to incidents, such as COVID-19, that cross lines of authority. In addition, political entities commonly serve as leadership in local public health structures, leading to public health decisions

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[56] Stakeholder interviews.

evolving into political ones. This further challenged the coordination between DOH and LHJs due to the political interpretation of data and science-backed public health guidance set at the state level but implemented at the local level.[57]

4: Differences between local expectations concerning COVID-19 testing and vaccine rollout and the actual process for testing and vaccination implemented by the DOH led to confusion and frustration locally.

Some local entities felt confusion surrounding the decisions made by DOH regarding testing and vaccinations. For instance, local jurisdictions indicated that they began establishing infrastructure to carry out testing operations, even working with emergency management programs to enhance capacity. However, guidance came down from DOH after these local entities had already begun to establish testing structures. Once DOH began to issue guidance and establish strategies regarding testing, local agencies indicated that they felt left out of the process and were blindsided by the involvement of contractors to carry out testing operations. LHJs had different ideas and approaches to testing that did not necessarily align with the direction of DOH, and LHJs stated that they were not aware of DOH decisions regarding testing until after they had been made.

LHJs also described vaccination rollout as siloed and desired additional involvement in the vaccination effort. Further confusion surrounding vaccination ensued due to DOH going straight to providers for the administration of vaccines as opposed to instituting a Point of Dispensing (POD) structure that some LHJs had practiced and planned for, even in a statewide exercise. It was also noted that DOH was supposed to distribute vaccines based upon the number of vulnerable individuals within each county; however, LHJs felt uninformed of the status of vaccine supply. Along these lines, some LHJs indicated that despite continuously placing orders for vaccines each week, they needed to follow up repeatedly with DOH regarding the status of requests.

While DOH operated in the most equitable and effective manner possible given the changing guidelines, scarcity of resources, and unpredictable nature of the pandemic, testing and vaccination efforts stand as opportunities for increased engagement of LHJs in future incidents, as LHJs indicated a desire to be further engaged with DOH's decision-making process related to these efforts.[58]

Recommendations

1: Codify the newly expanded role of the LO and the installment of local agency representatives in plans, procedures, and tools.

- Develop or update job action sheets for these positions based on lessons learned from the COVID-19 response.
- Ensure that these new processes and tools are trained on and tested through interagency exercises.
- Explore the opportunity for LOs taking on a larger coordination role with local entities in future responses (e.g., resource request receipt, processing, and follow-up for local entities assigned).

2: When feasible (e.g., following the conclusion of the response to COVID-19), host a conversation with local partners DOH interacted with during the COVID-19 response, as part of a larger statewide hot wash or as part of a series of hot washes focused on specific aspects of the response (e.g., local interagency coordination). As part of this effort:

- Discuss with LHJs future expectations for supporting testing and vaccination operations.
- Aim to understand the unique challenges of small and rural health jurisdictions to anticipate and plan for areas where they may need support in future public health incidents.

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[57] Stakeholder interviews.
[58] Stakeholder interviews.

- Ask questions about the roles, responsibilities, capabilities, and capacity of health care coalitions, and determine how they fit into future DOH responses and steady-state operations.

3: Leverage current efforts to draft a Statewide Patient Movement Plan to discuss the challenges of sharing clinical staff and transferring patients across state lines with EMS, DOH, and health care coalitions and providers.

- Determine solutions to these issues and develop the necessary policies and memoranda of understanding/agreement (MOU/A) to execute these missions if possible.

4: Continue to convene local partner and health care coordination working group(s) meetings on a recurring basis to capitalize on the relationships developed through COVID-19 during ongoing operations and provide transparency on DOH operations.

- Consider having different workgroups for different local stakeholder groups (e.g., health care associations and coalitions vs. LHJs).
- Use these work group meetings as an opportunity to advance initiatives implemented and needs identified as part of the COVID-19 response.
- Use these meetings as well to promote transparency with local health jurisdictions and health care coalitions regarding scarce resource allocation decision-making procedures.

Interagency Coordination – State to State

Summary

DOH coordinated well with many other state departments and entities during the COVID-19 response. Of note was DOH's relationship with the Governor's Office and the coordination that occurred between DOH and the Governor's Office to carry out mission-critical and immediate activities. While DOH and the Governor's Office worked very closely, the extent of the Governor's involvement in the COVID-19 response did pose some challenges for DOH, such as a lack of compliance with pre-established plans and processes for carrying out an emergency response across the state, as well as some political interference in response decisions at the tactical level.

DOH also continued to coordinate activities with the state's Emergency Management Division. In accordance with typical interagency emergency response plans, Unified Command was activated through the SEOC in April 2020 to further streamline coordinated activity. However, due to the ongoing nature of the pandemic, continued staffing at the SEOC and Area Command level was deemed unsustainable and a decision was made to demobilize Unified Command in the summer of 2020. Throughout the data collection efforts for this assessment, opinions seem to be fairly split amongst DOH and external partner agency stakeholders regarding the decision to demobilize Unified Command. Some felt that moving out of Unified Command left other state agencies and departments out of critical conversations and shared situational awareness, leading to a focused feedback loop between DOH and the Governor's Office. Others felt that this decision was inevitable given the impossibility of providing long-term staffing over a year and half response period for ongoing activity at Department Operations Centers and at the SEOC. Whether or not the decision was the right one, multiple suggestions were made to improve coordination between EMD and other responding state entities, such as a more formalized demobilization process for Unified Command and documentation of infectious disease response roles for the SEOC.

During the response, DOH also coordinated successfully with Department of Ecology, Department of Licensing, Department of Fish and Wildlife, Department of Social and Health Services, the National Guard, and others to help fill gaps within the response and create some unique and innovative programs to address needs

across the state. It was difficult, however, to ensure the resources and processes were in place to support this level of coordination.

Strengths

1: The Governor's Office and DOH fostered a strong relationship throughout the response; the Governor supported a science-backed, data-driven response to COVID-19 and exhibited strong leadership, which sometimes contributed to faster delivery of services and strengthened capacity from DOH and other state partners and agencies.

DOH benefited immensely from the posture of the Governor and his office, as the Governor valued science, supported a data-driven response, and exemplified strong leadership. This established a strong response presence in the state of Washington in which DOH could operate under the backing of the Governor. The Governor contributed greatly to the response in his appreciation for the science behind the emergency and even met with a modeling team from DOH every Friday morning to coordinate with these subject matter experts.

The Governor was invested in the COVID-19 response from the start and became more involved as the response continued and the decisions being made accelerated. The emergency preparedness and response experience within the state government overall that has been gained from wildfire events in the past provided the institutional knowledge necessary to quickly scale the state response to COVID-19 in a multi-agency, coordinated manner. In addition, the Governor's staff, such as his Chief of Staff and Deputy Chief, were very aligned with the priorities and strategies of the Governor, helping to create a unified front during a time of great uncertainty.

The strong relationship between DOH and the Governor's Office that has come from the COVID-19 response has helped make DOH operations timelier and more effective in some cases. In one instance, Governor's Office staff said DOH colleagues "feel like Governor's Office staff" and "feel like one big family." Countless hours were spent on video conferences working together and making decisions collaboratively.

While the overall coordination between DOH and the Governor's Office was a success, it was not without some challenges. For example, some time-sensitive decisions were delayed as they needed to go through the Governor's Office for approval. In addition, as the response has continued, fatigue has impacted not just the public but also DOH and the Governor's Office. This has posed some challenges for DOH, as from the department's perspective and based on the data, some decisions made by the Governor's Office to loosen regulations may have been made prematurely. However, overall, those within DOH indicated feeling "very fortunate to be working in Washington," as they have had political support that many states have not had throughout the duration of the incident.[59]

2: DOH coordinated effectively with other state agencies and integrated them into the response to fill gaps.

DOH coordinated well with other state departments and entities such as the Department of Ecology, Department of Licensing, Department of Fish and Wildlife, Department of Social and Health Services, the National Guard, and others, who may be considered nontraditional response partners, particularly in the context of a public health emergency. Their support was wide ranging, such as providing trucks to get testing kits out to providers, as the Department of Fish and Wildlife did, and deploying Mobile Vaccination Teams, like the National Guard did. DOH also engaged with the Department of Social and Health Services to integrate specific accommodations for persons with disabilities and others with access and functional needs into public communications and vaccination administration, and integrated staff from the Department of Licensing and other state departments who met the "high-risk" category regarding acquiring a severe case of COVID-19 into

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[59] Stakeholder interviews.

response operations to avoid staff having to use up all leave or go on leave without pay. DOH recognized the areas of the response where other state departments and agencies could support and was able to successfully procure and manage resources that were not necessarily theirs but still existed within the state and could be applied to the COVID-19 response. While the support provided by external state entities added much value to the response, DOH did struggle to successfully establish the administrative processes that would allow for optimal coordination.[60]

For instance, the National Guard was a valuable asset to DOH's COVID-19 response. Early in the incident, volunteers from the National Guard helped to support testing sites as mobile teams. Determining the logistics surrounding this support, such as finances, onboarding, and technological resources (i.e., assignment of a computer), was initially challenging, and it was noted that having these processes defined prior to the response would have benefited DOH. Further, some state-level partners indicated a desire for further communication regarding the status and direction of the emergency response as well as further integration into the response structure as they could bring unique and much-needed perspective, such as Department of Social and Health Services and their work in supporting individuals with disabilities and others with access and functional needs. Departments indicated that there would be benefit in participating in response meetings and briefings to try and get ahead of some of the challenges that evolve throughout the duration of the incident and are relevant to the work of the department. While there were challenges in integrating external partners into the DOH response and IMT structure, DOH overcame these challenges quickly and the external support provided was paramount to the success of the state's COVID-19 response.

Figure 6: The Washington National Guard supporting the COVID-19 Response

The National Guard holds a ceremony as they end their case investigation and contact tracing mission as part of DOH's COVID-19 response.

Opportunities for Future Success

1: The strong involvement from the Governor's Office throughout the response, while necessary, led to increased pressure on DOH as well as deviations from the state's typical emergency management processes from past activations.

While the involvement of the Governor's Office was necessary to the COVID-19 response, in some instances it led to challenges for DOH. The response started out under DOH leadership, but leadership began to shift to

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[60] Stakeholder interviews.

the Governor's Office as the pandemic progressed. This led to DOH's need to determine the required different levels of engagement and response needed from the department at each iterative step in the response. For instance, when each different piece of guidance was developed and instituted (i.e., restaurants allowed to open at 50% capacity), it meant something different for DOH as they had to adjust to the new dynamics between themselves and the Governor's Office that had evolved. Trying to determine who, between the Governor's Office and DOH, was the main responsible party for specific tasks and determining who, within DOH, would be responsible for interacting with the Governor's Office for that specific task was initially difficult. DOH had never before sent agency leaders to the Governor or legislature to advocate for the agency being able to focus on the response and have some things, such as grant requirements, statutes, and bureaucracies, relaxed. This new dynamic created new roles and with that, new challenges, for DOH. These unknowns sometimes compromised the ability to run an effective response as neither clear roles and responsibilities nor plans were clearly defined.

In addition, because many decisions were being made out of the Governor's Office, the Policy Group of the IMT was never truly activated. With these decisions being made solely between the Governor's Office and DOH, there was duplicative planning occurring that may have been prevented if the Policy Group was properly established within the structure of the IMT. Furthermore, because of the structure that was instituted to make policy decisions, politics sometimes influenced policy decisions. While in some cases this was necessary, as the data cannot make all decisions, occasionally it did impact DOH's ability to effectively respond. For instance, when required to hire 1,000 staff rapidly to carry out contact tracing operations, DOH felt as if politics, not science, influenced this request as it was not feasible within the timeline of one week provided. Additional time was needed to set up the infrastructure for these staff and to determine who would enter data, who would assign out cases, etc.

Another issue that impacted the effectiveness of DOH and others in the response included the lack of understanding within the Governor's Office surrounding NIMS/ICS and compliance with established coordination pathways and emergency management structures. As opposed to instituting the necessary emergency management system, the Governor's Office relied heavily on the people they already knew and trusted, impacting coordination greatly across Emergency Support Function-8 (ESF-8) stakeholders. For example, DOH now seems to work directly with the Governor's Office. What once would have been done by the Emergency Management Division (EMD) or other lead agencies in a response was now being done by the Governor's Policy Advisors, leading to the divergence from pre-established plans and procedures that would typically be implemented at the state level in an emergency response. The Governor's Office was making decisions at all levels of command, when they should have focused more heavily on strategic, not tactical, priorities. This posed challenges for those operating out of the IMT as they now had to operate in the margins as opposed to the systems they are supposed to be using.[61]

2: Other state departments and entities felt the lack of Unified Command (as Area Command was deactivated in the summer of 2020) negatively impacted overall situational awareness, as they saw most of the response coordinated directly between the Governor's Office and DOH.

As the pandemic spread across the state of Washington and the number of agencies involved in the response grew, the need for promoting Unified Command through the establishment of a strong Area Command was recognized. As such, an Area Command was established at the SEOC although some agencies perceived DOH as hesitant to move into an Area Command structure. Nonetheless, DOH co-located with EMD at the SEOC and this proved temporarily successful, since this was a public health emergency, and it was important for DOH to have a strong leadership presence at the SEOC. Furthermore, some felt that it may have benefited the state of Washington to think about the public health emergency as a typical incident or disaster that should be managed through the foundational structures principal to emergency management, particularly those that allow for multiple departments to coordinate in response to an incident impacting multiple agencies and

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[61] Stakeholder interviews.

jurisdictions. Area Command was deactivated in the summer of 2020, which impacted Unified Command operations running out of the SEOC. Some stakeholders did not agree with this decision and thought that multiple state agencies such as EMD, Department of Commerce, Department of Children, Youth, and Families, and Department of Social and Health Services could operate under a common structure simultaneously and in a unified fashion. However, the long-term nature and unique characteristics of a global pandemic may not lend well to operating out of Area Command. An opportunity may exist, however, to further capitalize on other state departments in response to public health emergencies by committing to a streamlined Unified Command through Area Command approach or to a modified, coordinated operation that involves more formalized usage of policy groups and/or multi-agency coordination groups between these entities. Further discussion regarding this topic between DOH, EMD, and other potential responding entities is warranted and could potentially support Unity of Effort in future large-scale public health emergency responses.[62]

3. The transition out of Unified/Area Command may have required more in-depth discussions with other state agencies about transition planning for shared situational awareness.

Transition and demobilization planning becomes increasingly complex in a response environment with "no end in sight," as was the case for DOH responders in the summer of 2020. Typically, demobilization planning happens at the start of a response, but as an activation stretches for months at a time, demobilization planning is more and more difficult to quantify. During the summer of 2020, changing resource needs and response roles required a shift out of Unified and Area Command operations.

> "Incidents with catastrophic consequences or effects crossing jurisdictional boundaries *may* warrant use of Unified Command (UC) to engage and accurately address the concerns of multiple agencies having authority, having jurisdiction, or assisting in response."
>
> DOH Command and Control Annex

However, other state entities and partners interviewed for this assessment indicated that they lost a significant amount of situational awareness and critical input on their operations when this shift took place. Because the response was so large at DOH, other partner entities were not aware of how to effectively coordinate with the ACC once Unified Command was gone. Furthermore, staffing changes at DOH in August and September with key positions such as the Health Officer also impacted this sense of "disconnectedness" from other entities who no longer could rely on previously built personal relationships. Policy group or multi-agency coordination group meetings were infrequent or convened ad-hoc when the Governor's Office stepped in and requested specific meetings, or when a specific public health order was being discussed. A more detailed and formalized "Transition Plan" covering new procedures and routine meetings to keep all responding state entities in sync after Unified Command was deactivated could have helped to smooth over gaps in shared response objectives during this period.

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[62] Stakeholder interviews.

Recommendations

1: When feasible, host a conversation with state partners DOH interacted with during the COVID-19 response, as part of a larger statewide hot wash or as part of a series of hot washes focused on specific aspects of the response (i.e., state interagency coordination). As part of this effort:

- Ensure that partner agencies at the state level, including the Governor's Office, understand the structure that should be followed for DOH-led emergency responses.
- Discuss pre-established policies and procedures that were not implemented and incident management structures (i.e., ICS/NIMS) that were not adhered to. Identify why these processes and structures were not followed.
- Hold further discussion with other state departments to align expectations and clarify processes for public health emergencies (i.e., Unified/Area Command).
- Update the outcomes of this conversation(s) in appropriate documents, such as the Command and Control Annex, or create a unique Attachment to the Command and Control Annex specific to support at the SEOC or for Unified and Area Command for large-scale incidents.
- Create a formalized "Transition Plan" with a checklist and/or standing objectives for DOH demobilization efforts when deactivating Unified/Area Command and/or SEOC operations. This should include updated instructions and procedures for other state entities wanting to engage with DOH for situational awareness once demobilization has taken place.

2: Establish resources and processes for quickly integrating staff and resources from other state departments into a DOH emergency response. Ensure the following are considered:

- Financial repercussions and requirements.
- Onboarding and training processes and materials.
- Procurement and issuing of resources necessary to operate in an assigned role.
- Potential for engaging an outside contractor to handle such processes during an emergency response.

3: Host interdepartmental working groups, workshops, trainings, and exercises in partnership with other state departments to practice, reinforce, and test established structures including triggers for Unified Command, triggers for demobilization of efforts, Policy Group activation and engagement, and/or the use of multi-agency coordination groups.

- Use these events as an opportunity to continue to foster the relationships developed as part of the COVID-19 response.

Interagency Coordination – Federal to State

Summary

The COVID-19 pandemic required a response from all levels of government. The decisions made at the federal level and the language used surrounding the pandemic had cascading impacts at the state and local levels that either supported or caused challenges for state and local response entities. However, DOH had strong relationships with some federal entities which aided in effective coordination across levels of government. For example, the support provided by the Centers for Disease Control and Prevention (CDC), especially in the early stages of the DOH response, helped DOH in the initial identification and tracing of cases of COVID-19 in Washington. In addition, strong pre-existing relationships established with the U.S. Department of Health and Human Services (HHS) regional office translated into a strong partnership during the actual response. The novel nature of the pandemic did pose challenges for federal-state coordination, as state entities were looking to the federal government for guidance, yet federal agencies experienced the same level of uncertainty

surrounding COVID-19 that was occurring in state and local governments. In addition, the 2020 federal administration, on some occasions, made DOH operations more difficult, as decisions made by the administration sometimes limited the effectiveness of DOH response actions and created conflicting public messaging. While some improvement occurred when the 2021 administration came into office, challenges persist. DOH has strong partnerships with federal entities that certainly added to the success of the COVID-19 response, but more effective coordination with federal agencies remains an opportunity for further growth.

Strengths

1: DOH and the CDC coordinated effectively, including an initial deployment of a team from the CDC early in the pandemic which greatly assisted DOH in initial identification of cases and contact tracing priorities.

The support provided by CDC was paramount to DOH's initial success in their response. Personal relationships with CDC, as well as the Governor's ability to interface with federal entities, helped facilitate the support DOH received from CDC. The CDC was described as "very responsive" and provided immense support to DOH in the form of personnel, resources, and guidance. For instance, the CDC deployed around five individuals, including an infectious disease physician, within a few days of the first case being identified in Washington to help support the DOH response. These individuals stayed to support initial efforts for approximately two weeks and were then replaced by a new team of support personnel. With DOH having to manage many of the novel elements of the pandemic before other states, the CDC was paramount to DOH's initial decision making in response to COVID-19 cases in Washington. Beyond the initial response, CDC continued to provide valuable support to DOH. For instance, when nursing homes in the state experienced a large number of deaths, the CDC team was there to guide and support DOH. During the establishment of testing capabilities, the relationship between DOH and CDC was also a success, and the fact that CDC got their testing assay established quickly helped DOH in their testing operations immensely. Overall, the support DOH received from CDC was a major success of the COVID-19 response, especially during the beginning phases of the pandemic.[63]

2: The regional structure of the U.S. Department of Health and Human Services (HHS) improved coordination between DOH and regional HHS personnel and contributed to the success of the COVID-19 response.

The pre-established rapport between the regional HHS office and DOH contributed to effective coordination during the COVID-19 response. The organization of HHS, with the use of Regional Emergency Coordinators, establishes a structure that develops strong relationships among Regional Emergency Coordinators and partner agencies within the jurisdictions served, such as DOH. During COVID-19, DOH and HHS capitalized on and fully took advantage of the relationships that were developed prior to the incident by . For instance, it was noted that the Regional Emergency Coordinator from HHS was able to personally call contacts within DOH to have conversations critical to the COVID-19 response. In addition, the Regional Emergency Coordinator visited the Shoreline facility early in the response to check in with DOH, gain visibility over current operations, and determine potential areas for alignment across DOH and HHS. Without these pre-established relationships, information would likely not have passed as efficiently and coordination across agencies would not have been as effective. It was even noted that a similar structure for the CDC could further enhance coordination across public health agencies and that this structure would have allowed DOH, HHS, and CDC to coordinate during the COVID-19 response more effectively. However, while the relationship between DOH and HHS was called out as a strength, there is further room for improvement. For instance, it was noted that HHS has no visibility over or awareness of many DOH efforts. Therefore, further opportunity to align capabilities and

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[63] Stakeholder interviews.

capitalize on one another's strengths and initiatives moving forward exists and is something HHS has explicitly noted interest in.[64]

> "The relationship [between DOH and ASPR] has only gotten better. I am heartened by that and really look forward to where we can strengthen our partnerships... I am looking forward to where we can find overlapping areas that will amplify each agency's strengths, where we can best place our limited bandwidth to get the most out of it."
>
> Stakeholder Interview

Opportunities for Future Success

1: Coordination with federal government partners, while paramount to the success of the DOH response to COVID-19, was at times challenging.

External partner agencies provided immense support to DOH in the form of surge staff. For example, staff from the CDC, U.S. Coast Guard (USCG), and Environmental Protection Agency (EPA) assisted DOH from the federal level. These agencies took on response tasks including providing Planning Section Chiefs to staff the IMT, for example. The integration of these external partners into the response worked well, but there was a learning curve for DOH staff in working so closely with these federal bodies. Overall, there was an adjustment period in integrating these external partners into the internal IMT structure of DOH.[65]

Interactions with federal entities at some points of the response were described as "chaotic." For instance, initial coordination with HHS, at the federal, not regional, level was frustrating from the standpoint of DOH. Although the Federal Emergency Management Agency (FEMA) assuming lead of the COVID-19 response at the federal level helped to address some of these challenges, the novel elements of the pandemic led to confusion across levels of government. Federal entities had little more information on the novel elements of the virus than other governmental bodies, yet state and local entities continued to look to the federal government for direction and information. The dynamic nature of the incident, paired with the uncertainties and unknowns, worsened coordination challenges across levels of government, particularly coordination between federal and state entities.

2: The response to the COVID-19 pandemic by the 2020 federal administration made it difficult to obtain guidance from federal entities regarding testing, vaccination, quarantine, and potential funding streams in a timely and effective manner, negatively impacting the DOH response.

The lack of leadership and ineffective decision making by the 2020 federal administration greatly impacted DOH and their COVID-19 response operations. Interactions between DOH and federal entities, including FEMA, CDC, HHS, and the U.S. Food and Drug Administration (FDA), among others, were all negatively impacted by elements of the 2020 federal administration's handling of the pandemic. DOH's staff morale, ability to scale to meet the needs of the pandemic, and overall response operations faced consequences as a direct result of federal positioning surrounding COVID-19, as actions taken at the federal level trickled down to

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[64] Stakeholder interviews.
[65] Stakeholder interviews.

impact state and local entities. For example, during the initial phases of the pandemic, when federal and state governments were required to manage the disembarking of cruise ship passengers potentially exposed to COVID-19, federal decision-making posed challenges for DOH, specifically for Washington residents who were disembarking cruise ships in California. While this did not impact DOH directly, there were multiple questions around individuals traveling back to their home state and measures could have been implemented to ensure state of Washington residents returned home more easily. Overall, greater coordination between federal and state entities would have benefited this effort. In addition, DOH experienced numerous challenges when interacting with the CDC regarding vaccines as a result of the federal administration's actions. During data collection for this assessment, stakeholders described CDC as having its "hands tied by the administration" and "not able to be a key decision-maker" in the vaccine process, impacting coordination between CDC and DOH operations during an extremely critical time in the pandemic response.

While the federal administration's actions certainly posed challenges for DOH, it was widely acknowledged that the state of Washington is lucky to have an administration and Governor that has depended upon science and has cared about data in driving the state response to COVID-19. This likely helped mitigate some of the negative cascading effects resulting from the flaws in leadership and decision making exhibited by the 2020 federal administration throughout COVID-19. In addition, under the 2021 federal administration, some aspects of the federal response to COVID-19 have improved. However, challenges have also persisted under the new administration, such as a lack of information from the federal government regarding vaccine supply, hindering DOH vaccine forecasting efforts. Overall, some of the decisions made in response to the COVID-19 pandemic by the federal government negatively impacted DOH and its operations.[66]

> "Even existing, strong relationships between DOH and representatives from FEMA, CDC, ASPR, FDA, and HHS were negatively impacted by the [federal] administration's priorities and guidance, which in turn impacted not only staff morale but continuity of surge staffing and departmental operations at DOH."
>
> Stakeholder Interview

Recommendations

1: Bolster the relationships developed prior to and during the COVID-19 response with federal government agencies including ASPR, CDC, FEMA, and others by:

- Including federal partners from regional offices in training and exercise efforts consistently.
- Creating a recurring (e.g., bi-annual) meeting to discuss different opportunities to align efforts in both steady-state and emergency operations with regional points of contact.
- Participating in federal exercises and providing feedback on coordination processes and exercise objectives.

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[66] Stakeholder interviews.

2: When feasible, host a conversation with federal partners DOH interacted with during the COVID-19 response, as part of a larger statewide hot wash or as part of a series of hot washes focused on specific aspects of the response (e.g., federal interagency coordination).

- Document the strengths and lessons learned in appropriate planning documents, MOU/A or standard operating procedures (SOPs).
- Ensure that best practices that came from the response and that are replicable across other novel emergencies are documented as part of this/these hot wash(es) as to help identify a process for better managing novel events.

3: When feasible, continue to advocate for alignment of regional representatives from federal entities other than FEMA and HHS to better coordinate efforts.

Internal Communications

Summary

Effective, trustworthy, and timely communication to staff is incredibly valuable to the success of any incident response. DOH staff work tirelessly to carry forward the mission and values of the agency, as effective emergency response is impossible to execute without situational awareness. During the COVID-19 pandemic, DOH worked diligently to ensure the flow of information continued unabated as the incident stretched into over a year-long response. Overall, DOH demonstrated a capacity to provide frequent updates, maintain situational awareness, and remain flexible despite the many moving parts and uncertainties involved in the response. However, as the response period grew longer, internal communications processes became slower and less collaborative which caused confusion regarding new and evolving responsibilities.

Strengths

1: DOH provided frequent updates to staff to maintain situational awareness and prioritized open and transparent communication during the initial phases of the response.

As the COVID-19 pandemic quickly evolved, DOH made every effort to dedicate resources specifically for response communications to staff. It worked to provide frequent situational awareness using typical staff notification and communication processes. Staff praised DOH for communicating new information in a timely fashion and for reacting quickly to the rapidly changing details surrounding the event. Frequent internal calls and emails made many staff feel that they had access to the most current information pertinent to their role.[67]

In addition to relaying new information as quickly as possible, DOH leadership made efforts to ensure transparency and honesty with staff members. During the initial phases of the response, staff noted that leadership were open to hearing concerns regarding the potential impacts of their decisions and staff felt their feedback was taken into consideration.[68] Leadership made efforts to incorporate feedback meaningfully into the decision making process, understanding that "an inch at the high level is a mile at the field level."[69] Some staff highlighted that, while DOH does not use ICS in its day-to-day operations, the structure of the COVID-19 response was well-communicated.

Across different departments, staff noted that DOH valued transparency and open communication. Some staff noted that strong and responsible leadership led to more effective communications and that this raised their

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[67] Survey data.
[68] Stakeholder interviews.
[69] Stakeholder interviews.

confidence in the decisions being made, even when decisions were in response to a novel element of the incident. DOH valued "straight talk" from staff and preferred direct communication.

2: During the initial phases of the response, DOH prioritized collaborative internal efforts to streamline the flow of communication.

DOH understood that rapidly changing information required divisions, programs, and offices responsible for COVID-19 work (called Priority Areas) to come together internally to support the response from all angles. Because of this, DOH set up twice weekly Response Operations Meetings, which gave teams the ability to cross-connect with each other and stay updated on the operations of other Priority Areas. This assisted staff in getting the right answers from the right people, giving them the ability to easily avoid chasing down the correct contact for specific questions. Staff took the time to check in with each other, asking if they had the information and resources necessary to support the response. During the initial phases of the incident, the open communication processes DOH used made staff feel like they were part of a tight-knit operation.

> "Every day, we did the best we could with what we had. We gave each other a lot of grace. People were honest and took time to connect. People were asking, 'Are you getting the things you need to support our resiliency?'"
>
> Survey Respondent

Opportunities for Future Success

1: As operations transitioned into a sustained response model, communication became inconsistent, without clearly defined priorities or changes in workload despite the need to carry out response operations for an extended period.

By the summer months of 2020, it became clear that the COVID-19 pandemic was an incident without a defined end date. Internal communication processes broke down as the sheer volume of staff needed for the response grew beyond any previous incident operations DOH had executed. Survey respondents noted that as more staff became activated to the IMT, people outside of the IMT structure experienced infrequent and inconsistent communications from DOH.[70] Confusion surrounded basic information needs for staff to carry out their roles and responsibilities, such as work hours, start times, and reporting structure.[71] Some staff reported receiving mobilization emails during approved time off, which added confusion and stress. Simultaneously, staff within the IMT structure would make requests for additional resources and support without providing the necessary context or information to fill those requests, causing confusion and frustration. Interviewees stated that the regular calls and meetings used during the initial phases of the response tapered off without reasoning, beyond the sheer scale of response efforts making the sustainability of these meetings difficult. This left staff without the information needed to fulfill their roles in a time where situational awareness was more critical than ever. It led them to believe that DOH invested heavily in the initial phases of the response without planning for the continued operations as the response stretched on.

The inconsistency in communication left some staff feeling "left in the dark" if they were not directly involved in the IMT.[72] Staff stated they felt information sharing became scarce and increasingly siloed which impacted

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[70] Survey data.
[71] Survey data.
[72] Survey data.

situational awareness across different departments. Combined with the increasing number of new hires with varying levels of pre-existing training and onboarding, communication and the effectiveness of the response were impacted. Additionally, high turnover in staff and leadership impacted continuity of effective communication processes, which proved to be a constant challenge for staff.

2: Communication from agency leadership regarding the definition of assigned roles and agency response priorities was rare and infrequent, and staff were unsure if their concerns and feedback were meaningfully received, impacting trust in leadership.

Staff found the openness and transparency noted during the initial phases of the response to become inconsistent and infrequent as the response continued. It was also challenging for staff to find the clarity they needed to transition nimbly into new roles. Survey respondents noted they often experienced ambiguity when it came to their responsibilities. Department reorganization, which often became necessary due to changes in leadership, was often not communicated clearly to the staff within those departments.[73] This resulted in duplicative efforts and work, which caused frustration and anxiety, impacted workload, and caused territorialism within departments.

While DOH attempted to facilitate information sharing internally through meetings, leadership did not always work with IMT staff to ensure that the people who needed to be in those meetings were invited, which meant the information gathered from those meetings was not always shared with those responsible for critical tasks. This led to staff feeling as though they needed to learn about their new roles and the new departmental organizations being implemented as they completed the work, rather than through a coordinated method in advance to filling a position or taking on new responsibilities.[74] At times, staff felt as though they did not know what leadership was looking for and had to go directly to agency leaders to understand their intent.

Feedback, which some staff felt was received well early on, became difficult to relay to leadership. The leadership decision-making processes were not clearly communicated internally. Because decision-making processes often changed depending on who was in leadership, staff were unable to communicate feedback consistently, or even know who to contact if they felt decisions did not align with their roles or responsibilities. This impacted transparency and staff confidence in leadership, and decision-making was delegated so far down the line in some cases, staff did not know who to turn to.[75] This breakdown in communication processes impacted staff confidence in leadership. While feedback was received well early on in the response, staff felt that as time went on, their concerns and feedback were not as valued. Staff highlighted that while they sent several emails - including concerns, practical suggestions, and creative ideas - many times they did not receive any responses from leadership. Survey respondents noted that feedback became lost in the shuffle and confusion.

Recommendations

1: Fill scribe positions within the DOH IMT structure to record details of internal communications, decision-making processes, and lessons learned as they occur during an incident response.

- While documentation regarding an incident is usually codified within the planning section, the long-term nature of the pandemic may require an additional role that focuses primarily on surveying documentation and recorded conversations for future responses.
- This role may serve to archive key successes and challenges during the response, and actively work during the response to capture the overall picture that may be too big picture for staff activated in IMT to record.

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[73] Stakeholder interviews.
[74] Survey data.
[75] Stakeholder interviews.

- As new staff enter or cycle through IMT roles, they may refer to the archive created by the historian or scribe to catch up quickly on the internal communications and decision-making processes used prior to their start date and adapt to those systems and prioritize continuity.
- By incorporating an active archival role into IMT, DOH may build upon its core value of excellence, proactively documenting the response and respecting staff feedback while meeting immediate needs.

2: During COOP incidents, build out the DOH crisis communications strategy to incorporate robust branding and dissemination of regular internal updates to staff during an incident.

- Branding internal emergency communications separately from public and/or steady state updates may establish clear definitions for staff who serve multiple roles. This may decrease confusion and provide staff with a clear trail of information to follow as the incident evolves.

3: Maintain strict adherence to a consistent internal communications process that supports the ICS structure utilized by DOH during incident response. Ensure that new and/or rotating staff are briefed on these communications processes and adhere to proper communications chain of command.

- To expedite the sharing of relevant information and provide a contact for receipt of staff feedback, DOH may establish liaisons for staff and DOH leadership. This provides a point of contact for staff to receive open and transparent answers during a large incident.
- Establishing a liaison for the duration of the incident promotes the DOH value of human-centered by acknowledging that staff feedback and concern is incredibly valuable to the success and resiliency of incident response.

Medical Surge

Summary

As COVID-19 cases increased, hospitalizations closely followed in multiple waves of resurgence. The majority of acute care facilities operate at high census regularly. As hospitalizations surged, many hospitals felt the impacts as the pandemic spread across the state of Washington. Hospitals and HCCs regularly prepare for health care surge during an infectious disease incident and many have written plans for Medical Surge, which were activated early on during the pandemic. COVID-19 tested those plans with additional barriers tied to isolation and quarantine needs and PPE shortages statewide.

DOH and the state of Washington had to implement new policies to prepare to ensure bed capacity could meet surge capacity projected at 20% [76]due to the severity of cases, including Intensive Care Unit (ICU) and ventilator availability. On February 29, 2020, the Governor issued Proclamation 20-24 restricting non-urgent medical procedures to ensure health care workers had enough protective equipment on the front lines.[77] This proclamation lowered daily census in the acute care setting.

Clinical staff are positions that are hard to recruit within a health care system on a daily basis, and COVID-19 made this significantly more difficult. The ratio of staff to patients was tested, requiring health care facilities to hire traveling nurses and become creative to bring additional nurses into their facility to prepare for medical surge capacity. DOH's Nursing Commission also worked diligently to expedite the license application process, including temporary approval for out-of-state providers to work where the emergent demands were greatest. The adaptability of personnel and staff willingness to change directions was key. Although this was a common

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[76] Stakeholder interviews.
[77] Office of the Governor, State of Washington, "Proclamation by the Governor 20-24", March 19, 2020, https://www.governor.wa.gov/sites/default/files/20-24%20COVID-19%20non-urgent%20medical%20procedures%20%28tmp%29.pdf?utm_medium=email&utm_source=govdelivery

trend across the country, maintaining staff and preventing fatigue was a challenge, and DOH was inevitably called upon to support medical surge efforts across the state.

DOH mobilized teams in coordination with the Washington State Department of Ecology and the U.S. Coast Guard to support field hospitals to help free up beds to handle the projected COVID-19 cases. The state worked diligently to set up the first field hospital at Century Link Field in Seattle and began preparing to set up another field hospital in Yakima. After discussions with the hospitals, these field hospitals were later demobilized.[78]

Communication between health care, HCCs, and DOH in response to surge activities became a challenge. HCCs are actively involved in planning and preparing for a medical surge event. DOH did not have a solid understanding of the role of the HCC, leaving them out of critical planning elements, as was previously mentioned in the Interagency Coordination sections. Additionally, hospitals were requested to provide daily census and resource data, which was continuously changing and sometimes difficult to define within changing guidelines. Despite these barriers, the health care sector continued to provide adequate bed capacity to the ever-changing COVID-19 hospitalizations rate within the state, and DOH continued to track health care system capacity statewide to ensure bed availability throughout the entirety of the pandemic.

Strengths

1: The state of Washington brought in a state Director for COVID-19 Health System Management to assist with a coordinated response for a medical surge, which DOH supported.

As medical capacity was stressed to the limits, the Governor brought in a director specifically for COVID-19 Health System Management to assist with coordination of medical surge in the state. This director built relationships with the different coalitions and established common goals between these coalitions. The medical expertise of this Director helped bridge the gap in communication with HCCs, health care facilities, health care associations, and other key stakeholders working toward the common goal of increasing surge capacity within the state's health care system.

In April of 2020, the Director formed a workgroup to extend the Governor's Proclamation 20-24, restricting non-urgent medical procedures. This workgroup consisted of unions and coalitions with a shared interest in the suspension of elective surgeries. The group was given a quick turnaround of one week for the development of this living document. This workgroup enabled the Governor's Office, DOH, and the health care system to collaborate effectively for a uniform approach to reduce medical surge overall.

2: Effective strategies were implemented to decrease the risk of acute care facilities moving into crisis standards of care.

To increase bed capacity in the state of Washington, DOH worked with other state agencies and the U.S. Coast Guard to establish a field hospital in a football stadium in Seattle. This field hospital would assist in the decompression of hospitals across the state to reduce the risk of the hospitals going into crisis standards of care. Due to fiscal implications, hospitals were concerned about transferring patients to the field hospitals and no longer being able to bill for the services performed.[79] Field hospitals were later demobilized upon an agreement between DOH, the Washington State Hospital Association, and area hospitals to ensure that as long as the hospitals agreed to act as a collective to prevent any hospital in the state from switching into crisis standards of care, they would limit the number of patients sent to field hospitals (which would decrease funding available to health care systems). This was a successful collaboration among these health care agencies and state partners[80].

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[78] Stakeholder interviews.
[79] Stakeholder interviews.
[80] Stakeholder Interview

As surge numbers were projected, health care partners assisted with the surge planning in different ways. At one point, just enough beds were available statewide, but there was still a need for additional ventilators. DOH and the Governor's Office collaborated with local associations for Ambulatory Surgery Centers (ASCs) to find additional ventilators. These ASCs also assisted by providing emergency refresher training for their anesthesiologists to run the provided ventilators as interim support.

As mentioned earlier in the Public-Private Partnerships section, Microsoft also assisted DOH in creating a common operating system for hospital data collection which included ICU capacity, staffing availability, and ventilator availability, providing transparency for DOH and other medical surge partners across the state and at local levels to mitigate potential surge events. This common operating system was stood up in two short weeks. DOH did not face resistance from the health care providers and 90-95% of the state's hospitals adopted this system within a week, which is an unprecedented amount of local support for new data reporting policies and procedures.[81]

3: The DOH Nursing Commission expedited licensing applications and approved temporary permits for out-of-state providers to support medical staffing in the counties with the highest demand.

Out-of-State providers obtained approval to practice in Washington under the Uniform Volunteer Health Practitioner Act (chapter 70.15 RCW).[82] Approved applicants were added to a database by the Nursing Commission after screening for an active out-of-state license with no disciplinary action on record, then receiving final approval from the IMT. The IMT utilized these practitioners in identified host facilities in the county with the highest demand for medical staffing. The expedition of the out-of-state licensing permits allowed these applicants to get into the workforce quickly.

Pre COVID-19, the turnaround time for nursing license applications was 14 days. During the pandemic, the Governor requested a 24- to 48-hour turnaround on applications. The Nursing Commission requested 25 additional personnel resources and additional funding allocations. As personnel resources were acquired from other state departments to assist with the application process, the turnaround time was reduced to 7 days. [83] As personnel was released back to their regular duties, the turnaround time rose to 7-10 days, where they plan to maintain the status quo.

Opportunities for Future Success

1: DOH had very few staff trained in medical surge and overall coordination with HCCs at the local level.

Health care coalitions play a critical role both before and during an emergency by providing and connecting their partners with appropriate resources, policies, and best practices to respond to an incident.[84] HCCs also play a critical role during activations to ensure a manageable census among health care systems through shared situational awareness of health care system capacity. DOH IMT leadership struggled with the role of DOH in terms of supporting local HCCs and the separation of the eastern and western coalitions, which created challenges for LHJs and health care partners.[85] Socialization of the HCCs in the state of Washington with DOH IMT staff will allow for better coordination during future medical surge incidents. In addition, further definition of the role of DOH in terms of coordinating directly with HCCs for future large-scale incidents will help to alleviate confusion at the local level.

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[81] Stakeholder Interview

[82] Washington State Department of Health, Nursing Licensing, https://www.doh.wa.gov/LicensesPermitsandCertificates/NursingCommission/NurseLicensing, Accessed August 10, 2021

[83] Stakeholder Interview

[84] National Association of County and City Health Officials, "The Role of Healthcare Coalitions in Emergency Response", September 2017

[85] Stakeholder Interview

Only a few employees who worked in the Emergency Preparedness, Resilience, and Response program had medical backgrounds making it difficult to assist the HCCs in developing a statewide surge plan. This task became overwhelming until the Governor brought in a new state Director for COVID-19 Health System Management to help with a coordinated response for a medical surge. DOH also brought in a dedicated EMS Patient Movement and Preparedness Planner to further assist in providing clarity across regions and local jurisdictions on patient movement challenges and processes.

2: Long-Term Care facilities struggled with maintaining safe staffing levels even with creative recruitment strategies implemented by DOH.

Although application processes were expedited to support the demand for the medical workforce, it was indicated during multiple stakeholder interviews that policy changes related to staffing were slow and not consistently applied from an operational standpoint. Long-term care (LTC) facilities have consistently struggled with staffing throughout the pandemic. There are many stigmas and myths around nursing in an LTC that the Nursing Commission worked to dispel. An LTC Summit hosted by DOH in August 2020 with over 500 attendees brought together educators and clinical students to provide education on working in an LTC setting. As of July 2021, the Nursing Commission is still struggling to support the LTC facilities in obtaining nursing personnel.

For the quality of care, patient-to-staff ratios are critical to safe practices in health care settings. During a global pandemic that impacts all health care workers, it is essential to maintain a safe staff-to-patient balance while keeping in mind staff shortages due to infection control measures. Regularly providing education to dispel stigmas and myths in the LTC setting should be continued to assist with recruiting clinical workforce to a critical safety component of the health care delivery system.

Recommendations

1: Establish a liaison role for the HCCs within the DOH IMT Medical Surge Branch early on in an emergency response. Consider:

- Establishing coalition liaisons for each HCC within the state.
- Thresholds for activation of this role in the IMT.
- Procedural information on how to communicate with HCCs during a crisis or emergency.
- Socializing HCCs among all ESF-8 responders including DOH IMT.

2: Update state-level Medical Surge Plans to include policy and legislative changes pertaining to hospital staffing during a medical surge event. Consider:

- Waivers for state health laws during a surge event to prevent the need to go into crisis standards of care.
- Liability protection for health care providers (and volunteers in support of the response) during a surge event.
- Tools to mitigate the need to switch to crisis standards of care.

3: Continue to host an annual LTC Summit in conjunction with the Nursing Commission to educate and inspire nursing students to seek opportunities in an LTC setting. Consider:

- Dispelling myths and stigmas associated with LTC.
- Providing networking opportunities with LTC Nursing professionals and students.
- Providing education on LTC residents, different LTC settings, and positive outcomes.

Testing Operations

Summary

On January 20, 2020, Washington State's first coronavirus case was confirmed positive by the CDC.[86] At the time, only the CDC had the capacity to test for the virus. On February 28, 2020, after coordinating with the CDC to receive the proper testing assay and test kit components, the DOH Public Health Laboratory (PHL) in Shoreline began testing samples and rapidly increased its throughput capacity, working to maximize existing capacity and available supplies. The lab stood up its COOP and initially stopped performing all other lab functions.

From that time until June 2021, the lab operated 16 hours a day, seven days a week to meet the testing needs of the state of Washington.[87] At first, the Testing Operations Branch was set up in three silos: Customer Care, Warehousing, and System Solutions. The three silos were integrated by September 2020.[88] Initial kit assembly and distribution was managed out of the PHL from March 2020 to April 2020, and after that, the Receive, Stage, and Store (RSS) warehouse was used as the main testing kit assembly, distribution, and warehousing location for 10 months. Test kit assembly and distribution was transferred to a third party in January 2021.[89] According to the Testing Operations Unit After Action Review report, "by March 2021, the testing operations unit had developed Standard Operating Procedures (SOPs), clarified roles/responsibilities, supported multi-sectional response efforts, developed communication plans, communicated regularly, provided action plans, and maintained dashboard reporting and public portal request interfacing."[90]

Years of funding cuts to county public health labs meant that the brunt of the testing in the state fell to the DOH PHL. The staff of the PHL and the Testing Branch operations team stood up new testing technologies, established new data systems, worked with other state agencies as well as external organizations, and exhibited exceptional dedication to their work throughout the entirety of the response. Recently, the lab has also begun doing whole genome sequencing, which will be a key element of the ongoing COVID-19 response in the state.

> "Throughout the response, the operations testing unit conducted at least monthly initiatives to ensure there was awareness of supply availability and support for the more than 300 different requesting facilities, which contributed to more than 4,300 individual distributions."
>
> DOH After Action Review for COVID-19 Testing Operations Unit, March 1, 2021.

Strengths

1: The Public Health Laboratory and Testing Branch operations team created new processes, developed new data tools and systems, and improved upon existing tools and systems.

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[86] "1st U.S. Case of Coronavirus Confirmed in Washington State" https://www.npr.org/2020/01/22/798392221/1st-u-s-case-of-coronavirus-confirmed-in-washington-state
[87] Stakeholder interviews.
[88] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.
[89] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.
[90] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.

Even though many of the information systems supporting testing operations were either outdated or nonexistent prior to the COVID-19 response, DOH staff and partner organizations were able to innovate and create new systems and efficiencies within existing systems. These innovations have improved laboratory operations and test kit assembly and distribution. The PHL converted a training lab into a high-throughput lab with multiple biosafety cabinets and high-capacity instruments and optimized existing space by using a corridor in the lab as storage space specifically for COVID-19 testing supplies.

To improve the lab's ability to track samples, the PHL developed an electronic test ordering and reporting (ETOAR) system. The ETOAR system is a cloud-based system that allows samples to be scanned in and tracked through the entire testing system more easily. Prior to deployment of this system, samples records would be hand-written to be entered into the system and were prone to human error. Part of this electronic test ordering and reporting system now generates a QR code via an online specimen requisition portal that allows samples to be scanned in for testing.

To support test kit distribution, the Systems Solutions team in the Testing Operations Branch built a new system on the SmartSheet platform that was "designed to remove barriers, increase access [to testing] for harder-to-serve areas, and included a process for automated approval [for] distribution which also linked data to reporting pathways."[91] The Health Technology Solutions (HTS) division enacted a special exception for the use of SmartSheet, which took some burden off of HTS and allowed the Testing Branch to operate more efficiently by being able to operate its own system.

2: DOH worked effectively with external partner organizations to improve efficiency of testing operations.

Throughout the response, many community and state agency partners assisted with test kit assembly and distribution work, including the National Guard, Department of Ecology, Department of Enterprise Services, Team Rubicon, and others. When the PHL began assembling sample collection kits for LHJs, the State Department of Fish and Wildlife helped to distribute those kits across the state for several months.[92] National Guard personnel helped staff testing sites during the response, and a Logistics Officer from the National Guard came to the PHL to help streamline laboratory and warehouse logistics by identifying efficiencies. Another partner institution that supported DOH in testing efforts was the University of Washington (UW). UW established its own testing assay and then ramped up its labs to support the state lab.

3: The PHL successfully ramped up operations for high throughput and effectively maintained biosecurity and social distancing in the lab throughout the response.

The volume of testing required by the COVID-19 response has been larger than in any previous health emergency DOH has responded to. The PHL was not set up for extremely high throughput testing and initially did not have the staff or the equipment to do so. When the PHL began testing samples in late February 2020, it was initially overwhelmed by the demand. However, since shortly after that time, the lab has consistently met the turnaround time needs of the communities being served. The lab was able to acquire new equipment to support high-throughput testing and hire additional staff to allow some staff to resume their pre-COVID-19 roles in the lab. Resource acquisition for the lab was efficient and did not cause delays outside of supply chain delays that affected health departments all over the country.[93] Additionally, the lab operations team prioritized biosecurity throughout the response and was able to maintain safe working conditions for laboratory and testing operations staff.

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[91] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.
[92] Stakeholder interviews.
[93] Stakeholder debriefing.

> "I think [the department] has done a fantastic job from a lab standpoint. Operations were scaled up quickly and biosafety was an utmost priority it seemed. I'm proud of DOH and my team in particular."
>
> Survey Respondent

Opportunities for Future Success

1: Existing public health labs across the state of Washington were not funded, supplied, or set up to receive and process extremely high volumes of samples.

Not only was the state Public Health Laboratory not set up for processing large volumes of samples prior to the COVID-19 pandemic, but decades of funding cuts for county public health labs meant there was little public lab infrastructure in the state to respond to the demand for processing large numbers of COVID-19 tests. It took time for the state PHL to ramp up its testing capabilities, and initially there was a lack of the supplies needed to do the testing. The state of Washington was essentially competing with the whole country and world to acquire sufficient supplies of the swabs, reagents, and other materials needed to perform COVID-19 testing.

DOH leadership did not always recognize the obstacles the lab was overcoming to ramp up throughput and often put pressure on laboratory staff to keep up with the turnaround time of the commercial labs. Early in the COVID-19 response, PHL personnel were not familiar with the inventory management and materials management practices of commercial labs and did not have training available to them to learn and replicate those practices. The pressure from leadership also contributed to staff burnout as staff were already working long hours with few days off to meet the demand for testing.

Now that the PHL has acquired high-throughput instrumentation that is supporting the ongoing COVID-19 response and will be useful beyond COVID-19 as well, there is an opportunity for DOH to create plans that will allow for throughput to be scaled back as demand wanes but will maintain the ability of the lab to quickly scale back up to meet the demand of future COVID-19 surges or other public health emergencies.

2: Existing data systems to track samples throughout the state's testing infrastructure were insufficient and improving those systems took a lot of time and resources.

The data systems that were in place at the start of the response for supporting the operations of the PHL were outdated and insufficient. While IT staff in the lab and the Systems Solutions team worked diligently to upgrade these systems and create new communication tools and reporting dashboards, development of those mechanisms took a lot of time and resources and did not seem to be widely implemented.

There are opportunities for the Testing Operations Branch and the PHL to continue to improve existing systems and to start using new systems that will enhance testing capabilities. For example, these groups continue to work on developing the new cloudbased ETOAR submission portal. Another opportunity exists for DOH to join with the electronic reporting system used by commercial labs across the state. Doing so would allow samples to be routed to labs for testing based on which labs have capacity to take on new samples. It is critical that funding for these efforts be maintained during the ongoing COVID-19 response and beyond so the progress made during the response can be built upon and the readiness of the state can be improved.

3: Internal and external communications related to testing operations could be improved.

Throughout the response, there were opportunities for improved information sharing and communication with regards to testing. Internally, testing was a priority of the response, but those working in the Testing Branch did not feel supported by state or IMT leadership. Several warehousing decisions were made without first

consulting the Testing Unit which resulted in issues with contamination and access to supplies. The Testing Operations Unit After Action Review explains that "Materials Management protocols were overridden by IMT leadership without impact awareness and ultimately resulted in the contamination of materials."[94]

The decision to assign the National Guard to support the Testing Unit was also not widely communicated to those working in the unit. Often, when new testing initiatives that would affect the Testing Operations Branch of the LHJs were being worked on at a high level, decisions were not well communicated to the Testing Branch or LHJs until the very last minute.

In general, communication regarding testing with external partners such as LHJs could have been improved. Point of Contact information for partners was not effectively communicated, making it difficult for testing to get kits to partners' facilities. During the early phases of the response, it was difficult for testing operations staff to know what was going on with availability of testing supplies and that made it difficult to communicate with partners. It was difficult for the branch to plan ahead because testing technologies and needs were constantly changing.

LHJs felt there was not much testing support from DOH, so they planned for local testing capacity but then often received guidance or notice after the fact that conflicted with their plans. DOH did not adequately include LHJs in decisions about new testing initiatives and new partner organizations, which undermined testing plans that LHJs already put in place.[95]

4: Continued operations of the lab since February 2020 led to staff burnout and problems retaining staff.

As with many other branches of the COVID-19 response, the work demands on testing operations and laboratory staff have led to burnout and many staff leaving their roles with DOH. The laboratory was running 16 hours a day, seven days a week from February 28, 2020 until June 2021. Month-by-month activations made it difficult for staff to transition from crisis response to a more long-term response model, and last-minute activations added extra stress on staff who were already working long hours. Pressure from leadership for the PHL to keep up with the throughput and turnaround of the commercial labs also created an additional source of stress.

Recommendations

1: Expand the space allocated to the PHL to maintain testing capabilities and to preserve the ability to ramp up for high-throughput testing.

- During the response, warehousing and laboratory space was limited, resulting in supplies being housed in multiple different locations.
- DOH should identify additional spaces near existing testing operations and work to acquire those spaces for use by the PHL during public health emergencies.

2: Continue providing the resources necessary to improve existing data systems and implement new ones.

- Examine potential funding streams for the Testing Operations Branch to finalize development of the new ETOAR system.
- Assign responsible parties for carrying out this task and establishing SOPs for the use of the system.

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[94] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.
[95] Partner interviews.

3: Continue to use and develop internal capability with the Inventory Management and Tracking (IMATS) system that is already used by CDC and DOH partners as the department's response inventory management system.

- This would have been a great solution at the start of the system development, but there was not situational awareness about the program and the competency in leveraging the program was limited at first.[96]

4: Join the TestDirectly system to allow for greater transparency between the PHL and nearby commercial labs.

- This system tracks CLIA-certified labs and their capacity to take on additional samples at any given time. In an emergency, it is important for labs across the state to maintain situational awareness by using the same system. Many labs in the state already use this system.

5: Expand, streamline, and standardize emergency response training for testing operations and laboratory personnel as well as local testing partners.

- Require emergency response-related training (e.g., ICS 100, 200) for all new and returning testing operations members and consider developing "an onboarding outline, desk aid, and required meeting schedule to ensure the best possible alignment with ICS operations."[97]
- Require just-in-time supervisor training for personnel, including those within testing operations, who enter into new supervisory roles during an emergency response.
- Develop WebEOC training materials for distribution to partner agencies ordering testing supplies. Initially, WebEOC was not well understood by smaller partners for the purpose of ordering testing supplies and this created a barrier to ordering testing supplies.[98]

Surveillance and Information Management

Summary

The scale of the COVID-19 pandemic presented challenges to DOH in handling the vast amount of data being collected to inform public health response efforts. Surveillance efforts through contact tracing, laboratory testing, and health care provision all collected various types of data during the COVID-19 response that drove resource allocation and policy decisions. More recently in the response, vaccine distribution has also produced vast amounts of population data. The department's epidemiology and health statistics teams have worked diligently throughout the response to manage, analyze, and report on this data, but existing data systems were outdated and initially unable to process the amount of data being produced through response efforts.

The Washington DOH and its partners have worked throughout the pandemic to make exponential improvements in IT processes and data systems to meet the demands of the crisis. One major highlight of these improvements was the partnership that DOH developed with Microsoft to support upgrading of data systems and improvements in data analysis and reporting.

Staff from across the department and its partner organizations lauded the passion and adaptability of their colleagues throughout the response with regards to identifying and implementing IT and data solutions. The lessons learned from COVID-19 represent a unique opportunity for the department to establish a niche as a data-driven organization that is prepared for the health threats of the future.

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[96] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.
[97] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.
[98] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.

Figure 7: Flowchart of DOH COVID-19 Information Systems

WADOH COVID-19 Information Systems

CASE AND CONTACT INVESTIGATIONS

CREST (Case Risk and Exposure Surveillance Tool)

Newly-developed tool to assist in case and contact investigations. Developed in collaboration with Microsoft.

WDRS (Washington Disease Reporting System)

Existing electronic disease surveillance system that allows public health staff to receive, enter, manage, process, track, and analyze disease-related data.

HEALTHCARE STATUS REPORTING

WAHealth Portal (Washington's Healthcare and Emergency Logistics Tracking Hub)

Web application for healthcare staff to input information on resources (beds, ventilators, PPE, etc.) which hospital, local, and state decision makers can then view on dashboards. Developed in collaboration with Microsoft.

HUMAN RESOURCES SYSTEMS

ServiceNow

App used by DOH throughout the response to support rostering and notification of the IMT, in addition to other workflows.

LAB REPORTING

WELRS (Washington Electronic Lab Reporting System)

Existing system that transmits electronic laboratory reports to public health disease investigators across the state.

LIMS (Laboratory Information Management System)

ETOAR (Electronic Test Ordering and Reporting)

New sample tracking system used by the Public Health Laboratory to track samples from collection to testing using QR codes. Developed in collaboration with Microsoft.

■ New as of 2020

Strengths

1: Public-private partnerships greatly enhanced the department's ability to stand up new data systems and improve existing systems.

As mentioned earlier in the Public/Private Partnerships section, DOH partnered with many private companies during the COVID-19 response to successfully address specific organizational, technical, and communication issues. Nearly all of these partnerships had not been established or formalized prior to the pandemic. Notably, the department established a partnership with Microsoft in which Microsoft supported the department pro bono on a variety of data system projects and on data reporting tool development. This partnership was successful in helping DOH set up high-capacity data systems to improve surveillance and maintain situational awareness. Microsoft worked to quickly stand up a hospital capacity monitoring system called WA Health that garnered high participation. Providers were very receptive to adopting the system and found the ability to see how many beds, ventilators, and PPE stores that other providers had very useful. Other data systems that Microsoft helped DOH set up or improve were the CREST (Case Risk and Exposure Surveillance Tool) system to

support contact tracing, WELRS (Washington Electronic Lab Reporting System) to support test results reporting, and WDRS (Washington Disease Reporting System) to support health care reporting.

Microsoft provided analytic, engineering, and visualization support, as well as performance computing assistance which included developing public dashboards that improved understanding of case distribution, PPE availability, testing, hospitalizations, deaths, and vaccine distribution and uptake. Microsoft worked with DOH to improve the backend systems that collect the data, interpret the data, and report the data to the Governor's office.[99]

In addition to Microsoft, other IT companies helped with scaling up WELRS and WDRS to be compatible with the magnitude of incoming data and with improving the efficiency of vaccine scheduling.

2: DOH was able to rapidly implement IT upgrades to allow many staff to quickly transition to work-from-home.

The transition to work-from-home early in the pandemic response forced the department to fast-forward and rapidly implement IT solutions. These solutions included providing laptops to staff, installing and using Microsoft Teams, installing and using Zoom, and setting up e-signature capabilities. Some staff have experienced internet connectivity issues, particularly during the early phase of the response, but DOH worked with the state Office of the Chief Information Officer (OCIO) to ensure that everyone had the necessary bandwidth to do their jobs.[100] The Health Technology Solutions (HTS) division also worked to quickly connect everyone in the department to the virtual private network (VPN) to be able to securely access files remotely. Many stakeholders who were surveyed or interviewed for this assessment highlighted this IT transition process as an important innovation of the department's response.

IT staff in the department exhibited exceptional commitment and skill in getting current and new DOH staff onto the network and set up with new equipment to keep the overall response running smoothly, despite not having adequate staff to keep up with everything being asked of them. HTS was also responsive in providing technology support in urgent situations.[101] There were significant demands placed on the department's IT infrastructure and staffing. During this response period, the HTS division needed to support the creation of reporting solutions, develop tracking programs, retrofit data structure, and develop competencies to meet the advanced data science needs placed on the agency due to the pandemic.[102]

3: DOH and partners created new data systems and processes that greatly enhanced the response.

The department adopted many process improvements during the response by creating new data systems and improving ways of collecting data. One such new system was CREST, the Case Risk and Exposure Surveillance Tool, which DOH created with support from Microsoft to capture data from contact tracing. This system provided the department with a data collection capability that it did not have prior to the pandemic.[103] The department also worked with Microsoft to build and maintain several data dashboards to report data in order to inform state and local decision making and to share information with the public.

Other data innovations that the department implemented during the response were the creation of a GIS layer to identify vulnerable populations with lack of COVID testing nearby and use of a state-level volunteer

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[99] Partner interviews.
[100] Stakeholder Debriefing, June 2021.
[101] Survey data.
[102] Survey data.
[103] Stakeholder Interview.

management program.[104] DOH also worked to streamline the staff onboarding and hiring processes to increase efficiency as the need for hiring surged during the response.

Stakeholders praised the adoption of other specific new technologies as well, including the Microsoft Azure DevOps tool, a vaccine appointment scheduling software, and a vaccine eligibility checker tool called Phase Finder.

4: DOH developed useful communication and training tools for case investigations and contact tracing staff during the response.

One crucial element of the department's COVID-19 response efforts was the recruitment and training of staff to conduct case investigations and contact tracing. The department undertook expansive training efforts by founding a new Training Group to support case investigations and to coach case investigators and contact tracers about privacy issues.[105] These training efforts made case investigations and contact tracing staff feel supported and comfortable with what they were doing. DOH also produced quality reference material that was easy for staff to access on-the-spot when speaking with the public (i.e., the LHJ Quick Guide and the Case Investigations and Contact Tracing [CICT] Toolkit).

In addition, the department did an excellent job of communication in all areas in support of case investigation and contact tracing staff. These communications included a statistics overview, CDC guideline updates, state guideline updates, projections, concerns, technical upgrades, and "town hall" info sessions with agency leaders.

Opportunities for Future Success

1: There are opportunities for DOH to better collaborate with local health jurisdictions and health care partners when building out data systems.

DOH could have more thoroughly consulted LHJs and HCCs throughout the response about the development of data systems. Improved engagement with these partners would ensure that the data that is most useful to them is being collected through DOH systems and would ensure that they have access to the data they need and that they know what data is going into their jurisdiction's metrics. The department undertook a massive effort to collect data from the health care system through WA Health but needed to better recognize the impact that data collection has on organizations like HCCs. Only a select number of entities were able to see that data on the back end which limited its overall usefulness.[106]

Most LHJs that were not large did not have the resources to set up their own data systems and thus relied on DOH systems throughout the response. DOH's existing data systems are used by almost all the local health departments in the state, and several of them felt that the state database did not meet their needs. This resulted in some jurisdictions developing their own systems or finding other systems to use during the COVID-19 response, which is a lost opportunity to improve the synergy of data systems across the state and local health departments in the state of Washington.[107]

The department's communications with health care providers, other external partners, and the public could have been improved and better targeted. Often the need to be responsive to external demands for information conflicted with the need to go through required channels for approval.

2: DOH could better communicate to partners and the public how it collects and uses data on the impacts of COVID-19 in different racial and ethnic groups to drive its decision making.

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[104] Survey data.
[105] Survey data.
[106] Partner interviews.
[107] Partner interviews.

Due to the constraints of protecting patient privacy when working with small sample sizes, the state of Washington does not publicly report full racial statistics as they relate to COVID metrics and testing data. Some stakeholders who were interviewed expressed concern that DOH did not fully report on race throughout the pandemic response and that this lack of reporting reflected an inadequate response from the department to address health disparities. This highlights an opportunity for DOH to better communicate with stakeholders and the public about why it cannot always report rates of infection, testing, hospitalization, or death in specific racial and ethnic groups in order to protect patient confidentiality. Clearer communication regarding what data is collected versus what is publicly available may help to alleviate this issue in the future.

Figure 8: COVID-19 Cases by Race/Ethnicity as of July 8, 2021[108]

CASES BY RACE/ETHNICITY

	CASES	% OF CASES	TOTAL WA POPULATION (%)
Total Number	**454,650**	**100%**	
Unknown Race/Ethnicity (% of Total)	192,672	42%	NA
Total with Race/Ethnicity Available	**261,978**	**100%**	**100%**
White*	134,158	51%	67%
Hispanic	76,176	29%	13%
Asian*	16,103	6%	9%
Black*	14,812	6%	4%
Multiracial*	7,661	3%	4%
Native Hawaiian or Other Pacific Islander*	4,744	2%	1%
American Indian or Alaska Native*	4,328	2%	1%
Other Race**	3,996	2%	NA

*Non-Hispanic

3: An opportunity exists for the department to adopt continuous process improvements and dedicate itself to the long-term maintenance and improvement of data systems.

Initially, the amount of data being collected through COVID-19 response efforts overwhelmed the department's information systems and caused issues with processing speed. DOH has come a long way with data systems since then, but gaps continue to exist with regards to the processing capacity, internal integration of systems, and inclusion of external partners in data systems.

Many DOH stakeholders expressed in interviews and survey responses a hope that the department will leverage the momentum and funding from the COVID-19 response to continue to improve data systems far into the future and make substantial forward progress on upgrades that had previously been difficult to get funded. In particular, DOH needs to continue to transition to cloud analytics capabilities and develop the in-house capability to manage a cloud-based system without a need for substantial external assistance. There is an opportunity for DOH leadership to seek input from its epidemiologists and data analytics staff throughout this process to set up systems that integrate into existing process and best meet the department's needs.

Some of these stakeholders expressed concern about whether there will be long-term maintenance and improvement of data systems. This includes concern that staff who have been newly hired during the pandemic will not be able to stay, if funding runs out, while there is still significant work to be done on system improvements.

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[108] DOH COVID-19 Data Dashboard. Accessed July 8, 2021. https://www.doh.wa.gov/Emergencies/COVID19/DataDashboard .

"WA DOH has been long-overdue with investments into our informatics and data structure using COVID-19 funding. WA DOH has provided COVID funding to offices most heavily involved in the COVID response, allowing for longer-term hiring of necessary staffing resources."
-Survey Respondent, May 2021

Recommendations

1: Convene epidemiologists and leadership from the local health jurisdictions to discuss how the department's continuous improvements to data systems after the COVID-19 response can better serve their needs.

- Continuing changes to the department's data systems present an opportunity to solicit feedback from LHJ partners on what data they need to be collected.
- LHJ partners should have access to data within DOH data systems that is relevant to their jurisdictions.

2: Convene leadership from the hospital associations and their members to work towards institutionalizing the WA Health system.

- DOH and the hospital associations recognize the value of having and maintaining a "surveillance" system for health care in Washington.
- Funding sources will need to be determined for long-term maintenance of the WA Health system.
- DOH and the hospital associations should determine the data reporting that will be needed from hospitals in the long term to maintain the usefulness of the system.

3: Create and maintain a public-access virtual data portal where the public can continue to access departmental data from the pandemic response.

- Identify standardized emergency response reporting metrics and definitions along with the virtual data portal to ensure standardization of reporting and data interpretation.

Mass Vaccination Planning

Summary

Due to previous work on MCM distribution and annual flu vaccine distribution as well as previous outbreaks, DOH already had extensive knowledge and processes in place for mass vaccination efforts. However, the COVID-19 vaccine distribution rollout did not follow the same trends as previous mass vaccination clinics or planning efforts. State officials and health departments across the country had limited knowledge of the timeline for vaccine development and the federal distribution plan. This made developing a state-level plan challenging for DOH. However, given these challenges, DOH made several notable planning efforts to ensure a more equitable and timely distribution of the COVID-19 vaccine.

In the beginning stages of the vaccine rollout, vaccine distribution could not keep up with the demand for immunization. As demand decreased, DOH had to reevaluate its distribution plans and scale down mass vaccination efforts. Given that supply was the primary obstacle at first, the distribution and level of vaccination

support was quick, effective, and efficient.[109] The ability for the state to pivot from mass vaccination sites to more pop-up and mobile methods of distribution/vaccination was recognized as a model for other states as well once demand began to lessen.

Vaccine hesitancy from worldwide political interference and lack of consistent messaging became a hurdle for DOH. At the time of writing this Assessment, DOH is currently working to address misinformation with science-based, targeted messaging to tackle vaccine hesitancy. Although demand continues to decrease across the nation, DOH, in coordination with providers and long-term care programs, strives for Herd Immunity among their residents. As of April 17, 2021, more than 4.6 million doses of the COVID-19 vaccine have been administered in Washington.[110]

However, within the state's control, there could have been more robust and detailed plans in place with flexibility to scale up as the supply of vaccines increased over time. The lack of planning was contributed to minimal staffing resources dedicated to vaccine planning due to the active COVID-19 response in 2020. However, vaccine planning had a quick turnaround time, about one week for specific planning elements. Additional planning gaps included strategies for persons experiencing homelessness, which was especially vital to King County due to its rampant population of persons experiencing homelessness. Concerted and transparent messaging was another obstacle DOH had to overcome for successful vaccination planning.

> "The holidays were the halftime of the 'COVID football game' and were an opportunity to strategize on how to move forward now that we had vaccines. Fast forward 6 months later and we've reopened the state and are one of the top 10 percent of states in terms of our vaccinated population."
>
> Stakeholder Interview

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[109] Stakeholder interviews.
[110] Washington State Department of Health, *COVID-19 Vaccination Progress Dashboard and Data,* Accessed May 27, 2021, https://www.doh.wa.gov/Emergencies/COVID19/VaccineInformation/DashboardsandData

Figure 9: DOH Vaccination Key Milestone Timeline

WASHINGTON STATE DEPARTMENT OF HEALTH
VACCINATION TIMELINE

DECEMBER 14, 2020
Phase 1a of vaccination began—opening eligibility to high-risk workers in health care settings, high-risk first responders, and patients and staff of long-term care facilities.

JANUARY 18, 2021
Phase 1b tier 1 changed to include 65 and older. To achieve the goal of mass vaccinating Washingtonians, Governor Jay Inslee established the Vaccine Command and Coordination System (VACCS), which include private–public partnerships to support the WA DOH.

JANUARY 25, 2021
Mass vaccination clinics began as sites in Kennewick, Ridgefield, Spokane, and Wenatchee are open by appointment.

MARCH 16, 2021
Phase 1b tier 2 began—opening eligibility to some high-risk critical workers in certain congregate settings, and people 16 and older who are pregnant or have a disability that puts them at high risk for severe COVID-19 illness.

MARCH 17, 2021
VACCS announces an improvement in the COVID-19 hotline capacity, the launch of an improved COVID-19 vaccine locator tool, and the publication of a playbook for partnered vaccine programs.

MARCH 26, 2021
More than 1 million people fully vaccinated and 3 million COVID-19 doses administered.

MARCH 31, 2021
Phase 1b tiers 3 and 4 began—opening eligibility to people 16 years or older with two or more co-morbidities or underlying conditions, people age 60 and older, people, staff and volunteers in certain congregate living settings, and high-risk critical workers in certain congregate settings

APRIL 5, 2021
More than 3,800,000 doses of the COVID-19 vaccine administered across the state.

APRIL 13, 2021
Statewide pause on the Johnson & Johnson vaccine immediately.

APRIL 15, 2021
Vaccine eligibility opens to everyone 16 and older.

APRIL 24, 2021
Resume J&J vaccine use.

MAY 10, 2021
More than 6 million doses have been administered across the state.

MAY 20, 2021
Transition from stationary sites to mobile vaccination clinics.

MAY 28, 2021
Mobile vaccination sites in Ridgefield and Kennewick close, while the Spokane site remained open.

JUNE 1, 2021
WA DOH launched "Care-A-Van", a new mobile vaccine service.

JUNE 3, 2021
More than 7 million doses have been administered across the state.

Strengths

1: DOH worked to incorporate a health equity team into the IMT as part of the "community engagement wing." As the pandemic continued, the equity team worked with the immunization program to identify impacted populations and worked with the IMS program to put out data on who has been vaccinated based on racial and ethnic status.

From the beginning of the pandemic, the state made equity a priority when it came to mass vaccine planning. DOH accomplished this by ensuring that disadvantaged communities based on race and ethnicity were integrated into mass vaccination planning efforts. This included where doses were sent and where specific vaccination sites were established.[111] An equity team was established, and they worked to identify health inequities of disproportionality-affected communities. Tracking and disseminating vaccine distribution data on social determinants of health, including age, geographic location, race, and ethnicity, supported these populations' vaccine efforts. This was important because it helped identify potential inequities critical in planning that allowed the state to shift resources, as needed, to help vaccinate the state's most at-risk communities.

There were also technology challenges early on in vaccination distribution for appointment scheduling. A phone center was utilized to facilitate vaccine appointments at the state level. This was highlighted as something that helped technology-challenged residents find and receive the vaccine.[112] One success was the implementation by DOH of a call center that allowed residents to call and set up an appointment. Given that the most high-risk population included older age adults, the call center allowed for an alternative option for those who were technology averse or struggled with technology accessibility. The call center proved to be crucial in immunizing the elderly, stopping the spread, and saving countless lives. Additionally, homebound residents could connect with County or State Mobile Vaccine Teams on the DOH website to arrange for home-based vaccination.[113]

2: DOH created a high standard for mass vaccination programs despite many unknown factors. Having multiple vaccines become available in less than a year, enhanced mass vaccination efforts across the state.

Public health systems nationwide and globally experienced uncertainty regarding when a COVID-19 vaccine would be developed and distributed. In less than one year after the first confirmed case in the state, multiple vaccines were produced and ready for dissemination after securing Emergency Use Authorization (EUA) from the proper federal authorities. Since Washington State was home to the first recorded COVID-19 case, DOH was noted by multiple respondents as a leader in mapping out a successful mass vaccination effort for other states. This demonstrates the resilience of the work carried out by DOH employees and health care workers across the state. In addition, the level of volunteers mobilized at vaccination sites was astoundingly high. DOH effectively managed and employed the plethora of volunteers that came forward from the public to help set up and run vaccination sites. This is of note because the vaccination sites were quickly established throughout the state, and staffing was critical since this freed department employees to do more departmental work while allowing vaccination sites to be run by volunteers.[114]

3: Initial mass vaccination was implemented immediately after the finalization of the EUA. Within one week, over 1,200 residents were being vaccinated per day.

Despite a condensed timeline, a huge accomplishment for DOH was implementing the vaccine rollout plan to begin vaccinations immediately. The first COVID-19 Vaccine EUA, Pfizer-BioNTech, was approved on

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[111] Stakeholder interviews.
[112] Stakeholder interviews.
[113] Washington State Department of Health, *COVID-19 Vaccine,* Accessed May 27, 2021, https://www.doh.wa.gov/Emergencies/COVID19/vaccine
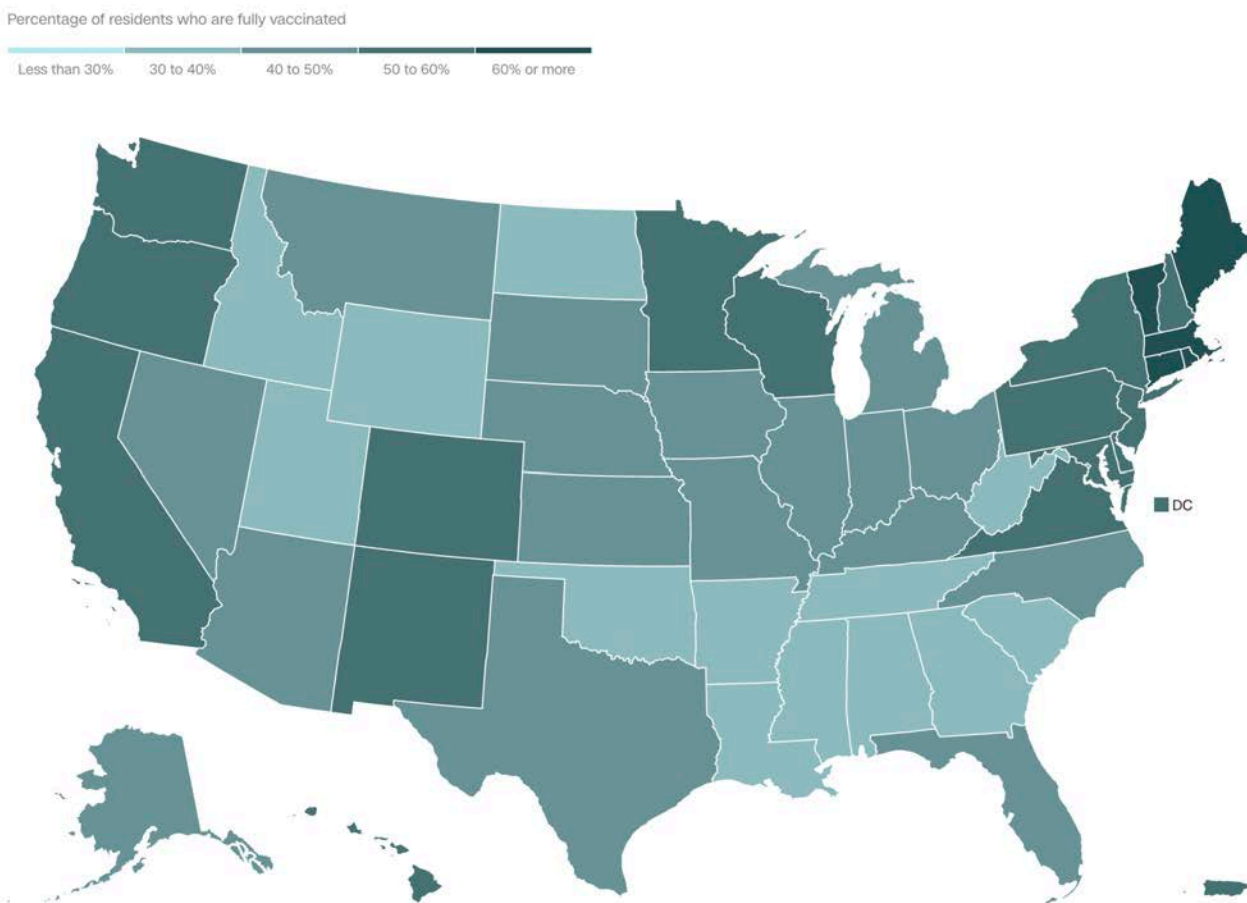[114] Stakeholder interviews.

December 11, 2020. The first vaccination administered in the state of Washington took place on December 15, 2020, and within one week, the department was vaccinating over 1,200 people a day.[115] This is a testament to the hard work and dedication to public health that DOH employees had to get the vaccine out to the public.

4: DOH's forecasting of supply and demand for vaccination efforts and the need to pivot from mass vaccination sites to more mobile pop-up vaccine sites to increase access worked very well.

Due to the restricted timeline of the vaccine distribution from the federal government, supply was low in the beginning stages. Upcoming vaccine shipments were typically unknown quantities and unreliable at times. Once the planning was underway and supplies of the vaccine were being used to inoculate the public, DOH did a phenomenal job forecasting supply levels.[116] This was integral from a planning perspective because it allowed the department to alter how and where vaccination was occurring. This also allowed DOH to leverage varying logistical methods of vaccination distribution, which was initially a mass vaccination site, focused on smaller and more mobile pop-up vaccination sites, allowing the department to get vaccines to hard-to-reach populations across the state.

Figure 10: State Population Vaccination Status as of July 8, 2021[117]

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[115] Stakeholder interviews.
[116] Stakeholder interviews.
[117] CNN, "Tracking COVID-19 vaccines in the U.S," accessed via the CDC's COVID-19 Data Tracker. Accessed July 8, 2021. https://www.cnn.com/interactive/2021/health/us-covid-vaccinations/

Opportunities for Future Success

1: Planning for vaccine distribution to persons experiencing homelessness was a significant gap, particularly in the Seattle metropolitan area.

In stakeholder interviews and online survey responses, staff acknowledged that DOH could have done more ahead of time in terms of mass vaccination planning.[118] DOH resources were primarily focused on testing operations and contact tracing, so planning for mass vaccine distribution was not prioritized. Additional planners assigned to vaccine distribution and messaging needed to be established for a flexible, adaptable, and detailed mass vaccination plan.[119] The result would have yielded a more easily implementable plan once vaccine dosages arrived in the state of Washington.

Due to the condensed timeline of the mass vaccine planning and the equity focus on race and ethnicity, the aspect of vaccination among persons experiencing homelessness was noted as not being a priority, leading to rampant COVID-19 transmission within indoor homeless shelters.[120] This was especially noted in King County and the greater Seattle metropolitan area, where there is a substantial homeless population. However, over time this disparity was addressed as more vaccine supplies became available to DOH.

2: Public confusion and misinformation was a barrier to communicating positive aspects of immunization, side effect literacy, and the one-shot vaccine quality.

Mixed messaging regarding both positive and negative aspects (factually based) made the implementation of the mass vaccination plan more difficult. As new information regarding vaccine efficacy and side effects emerged, the public was bombarded with information that occasionally conflicted, confusing members of the public and threatening vaccination rates. Many in the public believed that if they did not experience side effects, the vaccine was ineffective despite no scientific evidence for this claim. State and local authorities inadvertently fed into this confusion when messaging across agencies was not aligned. With three available vaccines (Pfizer, Moderna, and Johnson & Johnson), messaging was muddled and while it became more defined over time, the process to get to a unified message was slow. Whether it was from local authorities, state officials, or the federal government, mixed messaging was an issue across the state. This was not unique to the state of Washington, but muddled vaccine messaging decreased the likelihood of Washingtonians getting the vaccine. Over time, this became less of a concern, but this was no quick process.[121]

3: Inconsistency in vaccine supply and siloed vaccination rollout information resulted in additional redundant efforts and inefficient resource allocations.

A nationwide problem was inconsistency in the supply that each state was getting for vaccines. Given this fact, the state could manage where vaccine doses would go within the state once obtained from the federal government but could not guarantee doses until receiving them. As a result, this process was inconsistent and made it hard for local jurisdictions to forecast and plan accordingly, just as it was difficult for DOH to forecast and plan without consistency and data on vaccine supplies from the federal government.[122] Information sharing was an obstacle during the initial rollout of the vaccine nationwide amongst federal, state, and local entities. This resulted in redundant efforts and inefficient resource allocation. Information, however, was muddied as it resulted from mixed messaging that stemmed from a number of origins outside the department and state public information channels. DOH specifically may have needed to provide additional transparency to local,

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[118] Stakeholder interviews.
[119] Stakeholder interviews.
[120] Seattle Times, "Mysteriously, COVID-19 hasn't spread among Seattle's outdoor homeless population. What does that mean for a vaccine?" accessed May 25, 2021, https://www.seattletimes.com/seattle-news/homeless/mysteriously-covid-hasnt-spread-among-seattles-vulnerable-homeless-population-what-does-that-mean-for-a-vaccine/
[121] Stakeholder interviews.
[122] Stakeholder interviews.

regional, and tribal entities regarding how they were receiving vaccine supplies early on and how they were forecasting supplies sent to local and tribal entities. While DOH was eventually very transparent with this information once federal data on vaccine supplies became available, local and tribal entities could have benefitted from knowing the challenges that DOH faced in January 2021 in terms of vaccine rollout.

4: Mass vaccination planning should have started earlier in the pandemic, but DOH resources were limited.

DOH was stretched thin on personnel resources during the extended COVID-19 response. Given the finite number of employees and resources, it was on the department's leadership to decide what was prioritized at any given time, with the known unknown of vaccine development and distribution. The prioritization of testing and contact tracing at the time was a prudent and necessary decision that had to be made. Mass vaccination planning specific to COVID-19 began in September 2020, only three months before the vaccine was delivered to the state of Washington for immediate inoculation.[123]

DOH had previous planning experience with mass vaccination preparedness due to federal requirements for MCM and vaccine distribution and dispensing planning through the PHEP grant. Training tools from the Zika virus and H1N1 were utilized as support for planning. COVID-19 did not follow the same strategies as these previous efforts, which required a change in mindset for many familiar with the MCM planning objectives for infectious disease response. COVID-19 was a novel virus that required the adaptable and fast dissemination of a novel vaccine with limited supplies, for example. However, these previous plans could have been leveraged earlier on to develop some equitable strategies for COVID-19 to update and modify later on once the vaccine was available.

Recommendations

1: Update DOH Mass Vaccination plans to ensure they are regionally aligned, flexible, and integrate best practices from other local, tribal, and federal plans used during COVID-19.

- Adopt a regional approach to disseminate vaccines or other pandemic-related materials and outline vaccine allocation policies and decision-making criteria in order to increase transparency.
- Document and inventory various resources throughout the state used for mass vaccination for future use. Rural areas do not have the same personnel and resources available compared to the more urban and densely populated areas of the state.
  - DOH's plans may need to address state resources that can be deployed to rural areas to supplement local vaccination efforts.
- Develop a mass vaccination template for regional or local jurisdictions which builds upon COVID-19 vaccination site practices, both state- and county-run.

2: Train with appropriate stakeholders, including IMT staff, local jurisdictions, and partners, on Mass Vaccination Plans consistently.

- Coordinate multi-disciplinary and multi-jurisdictional workshops or exercises in person (when feasible) to plan and connect on a professional level to make planning in the event of another pandemic easier.
- Utilize lessons learned from COVID-19 to produce successful training on the state-level plans or a pandemic playbook.

Public Information and Messaging

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[123] Stakeholder interviews.

Summary

The state of Washington became the early epicenter of a national public health crisis, making it critical to disseminate public information to build trust in DOH. The prompt activation of the Joint Information Center (JIC)[124] supported DOH's ability to rapidly coordinate consistent science-based and data-driven public health information and messaging. COVID-19 communication has been challenging for health departments at all levels of government. The WHO has referred to the consistent and abundance of COVID-19 information in the public eye and deliberate attempts to mislead the public as an "infodemic."[125] In any response, the lack of information can cause public anxiety and information should be pushed out fast, but it must also be clear, concise, and accurate messaging. Communication from DOH will continue to play a vital role in the ongoing response and recovery from the pandemic.

During this global pandemic, DOH needed to get in front of the information and provide rumor control immediately. With the prevalence of misinformation and limited trained health communicators, Public Information Officers (PIOs) had to work tirelessly to disseminate credible, evidence-based, and accessible information. Communicators leveraged social media platforms including Facebook Live to connect people to quality information accessible to the public as Safer-At-Home orders and ongoing guidance was issued. PIOs and call centers effectively handled massive volumes of public and media inquiries with up-to-date information. Overall, DOH successfully managed to provide the public with credible information and inform them of specific mitigative and protective actions. It may be necessary to formalize the health communication process to reduce the risk of health communication misinformation and eliminate multiple silos of health information.

Strengths

1: DOH was committed to developing and sharing science-based, accessible information to the public during a rapidly changing incident.

Before the statewide emergency activation, the JIC was established, allowing for earlier and prompt dissemination of information to the public as it became available. [126] DOH PIOs responded to massive volumes of public and media inquiries in addition to social media inquiries. DOH strongly emphasized the importance of integrating science and data for effective communication and decision-making in alignment with DOH's strategic plan. DOH worked to provide easily accessible information to the public including Facebook, Facebook Live, YouTube, Twitter, television, and radio. COVID-19 material was translated into over 30 languages on the DOH website.[127]

DOH supported the informational needs of a public hotline that fielded thousands of calls every week, assisting with contact tracing and vaccine appointment scheduling. This hotline was essential to those who did not have internet access and populations such as seniors (age 65 and over) who readily represent more than 16% of Washington's population that needed help navigating to find information.[128] Acknowledging this technology gap had a positive impact on these heavily impacted populations.

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[124] Stakeholder interviews.
[125] World Health Organization, "Managing the COVID-19 infodemic", September 23, 2020, https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation
[126] Stakeholder interviews.
[127] Washington State Department of Public Health, "COVID-19", Accessed on May 24, 2021, https://www.doh.wa.gov/Emergencies/COVID19
[128] State of Washington Office of Financial Management, "Population by age, mapped by county", Accessed May 27, 2021, https://ofm.wa.gov/washington-data-research/statewide-data/washington-trends/population-changes/population-age-mapped-

2: DOH maintained effective incident communication to foster unified messaging to the public and appropriate response partners in coordination with the JIC.

Being the first state in the nation with a confirmed COVID-19 case, DOH became the prototype distinguished by other states for information and public messaging strategies. DOH rapidly became nationally recognized for the material developed in its marketing campaigns.[129] The LHJs shared use of DOH's marketing campaigns through platforms such as Basecamp, making it easy to store resources and download DOH's messaging templates on their LHJ website and social media. The ability to utilize this information allowed for LHJs to share in a unified messaging strategy for the state.

As public information and messaging expanded, DOH coordinated with the JIC, developing and maintaining two robust and accessible websites full of information for the public and their partners. [130] They updated a massive suite of materials as guidance changed. These websites provided information to the public and supported the LHJs and other partners for unified messaging to their audience.

Figure 11: DOH Website COVID-19 Graphic "What is COVID-19?"[131]

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[129] Stakeholder interviews.
[130] DOH, "Emergencies," and DOH Intranet.
[131] DOH, "What is COVID-19?" https://coronavirus.wa.gov/sites/default/files/2020-03/Infographic-WhatisCovid19.pdf

Opportunities for Future Success

1: There were limited trained staff able to fill the PIO and Public Affairs roles.

Trained DOH staff in PIO and other key incident communication roles were limited. The lack of depth during this long-term activation resulted in staff burnout. Approximately ten to fifteen PIOs supported the response, but only a handful had emergency response knowledge and ICS training to best prepare them for these critical roles. Additionally, building depth in these roles will allow for future success for both short and long-term activations. PIO and Public Affairs requires the confidence and proper training by those staffing these positions.

To prepare for a future response, DOH should provide extensive training to identified staff to fill the role of PIO. Additional communications training should be provided to all DOH response staff to avoid a communication risk to the agency and prepare all individuals for leadership roles within the IMT. DOH should further engage senior leaders and SMEs who readily fielded media and public calls with education on properly addressing media inquiries through the proper communication channels utilizing PIOs.

> "We need to train all of our communicators, health promotion specialists to be able to understand how to do their job in an emergency situation. We don't need to segregate. They all need to know what they can do at a basic level."
>
> Stakeholder Interview

2: A lack of coordination among government agencies and associations caused some public confusion.

Although the media campaigns were successful in the promotion of timely messaging for Washingtonians, additional coordination and relationship building is required to enhance simple and consistent guidance in coordination with other state agencies and with response partners including associations and health jurisdictions. Communication from DOH to partners was sometimes vague with personal, emotional, or contradictory content.[132] Additionally, the Center for Public Affairs was highly restricted in how it could collaborate with external partners, and often received conflicting demands for information and messaging.[133] It is critical to provide functional and implementable language in communication to partnering agencies. Communication was often unclear from an operational standpoint and should be vetted before dissemination for plain and non-contradictory language. Communication training should encourage actionable communication that will harbor results in the various messaging platforms.

There was a lack of LHJ involvement during the weekly communication call updates hosted by DOH's public messaging team. To engage these LHJs, it is critical to ensure the appropriate stakeholders including LHJ field level staff were in attendance during information-sharing meetings. DOH provided education to LHJs and stakeholders, but this did not always go to the people responsible for completing the work. The LHJ field level staff would benefit from clear direction on how to receive and disseminate public messaging provided by DOH for unified messaging. Identification of the people accountable for doing the work was difficult and not easily managed among communicators.

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[132] Partner interviews.
[133] Survey data.

Recommendations

1: Update DOH Basic Plan Public Information Annex for Health Communicators, Agency Leaders, and IMT members to effectively communicate during a public health emergency. Consider:

- The involvement and role in communications of Health Communicators, Agency Leaders, and IMT personnel.
- Sample templates from COVID-19 and other recent activations.
- A PIO "toolkit" including an inventory of public and private resources available for items such as translation, graphics development, community input, video production, just-in-time training materials for field staff or LHJ staff, etc.
- Utilize CDC's Crisis and Emergency Risk Communication (CERC) resources to supplement the DOH Public Information Annex.

2: Continue to provide expanded CERC Training for Health Communicators, Agency Leaders, and IMT staff to appropriately respond to media or public inquiries during a public health emergency. Include:

- The involvement and role in communications of the JIC, Health Communicators, Agency Leaders, and IMT personnel.
- Development of brief videos that describes the position, expectation, impact of position on others, directions for completing forms, meetings that should be attended, etc.
- Procedural information on how to communicate during a crisis or emergency.
- Tactical information on how to address challenges when communicating during a crisis or emergency.
- Tools to respond to the public and media during a crisis or emergency.
- Utilize CDC's Crisis and Emergency Risk Communication (CERC) training resources to supplement the training development.

3: Expand and update distribution lists and rosters of DOH communicators for information sharing meetings with LHJs during a public health emergency and include LHJ representatives in public messaging team communication calls.

Figure 12: Secretary Shah appearing on local media.

Secretary Shah talked vaccines, masks, reopening, and more with Monica Guzman of "Northwest Newsmakers" on KCTS.

Resource Management

Summary

As the country was competing for scarce resources, DOH had to take innovative approaches to procure pandemic resources, including working with local experts. Logistical resourcing is something many companies do regularly, so utilizing those partners to expand procurement was a successful strategy for acquiring resources. During a global pandemic, logistics can be challenging when there is little visibility on nationwide supply. Inadequate amounts of PPE and testing supplies were not just at the state level but became an issue worldwide while responding to COVID-19.

Funding for COVID-19 came in slowly as well, with specific criteria on spending the funds based on the federal standards that did not always align with the needs at that time of the response.[134] Many agencies had supplies stockpiled, but not every agency had this opportunity before COVID-19. Others had reduced their stockpiles at the local level due to funding cuts in previous years. Storage and distribution of supplies were challenging across the state. DOH expanded the logistics section of the IMT by using partnerships from local private industries, allowing collaboration with local manufacturers to obtain resources faster, which proved to be a successful strategy.

Limited personnel to tackle logistical planning and forecasting during such a long-term response was another challenge. There may have been opportunities to allow volunteers or additional private sector surge support to fill in and further expand DOH's capacity for long-term planning. However, mobilizing volunteers can be difficult when there is no clear avenue for vetting and aligning based on the individual or agency's skillsets, or when managing or supervisory personnel at DOH are unavailable due to conflicting priorities. DOH did establish a Volunteer Management branch within their IMT to support this process throughout the response in all areas of volunteer coordination, which did help provide a unified coordinating effort and helped to identify volunteer needs as response priorities changed.

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[134] Stakeholder interviews.

Strengths

1: The DOH Logistics and Finance sections coordinated well to ensure the Procurement Branch at DOH had clear processes, limits, and authority to find and secure resources, even when some were scarce and required coordination with the private sector.

A considerable asset was the coordination with DOH, local health, health care, and private industry for obtaining PPE, testing supplies, and eventually vaccinations. Partnerships across local private and public agencies assisted with DOH procuring resources timely and efficiently. Many manufactured supplies such as hand sanitizer and face coverings locally because items could not be sourced across the globe.[135] The private industry became an incredible partner for the DOH resource management team.

Early in the pandemic, the state could not find needed PPE. DOH set up a procurement branch that facilitated resource procurement. As Resource Requests (via ICS 213 RRs) were submitted to a universal mailbox from other entities, the procurement branch would review and work with the Logistics Section Chief to approve. The Logistics Section was given clear spending limits and authority, but ultimate funding approval came from the Finance Section. A strong justification was required for high level procurement. A tracking spreadsheet was utilized internally for transparency within the Logistics Section. The SEOC has a warehouse supply list that was easily accessible for non-medical and health supplies.

This branch was able to find supplies across the globe and get them to the state of Washington. They used innovative strategies, including bringing in an executive from Microsoft to help manage the procurement branch.[136] The process for resource coordination developed by this team should be expanded and formalized for future emergency responses.

2: The activation of the volunteer management branch within the IMT structure was a massive asset for mobilizing volunteers into the response.

Volunteers can be challenging to manage during any emergency response. To mitigate this, DOH activated a branch within their IMT for Volunteer Management. Volunteers were utilized to support many roles in the IMT, including resource tracking, administrative tasks, mass vaccination, and technical support.

DOH used ServiceCentral to track and schedule personnel. Aligning volunteers with the appropriate position was done through the Volunteer Management branch. Volunteers were onboarded with a packet given to them by Human Resources that had easy to identify mobilization, demobilization, lodging, and amenities. They assisted in many roles and were a huge asset to the response, especially during the setup and deployment of mass vaccination clinics.

Opportunities for Future Success

1: Testing supplies and equipment were insufficient due to worldwide demand for the same resources.

Early in the pandemic, specimen collection kits and laboratory testing supplies were in high demand. All laboratories needed the same supplies to perform COVID-19 testing, resulting in everyone competing for the same supplies. Funding became available for these supplies, but the supply was much lower than the demand making it difficult for labs to prioritize their testing supplies for the highest risk suspected cases.

Once testing kits became more readily available, there were still challenges with inaccurate delivery information. The laboratories had to become flexible and recognize that most labs are not set up for high throughput and volume, so staffing and testing supplies were required to increase the volume for testing.

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[135] Stakeholder interviews.
[136] Stakeholder interviews.

2: The ESF-8 resource request and distribution process slowed down the procurement of resources.

As many interviewees stated, DOH stepped up and provided resources on time, but the process to request resources was not adequate. There is a need to downsize the approval process to speed up resource acquisition, especially in terms of scarce resource allocation. Impacts to local entities need to be considered in state-level decisions. The distribution of resources needs to be more equitable across the state, and there is a need for more transparency statewide regarding how scarce resource allocation decisions are made (e.g., whether there is a multi-agency coordination group or policy group making the decisions, the thresholds for making the decisions, and how the decisions are informed).

A more streamlined process for ESF-8 resource requests may be needed for organizations that span multiple jurisdictions. Rural health jurisdictions did not feel that resources were as available to them in the same way that they were for larger populated areas.[137] Health equity should be included in decisions regarding the allocation of scarce resources in quantifiable ways that are clear to local and tribal entities.

Field level staff felt there was a lack of clarity on medical and health resources and were unsure of the effective utilization of critical resources. Once a resource was requested, local entities often felt there was minimal communication on the status of the resource. Transparency in the field would have helped staff meet essential response elements while making do with the resources they could obtain, when feasible, a formal resource requesting system with status updates viewable by the requesting agency would provide the information needed while responding.

Recommendations

1: Establish a formal agreement with local manufacturers to produce PPE and testing supplies during an emergency response. These efforts should include:

- Incentivizing local manufacturing to get certification to manufacture PPE.
- Establishing thresholds for activation of the agreement and pre-established pricing.
- Maintaining procedural information on how to communicate with partners during a crisis or emergency.
- Including partners in preparedness activities.
- Establishing multiple 24/7/365 contacts for participating partners.

2: Refine the ESF-8 resource request process based on feedback from local health jurisdictions (rural and urban) and include guidelines for scarce allocation decision-making. Consider:

- Coordination on procurement of medical and health resources through one channel.
- Transparency regarding DOH's process and coordination efforts for scarce resource allocation decisions such as thresholds, data used to inform decisions, and health equity impacts.
- Engagement of local health jurisdictions to provide critical input in the update process for the resource request process.
- Incorporation of a standardized system that can consistently provide resource request status updates to the requestor in real time.

Staff Safety and Wellness

Summary

Disasters are an annual event in the state of Washington with floods, wildland fires, and winter storms, and DOH positions itself well to handle them. The department had substantial prior experience dealing with

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[137] Stakeholder Interview

outbreaks including measles, mumps, and supporting Ebola planning for the state. One of the major strengths of the department is the highly skilled and dedicated staff who continue to be service-minded and prioritize response efforts. DOH staff demonstrate extraordinary dedication to the mission and values of the agency. They work long hours for weeks and months on end, many without a single day off, to ensure their community stays healthy and safe throughout the pandemic.

Alongside the COVID-19 response, staff also had to juggle a trifecta of emergency events: the pandemic, a deadly wildfire season, and civil unrest. The 2020 Western U.S. wildfire season brought devastation to many communities in Washington. The wildfire season included a historic event in which 300,000 acres were lost in a single day as 80 fires began in Washington state over Labor Day weekend.[138] Additionally, throughout 2020 and into the first few months of 2021, civil unrest and protests took place throughout the U.S. While many peaceful protests took place in Washington, other public demonstrations turned violent and required a public health response.[139] Throughout these immense challenges, DOH staff proved over and over that public health is mission-focused and passionate. The tireless work of DOH staff saved hundreds, if not thousands, of lives.

The response to COVID-19 threw out many preconceived notions, norms, and challenged established procedures to be more efficient and effective in delivery. The unique element of the COVID-19 pandemic was the global impact to all areas of life felt simultaneously within the IMT and in the personal lives of staff. The impact of all this was a significantly increased level of stress experienced by those in the response mode. No agency activation had ever exceeded one year in duration. Staff had been trained to handle disasters throughout the year for short to medium duration incidents (less than 8 months). Prior incidents had been typically geographically specific, slowly evolving pace, of a short duration, one dimensional, and the necessary resources were usually readily available. While everyone stepped up to do what had to be done, and did it well, staff were exposed to long hours and high stress, with little to no options for surge capacity.

The impact of burnout on staff was universal across DOH. Staff interviewed and surveyed mentioned they sometimes felt they had to leave their activated IMT roles and return to their steady state jobs simply to avoid burnout, while others admitted they were questioning their long-term careers in public health and were losing motivation to continue to work in the field. Whether during an interview, or written on a survey, one thing was consistent across all data collection for this assessment: staff exhaustion, employee burnout, responder fatigue, and COVID fatigue.[140] Staff worked long hours, late hours, and weekend hours. Staff put off leave and vacations (though this improved in 2021).

Employee burnout is a special type of work-related stress — a state of physical or emotional exhaustion that also involves a sense of reduced accomplishment and loss of personal identity.[141] Ignored or unaddressed, this type of burnout can have significant consequences, including excessive stress, fatigue, insomnia, sadness, anger or irritability, alcohol or substance misuse, heart disease, high blood pressure, Type 2 diabetes, and vulnerability to chronic illnesses. During the pandemic response, the scope of burnout in public health throughout the U.S. is significant and severe. Research surveying public health workers in the U.S. received a self-report rate of 66.2% indicating they felt the effects of burnout.[142]

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[138] Mark Katov, "Fast-Moving Wildfire Destroys 80% of small town in Eastern Washington State," *National Public Radio,* September 8, 2020. https://www.npr.org/2020/09/08/910578980/fast-moving-wildfire-destroys-80-of-small-town-in-eastern-washington-state

[139] Mike Carter et. al., "How a Year of Protests Changed Seattle," *The Seattle Times,* December 29, 2020. https://www.seattletimes.com/seattle-news/how-a-year-of-protests-changed-seattle/

[140] Stakeholder interviews and survey data.

[141] Mayo Clinic, "Job Burnout: How to spot it and take action," May 18, 2021. https://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/burnout/art-20046642

[142] Khaler Stone et. al., "Public Health Workforce Burnout in the COVID-19 Response in the U.S.," *International Journal of Environmental Research and Public Health,* 18 no. 8 (April 20, 2021): 1.

For DOH staff, the need for time off was ever present, but the time was rarely available because the need for staff was also ever present. Most staff felt they could not stop working and would even check in on their rare days off. This was especially true of staff in leadership roles who felt even more pressure. Many staff only regularly started taking time off in May 2021.

There is no question that DOH staff showed exceptional dedication to the mission of the organization and public health during this pandemic. They stayed long because they cared and were passionate about serving their communities. DOH identified the issue of burnout early in the pandemic and established a process to address it. This included a Strike Team and a host of other services offered for employees. Several areas were identified which will assist in addressing staff safety and wellness. These include adequate staffing, trained personnel, long-term impact on DOH, and the need to appropriately onboard new staff members. This issue has been identified by all public health and response agencies globally during COVID-19 but will likely continue to impact DOH operations and attrition for years to come after the pandemic is over.

> "The passion and commitment of the teams were off the charts. They worked day in and day out to the point of burnout."
>
> Senior Partner, Public/Private Partnership Interview, May 2021

Strengths

1: DOH is staffed by a group of highly dedicated employees. When requested, they stood up and answered the call to action for COVID-19. While some lacked formal training for the positions they were assigned, they all performed with commendable dedication to the mission.

Repeatedly, leadership, partners, and staff acknowledged and commended the immense effort undertaken by DOH staff during the response and recovery to the pandemic. The staff carried the response. People stepped outside their comfort zones to fill in gaps of knowledge and support one another during an extended incident with no sign of an end date.

2: DOH recognized that the COVID-19 response caused a great deal of mental strain on staff and initiated actions to assist the staff. They invested in behavioral health resources and set up a Strike Team. Available activities included training, offering resources, presentations, and opportunities for staff input.

During the pandemic, DOH staff were placed under intense pressure to perform while working long hours and sometimes in unfamiliar and multiple roles. To address this issue, DOH initiated processes to assist staff with dealing with stress. They created a Strike Team to mitigate burnout by instituting rotating shifts and encouraging and/or enforcing days off. The Strike Team also provided direct service to the IMT. Leadership felt responsible and accountable for how staff fared through the response. They said it was a balance of trying to support mental health while also maintaining a level of optimism.[143]

Some divisions went above and beyond these activities. For example, one division conducted all-staff town halls every two weeks with every other meeting featuring a wellness topic. These topics included guided meditation and Outward Mindset ™ group activities. Another division gave staff time each day to address the stressors of the response and to grieve.

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[143] Stakeholder interviews.

DOH also exhibited forward thinking when they initiated the Behavioral Health Unit within the department several months before the arrival of COVID-19. Although in its infancy, the group was aware of the needs and how to build interventions. They built relationships with clinical specialists and began the process of going active. This proved to be an asset during the response.

Opportunities for Future Success

1: Staff and supervisors indicated mission fatigue (on call all day every day); change fatigue (moving to and between jobs for response); burnout; stress; exhaustion; a work force so burned out they may leave public health; and resentment for constantly being asked to do more.

There is exhaustion everywhere. Staff hear it, they see it, they experience it.[144] Staff burnout continues to have the greatest impact. Some of the reasons for the burnout and exhaustion indicated include lack of leadership acknowledgement, fear of losing their job if they were a temporary employee, and pressure to work every day without taking breaks, since others were seen doing the same. As an added stressor, staff were working long hours while exposed to elevated risk of contracting COVID-19. In a report published by DOH in December 2020, the industry sector of health care and social assistance was the hardest hit by the virus, making up 24% of lab-confirmed cases with industry sector data available.[145]

It was reported that direct supervisors often did not take breaks or days off for months, which made line staff or field staff feel obligated to do the same. Staff struggled to deal with a new emergency incident that continues to drag on for more than a year. It was reported that several staff have continued to work up to 18-hour days since January 2020 without a day off.[146] Each division may need to evaluate whether these impacts are from a lack of qualified personnel to fill needed roles, or a lack of efficiency in tasking which is resulting in duplication of effort, or both.

2: The issue of burnout threatens the ability for DOH to prioritize its value of "human-centered," as staff voice that they feel public health has been vilified by the public and they are considering leaving the field.

This rise in physical and mental stress for public health workers across the U.S. caused significant increases in staff burnout. Public health researchers have found through administered surveys that over 20% of public health workers in the U.S. have changed their plans to remain in the public health workforce after the COVID-19 pandemic.[147]

Several staff stated during interviews or through surveys that people are so burned out, they may leave public health. Some have considered positions in a different agency or field where they will not be in a first responder role or considered "on-call." In some cases, entire teams have quit the response. Some respondents reported feeling underappreciated, both by DOH and by the public they serve. As one example, those working on assignments not related to mass vaccination efforts have recently felt that their work is "less valuable or appreciated" than the vaccine work since the spotlight is on vaccinations worldwide. Some staff have also indicated some resentment about constantly being asked to do more.

The exit of long-term veteran staff during or after the response is a loss for the entire agency. It also becomes a brain drain and will or may eventually result in less qualified personnel available within DOH's labor pool. In this case, these are trained responders of the COVID-19 activation and now have valuable incident

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[144] Stakeholder interviews.
[145] Washington State Department of Health, "COVID-19 Confirmed Cases by Industry Sector," December 17, 2020. https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/data-tables/IndustrySectorReport.pdf
[146] Stakeholder interviews.
[147] Kahler W. Stone et. al., "Public Health Workforce Burnout in the COVID-19 Response in the U.S.," *International Journal of Environmental Research and Public Health,* 18 (8): April 20, 2021.

experience. An effort may need to be made to reach out to these responders and leadership or supervisory staff (as well as all field-level staff) to convey appreciation and a renewed commitment to their growth and consistent ICS training and processes within DOH.

Vilification of public health has also taken its toll. Staff who are doing the best they can are now viewed as an enemy by a misinformed public. These factors may contribute to the loss of valued staff and the impacts may linger long term.

3. The lack of sufficiently trained staff was a primary cause of stress and burnout. There simply were not enough trained staff to cover all required positions and provide backup or relief for those on duty.

Staff noted through interviews and surveys that there simply were not enough trained people to cover all required positions or provide backup and relief for those on duty, and this is reflected across agencies nationwide. Due to the volume of DOH priorities and steady state activities that needed to continue to occur, existing staff needed to work long hours. This made staff vulnerable to burnout, to the point of leaving in some cases.

DOH recognized burnout, but staff believed agency leadership only recognized it once it became a crisis.[148] As a result, DOH hired many temporary surge staff to bolster its workforce. However, the lack of training meant that existing staff then had to take on the additional responsibilities of onboarding and training workers in positions. This did not accomplish the goal of providing relief in many cases, and new workers felt a lack of direction in their new positions. Additionally, a new concern arose as temporary workers began to fear if their jobs were safe until the specified employment dates provided in job announcements as the case numbers began to drop. This stress piled onto the existing stressful environment, making the new hiring process a double-edged sword. Staff and supervisors experienced stressors from being unable to use new staff effectively in the response effort, and staff themselves experienced stressors because they did not know what was expected of them. In some cases, this became an issue of additional bodies without additional assistance.

Recommendations

1: Incorporate behavioral health consistently into IMT operations and demobilization as well as steady state operations through the following:

- Consider establishing the behavioral health strike team as a permanent group or asset within DOH, which can engage with divisions during steady state operations to enhance preparedness and planning efforts as well as tackle impacts during response.
- Include behavioral health objectives in all training, exercises, and drills.
- Provide increased and consistent training and education for DOH employees and the IMT to monitor staff for behavioral health from the initial activation all the way through response and recovery efforts. This may take the form of webinars, mindfulness strategies, and coping resources. Trainings may extend outside of activations and be year-round offerings.
- Add colleagues and partners with behavioral health backgrounds to the Behavioral Health Strike Team from other state agencies to support interagency coordination and unified programming.
- Recognize that some staff may prefer behavioral health support outside of the work environment and offer them the flexibility to seek their preferred support.

2: Elevate the tracking and care strategies for the physical health of DOH employees. Consider the following:

- Incorporate a medical monitoring unit into the DOH response structure to monitor workforce health, track exposures and illness, and provide data to standardize and centralize decision-making.

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[148] Stakeholder interviews.

- Offer training and education opportunities for DOH staff that cover the physical impacts of burnout and stress and healthy coping mechanisms. An example of this training may include Critical Incident Stress Management (CISM) or Post-Disaster Traumatic Stress courses.
- Provide flexible work schedules for staff that may experience heightened domestic responsibilities in addition to an increase in work. This may include offering childcare to staff, working from home, or blocking off certain days of the week from holding meetings to provide for flex time.
- Provide advanced training to all DOH management and supervisors to monitor staff to recognize mental health issues and provide guidance to appropriate resources for employees and reporting to Human Resources when appropriate.

3. Prioritize meaningful acknowledgement of staff work and invest in demonstrating appreciation on behalf of DOH leadership.

- DOH leadership needs to convey three key elements to DOH employees:
    - Their significant contribution to the response is sincerely appreciated.
    - Change will come to the department, but it will take time.
    - They do matter and are valued greatly by leadership.
- Encourage agency and IMT leadership to demonstrate empathy and kindness in workplace interactions and take an added interest in coworkers. This can serve to alleviate stress, empower staff, and instill trust and transparency in incident response.[149]
- Survey staff and ask them what forms of appreciation they would most enjoy and implement appreciation in those forms.
- Develop a formal recognition system for all staff who participated in the COVID-19 response such as a Governor's letter, challenge coin, or letters from other national elected leaders, officials, and federal agencies.
- Publicly acknowledge the sacrifice undertaken by staff alongside contributions to the resiliency of public health. Acknowledge that while DOH deeply and sincerely thanks staff for personal sacrifice, success of the agency should not rely on personal sacrifice.
- Continue to conduct regular hot washes with staff to listen to staffing and training concerns and develop changes in policies to respond.

4: Establish a recruitment and hiring annex to the agency COOP and Administrative Preparedness plan in alignment with state and agency-level policy which addresses the rapid and or mass hiring of staff in the event of a disaster or other long-term response. Consider the following:

- Require all new employees to participate in enhanced agency and specific IMT onboarding sessions to ensure they know what to expect on an IMT response, who to report to, and their role responsibilities.
- Require all employees to receive training for the position they are filling prior to filling the role. This could include an abbreviated Just-In-Time training to be used during an emergency.
- Identify and assign staff to conduct these trainings and onboarding; this should not be solely a dual responsibility of active IMT responders and could be supplemented by continuity positions identified within the agency COOP.

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[149] National Homeland Security Consortium, "COVID-19 After Action Report, "June 2021.

Tribal Relations

Summary

Nationally and in the state of Washington, Indigenous peoples have been disproportionately affected by COVID-19. The CDC calculated that through September 27, 2020, the American Indian/Alaska Native (AI/AN) COVID-19 death rate in Washington was 55.8 per 100,000 people compared to a death rate of 26 per 100,000 people among white people. The COVID-19 case rate among the AI/AN population in Washington was 1,035.3 per 100,000 people compared to 415.1 among whites.[150] There are 29 Federally-Recognized Tribes and two Urban Indian Health Programs (UIHPs) in the state of Washington.[151] The American Indian Health Commission (AIHC) is an organization that supports these entities and worked to promote the Government-to-Government relationship between tribes and DOH throughout the COVID-19 response. Many tribal governments deliberately decided to work with DOH rather than FEMA, given their expectation that the State would provide better support than the federal government.[152] Overall, the relationship between AIHC and DOH was instrumental in connecting the tribes with the department. Tribal partners surveyed as part of this report were happy with the support provided by DOH.

In January 2021, the Urban Indian Health Institute published a report titled "COVID-19 Impact on Urban Indians in Washington State," and in 2020, AIHC published a report titled "AIHC Tribal Communicable Disease Emergency Response Planning Project 2019-2020." Both reports informed the writing of this assessment. A more comprehensive report from AIHC on the COVID-19 response among the tribes and the Urban Indian Health Programs will be released at a later date.

Strengths

1: The Tribal Liaison position within the IMT was an effective way for DOH to engage tribal partners and share information.

In response to the 2016 measles outbreak in the state of Washington, some tribal leaders felt it would be beneficial to create a position within the DOH IMT for a Tribal Liaison Officer.[153] DOH created and used the Tribal Liaison position in subsequent public health emergencies, including during the COVID-19 response to liaise and share information between the IMT and the tribes. The tribal nations and UIHPs felt supported by the Tribal Liaison and found weekly calls organized by the Liaison to be helpful. According to the AIHC Tribal Communicable Disease Emergency Response Planning Project 2019-2020 report, "…the [DOH] Incident Commanders provided respectful and responsive access to the [Tribal Liaison Officer] position throughout the response. This access assured enhanced communication and coordination between the state's response efforts and tribes and urban Indian health programs."

2: DOH leadership made themselves available to tribal leaders and tribal health officials throughout the COVID-19 response.

Early in the DOH response, Dr. Lofy, the State Health Officer, and Dr. Lindquist, the State Epidemiologist, held a meeting with tribal leaders, tribal health officials, and UIHPs. These tribal entities were subsequently included

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[150] "COVID-19's Tragic Effect on American Indians: A State-by-State Analysis," U.S. News and World Report, October 7, 2020. https://www.usnews.com/news/healthiest-communities/articles/2020-10-07/a-state-by-state-analysis-of-the-impact-of-covid-19-on-native-americans.

[151] American Indian Health Commission, "Our History, Priorities, and Bylaws." https://aihc-wa.com/about/our-history-priorities-bylaws/.

[152] Stakeholder Interview (informal).

[153] Stakeholder interviews.

in weekly planning calls along with LHJs throughout the response.[154] This early inclusion of tribal partners was an improvement from the H1N1 influenza response and ensured that tribal health officials and UIHPs were able to maintain situational awareness about what was happening at the state level. Tribes interviewed found these weekly calls useful in planning and informing their own responses.

3: There was a strong sense of shared responsibility between DOH, LHJs, and the tribes throughout the response.

Tribes, LHJs, and DOH worked together throughout the COVID-19 response to assist, advise, and teach one another on how to best care for communities across the state of Washington and support staff during this period.[155] This sharing of response tasks and of knowledge created a sense of shared responsibility which increased collaboration throughout the state and enhanced efficiency as well.

In addition, DOH provided good support to tribal nations on resource requests and filled requests completely and in a timely manner.[156] This included the provision of vaccines, PPE, and other supplies to tribal partners.

4: New partnerships between DOH program teams, AIHC, and tribal entities efficiently solved problems.

Individual program teams at DOH coordinated directly with tribal partners and AIHC in new partnerships and in ways that expanded on past partnerships. Some of these teams included the isolation and quarantine team, the vaccine equity team, the data sharing team, and the immunization program team. The immunization program team at DOH worked well with the tribes through the vaccine rollout in Washington. One of the ways the immunization program team effectively engaged with tribal partners was by presenting at weekly AIHC meetings for the tribes.[157]

Some of the other ways DOH collaborated with AIHC during the response include:

- Development and delivery of a Drive-Through Testing Workshop for Tribes and UIHPs on May 28, 2020.
- Execution of virtual training workshops on case investigations and contact tracing.
- Development of a written process for tribal nations to request resources, including PPE, directly from the state, local health jurisdictions, or from health care coalitions.[158]

> "Having that position as a constant position within the DOH IMT I think is really valuable and a great model that other states should look at because it really helps to actively engage and include the tribes and the [Urban Indian Health Programs]."
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> -Stakeholder Interview, May 2021

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[154] Stakeholder interviews.
[155] Survey data.
[156] Stakeholder interview (informal).
[157] Stakeholder interviews.
[158] American Indian Health Commission, "AIHC Tribal Communicable Disease Emergency Response Planning Project 2019-2020," accessed July 13, 2021.

Opportunities for Future Success

1: Stakeholders felt that the data systems provided by DOH did not optimally include tribal health agencies and that the data analyses provided by DOH did not accurately represent AI/AN communities.

DOH worked with AIHC to provide the tribal nations and UIHP single points of contact access to the WDRS to view case data. However, tribal governments did not have access to the system prior to 2020 and were given view-only access that was limited to COVID-19 data. The late and limited access made it difficult for tribes to optimize their use of the system to develop a full understanding of the COVID-19 situation in their jurisdictions. DOH could modify data systems like WDRS and CREST to notify a tribe if one of its community members tests positive and designate which health agency will be responsible for contact tracing.[159]

Issues with racial misclassification in surveillance efforts and undercounting of AI/AN populations in testing data led to inaccuracies in DOH's ability to accurately report on the impacts of COVID-19. For example, one survey respondent felt that, "The data analysis of COVID-19 data by DOH was incomplete and not representative of AI/AN communities."[160]

2: There was some confusion regarding communication between SEOC staff, DOH program staff, and tribal representatives.

Some stakeholders mentioned during data collection that DOH's communication with tribes about the PPE request process was unclear and seemed to be contrary to the official resource request process.[161] Another area where communication with tribal entities could have been improved was during activation of the SEOC. When the SEOC and DOH were in Unified Command, a lack of coordination with tribal representatives led to miscommunication and confusion on points of contact. During the activation process, some contact lists that were provided to tribal representatives were inaccurate, so some information did not get relayed to the tribes.[162]

From the long-term perspective, DOH program staff effectively engaged tribal representatives throughout the response, but steady-state communication processes between DOH program staff and tribal representatives should be planned and formalized to continue to build on the new relationships that developed through these engagements.

3: DOH training needs to continue to emphasize that the government-to-government relationship is separate from equity work.

Some survey feedback received during data collection for this assessment highlighted that at DOH, "…tribal affairs staff are well versed [in tribal affairs] and have meaningful relationships [with tribal representatives], but other DOH department [staff] lack awareness and experience working with [Indian Health Care Providers]."[163]While just-in-time training was implemented to address gaps in knowledge and provide additional guidance for staff, awareness of health care systems and the clear distinctions between equity and recognizing the sovereignty of tribal nations can be enhanced. The respondent recognized that the communication improved over time but that in general the tribes experienced setbacks with certain DOH departments. There is an opportunity for DOH program staff to receive additional and ongoing training on how to actively and

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[159] American Indian Health Commission, "AIHC Tribal Communicable Disease Emergency Response Planning Project 2019-2020," accessed July 13, 2021.
[160] Survey data.
[161] American Indian Health Commission, "AIHC Tribal Communicable Disease Emergency Response Planning Project 2019-2020," accessed July 13, 2021.
[162] Stakeholder interviews.
[163] Survey data.

appropriately engage tribal partners in the government-to-government relationship early and consistently throughout the stages of a public health emergency. Furthermore, all staff should understand and recognize DOH's role and responsibility to provide information to tribal governments for them to make informed decisions for their own communities, strengthen collaboration as envisioned in the Centennial Accord, and be available to work with tribes to strengthen resiliency.

Recommendations

1: Continue to build DOH's relationship with the AIHC and collaborate on programs.

- An improved and sustained relationship with AIHC will enable the department to have a better understanding of the problems that tribes have faced in their COVID-19 responses and their lessons learned.
- Tribal lessons learned may be incorporated into future DOH emergency plans and processes.

2: Continue to develop and provide training to DOH program staff on tribal public health partnerships and work to create new partnerships.

- DOH tribal affairs staff developed guides to help onboard new DOH employees on various processes, such as how to write a Dear Tribal Leader Letter and tribal land acknowledgements. The department should disseminate these materials widely and work to develop additional materials to train all staff on tribal affairs.
- Leverage the tribal partnerships established during the COVID-19 response to highlight additional opportunities for partnerships between DOH programs and tribal health organizations.

3: Begin hosting regular forums (virtually or in-person as allowed) for DOH program staff to come together with tribal representatives to network and discuss program ideas.

- The success of future emergency responses will rely on the strength of the personal relationships and shared knowledge between DOH and tribal health organization personnel.

Demobilization

Summary[164]

Overall, the Demobilization Unit did a phenomenal job when it came to establishing their role during the pandemic and developing tools that not only allowed for personnel to successfully deactivate when appropriate but also enabled a seamless transition between Demobilization Unit Leaders as the role changed hands over the length of the pandemic. DOH began planning for demobilization as soon as they activated in January of 2020, with established Demobilization Plans drafted by February 4, 2020. This was integral to the successful activation of new personnel into the IMT structure to allow the deactivation of replaced personnel and standardization of the demobilization process. The ability to transition the demobilization role clearly and easily between staff taking on the Demobilization Unit Leader position helped to facilitate staff taking time off and ensured long-term success with the role.

A notable highlight was the ability of the early Demobilization Unit staff to identify problems, address issues, and maintain consistent lines of communication throughout the pandemic. It allowed for effective tracking of

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[164] Please note that as of the writing of this Assessment, demobilization of DOH personnel from COVID-19 response has been intermittent due to frequent surges requiring reactivation of the IMT or other personnel. This section addresses ongoing demobilization planning and processes as they related to the demobilization of activated IMT personnel, rather than demobilization of DOH's COVID-19 response overall.

demobilized personnel and allowed for consistency across all personnel mandated to go through the demobilization process. This aided subsequent Demobilization Unit staff by making their job easier when they had to maintain and improve an already existing system versus developing new methods, documents, protocols, and procedures from scratch each time.

The Demobilization Unit Leader position did have its' own challenges, however. Not many staff at DOH had been trained in the role previously, and the first individual assigned to the role did have to build a plan and process almost backwards from a variety of sources such as older emails and documentation from previous incidents. The Planning Section Chief was able to train and mentor the Demobilization Unit Leader, providing key reference material and guidance on terminology. In addition, while a tracker was created to keep track of individuals activated and their demobilization status, a backup of the file was not stored and at one point was lost completely.

The definition of the term "demobilization" was unclear to some members of the IMT as well, and some felt the process was unnecessary for IMT members taking some time off as they would have to demobilize and then reactivate as soon as they returned. However, these challenges were addressed as time went on and the process was streamlined significantly. Efforts to educate the IMT and the newer staff filling the role paid off as resources were developed and shared.

Strengths

1: DOH enabled the long-term success of the demobilization section through steady senior staff guidance and mentorship.

At the onset of the COVID-19 response in January of 2020, the Demobilization Unit was established. However, the exact roles and responsibilities of the roles within the Demobilization Unit were unclear to both personnel in the section and those outside of the Demobilization Unit, at least at first.[165] The first Demobilization Unit Leader sought guidance from senior staff including the Planning Section Chief and was provided with resource material, terminology guidance, and sample demobilization objectives.[166]

2: The Demobilization Unit developed and streamlined sustainable systems and documents that lasted throughout the pandemic with continuous improvements. This resulted in a seamless handoff between Demobilization Unit Leaders.

The personnel selected to run the Demobilization Unit were "right time and right place" personnel.[167] The first Demobilization Unit Leader established critical systems and created documents that outlived their tenure, facilitating the Demobilization Unit's success throughout the COVID-19 response. This was done by seeking instruction from senior staff and searching through old emails, referencing activation plans, and getting buy-in from other section chiefs. The first Demobilization Unit Leader worked to update a training manual with a checklist of items for the role as well as document templates, which made the handoff to other future Demobilization Unit Leaders much simpler.

Sustainable and easy-to-follow systems and checklists enabled subsequent Demobilization Unit Leaders to understand their tasks.[168] These included the development and employment of a Demobilization Plan for the Incident Command Center as well as for Incident Personnel activated within DOH or at the Agency Coordination Center (ACC). The Demobilization Check-Out Form (ICS 221) was used consistently to document and track employees who were deactivated in their roles. Paper-based signature forms were

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[165] Stakeholder interviews.
[166] Stakeholder interviews.
[167] Stakeholder interviews.
[168] Stakeholder interviews.

exchanged for electronic versions. The Demobilization Unit also created an Excel-based tracker to record demobilization of activated personnel. There was an incident early on during the response when the Excel file was lost, because the file was saved on a shared drive with no backup and was deleted. However, Demobilization Unit was able to regroup and later on during the response, transfer this tracker into the ServiceNow platform which was much more user-friendly and had backup data storage capacity. This same database was used by the Resource Unit Leader to track personnel resources, which ensured that the same information was being shared in real time between these positions.

Opportunities for Future Success

1: Initially, it was unclear for those activated in the Unit what the exact role of the Demobilization Unit would be, and others in the IMT or Incident Command were similarly unaware.

When the Demobilization Unit was established, the initial Demobilization Unit Leader was unclear about the role of demobilization in the IMT process. Very few systems, documents, or predecessors were in place to educate the first Unit Leader. None of the assigned Demobilization Unit Leaders had received any prior training before the pandemic as to what the Demobilization Unit did and why it was necessary.[169]

Recruitment for this role was sporadic as there was no clear "overview" of the role. A clear, high-level overview of the Demobilization Unit and its' function would have helped those activated to align expectations and also to advertise to others within the IMT their value and importance. The Demobilization Unit is a role that often does not align specifically to a steady-state position or skillset, so it is important to manage the expectations of those coming into the role that it will likely have nothing to do with their specific day-to-day skillset or position and is instead based on the ability to achieve certain tasks and to forecast long-term impacts.

2: DOH mandated that all personnel – including those taking leave/time off had to demobilize, even if they were gone for as little as 24 hours. This created an abundance of administrative work for personnel trying to take time off.

There was a lack of priorities set for the Demobilization Unit as to who needed to be demobilized and processed first. Personnel leaving permanently all had to go through the demobilization process, as did all personnel leaving temporarily, some for as little as 24 hours. This created a lot more work for the Demobilization Unit and mandated that personnel taking short-term leave had to go through the entire demobilization checklist to take time off. The result was increased administrative work on everyone's part and friction between a few select personnel and the Demobilization Unit.[170] This was also at odds with some of the senior staff's guidance about advocating for time off to avoid burnout by creating an obstacle to taking time off.

This also had another unintended effect, as people were taking extended time off, versus shorter 24–48-hour time periods off, to avoid the entire demobilization checklist again.[171] The impact on the mission was that continuity was broken between more extended periods, meaning that some information – be it situational awareness or section-specific tasks - was not always passed along when personnel changed out.

Recommendations

1: Establish clear "roles and responsibilities" for the Demobilization Unit. Both for the Unit itself, to understand its role, and so that personnel who process through the Unit understand the importance of why they must complete a Demobilization checkout process and when. This should include the following:

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[169] Stakeholder interviews.
[170] Stakeholder interviews.
[171] Stakeholder interviews.

- Create an overview of the Demobilization Unit and its roles (possibly Job Action Sheets if not already drafted) which clearly defines the role of the Demobilization Unit within the DOH IMT structure and its' overall mission.
- Update the training manual created by the initial Demobilization Unit Leader to include best practices and notes from this response as well as templates for items such as:
  - Emails for staff who will be demobilized
  - Demobilization Plan
  - Demobilization Checklist or Check-Out Form (221)
  - Onboarding or just-in-time training briefing for those assigned to the Unit
  - Prioritization guidelines for who to process first (e.g., those completely leaving a role versus those taking a short time off)
- Remain consistent in enforcing the 221 Demobilization Check-Out Form's utilization for all personnel. Consider adding a cover letter which explains WHEN employees should complete the check-out form and why it is important.

2: Differentiate the process for personnel taking short-term leave and returning versus those demobilizing permanently. Consider:

- Establishing an expedited demobilization process for personnel that were retuning within 72 hours (e.g., a condensed form and process).
- Empowering first-line supervisors to track their subordinates that take time off and ensure key information is handed off, versus going through the entire demobilization process.

3: Coordinate with HR to further train additional staff in the Demobilization Unit positions and provide further backfill capacity for this Unit as the COVID-19 response continues. Training should include:

- ICS 100 and 200 pre-requisites.
- An internal training and introduction to the Demobilization Unit using the training manual and a walkthrough of a sample Demobilization Plan, the ServiceNow tracker, and the check-out form.
- Consider also including testimonials or best practice quotes from previous Demobilization Unit Leaders.

LONG-TERM CONCERNS

Overview

As the state of Washington begins to implement reopening procedures and vaccination counts rise, DOH staff expressed longer-term concerns regarding the COVID-19 response. Public health systems will need to readjust to a new environment with new priorities and vulnerabilities that did not exist prior to the pandemic. Overall, DOH demonstrated a strong commitment to doing everything necessary to adapt and creatively overcome unique challenges during the sustained response. As a new phase of the pandemic begins, staff shared their long-term concerns in the months and years to come.

1: Funding and momentum for ongoing recovery efforts that may last beyond the end of the pandemic remains a concern for staff.

Funding measures used to facilitate adaptive and creative measures to overcome challenges are becoming scarce, testing the resilience of these adaptations as COVID-19 relief funding dries up. Staff expressed concern that funding may disappear while DOH is still working to recover from the pandemic.[172] This means that while the COVID-19 case count may lessen, DOH leadership and staff are concerned that rippling impacts on public health systems may last for years to come. Preventative screenings, non-emergency procedures, and other standard procedures that were put on hold out of necessity may result in added strain on staff returning to steady state roles. Staff are concerned that response duties may continue, regardless of demobilization. Basing funding purely on the present rate of COVID-19 cases could risk the long-term recovery of the public health system. DOH may need to petition for long-term funding to be made available given that the impacts of COVID-19 on chronic and mental health may extend far longer than the actual infections from COVID-19. DOH will also need to ensure that momentum for new and innovative programs established during the pandemic is not lost once response is demobilized. For example, continued momentum and support is needed to complete necessary data system upgrades, formalize partner agreements, update plans and policies, and other process improvements mentioned throughout this assessment.

2: The adaptation and flexibility of the vaccination rollout process may be tested as federal, state, and local priorities evolve.

Additionally, vaccination rollout remains a long-term concern for those still activated in the response. Staff members express concern regarding ensuring the vaccine reaches at-risk populations such as agricultural workers in a timely manner.[173] This leads to a long-term concern regarding the development of herd immunity and future variants of the virus. At the time of writing this assessment, there are still ongoing discussions around variants and the potential need for booster shots, which will require a consistent cycle of vaccination planning and staffing surge to accommodate continued efforts. DOH may need to adapt to the growing importance of genetic sequencing in vaccine research and development, which can require additional expertise and funding. There is pressure to demobilize active COVID-19 response activities while vaccination efforts are ongoing and changing rapidly. In addition, the importance of continuing to invest in coordinated response public messaging cannot be understated as vaccination efforts continue. As vaccine guidance changes and variants continue to emerge, the need to coordinate messaging across the state will continue to be a priority. Public messaging will need to address new difficulties, such as stigma around those not vaccinated, those still wearing face masks, and more.

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[172] Stakeholder interviews.
[173] Stakeholder interviews.

3: The long-term resiliency of the public health workforce presents a significant threat to the mission and vitality of DOH.

The sustained activation of IMT staff presents a risk to recruitment and retainment of public health workers. In several interviews, burnout from long-term activation in the COVID-19 response was cited as a concern for retention and recruitment into public health. DOH put together a behavioral health response team to come alongside and assist medical teams and hospital workers with staff burnout as health care resilience remains a major concern. Additionally, many staff have grown used to operating as a first responder during the pandemic. Their responder roles have become a significant portion of their identities as a public health worker, and demobilization may bring on additional emotional or physical stress as they transition back into steady state roles.

The fear that a significant number of public health workers will seek to transition to a new sector of work after the response concludes remains at the forefront of long-term concerns.[174] As the response to COVID-19 draws to a close, retaining knowledge generated during the response as workers shift back to core capabilities may assist in alleviating these long-term concerns and strengthening the resiliency of DOH. Helping staff to continue to feel valued and important in their steady state roles rather than their "emergency response" roles will need to be a continued priority for internal messaging.

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[174] Stakeholder interviews.

FINAL THOUGHTS

The findings in this assessment are not unique to DOH alone, as these are common themes and findings expressed at the local, tribal, territorial, state, and federal level across the U.S. as well as across the globe during this unprecedented event. However, DOH was the first state public health agency in the U.S. to deal directly with the COVID-19 pandemic, and as such, was in a unique position as a role model at the forefront of response efforts starting at the very beginning in January of 2020. The emerging themes and patterns expressed by DOH staff and their partners throughout this assessment are meant to highlight not only opportunities for DOH but also for the public health workforce in the coming years after the pandemic is over. These findings should be utilized to not only update DOH-specific plans and policies, but also to create new and innovative ways to invest public health funding in the state in the coming years.

The widely acknowledged "silver lining" to the COVID-19 pandemic is the renewed national and global attention to the risks that infectious disease emergencies pose and the renewed interest in further investing in public health infrastructure and response capabilities. It is up to DOH and other state and federal public health authorities to assess the gaps inherent in their responses and ensure that future investments in funding, staffing, resource allocation, and program development are informed by data, staff, and public input. This assessment attempts to combine available quantitative and qualitative data collected from within and outside DOH to highlight those areas with the highest probability of significant impact if further investment of effort and resources is made. This assessment represents DOH's commitment to investing in strategies that are "human centered." It also focuses on providing critical strategies for success in DOH's goal to create infrastructure that will help the state of Washington achieve health equity and address the historical, social, and economic factors that impact public health. The strategies outlined in this assessment mirror and further support the vision outlined in DOH's Strategic Plan[175] and should provide measurable metrics for success in future iterations of strategic planning.

At the time of writing this assessment, certain COVID-19 response missions are still ongoing for DOH and the state of Washington, though the state of emergency may be dissolved in June of 2021. DOH may use this assessment to provide a basis for a final COVID-19 After Action Report (AAR) once the response is officially and completely demobilized to capture additional data and further inform long-term planning efforts.

> "There is a science and an art to public health, and this response has shown the public that we do not always have the science but you still have to make decisions and do the best you can to protect lives."
>
> Stakeholder Interview

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[175] DOH, "Strategic Plan," January 2020. https://www.doh.wa.gov/Portals/1/Documents/1000/820083-StrategicPlan.pdf

APPENDICES

Appendix A: Survey Data Summary

As part of the In-Action Operational Assessment data collection process, an eight-question survey was distributed to the state of Washington DOH stakeholders and external partner organizations. The survey consisted of mostly open-ended questions and provided an opportunity for stakeholders to provide anonymous feedback on DOH's response to COVID-19 thus far. As of July 1, 2021, 158 stakeholders had responded to the survey, representing both DOH and an external partner organization.

Figure 13: Survey Respondents by Role
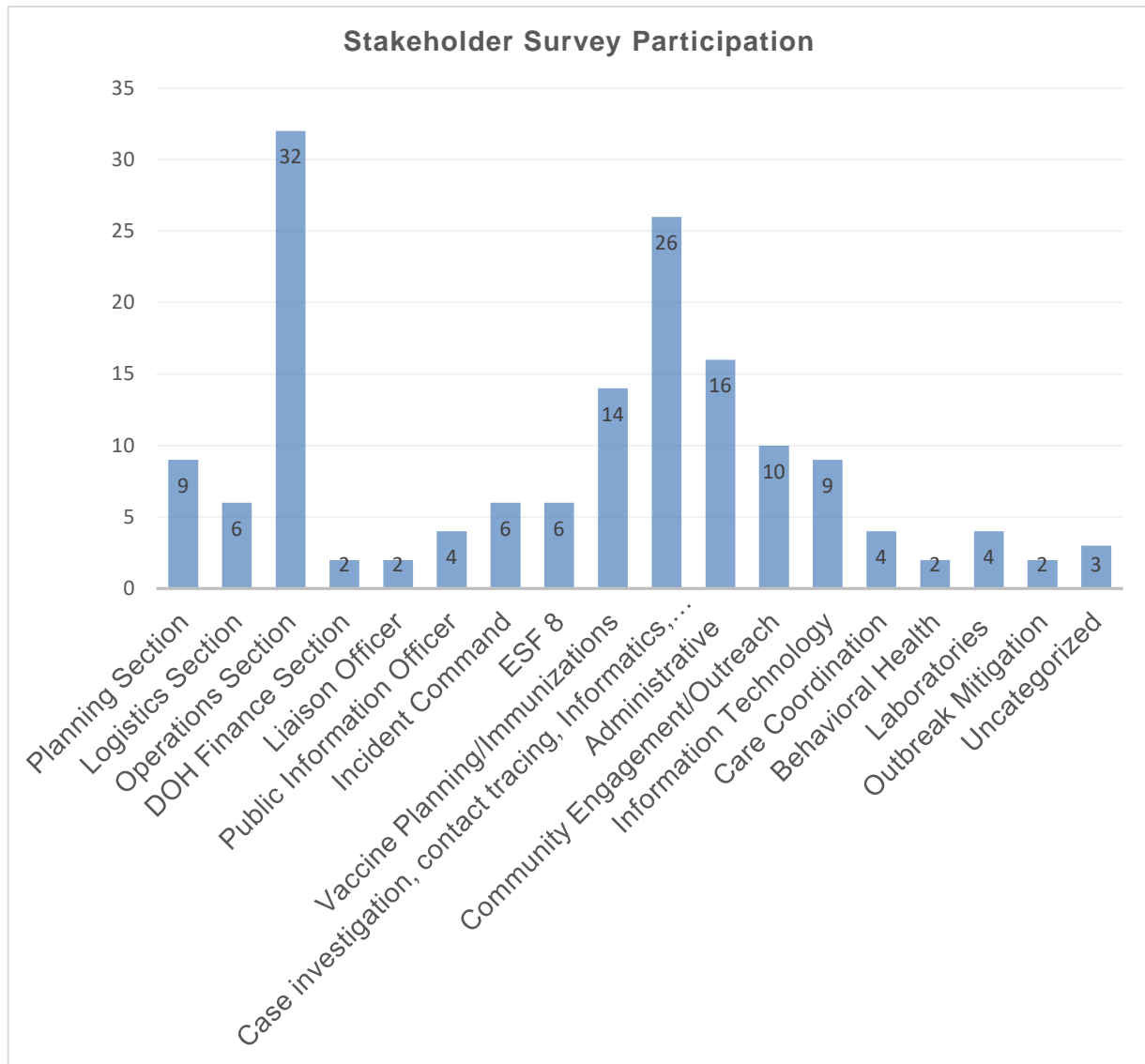
Survey Findings by Theme

During the data analysis phase, the research team identified emerging themes under which to group key findings, strengths, opportunities for success, and long-term concerns. Below are some general findings from the survey responses organized by the themes found in this report.

Activation

DOH activated swiftly in response to the first confirmed case of COVID-19 in the state. Incident Management Teams (IMTs) were quickly staffed and activated which is credited to the department's pre-planning and exercising of IMT activation. The IMT notification procedures for staffing were informal, using a call down process with information gathered from divisional Deputy Assistant Secretaries on who would be best suited to fill certain positions. Formally documenting the IMT notification and staffing process in plans and socializing it across the organization would benefit DOH in future activations. Although the Deputy Assistant Secretaries were tapped to help fill the IMT roles, there was still limited visibility regarding who was available to staff the IMT as well as what training staff had and their talents and interests. This made it so some staff who were asked to fill IMT roles did not have a full understanding of their roles and responsibilities and were not fully trained in emergency response. There were also gaps in the onboarding process with properly communicating onboarding instructions specific to each role. The rapid scaling up of the DOH response created staff burnout as individuals were asked to serve in dual positions, work long hours, or operate out of other facilities. This model, although necessary for the immediate activation of the DOH, is not a sustainable long-term model.

Community Needs and Impacts

The Governor of the state of Washington, DOH, and local businesses coordinated response efforts to fight the spread of COVID-19. DOH took multiple approaches to assisting the community which included purchasing motels to use as permanent isolation and quarantine facilities, providing wraparound services to people held in isolation and quarantine, connecting individuals in home isolation and quarantine with care resources from community health workers and community-based organizations, and conducting outreach to vulnerable populations. Working with medical examiners and coroner's offices, DOH helped to facilitate mass fatality planning. Despite the outreach efforts, vulnerable populations including individuals experiencing homelessness/housing insecurity, individuals with access and functional needs, individuals who are unable to live independently, people in long-term care facilities, and essential workers did not feel they received the necessary resources to ease the impact of the pandemic. Ethnic and racial disparities also persisted in the response efforts. Mental and behavioral health resources and guidance throughout the pandemic is something that community stakeholders would like to have more of. Sustainable funding will be required to maintain the current response and provide the necessary resources to the community as DOH's response scales down.

Continuity of Operations

Responding to COVID-19 brought many challenges but despite them, DOH maintained many elements of its steady-state processes and functions. However, maintaining those elements brought its own challenges. There were conflicting priorities given by leadership causing staff to feel pulled in different directions and creating general confusion as to what should be prioritized or not. IMT staff onboarding created concerns with supervisors because staff did not feel well-equipped to take on the roles they were put in, which threatened the continuity of the IMT. Grant writing was one of the processes that was severely impacted which had cascading impacts on local jurisdictions causing a slowdown in grant funding distribution.

DOC and EOC Operations

In the initial response, two highly experienced IMT leads were put in charge which was very successful for the entire IMT. Staff shadowed the person whose role they would be taking over to have just-in-time, on-the-ground training. Despite the strong leadership and just-in-time training, the length of the response required DOH to activate staff to the IMT who were not familiar with NIMS or ICS or even what the IMT was. Staff

training for IMT positions and cross-training for multiple roles is necessary to have a well-established pool of staff to pull from that can activate into the IMT with limited additional training and onboarding. A new Excel Incident Action Plan template was developed which was automated to assist with the development of IAPs.

Public-Private Partnerships

DOH established strong partnerships with private organizations including Microsoft and ServiceNow which greatly aided their ability to manage the response. A new position at the department was created and staffed in February 2021 for a Director of Public and Private Partnerships which created a role for someone to solely focus on developing partnerships with outside partners to bring assistance to DOH. Microsoft was embedded in DOH and constructed dashboards for PPE management among other things. They also built a system called WA Health where all Washington State hospitals could input their data. The DOH Information Technology department partnered with ServiceNow to create an app to manage the IMT as well as an app called Time Tracker which allowed staff to sign in and out online. Formalizing these partnerships will be instrumental in leveraging all available resources in future events.

Interagency Coordination – Local to State

DOH conducted daily Zoom meetings with local entities and the IMT had Liaison Officers who would also stay in communication with local partners. Although there was communication between DOH and local entities, it was unclear as to how the two were expected to coordinate, and DOH also had a limited understanding of the capabilities of the health care coalitions and associations. DOH did however fill response needs that overwhelmed the local response capability but could have better capitalized on the local health care coalitions and associations to support the response.

Interagency Coordination – State to State

The Governor's Office and DOH fostered a strong relationship that has lasted throughout the response. The Governor supported a science-backed, data-driven response to COVID-19 and exhibited strong leadership, which sometimes contributed to faster delivery of services and capabilities from DOH and other state partners and agencies. The involvement from the Governor's Office however also put a lot of pressure on DOH and caused them to deviate from the standard emergency management process that was used in previous activations. Other state departments felt that there was a lack of a Unified Command and situational awareness as most of the coordination was directly between the Governor's Office and DOH.

Interagency Coordination – Federal to State

DOH and Centers for Disease Control and Prevention (CDC) coordinated effectively, including an initial deployment of a team from the CDC to the state of Washington early on in the pandemic which greatly assisted in early identification of cases and early establishment of contact tracing priorities. However, the priorities of the federal administration in 2020 made it very difficult to obtain any guidance from federal entities regarding testing, vaccination, quarantine guidance, or potential funding streams. Existing, strong relationships between DOH and representatives from FEMA, CDC, ASPR, FDA, and HHS were negatively impacted by the administration's priorities and guidance impacting departmental operations at DOH.

Internal Communications

DOH demonstrated a commitment to transparent communication with internal staff, despite the challenges a long activation and response presents to communication channels. Communication to staff was considered a strength, and staff acknowledged that leadership made significant efforts to ensure information reached the people that needed it as far in advance as possible despite challenges outside the hands of DOH. DOH used radios, emails, phone calls, and any means necessary in a good faith effort to maintain up-to-date communications with its staff. Challenges in communication included following consistent channels and chain of command especially as activations into IMT grew significantly. Communication that fell outside of chain of

command caused duplication of efforts and a lack of situational awareness. While some staff received too little information, others received communication from all sides and were overwhelmed by requests. As the response became prolonged, communication tools stalled in adapting to new objectives and the size of the response. As a result, staff sometimes experienced delayed responses from leadership or none at all. Wait times for responses varied, and the channels to receive responses would sometimes change with little notice.

Medical Surge

Volunteers as well as personnel from the Washington State Department of Ecology and the U.S. Coast Guard assisted in the rollout of mass vaccination sites and medical surge activities during the response, but the Washington State National Guard could have been brought into the response sooner to assist DOH with their activation. DOH and statewide health care associations did not have strong relationships prior to COVID-19, which impacted early decision-making regarding impacts to essential workers in health care. Developing and fostering those relationships in steady state can be critical for a response of this magnitude.

Testing Operations

Community and agency partners came together to assist with test kit assembly and distribution work. By March 2021, the testing operations unit had developed SOPs, clarified roles/responsibilities, supported multi-sectional response efforts, developed communication plans, communicated regularly, provided action plans, and maintained dashboard reporting and public portal request interfacing[176]. Setting up and operating testing sites did not go without challenges, however. WebEOC was meant to be used to order testing supplies but not all partners knew how to use it, which created a barrier to ordering. Communication tools and dashboards were developed but proved to be time-intensive and not useful. One survey respondent noted that "There was an inventory management solution already used by CDC and our partners, which would have been a great solution at the start of the system development. There was not situational awareness about the program and the competency in leveraging the program was limited."[177] The Testing Branch staff did not feel supported by State or IMT leadership as many decisions impacting testing operations were made without consulting them or were not communicated down to them, causing supply issues.

Surveillance and Information Management

The partnership with Microsoft was a huge success in helping DOH set up high-capacity data systems and maintain situational awareness. The Hospital Capacity System was stood up quickly and had high participation. Other systems that Microsoft helped set up or improve were the CREST system for contact tracing data, the WELRS system for electronic lab reporting, and the WDRS system for disease reporting. However, these systems were developed without being mindful of their accessibility to LHJs and HCCs, some of which did not have the resources to set up their own information management systems specific to COVID-19. Initially, the amount of data that these systems collected overwhelmed the information systems and caused issues with processing speeds, and issues persist with processing capacity and the integration of systems. Even with these systems, the state of Washington does not fully report on racial statistics as they relate to COVID-19 metrics and DOH has struggled with fully collecting and reporting data on racial distributions of infection rates, testing rates, hospitalization rates, and death rates.

Mass Vaccination Planning

DOH incorporated a Health Equity Team into the IMT as part of the Community Engagement Wing. The Health Equity Team worked with the immunization program to focus on those in the community who were most affected by the disease and also worked with the Information Management System personnel to put out data on vaccine distribution based on racial and ethnic identity. The state of Washington deployed its Mass

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[176] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.
[177] DOH, "After Action Review for COVID-19 Testing Operations Unit," March 1, 2021.

Vaccination Program and Plan one week after its development, and DOH set up a call center for individuals to make vaccine appointments for those that were unable to access appointment software via the internet and those with access and functional needs. Despite focusing on those most at risk, there was still an initial disparity in planning for vaccine distribution to populations most at risk for COVID-19 spread, including agricultural workers and people experiencing homelessness and/or housing insecurity. This disparity was especially evident in the Seattle metropolitan area. Better communications between partners and with the public can assist with vaccination management and distribution.

Public Information and Messaging

DOH activated their JIC and distributed their public information through the JIC with materials translated into multiple languages to meet community needs. These communication efforts included running an active social medica campaign. DOH also held weekly calls for coordinated messaging, collaboration between PIOs, and information sharing on upcoming guidance before releasing information to the public. Providing accurate messaging to the public and combatting misinformation was a priority for DOH. With that said, further coordination between the Governor's Office, DOH, the Emergency Management Division, and local public health departments with regards to messaging pertaining to lockdown orders, vaccination tiers, and health care impacts could have mitigated public confusion. DOH needs to continually leverage trusted community partners to create appropriate messaging for vulnerable populations with technology accessibility issues. Additional PIO and public affairs training to DOH staff would allow for a deeper bench of people that can be activated during a response.

Resource Management

Coordination between DOH and local health, health care, and private industry was a huge asset in getting hospitals and health care workers the resources needed for biosecurity, testing, and vaccinations. Private partnerships were leveraged heavily to identify necessary resources, including coordination of a private sector Task Force group through the Governor's Office which provided status reports on current resource gaps in the health and medical sector. The DOH Procurement Branch was funded early on in the response, allowing them to acquire resources from around the world. Although procurement was possible, delivery dates for testing kits, especially for rural counties, were not exact and that made planning in those jurisdictions difficult. Funding for lab equipment was also difficult to procure and funding for surge staffing was not established early in the pandemic response which led to slow and cautious hiring in areas that needed immediate attention (i.e., testing, vaccination planning, surveillance, and contact tracing), impacting DOH's ability to respond in the manner they would have liked.

Staff Safety and Wellness

DOH staff exhibited great passion and commitment throughout the response, and those characteristics remain very high despite the COVID-19 response being the longest-running disaster activation in the department's history. Understanding the mental health strain on staff, DOH invested in a relationship with Behavioral Health, and they set up a strike team which made trainings, resources, and presentations and provided people to talk through issues with staff. In addition, all state employees have access to the Employee Assistance Program (EAP), which is confidential. Despite DOH's efforts, the lengthy response to COVID-19 has taken a drastic toll on staff members. Staff and supervisors described mission fatigue (being on call all day every day), change fatigue (moving to and between jobs for response), burnout, and exhaustion. Many expressed resentments for constantly being asked to do more. There is a substantial need to mandate time off and abide by those policies and to codify these mental health needs in plans for future responses.

Tribal Response Support

DOH was commended by tribal public health partners for its frequent communication and support in the planning and response efforts undertaken by tribal governments. Tribal representatives highlighted vaccine

distribution prioritization and support through provision of PPE as areas where DOH did an exceptional job of supporting tribes. DOH collaborated with tribal governments during the pandemic response by demonstrating setup of potential hospital or quarantine sites and provided frequent data and information sharing in addition to ongoing communications. DOH was available to answer questions, assist with planning, and supported tribal governments in receiving adequate vaccine dosages. However, there were challenges in the collaboration between DOH and tribal governments. Respondents stated that COVID-19 data analysis was incomplete and not representative of American Indian and Alaska Native (AI/AN) communities. Additionally, collaborative efforts were not the same across the board. Some local health jurisdictions were closed off and did not provide transparency with resource allocation and data. Staff in Tribal Affairs were more aware of the processes in place for government-to-government relationships than other department staff. Long-term concerns remain regarding new case trends and COVID-19 variants and the impacts the variants have on native communities due to underlying social determinants of health. Additionally, survey respondents noted concerns regarding the long-term vaccine effects for certain populations and maintaining supply levels as the response continues.

Appendix B: Acronym List

Table 2: Acronyms List.

Acronym List	
Acronym	Definition
AAR	After Action Report
ACC	Agency Coordination Center
AI/AN	American Indian/ Alaska Native
AIHC	American Indian Health Commission
ASC	Ambulatory Surgery Center
ASPR	Assistant Secretary of Preparedness and Response
CBO	Community-based Organization
CDC	Center for Disease Control and Prevention
CERC	Crisis and Emergency Risk Communication
CICT	Case Investigation and Contact Tracing
CIO	Chief Information Officer
CISM	Critical Incident Stress Management
CLIA	Clinical Laboratory Improvement Amendments
COOP	Continuity of Operations Plan
CREST	Case Risk and Exposure Surveillance Tool
DOH	Department of Health
EAP	Employee Assistance Program
EMAC	Emergency Management Assistance Compact
EMD	Emergency Management Division
EMS	Emergency Management Services
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
EPRR	Emergency Preparedness, Resilience, and Response (DOH)
ESF-8	Emergency Support Function-8 (Public Health, Medical, and Mortuary Services)
ETOAR	Electronic Test Ordering and Reporting
EUA	Emergency Use Authorization
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency

Washington State Department of
Health

Acronym List	
Acronym	Definition
HCC	Health Care Coalition
HHS	Health and Human Services
HPP	Hospital Preparedness Program
HR	Human Resources
HSQA	Health Systems and Quality Assurance
HTS	Health Technology Solutions
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
ICU	Intensive Care Unit
IMATS	Inventory Management and Tracking System
IMT	Incident Management Team
IT	Information Technology
JIC	Joint Information Center
LERC	Local Emergency Response Coordinator
LGBTQ	Lesbian, Gay, Bisexual, Transgender and Queer or Questioning
LHJ	Local Health Jurisdiction
LIMS	Laboratory Information Management System
LO	Liaison Officer
LTCF	Long-Term Care Facility
MAC	Multi-Agency Coordination
MACC	Multi-Agency Coordination Center
MCM	Medical Countermeasures
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NIMS	National Incident Management System
OCIO	Office of Chief Information Officer
PHEP	Public Health Emergency Preparedness
PHL	Public Health Laboratory
PIO	Public Information Officer
POC	Point of Contact

Acronym List	
Acronym	Definition
POD	Point of Dispensing
PPE	Personal Protective Equipment
PSC	Planning Section Chief
RSS	Receive, Stage, and Store
SEOC	State Emergency Operations Center
SME	Subject Matter Expert
SOP	Standard Operating Procedures
USCG	U.S. Coast Guard
UW	University of Washington
VACCS	Vaccine Command and Coordination System
VPN	Virtual Private Network
WA	Washington
WA SECURES	Washington Secure Electronic Communication Urgent Response and Exchange System
WDRS	Washington Disease Reporting System
WELRS	Washington Electronic Laboratory Reporting System
WFSE	Washington Federation of State Employees
WHO	World Health Organization
WMCC	Washington Medical Coordination Center

Appendix C: References

American Indian Health Commission, "Our History, Priorities, & Bylaws," available online at: https://aihc-wa.com/about/our-history-priorities-bylaws/.

Andy Rose and Christina Maxouris, "Washington state announces partnership with companies including Starbucks and Microsoft to boost vaccinations," *CNN*, January 19, 2021. Available online at: URL https://www.cnn.com/2021/01/19/us/washington-state-vaccinations-plan-partnerships/index.html.

Centers for Disease Control, "Washington State Report First COVID-19 Death Media Statement," CDC Newsroom. February 29, 2020, available online at: https://www.cdc.gov/media/releases/2020/s0229-COVID-19-first-death.html.

Centers for Disease Control, "COVID-19 Data Tracker." Available online at: https://www.cdc.gov/covid-data-tracker/index.html#cases.

Centers for Disease Control, "How to Protect Yourself and Others." Accessed August 4, 2020, available online at: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention-H.pdf.

"COVID-19's Tragic Effect on American Indians: A State-by-State Analysis," *U.S. News and World Report,* October 2020, available online at: https://www.usnews.com/news/healthiest-communities/articles/2020-10-07/a-state-by-state-analysis-of-the-impact-of-covid-19-on-native-americans.

Daniel Wolfe, Byron Manley, and Priya Krishnakumar, "Tracking COVID-19 vaccines in the U.S," *CNN*. Accessed July 8, 2021, available online at: https://www.cnn.com/interactive/2021/health/us-covid-vaccinations/.

Department of Health and Human Services, "Public Health Emergency." Accessed August 5, 2020, available online at: https://www.phe.gov/emergency/events/COVID19/SNS/Pages/FAQ.aspx#sns-depleted.

Ford Motor Company, "Personal Protection Equipment Product Information." Available online at: http://corporate.ford.com/social-impact/coronavirus/ppe.html.

General Motors, "General Motors Commitment." Available online at: https://www.gm.com/our-stories/commitment/face-masks-covid-production.html.

History.com, "First confirmed case of COVID-19 found in U.S." Accessed May 5, 2021, available online at: https://www.history.com/this-day-in-history/first-confirmed-case-of-coronavirus-found-in-us-washington-state.

Jill Edgin, "Weaving DOH values in our IMT response," December 2020.

Johns Hopkins University, "COVID-19 Dashboard," Coronavirus Resource Center. Accessed July 12, 2021, available online at: https://coronavirus.jhu.edu/map.html.

Joseph O'Sullivan, "Washington state's wildfires have now destroyed more than 626,000 acres, 181 homes," *The Seattle Times,* September 11, 2020, available online at: https://www.seattletimes.com/seattle-news/environment/washington-states-wildfires-have-now-destroyed-more-than-626000-acres181-homes/.

Kahler W. Stone et. al., "Public Health Workforce Burnout in the COVID-19 Response in the U.S.," *International Journal of Environmental Research and Public Health* 18, 8 (April 2021).

Karen Weise, Amy Harmon and Sheri Fink, "Why Washington State? How Did It Start? Questions Answered on the U.S. Coronavirus Outbreak," *New York Times*, March 4, 2020.

Katherine Long, "Coronavirus could make fighting Washington wildfires harder," *Crosscut*, March 27, 2020, available online at: https://crosscut.com/2020/03/coronavirus-could-make-fighting-washington-wildfires-harder.

Lou Schmitz, "AIHC Tribal Communicable Disease Emergency Response Planning Project 2019-2020." American Indian Health Commission. March 11, 2020, available online at: https://secureservercdn.net/192.169.222.215/tvl.3bf.myftpupload.com/wp-content/uploads/2021/03/AIHC-Tribal-Communicable-Disease-Emergency-Response-Planning-Project-2019-2020.pdf.

Mark Katov, "Fast-Moving Wildfire Destroys 80% of small town in Eastern Washington State," *National Public Radio,* September 8, 2020, available online at: https://www.npr.org/2020/09/08/910578980/fast-moving-wildfire-destroys-80-of-small-town-in-eastern-washington-state.

Mayo Clinic, "Job Burnout: How to spot it and take action." May 18, 2021, available online at: https://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/burnout/art-20046642.

Mike Carter et. al., "How a Year of Protests Changed Seattle," *The Seattle Times,* December 29, 2020, available online at: https://www.seattletimes.com/seattle-news/how-a-year-of-protests-changed-seattle/.

National Association of County and City Health Officials, "The Role of Health care Coalitions in Emergency Response," September 2017.

National Homeland Security Consortium, "COVID-19 After Action Report." June 2021.

NPR, "1st U.S. Case of Coronavirus Confirmed in Washington State." January 22, 2020, available online at: https://www.npr.org/2020/01/22/798392221/1st-u-s-case-of-coronavirus-confirmed-in-washington-state.

Scott Greenstone, "Mysteriously, COVID-19 hasn't spread among Seattle's outdoor homeless population. What does that mean for a vaccine?," *The Seattle Times*, December 26, 2020, available online at: https://www.seattletimes.com/seattle-news/homeless/mysteriously-covid-hasnt-spread-among-seattles-vulnerable-homeless-population-what-does-that-mean-for-a-vaccine/.

State of Washington Office of Financial Management, "Population by age, mapped by county," Accessed May 27, 2021, available online at: https://ofm.wa.gov/washington-data-research/statewide-data/washington-trends/population-changes/population-age-mapped-county#:~:text=In%202010%2C%2012.3%25%20of%20Washington,2010%20and%2037.9%25%20in%202019.

State of Washington Office of the Governor, "Proclamation by the Governor 20-24." March 19, 2020, available online at: https://www.governor.wa.gov/sites/default/files/20-24%20COVID-19%20non-urgent%20medical%20procedures%20%28tmp%29.pdf?utm_medium=email&utm_source=govdelivery.

United States Census Bureau. "Quick Facts Washington." Accessed May 19, 2021, available online at: https://www.census.gov/quickfacts/WA.

Washington State Department of Health, "After action review for COVID-19 Testing Operations Unit," March 1, 2021.

Washington State Department of Health, "COVID-19." Accessed May 24, 2021, available online at: https://www.doh.wa.gov/Emergencies/COVID19.

Washington State Department of Health, "COVID-19 Confirmed Cases by Industry Sector." December 17, 2020, available online at: https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus-data-tables/IndustrySectorReport.pdf.

Washington State Department of Health, "COVID-19 Data Dashboard." Accessed July 12, 2021, available online at: https://www.doh.wa.gov/Emergencies/COVID19/DataDashboard.

Washington State Department of Health, "COVID-19 Vaccination Progress Dashboard and Data." Accessed May 27, 2021, available online at: https://www.doh.wa.gov/Emergencies/COVID19/VaccineInformation/DashboardsandData.

Washington State Department of Health, "COVID-19 Vaccine." Accessed May 27, 2021, available online at: https://www.doh.wa.gov/Emergencies/COVID19/vaccine.

Washington State Department of Health, "Department of Health Incident Management Team," *Command and Control Annex, Emergency Response Plan*. February 2018.

Washington State Department of Health, "Emergency Language and Outreach Services Contracts." Available online at: https://www.doh.wa.gov/Emergencies/COVID19/CommunityOutreachContracts.

Washington State Department of Health, "Executive Order 16-07: Building a Mobile Work Environment." Available online at: https://www.doh.wa.gov/AboutUs/WorkatHealth/MobileWorkforce.

Washington State Department of Health, "Notification and Communications Annex," *Emergency Response Plan*. September 2019.

Washington State Department of Health, "Secretary's Directive 19-01." Available online at: https://www.doh.wa.gov/Portals/1/Documents/1000/2019-01-SecDirect.pdf.

Washington State Department of Health, "Vision, Mission, and Values." Available online at: https://www.doh.wa.gov/AboutUs/VisionMissionandValues.

Washington State Department of Health, "Strategic Plan." January 2020, available online at: https://www.doh.wa.gov/Portals/1/Documents/1000/820083-StrategicPlan.pdf.

Washington State Emergency Operations Center, "Situation Report." November 5, 2020, available online at: https://lewiscountywa.gov/media/documents/SEOC_COVID19_SitRep_110520-181.pdf.

World Health Organization, "Managing the COVID-19 infodemic." September 23, 2020, available online at: https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation.

World Health Organization, "Timeline of WHO's Response to COVID-19." Accessed May 19, 2021, available online at: https://www.who.int/news-room/detail/29-06-2020-covidtimeline.

Appendix D: Key Contributors

Special thanks to the many individuals who contributed to the production of this report, many of whom lent their time and knowledge despite being engaged in ongoing statewide COVID-19 response efforts.

Table 3: Contributors List.

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