

**Motion 15650: Updated 'Pandemic Influenza Response Plan' Report,
including a New Biological Incident Response Annex and
COVID-19 After Action Report**

December 2023



King County

I. Contents

II.	Executive Summary	3
III.	Background.....	6
IV.	Report Requirements.....	11
1.	A response plan or plans addressing each pandemic phase identified by the Centers for Disease Control and Prevention, including a description of the responsibilities of relevant governmental and nongovernmental agencies in each pandemic phase, both with and without presence of local cases.	11
2.	Identification of critical infrastructure or resources that are currently lacking that would be required in order to respond to pandemics, the barriers to acquiring or developing the infrastructure or resources and recommendations for how to fill these gaps	19
V.	Conclusion	26
VI.	Appendices	27

II. Executive Summary

Motion 15650: Motion 15650 calls for Public Health – Seattle & King County (Public Health or PHSKC) to create a new Pandemic Response Plan, building on the existing Pandemic Influenza Response Plan and using lessons learned from the COVID-19 pandemic. See Appendix A. The King County Pandemic Influenza Response Plan is now called the Biological Incident Response Annex (Annex). The Annex is summarized in this report. It incorporates plans for pandemics (influenza and other viruses, such as coronaviruses) and other biological pathogens. “Annex” is an emergency preparedness term that refers to an operational plan.¹ The new Annex is an ongoing body of work that will continue to be updated over time as science, strategies, and circumstances change.² The Annex is included as Appendix B.

Key Historical Conditions: Since February 2020 there have been almost 600,000 reported cases, close to 18,000 hospitalizations, and more than 3,600 deaths from COVID-19 in King County.³ As significant as these numbers and losses are, King County experienced one of the lowest death rates due to COVID-19 of the 20 largest metropolitan areas in the country.⁴ Data shows that the burdens of COVID-19, however, were not evenly borne across the population. Throughout the US, the virus has had disproportionate impacts on the elderly, people with weakened immune systems, those with several pre-existing chronic medical conditions and disabilities, and communities of color. In King County, American Indian/Alaskan Native, Black, Hispanic, and Native Hawaiian/Pacific Islander residents experienced higher rates of COVID-19 cases, hospitalizations, and deaths than Asian and White residents.⁵

PHSKC led an intense and lengthy response to the COVID-19 pandemic from 2020 through 2023. This included operating COVID-19 testing sites that conducted over 200,000 tests in 2020, and, by March 2021, had conducted 1 million COVID-19 tests. Public Health’s Language Access team worked with 88 translators in 33 languages and completed translations on 375 topics, totaling 4,200 documents in 2021. The Public Health call center averaged 700 to 1,000 calls per day, with a one-day record of 1,600 calls answered on January 3, 2022. Public Health established and led an ambitious goal to vaccinate 70 percent (N=1.3 million) of eligible adults overall, and across all regional, race/ethnicity, and age groups. By September 2021, over 3 million vaccine doses had been administered and 77 percent (N=1.5 million) of eligible King County residents had been vaccinated equitably, efficiently, and quickly for the initial series. By February 2022, King County had distributed over 1.4 million N95 masks, 3.7 million surgical masks, 20 million gloves, and 1.6 million gowns to long term care facilities, health clinics, first responders, congregate settings, community-based organizations, and other critical care agencies.⁶

¹ FEMA, Guide for All-Hazard Emergency Operations Planning, September 1996, [\[LINK\]](#)

² Motion 15650 calls a new Pandemic Response Plan, building on the existing Pandemic Influenza Response Plan and using lessons learned from the COVID-19 pandemic. The report was originally due September 1, 2022. In March 2022, Public Health submitted a progress report. The due date of this report was changed to December 2023.

³ PHSKC, COVID-19 in King County, Washington, October 18, 2023, [\[LINK\]](#)

⁴ PHSKC, COVID-19 After Action Report, September 2022, p 3, [\[LINK\]](#)

⁵ Public Health Insider. May 1, 2020. New Analysis Shows Pronounced Racial Inequities among Covid-19 Cases, Hospitalizations and Deaths, [\[LINK\]](#)

⁶ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

Multiple Emergencies at Once – Public Health’s first response to COVID-19 in January 2020 took place while hepatitis A and seasonal influenza outbreaks were underway. Healthcare systems were reporting high patient loads prior to the arrival of COVID-19. From the start, Public Health and emergency response partners were responding to multiple ongoing emergencies at the same time as COVID-19, including extreme heat, cold weather, mpox (the disease formerly known as monkeypox),^{7, 8, 9} and wildfire smoke incidents. Handling multiple complex emergencies at the same time places additional demands on the County’s critical infrastructure and resources necessary to respond.

A Response Plan that Addresses Each Centers for Disease Control and Prevention (CDC) Pandemic Phase: In responding to Motion 15650, this report describes key features of Public Health’s updated pandemic response Annex and addresses each pandemic phase identified by the CDC.

Descriptions of the Responsibilities of Governmental and Non-Governmental Agencies: The Washington State Governor, the State Board of Health, the State Secretary of Health, the King County Executive, the local Board of Health, the executives of cities and towns, and the Local Health Officer each have defined authorities and responsibilities to protect the public’s health during a pandemic.¹⁰ Per the Revised Code of Washington (RCW) 70.05.070, King County’s Public Health Department has the responsibility to lead an incident response when there are health impacts involved. This effort is called a Health and Medical Area Command (HMAC) in King County. Hospitals, clinics, providers, and other health system partners have their own set of federal requirements to fulfill during a pandemic.¹¹

Identification of Critical Infrastructure or Resources that are Lacking: Public Health used two processes to identify critical infrastructure and resources that were lacking during the COVID-19 response and to develop recommendations to fill these gaps. First, the King County Auditor highlighted racial and ethnic inequities in the COVID-19 response and population health outcomes and directed Public Health to address these gaps in its January 2022 report, “Emergency Preparedness Limited by Planning Gaps.”¹² As a result, Public Health updated its Equity Response Annex in 2023.¹³ The Equity Response Annex provides detailed plans about how to integrate equity into HMAC operations.

Second, Public Health carried out after-action analyses of the COVID-19 response in 2021 and 2022. PHSKC was the first health department in Washington State to issue a COVID-19 After Action Report.¹⁴ Public Health staff and a consultant, Constant Associates, carried out 159 interviews of response team

⁷ WHO Recommends New Name for Monkeypox Disease <https://www.who.int/news/item/28-11-2022-who-recommends-new-name-for-monkeypox-disease>

⁸ Mpox is a disease caused by a virus, often with a rash or flu-like symptoms. Infections with the strain of mpox virus identified in the U.S. are rarely fatal and most people recover in 2-4 weeks, [\[LINK\]](#)

⁹ King County, Executive Constantine Proclaims a Local Public Health Emergency for Monkeypox (*now called mpox*), August 19, 2022, [\[LINK\]](#)

¹⁰ Washington State Governor’s authority is in RCW 43.06.010(120); 38.52.050 and 43.06.0220. The State Board of Health’s authority is in RCW 43.20.050. The State Secretary of Health’s authority is in 43.70.130. The King County Executive’s authority is in KCC 12.52.030. The King County Board of Health’s authority is in RCW 70.05.035 and 70.05.060. The Local Health Officer’s authority is in RCW 70.05.070.

¹¹ U.S. Centers for Medicare and Medicaid Services, 2021, [\[LINK\]](#) and U.S. Department of Health and Human Services, 2005, [\[LINK\]](#)

¹² King County Auditor, Emergency Preparedness Limited by Planning Gaps, January 11, 2022, [\[LINK\]](#)

¹³ PHSKC, Equity Response Annex, June 2023, available in English and Spanish, [\[LINK\]](#)

¹⁴ PHSKC, COVID-19 After Action Report, September 2022, [\[LINK\]](#)

members to collect strengths, areas for improvement, and recommendations. Community engagement was conducted at four online townhall meetings with 31 community partners who played active roles in the COVID-19 response. The sessions were held in English with Communication Access Real-time Translation (CART) and live interpretation in multiple languages.

This report summarizes critical infrastructure required for future responses to pandemics. It highlights gaps observed in the County's response to the COVID-19 pandemic with regard to disability access, racial and ethnic representation in Public Health and in the Public Health Reserve Corps, and gaps resulting from overwork of Public Health and other response staff.

Barriers to Acquiring Infrastructure or Resources: King County faces several barriers to acquiring needed infrastructure for emergency responses. These barriers include limited staffing and funding levels, a lack of flexibility in workforce hiring and retention procedures; a funding cycle that goes up and down in response to emergencies; a lack of bridge funding between funding cycles; and limited racial and ethnic diversity among staff and volunteers.

Recommendations for How to Fill these Gaps: Public Health identified four types of recommendations to improve future infectious disease responses. These recommendations are:

1. Build and deepen community trust through relationships and communication;
2. Enact equity strategies to tailor actions and information to better serve specific communities, including Black, Indigenous, other people of color, people with disabilities, and residents living in less resourced locations;
3. Improve emergency response operations by using standard processes and coordination methods, and
4. Add workforce flexibility to allow staffing to surge in response to demands on Public Health during a pandemic.

Implementing these recommendations requires that local, state, and federal funders consistently fund ongoing emergency planning and other foundational public health services.¹⁵ At the same time, this report recognizes that as a local government, King County is experiencing a funding crisis in its flexible funding source, the General Fund. So, while the report identifies opportunities to fill gaps, those recommendations that require financial investment must be evaluated alongside all budgetary decisions by the Executive and the Council.

The recommendations in this report build on lessons learned by King County from the successes and challenges it experienced throughout the COVID-19 pandemic response. Efforts to address these recommendations represent important ways for King County to demonstrate its commitment to building a culture of equity and quality improvement and will require significant time and resources to fully accomplish.

¹⁵ WA Department of Health, Foundational Public Health Services, 2023, [\[LINK\]](#)

III. Background

Department Overview: Public Health – Seattle & King County (Public Health or PHSKC) works to protect and improve the health and well-being of all people in King County, Washington. It seeks to increase the number of healthy years that people live and eliminate health inequities. It is one of the largest metropolitan health departments in the United States with 1,200 employees, 40 sites, and a biennial budget of \$686 million. The Department serves a resident population of nearly 2.5 million people in a county with 19 acute care hospitals, including the state’s only Level 1 Trauma Center, and more than 7,000 medical professionals.¹⁶ Department responsibilities are carried out through prevention programs, environmental health programs, community-oriented personal health care services, emergency medical services, correctional facility health services, preparedness programs, and community-based public health assessment and practices. Public Health also provides data, reports, and other health-related information to the public and stakeholders.¹⁷

Key Context: The mission of Public Health’s Preparedness program is to protect the health and safety of the whole community before, during, and after emergencies and disasters. It is responsible for conducting a continuous cycle of planning, organizing, training, exercising, and taking corrective action to build Public Health’s capability to respond to future emergencies. Preparedness staff work within the scope of the federally defined Emergency Support Function (ESF) #8 - Public Health, Medical, and Mortuary Services, relying on partners and supporting agencies such as the Northwest Healthcare Response Network, the King County Office of Emergency Management (KCOEM), the City of Seattle Office of Emergency Management, and others to coordinate services, resources, and information during a response.¹⁸

This report builds on the 2006 King County Pandemic Influenza Response Plan adopted by Ordinance 15596, the 2007 update to the same plan adopted by Ordinance 15986, and the 2013 Pandemic Influenza Response Plan update.¹⁹ Notably, the King County Pandemic Influenza Response Plan is now called the Biological Incident Response Annex (Annex). “Annex” is an emergency operations term that refers to an operational plan.²⁰ The 2023 King County Biological Incident Response Annex, which is included in Appendix B, incorporates plans for pandemics (influenza and other viruses, such as coronaviruses) and other biological pathogens. The Biological Incident Response Annex is more comprehensive than previous plans, which only addressed influenza threats. The new annex represents an ongoing body of work that will continue to be updated as science, strategies, and circumstances change.

Key Historical Conditions: *Washington State and King County COVID-19 Context* – The unprecedented nature of the COVID-19 pandemic during its height from 2020 to 2023 presented challenges in King County and across the globe. It forced organizations inside and outside of the public health field to manage extended response operations. Planning and initiating responses for other emergency incidents had to occur as response teams navigated the pandemic’s impacts on public health staffing and

¹⁶ PHSKC, About Us, [\[LINK\]](#)

¹⁷ PHSKC, About Us, [\[LINK\]](#)

¹⁸ PHSKC, Emergency Preparedness, [\[LINK\]](#)

¹⁹ PHSKC, Pandemic Influenza Response Plan, October 2013, [\[LINK\]](#)

²⁰ FEMA, Guide for All-Hazard Emergency Operations Planning, September 1996, [\[LINK\]](#)

infrastructure. The COVID-19 pandemic made historical inequities, including structural ableism and racism, more apparent in both government and healthcare systems.²¹

According to Public Health data, from February 2020 through October 2023, there have been 572,342 reported cases, 17,606 hospitalizations, and 3,647 deaths from COVID-19 in King County.²² As significant as these numbers and losses are, given the size of its population, King County experienced among the lowest death rates due to COVID-19 of the 20 largest metropolitan areas in the country.²³ The burdens of COVID-19, however, were not borne evenly across the population. Throughout the US, the virus had disproportionate impacts on the elderly, persons with weakened immune systems, those with several pre-existing chronic medical conditions and disabilities, and, in particular, communities of color. In King County, American Indian/Alaskan Native, Black, Hispanic/Latinx, and Native Hawaiian/Pacific Islander groups experienced higher rates of COVID-19 cases, hospitalizations, and deaths compared to Asian and White populations.²⁴

COVID-19 Emerges in January 2020 – The first case of novel coronavirus in Washington and the US was identified on January 21, 2020, in Snohomish County, which is part of the Seattle Metropolitan Area (as defined by the US Census Bureau). Public Health's Health and Medical Area Command (HMAC) was partially activated on January 21, 2020, to manage King County's ESF #8 response using the incident command system.²⁵ The next day, the state of Washington activated its State Emergency Operation Center to conduct emergency operations and support local jurisdictions responding to COVID-19 cases. Public Health HMAC activation was elevated to a Level 1 – Full Activation to manage emergency operations for Public Health on January 24, 2020.

At the state level, efforts to contain the disease in January to mid-February 2020 included encouraging employers to allow employees to work from home when possible, purchasing and distributing personal protective equipment (PPE), and increasing response funding. At the local level, Public Health began to disseminate key messages and respond to inquiries in late January 2020. In early 2020, the health department:

- Established a dedicated COVID-19 website;
- Provided guidance to healthcare providers on diagnosis, management, and infection control measures;
- Carried out the assessment and monitoring of incoming travelers deemed by the CDC's Division of Global Migration and Quarantine to be at risk for COVID-19, and when necessary, arranging quarantine, isolation, and/or testing;
- Conducted surveillance for detection of disease;
- Developed materials, presentations, and webinars for outreach to community members and partners;
- Connected residents with suspected infections to available testing;
- Arranged isolation services for those waiting for test results;

²¹ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

²² PHSKC, COVID-19 in King County, Washington, Accessed on October 18, 2023, [\[LINK\]](#)

²³ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

²⁴ Public Health Insider. May 1, 2020. New Analysis Shows Pronounced Racial Inequities among Covid-19 Cases, Hospitalizations and Deaths, [\[LINK\]](#)

²⁵ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

- Launched a Public Information Contact Center (PICC) that answered phone calls for 15 hours per day/7 days per week during surges, and
- Coordinated with the CDC, the Washington State Department of Health (DOH), and other local health jurisdictions on suspected cases and key messages.

Public Health confirmed the first known case of COVID-19 in King County on February 27, 2020. On February 29, 2020, the CDC reported the first U.S. COVID-19 death and additional presumptive positive COVID-19 cases in King County, including a suspected outbreak in a long-term care facility (Life Care Center of Kirkland) where more than 50 individuals were ill. King County activated its Emergency Operations Center, and the Governor issued a State of Emergency to facilitate the flow of additional local and state resources to the outbreak response. The CDC sent a large field team to assist Public Health in responding to the Life Care Center outbreak. The Life Care Center outbreak was the first of many outbreaks reported in long-term care facilities in King County and across the U.S. that led to multiple deaths in this at-risk population. Thirty-nine residents of the Life Care Center died within four weeks. During March 2020, more than half of the COVID-19 cases investigated by Public Health were exposed in healthcare settings, with one third exposed in long-term care facilities.

Behavior Change Interventions, Testing, and Face Masks – From the end of March 2020 through June 2020, Public Health and its partners continued to expand the response to COVID-19. This included setting up the first COVID-19 community-based testing site; launching a Stand Together, Stay Apart campaign to promote physical distancing in conjunction with the state's Stay Home, Stay Healthy Order, and establishing a detailed, public COVID-19 data dashboard. Public Health recommended, strongly directed, and then issued a health directive for masks to be worn in public. Public Health distributed COVID-19 tests locally. Public Health, along with the King County Office of Emergency Management (KCOEM), continued to provide supplies (PPE, hand sanitizer, etc.) to high priority populations as established by DOH, and supported the coordination of regional medical surge operations, which was led by the Northwest Healthcare Response Network. By May 2020, the HMAC structure had expanded to include over 500 responders directly assigned to a large stand-alone incident command system.²⁶

COVID-19 Vaccines in 2021 – In late December 2020, COVID-19 vaccines became available, initially to healthcare providers and other first responders and then to segments of the general population according to guidance from DOH. Older adults began receiving vaccines in January and February 2021, and in April 2021, all Washington residents over age 16 became eligible for the COVID-19 vaccine. By June 15, 2021, 70 percent (N=1.3 million) of King County residents ages 16+ across all race/ethnic groups had completed their initial vaccine series. This high level of population vaccination prompted an end to Public Health's mask directive two weeks later. Many of the COVID-19 prevention restrictions were lifted in King County and across the state in the summer of 2021.

Continued COVID-19 Work, On-going Infections, and Surges – Throughout the COVID-19 response in 2021 and 2022, Public Health's teams undertook contact tracing, disease investigation, information management, testing, vaccination, PPE distribution, public information, community engagement, data analysis and reporting, and more. See Appendix C for a detailed timeline of response efforts at the state and local levels.

²⁶ PHKSC, COVID-19 After Action Report, [\[LINK\]](#)

COVID-19's Inequitable Burden on Older, Disabled, Black, Indigenous, and other People of Color – The COVID-19 pandemic, like many health conditions, revealed the impact of structural racism in American healthcare and society. Racism against people of Asian descent significantly increased during the pandemic, with a documented 77 percent rise (N= 279) in hate crimes against Asian people living in the U.S. from 2019 to 2020.²⁷ The CDC stated that, out of the 65 percent of COVID-19 cases in the U.S. where race and ethnicity data were available, Black people accounted for 14 percent of deaths related to COVID-19, despite making up only 13 percent of the total population. Hispanic/Latinx people represent 24 percent of COVID-19 cases, despite only making up 18 percent of the US population. In King County, in mid-2022 age-adjusted death rates of confirmed cases were highest among residents who were Native Hawaiian/Pacific Islander (749 per 100,000), American Indian/Alaska Native (452 per 100,000), Hispanic/Latinx (260 per 100,000), and Black (219 per 100,000). Rates for most communities of color were several times higher than among White residents (106 per 100,000). People who were incarcerated also experienced a higher burden of the disease than non-incarcerated individuals. In 2020, 40 of the 50 biggest outbreaks of COVID-19 in the U.S. occurred in prisons. People with disabilities experienced unique impacts due to health inequity during the COVID-19 pandemic, as a lack of appropriate data collection and accessibility barriers in information, testing, and vaccination exposed them to greater disparities in the public health response.²⁸

Responding to Multiple Emergencies at the Same Time – Public Health's first response to COVID-19 in January 2020 took place while a hepatitis A outbreak and a seasonal influenza outbreak were underway. Healthcare systems were reporting high patient loads and stress prior to the arrival of COVID-19 locally. Starting with a cold weather event in the early winter of 2021, Public Health and emergency response partners needed to respond to multiple on-going emergencies at the same time as COVID-19, including extreme heat events, cold weather, mpox (the disease formerly known as monkeypox),^{29, 30, 31} and wildfire smoke incidents.

Key Current Conditions: In October 2023, the CDC classification of COVID-19 community transmission level in King County was low, but the virus was still present and causing illness, hospitalizations, and deaths. In October 2023, an average of 25 new cases were reported every day (although public health experts agree that this is likely an undercount, as reporting is not required and fewer people are testing), three people were hospitalized daily, and one person died on average from COVID-19 per day. COVID-19 continued to be most prevalent among older residents and among Black, Indigenous, and other people of color. For example, those over age 65 were three times more likely to be hospitalized and those over 80 years were 13 times more likely to be hospitalized than the county population average (30.5 hospitalizations per 100,000 residents for those 80 years and older, versus 2.3 hospitalizations per 100,000 residents for the county population as a whole). Unvaccinated residents were almost four times more likely (N=147 hospitalizations in the last 90 days) to be hospitalized with COVID-19 compared to those who had been vaccinated. American Indian/Alaska Native residents were

²⁷ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

²⁸ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

²⁹ WHO Recommends New Name for Monkeypox Disease <https://www.who.int/news/item/28-11-2022-who-recommends-new-name-for-monkeypox-disease>

³⁰ Mpox is a disease caused by a virus, often with a rash or flu-like symptoms. Infections with the strain of mpox virus identified in the U.S. are rarely fatal and most people recover in 2-4 weeks. [\[LINK\]](#)

³¹ King County, Executive Constantine Proclaims a Local Public Health Emergency for Monkeypox (*now called mpox*), August 19, 2022, [\[LINK\]](#)

three times more likely to be hospitalized than the county average. Black residents were 53 percent (N=16 patients in the last month) more likely to be hospitalized than the county average.³²

Alignment with King County Executive Priorities, County Ordinances, and Declarations: This report and the two reports in its appendices are aligned with the 2008 King County Equity and Social Justice Ordinance 16948, the King County Equity and Social Justice Strategic Plan,³³ and the 2020 King County declaration that racism is a public health crisis.³⁴ Public Health has documented the harms of racism and ableism in its COVID-19 after action reviews, made changes in its response protocols, and included recommendations to continue improving emergency response equity.³⁵ A King County Auditor’s report in 2022 highlighted inequities in the COVID-19 response, “Emergency Preparedness Limited by Planning Gaps.”³⁶ As a result, Public Health updated its Equity Response Annex in June 2023.³⁷ The Equity Response Annex provides detailed plans about how to integrate equity into HMAAC operations. Public Health continues to strive to implement its emergency preparedness vision of a community resilient to the health impacts of disasters.

Report Methodology: This report was written by Public Health staff. The report relies on two documents to fulfill the Motion’s requirements: 1) a response plan addressing all CDC pandemic phases is included in the updated Biological Incident Response Annex in Appendix B and 2) the identification of critical infrastructure and recommendations to fill these gaps are included and are based on the PHSKC COVID-19 After Action Report in Appendix C. The updated Biological Incident Response Annex in Appendix B also includes other information and strategies that are appropriate to consider for future emergency responses. The report was written in coordination with the King County Office of Emergency Management (KCOEM), as was the Biological Incident Response Annex. KCOEM staff also contributed to the development of the PHSKC COVID-19 After Action Report (AAR), see Appendix C.

Biological Incident Response Annex Methodology – Staff from several Public Health sections and divisions, including Preparedness, Prevention, Community Health Services, the Office of Equity and Community Partnerships, Communications, the Chief of Nursing, and the Local Health Officer participated in updating the Biological Incident Response Annex, in Appendix B. Public Health staff reviewed all past pandemic influenza response plans, followed current state and federal response plan guidance, and used lessons learned from the COVID-19 response to draft the new plan.

PHSKC COVID-19 After Action Report Methodology – Public Health staff selected and oversaw a consulting firm, Constant Associates, to produce the COVID-19 AAR. Public Health staff on the AAR project team monitored, participated in, and reviewed the consultant’s research, analysis, and findings (see Appendix C). Constant Associates is a health security and emergency management consultant firm. It used standard incident response evaluation principles and best practices consistent with Homeland Security Exercise and Evaluation Program (HSEEP) approaches in its King County COVID-19 after action analysis. Constant Associates reviewed 15 reports and 25 incident action plans. Public Health staff and the consultant conducted 111 interviews of department and partner leadership, including response

³² PHSKC, Current COVID-19 Metrics, Accessed on October 18, 2023, [\[LINK\]](#)

³³ King County, Equity and Social Justice Strategic Plan, [\[LINK\]](#)

³⁴ PHSKC, Racism is a Public Health Crisis, June 11, 2020, [\[LINK\]](#)

³⁵ PHSKC, Equity Response Annex, June 2023, available in English and Spanish, [\[LINK\]](#)

³⁶ King County Auditor, Emergency Preparedness Limited by Planning Gaps, January 11, 2022, [\[LINK\]](#)

³⁷ PHSKC, Equity Response Annex, June 2023, available in English and Spanish, [\[LINK\]](#)

leads. Public Health staff facilitated 48 additional debrief discussions with response team members to collect strengths, areas for improvement, and recommendations for future responses. Two staff surveys also were conducted.

Community and Stakeholder Engagement Informed the COVID-19 After Action Report – Community engagement was carried out in four online town hall meetings with 31 community partners. Stakeholder engagement with emergency response partners through interviews, surveys, and town hall participation also informed the COVID-19 After Action Report. Lists of the COVID-19 After Action Report project team members, community partners, stakeholders, and documents reviewed are in Appendix C.

Recommendations were developed by the Public Health project team, community partners, stakeholders, and the consultant.

IV. Report Requirements

This section is organized to align with the Motion requirements. Note that this section begins with item B rather than A, following the Motion, as item A is directed to the King County Office of Emergency Management and is not addressed in this report.

B. Public health - Seattle & King County, in coordination with the King County office of emergency management, should create a new pandemic response plan and update other relevant planning documents, expanding on the existing Pandemic Influenza Response Plan and other emergency and disaster planning efforts, using lessons learned from the COVID-19 pandemic. The plan should include the following topics, at a minimum:

- 1. A response plan or plans addressing each pandemic phase identified by the Centers for Disease Control and Prevention, including a description of the responsibilities of relevant governmental and nongovernmental agencies in each pandemic phase, both with and without presence of local cases.**

This subsection describes key features of Public Health’s updated pandemic response plan, the King County Biological Incident Response Annex. It addresses each pandemic phase identified by the Centers for Disease Control and Prevention (CDC). The subsection includes descriptions of the responsibilities of relevant governmental and nongovernmental agencies during a pandemic, and notes when there are differences when local cases are present or not.

Updated Pandemic Response Plan: The King County Biological Incident Response Annex

The King County Biological Incident Response Annex (the Annex) is included in Appendix B. The term “biological incident” is more broadly applicable than “pandemic influenza,” because it refers to responses for influenzas, coronaviruses, and other pathogens that may or may not be subject to a declaration of a pandemic.

King County Biological Incident Response Annex Purpose and Goals

The King County Biological Incident Response Annex provides guidance for actions that Public Health and regional partners take before, during, or after a biological incident. Biological incidents are

situations in which a biological agent causes a significant local, regional, or national impact. Biological incidents can include infectious disease outbreaks, identification of another type of pathogen with significant health risks, emergence of a novel infectious disease, or a suspected or confirmed bioterrorism event. The Annex establishes an equity-centered framework for the CDC phases of a pandemic: investigation, recognition, initiation, acceleration, deceleration, and preparation that guide response coordination and decision-making during a response.³⁸ The Annex describes roles and responsibilities, effective communication, and ongoing planning across partners to protect community health and center equity during an outbreak or incident response.

Public Health and regional partners will use the Annex to fulfill the following goals:

- Reduce spread and limit the number of illnesses, hospitalizations, and deaths,
- Prioritize the most disproportionately impacted groups,
- Preserve continuity of essential functions in government, healthcare, education, and business sectors, and
- Minimize societal disruption and economic losses.

King County Biological Incident Response Annex Scope

The Annex is intended for use when the response to a biological incident requires a response exceeding Public Health's Communicable Disease Epidemiology and Immunization Section's routine capacity. It is a supporting document to the ESF #8 Annex of the King County Comprehensive Emergency Management Plan (CEMP).^{39,40}

The Annex may be referenced by Public Health leadership and staff to facilitate effective incident management and a coordinated regional response during all phases of an infectious disease outbreak or other biological incident. An effective response from the County requires timely, equitable, and coordinated use of public health and medical resources, including facilities, personnel, equipment, mental and behavioral health services, information, data, communication systems, pharmaceuticals, and other supplies. The Annex primarily focuses on the roles, responsibilities, and activities of Public Health in preparing for and responding to a biological incident. Specific responsibilities for key partners are included to highlight points of coordination between governmental and non-governmental agencies during a response.

Planning Constraints

The Annex was developed under non-emergency conditions and includes Public Health's general procedures for responding to future biological incidents. Although the Annex attempts to anticipate needs for response to a biological incident, it is impossible to plan for every contingency or every aspect of a response. Public Health plans, including the Annex in Appendix B, are not intended to be prescriptive, but rather to guide equitable decision-making, response operations, and resource allocations used by leaders. The Annex provides a detailed starting point for incident management and

³⁸ CDC, Pandemic Intervals Framework, Nov 3, 2016, [\[LINK\]](#)

³⁹ King County Office of Emergency Management, King County Comprehensive Emergency Management Plan, 2020, [\[LINK\]](#)

⁴⁰ The King County Comprehensive Emergency Management Plan (CEMP) is organized into a basic plan, Emergency Support Function (ESF) annexes, and various appendices, in accordance with federal guidance provided by the Federal Emergency Management Agency (FEMA).

response, and Public Health staff who adapt or implement the Annex should maintain flexibility for action and innovation to best meet community needs during the response to a biological incident.

Annex Maintenance

The King County Biological Incident Response Annex will be regularly updated through an iterative process and may include the addition of operational guides, processes, and/or templates. The revision process will include on-going engagement with community advisory groups and relevant Public Health staff.

Following any activation of the Annex, Preparedness staff in Public Health will seek feedback on the response from other staff, community partners, and other key response partners across the county. Preparedness staff will share findings from the evaluation process with those involved in and impacted by the event. The King County Biological Incident Response Annex will be updated regularly based on feedback and items outlined in future AARs. This process uses continuous quality improvement methods to incorporate lessons learned and address recommended improvements.

Pandemic Phases Identified by the CDC

This subsection addresses the pandemic phases identified by the Centers for Disease Control and Prevention (CDC) and includes descriptions of the responsibilities of government and non-government entities.⁴¹ When the response varies depending on the presence or absence of local cases, it is noted below.

Table 1. CDC Pandemic Phase Summary Table

CDC Pandemic Phase	Plan Focus
Investigation	When a novel virus or other cause of a biological incident (in this table referred to as a virus) is identified and poses a health risk to humans, public health actions focus on monitoring and investigation. A risk assessment of the virus is conducted to evaluate the potential to cause a pandemic.
Recognition	When increasing numbers of human cases of an illness are identified and the virus has the potential to spread from person-to-person, public health actions focus on monitoring and control of the outbreak, including data collection, analysis, and reporting, and treatment of sick persons.
Initiation	A pandemic occurs when people are easily infected with a new virus that can spread in a sustained manner from person-to-person.
Acceleration	There is an upward acceleration (or “speeding up”) of the epidemiological curve as the new virus infects susceptible people. Public health actions focus on the use of appropriate non-pharmaceutical interventions in the community (e.g., use of PPE, environmental measures and physical distancing including potential facility closures), as well as the use of medications (e.g., antivirals) and vaccines, if available. Effective implementation of these combined actions can reduce the spread of the disease and prevent illness or death.
Deceleration	The deceleration (or “slowing down”) stage happens when cases consistently decrease in the U.S. Public health actions include continued

⁴¹ CDC, Pandemic Intervals Framework, Nov 3, 2016, [\[LINK\]](#)

CDC Pandemic Phase	Plan Focus
	vaccination, monitoring the virus circulation and illness, and phasing out the use of non-pharmaceutical interventions in the community.
Preparation	When the pandemic has subsided, public health actions include continued monitoring of infectious disease activity and preparation for potential additional waves of infection. An influenza pandemic, for example, is declared ended when data show that the virus has a similar spread and severity as a seasonal influenza virus.

Appendix B provides additional detail for these phases. It includes objectives and strategies for relevant biological incident emergency response operations such as data collection, analysis and reporting functions; isolation and quarantine; testing; therapeutics; and vaccination.

Authorities and Responsibilities of Government Agencies

The Washington State Governor, the State Board of Health, the State Secretary of Health, the King County Executive, the local Board of Health, the executive heads of cities and towns, and the Local Health Officer each have authorities and responsibilities to protect the public's health when responding to a pandemic, as provided by Washington State, King County, and municipal statutes. Synopses of these authorities and responsibilities are below, with additional detail in Appendix B.

Table 2. Responsibilities of Relevant Governmental Agencies

Government Entity/Agency	Responsibility	Authorizing Statutes
Washington State Governor	<ul style="list-style-type: none"> May proclaim a state of emergency after finding that a disaster affects life, health, property, or the public peace. May assume direct operational control over all or part of local emergency management functions if the disaster is beyond local control. Has the authority to restrict public assembly, order periods of curfew, and prohibit activities that they believe should be prohibited to maintain life and health after proclaiming a state of emergency. 	RCW 43.06.010(12) RCW 38.52.050 RCW 43.06.220
State Board of Health	<ul style="list-style-type: none"> May adopt rules to protect the public's health, including those for isolation and quarantine and the prevention and control of infectious diseases. State Board of Health rules are enforced by local boards of health, health officials, law enforcement officials, and other officers of the state or any county, city, or town. 	RCW 43.20.050(2) RCW 43.20.050(4)

Government Entity/Agency	Responsibility	Authorizing Statutes
State Secretary of Health	<ul style="list-style-type: none"> Enforces laws for the protection of the public's health, and enforces rules, regulations, and orders of the State Board of Health. Investigates outbreaks and epidemics and advises Local Health Officers about measures to prevent and control outbreaks. Enforces public health laws, rules, regulations, and orders in local matters when there is an emergency, and the local Board of Health has failed to or is unable to act with sufficient promptness or efficiency. 	RCW 43.70.130(3) RCW 43.70.130(5) RCW 43.70.130(4)
King County Executive	<ul style="list-style-type: none"> May proclaim a state of emergency within King County when extraordinary measures are necessary to protect public peace, safety, and welfare. Has the authority to impose curfews, close any or all private businesses, close public buildings and places, including streets, alleys, schools, parks, beaches, and amusement areas if they are imminently necessary for the protection of life and property after proclaiming a state of emergency. 	K.C.C. 12.52.030.A K.C.C. 12.52.030.B
King County Board of Health	<ul style="list-style-type: none"> Supervises matters pertaining to the preservation of the life and health of the people within King County. Enforces, through the Local Health Officer, state public health statutes and State Board of Health and Secretary of Health rules. May enact rules, regulations, and enforcement methods to preserve and promote the public's health. 	RCW 70.05.035 RCW 70.05.060 RCW 70.05.060(1) RCW 70.05.060(3)
Mayor of Seattle	<ul style="list-style-type: none"> May proclaim a state of civil emergency within the city when extraordinary measures are necessary to protect public peace, safety, and welfare. May impose curfews, close business establishments, close public buildings and places including streets, alleys, schools, parks, beaches, and amusement areas, direct the use of public and private health, medical, and convalescent facilities and equipment to provide emergency health and medical care for injured persons, and proclaim any such orders as are necessary for the protection of life and property after proclaiming a civil emergency. 	SMC 10.02.010.A SMC 10.02.020
Suburban City Executive Heads	<ul style="list-style-type: none"> May exercise emergency functions per state law. May have additional emergency powers and authorities in their municipal codes. 	RCW 38.52.070 Municipal codes

Government Entity/Agency	Responsibility	Authorizing Statutes
Local Health Officer	<ul style="list-style-type: none"> Enforces the public health statutes of the state, rules of the State Board of Health and the Secretary of Health, and local health rules, regulations, and ordinances within King County. Takes actions necessary to maintain health and sanitation, and control and prevent the spread of dangerous, contagious, or infectious diseases in King County. Informs the public about the causes, nature, and prevention of disease and disability and the preservation, promotion, and improvement of health within King County. 	RCW 70.05.070(1) RCW 70.05.070(2) RCW 70.05.070(3) RCW 70.05.070(4)

In addition, public health governmental agencies have specific responsibilities during an infectious disease response or pandemic. These public health responsibilities are carried out in a coordinated way among local, state, national, and global entities. As above, synopses follow, and additional detail is in Appendix B.

Public Health – Seattle & King County, Health and Medical Area Command (HMAC)

1. Facilitate countywide pandemic planning and preparedness efforts.
2. Coordinate the community's emergency public health response through Emergency Support Function #8 – Public Health, Medical, and Mortuary Services and the Regional Disaster Coordination Framework.
3. Provide trainings for HMAC staff and responders on their role and topics such as Incident Command System (ICS), HMAC operations, the Washington System for Tracking Resources, Alerts, and Communications (WATrac), and ESF #8 plans and functional annexes.
4. Educate the public, healthcare system partners, response partners, businesses, schools, childcare centers, community-based organizations, and elected leaders about pandemics, expected impacts and consequences, and preventive measures.
5. Monitor and ensure the safety and well-being of Public Health responders and other public health staff.
6. Conduct county-wide surveillance to track the spread of the human disease and its impact on the community. When indicated, through liaisons with veterinary, agriculture, and wildlife agencies, facilitate disease surveillance in animals in King County and monitor surveillance data.
7. Identify and declare diseases of public health significance during a biological incident and communicate such declarations to health system partners.
8. Coordinate processes for medical countermeasures (medicines and medical supplies), including requesting, distribution, and dispensing and administration of these, with healthcare system, state, and federal partners.
9. Coordinate the implementation of non-pharmaceutical interventions including identifying personal protective equipment (PPE) supply needs and stockpiling.
10. In partnership with the Northwest Healthcare Response Network and the Medical Examiner's Office, support the healthcare system's planning and response efforts for medical surge capacity including mass casualty and mass fatality incidents.

State Department of Health

1. Coordinate statewide pandemic planning and preparedness efforts.
2. Coordinate statewide surveillance activities.
3. Operate a CDC Laboratory Response Network public health reference laboratory for testing of novel pathogens.
4. Coordinate submission of pandemic epidemiological data to the CDC and dissemination of statewide data and situation updates to local health jurisdictions.
5. Provide state assistance, when available, and request federal assistance to support the local health and medical response.
6. May receive medical countermeasures from the Strategic National Stockpile (SNS) and immediately distribute these supplies or facilitate direct shipments to Public Health, first responders, or healthcare providers.
7. Educate and inform the public on the course of the pandemic and preventive measures in coordination with local partners.

U.S. Department of Health and Human Services

1. Provide overall guidance on pandemic planning within the United States.
2. Coordinate the national response to a pandemic.
3. Provide guidance and tools to promote pandemic preparedness planning and coordination for States and local jurisdictions.
4. Provide guidance to state and local health departments regarding prioritization of limited supplies of antiviral medications and vaccines.
5. Facilitate development of treatments, vaccines, and other medical countermeasures.

Centers for Disease Control and Prevention

1. Conduct national and international disease surveillance.
2. Serve as a liaison to the World Health Organization.
3. Develop reference strains for vaccines and conduct research to understand transmission and pathogenicity with pandemic potential.
4. Develop, evaluate, and modify disease control and prevention strategies.
5. Investigate pandemic outbreaks and define the epidemiology of the disease.
6. Monitor the nation-wide impact of a pandemic.
7. Coordinate the stockpiling of antiviral drugs and other essential materials within the Strategic National Stockpile.
8. Coordinate the implementation of international – U.S. travel restrictions.
9. Provide updated pandemic response guidance to state and local health departments.

World Health Organization

1. Monitor global pandemic conditions and provide information updates.
2. Facilitate enhanced global pandemic preparedness, surveillance, vaccine development, and health response.
3. Declare global pandemic phase and adjust phases based on current outbreak conditions.
4. Provide international guidance on responding to the situation.

Responsibilities of Non-Governmental Entities

Healthcare system entities have specific responsibilities during a pandemic.⁴² These include:

Local Hospitals, Clinics, Providers, and other Health System Partners

1. During a pandemic, employ all efforts to sustain the functionality of the healthcare system, including, if necessary:
 - Prioritize the provision of healthcare services to patients with urgent health problems.
 - Take steps to increase healthcare system capacity for patients who would normally require inpatient care.
 - Mobilize, reassign, and deploy staff within and between healthcare facilities to address critical shortfalls.
 - Implement patient triage and resource management processes.
 - Implement crisis standards of care framework.
 - Provide alternative mechanisms for patients to address non-urgent healthcare needs such as telephone and internet-based (telehealth) consultation.
2. Maximize the healthcare system's ability to provide medical care during a pandemic by working with the Northwest Healthcare Response Network, including:
 - Identify and prioritize response and resource issues affecting the county-wide health system during a pandemic.
 - Develop mechanisms to efficiently share information and resources between the healthcare system and HMAC and relevant emergency operations centers, as appropriate.
 - Assure that healthcare professionals receive relevant communications from HMAC in a timely and efficient manner.
 - Serve as convener of healthcare system leadership to facilitate outbreak response and coordination and/or address specific response needs at the request of Public Health.
3. Hospitals and other healthcare facilities must develop pandemic response plans consistent with the healthcare planning guidance contained in the U.S. Department of Health and Human Services Pandemic Influenza Plan.⁴³ Healthcare facility pandemic response plans address medical surge capacity and resource management and conservation to sustain healthcare delivery and communication capabilities when routine systems are overwhelmed.
4. Hospitals may screen and/or limit individuals from entering the hospital.
5. Healthcare facilities and healthcare providers will participate in local influenza and when requested, novel pathogen surveillance activities.
6. Hospitals will develop infection control plans to triage and isolate infectious patients and protect staff from disease transmission.

Effective coordination and collaboration among these government and non-governmental agencies takes place in an organized way through HMAC during an emergency response as described more in Appendix B.

⁴² U.S. Centers for Medicare and Medicaid Services, 2021, [\[LINK\]](#)

⁴³ U.S. DHHS, HHS Pandemic Influenza Plan, 2005, [\[LINK\]](#)

2. Identification of critical infrastructure or resources that are currently lacking that would be required in order to respond to pandemics, the barriers to acquiring or developing the infrastructure or resources and recommendations for how to fill these gaps

This subsection identifies critical infrastructure and other resources currently lacking or insufficient that would be required to respond to future pandemics or other biological incidents. This subsection also describes barriers to acquiring needed capacity and makes recommendations for how to fill these gaps. This subsection draws on the Biological Incident Response Annex in Appendix B and the PHSKC COVID-19 After Action Report in Appendix C.

Critical Infrastructure: Resources Required to Respond to Pandemics

Critical infrastructure refers to the people, supplies, systems, relationships, and other resources needed by Public Health to carry out a response. Existing resources may need to be diverted from their usual applications and/or responsibilities to support an emergency response. When sufficient critical infrastructure, such as personnel, facilities, equipment, supplies, and funding are not available, it delays both Public Health's emergency response and partners' abilities to carry out response operations and provide support to affected communities.

During the initial stages of a biological incident, there may be an opportunity to contain or significantly delay the spread of the disease. It is critical to quickly and adequately resource priority strategies to implement response measures and help prevent systems from being overwhelmed.⁴⁴

Critical infrastructure must be supported by standard emergency response organizational structures, decision-making frameworks, and information sharing networks to function effectively. Given evidence from local, regional, and national responses to infectious disease outbreaks in the past, insufficient critical infrastructure and the corresponding potential adverse consequences can include:⁴⁵

- *Isolation and Quarantine (IQ)* – Inadequate supply of IQ sites and services (such as hotel, motel, and adult family home space) and staff (to assess eligibility for and arrange IQ for those meeting criteria, offer transportation, and monitor those in IQ) can cause response challenges and barriers to using IQ sites. In addition, staff with behavioral health training to triage and support complex guest needs are needed at most IQ sites.
- *Equity and Community-centered Processes* – Funding and training opportunities during a response are limited for Public Health staff to practice developing community- and accessibility-centered approaches and are best done before a response. Limited funding and community engagement expertise can lead to members of the public not being informed or not understanding prevention and treatment strategies. Limited contract funds, staffing, translation, and technical advisor positions can be barriers to implementing the identified equity objectives and strategies in Appendix B.

⁴⁴ Prevent Epidemics, 2020, Box It In, [\[LINK\]](#)

⁴⁵ U.S. DHHS Administration for Strategic Preparedness and Response, COVID-19 After Action Report Resources and Examples, January 2023, [\[LINK\]](#)

- *Guidance and Information* – Limited Public Health resources to support translation, interpretation, and culturally appropriate outreach needs can create gaps in the public’s awareness about the pandemic and how to respond. Limited existing translations of key infectious disease response information also can cause awareness and information gaps. Limited support for this area can result in a lack of funding for community liaison positions who work on equitable and effective implementation of pandemic response strategies. Similarly, gaps in this area can result in under-funded public information contact center (call center) operations, which were in great demand during the COVID-19 response. Gaps in this area also can restrict the department’s ability to share information rapidly and stay up to date with evolving response information.
- *Care Coordination* – Limited staff and resources for care coordination (connecting people to social services and basic needs resources) can result in missing information about when to launch *Emergency Support Function #6 – Mass Care, Emergency Assistance, Housing, and Human Services* during the early stages of infectious disease spread. These gaps can also cause inadequate transportation, housing, and human services contracts, resources, and staffing in an ongoing response.⁴⁶
- *Surge Staffing* – Gaps in Public Health’s capacity to increase staff in line with pandemic surges can result in limited foundational core capacity staffing; budget constraints; employee scope limitations and reassignment limitations; limited capacity to convene and manage private sector partners, and limited mechanisms for training and reassignment.
- *Medical Countermeasures* – Insufficient supply of medical countermeasures (such as supplies, medications, and vaccines) can lead to conflicting decision-making authority about how to prioritize limited testing, treatment, and vaccination resources; limited resources to support Public Health-led distribution, dispensing, and administration directly to partners’ communities; Public Health laboratory and clinic service capacity limitations, and challenges to coordinating with DOH and nearby local health jurisdictions in regional efforts and resource prioritization and allocation.

Policies, funding, and improved critical infrastructure in the above areas can support faster, more effective, and more equitable biological incident response operations across King County.

Strengths in the COVID-19 Response

Before identifying gaps in infrastructure, this subsection highlights many strengths in King County’s COVID-19 response including: collaboration across county departments, the creation of the nation’s first civilian isolation and quarantine system, ambitious initial vaccine goals and accomplishments among all race/ethnicity groups, informative and timely data dashboards, an equity-oriented Community Mitigation and Recovery branch, and one of the lowest death rates due to COVID-19 out of the 20 largest metropolitan areas in the US.⁴⁷

⁴⁶ U.S. FEMA, Emergency Support Function #6 – Mass Care, Emergency Assistance, Housing, and Human Services Annex, January 2008, [\[LINK\]](#)

⁴⁷ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

Public Health developed two documents to guide key operational elements of the response — the King County Unified Strategy for Vaccine Delivery and Principles for Equitable Vaccine Delivery. These were made public, and they reflected the strength of government and decision-maker collaboration during the response.

COVID-19 Response by the Numbers

The County’s COVID-19 pandemic entailed responses many times larger and more intense than previous emergency responses in recent decades. In addition to the numbers in the Context section on pages 7 and 8, other examples include:

- King County testing sites conducted more than 200,000 tests in 2020, and by March 2021, testing sites had conducted 1 million polymerase chain reaction (PCR) tests. In January 2022, an average of over 11,000 tests were being performed daily at testing sites.⁴⁸
- In 2020, PHSKC’s Language Access team translated information on 375 topics, resulting in 4,200 translated documents, working with 88 translators in 33 languages.⁴⁹
- In early 2021, the Public Health call center averaged 700 to 1,000 calls per day. The call center reached a new single-day call record on January 3, 2022, with 1,600 calls answered.⁵⁰
- Public Health met and exceeded an ambitious goal of vaccinating 70 percent of eligible residents by vaccinating 77 percent (N=1.5 million) of all eligible King County residents on September 1, 2021. This rate was achieved within the first five months of vaccines being available to those over 16 years old.⁵¹
- By February 2022, King County had distributed more than 1.4 million N95s, 3.7 million surgical masks, 20 million gloves, and 1.6 million gowns to long term care facilities, health clinics, first responders, congregate settings, community-based organizations, and other critical care agencies.⁵²

Gaps

Despite King County’s successes around the COVID-19 pandemic, some critical infrastructure and resources were lacking in the COVID-19 response.

Disability Access

People with disabilities experienced gaps regarding translation and interpretation services, gaps in testing and vaccine site accessibility in early phases of the pandemic, inadequate disability representation on public health data dashboards, and limited transportation options to obtain COVID-19 resources.

⁴⁸ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁴⁹ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁵⁰ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁵¹ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁵² PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

The distribution of information through internet technology created another limitation identified in the COVID-19 After Action report. Some AAR contributors noted that pictorial or video versions of information could have reached a larger audience, including those with disabilities.⁵³

Public Health used the demographic data available to it to guide decision-making on how to prioritize scarce resources and serve the public. However, data on disability status is not routinely collected or reported and people with disabilities did not appear on dashboards due to these data limitations. Tracking the vaccination and testing rates of people with disabilities in the future would help Public Health understand this part of the community more fully.⁵⁴

Racial and Ethnic Representation

Another gap in the County's critical public health infrastructure was the limited number of Black, Indigenous, and other people of color in Public Health and in the Public Health Reserve Corps. A more racially and ethnically diverse and representative Public Health staff and Reserve Corps volunteers could contribute to building trust with communities, resulting in improved language access and more insightful planning for people with disabilities and other groups for future events. Similarly, a lack of racial equity training across all activated staff left some connections with community members untapped, thereby missing their perspectives from emergency response conversations.

Overwork and Responder Stress

Public Health teams widely reported that they were overwhelmed with workload during many phases of the COVID-19 pandemic. Response demands often outpaced Public Health resources. For example, many Public Health employees, particularly early in the response, worked 80–100-hour work weeks, often going months without a day off. Unprecedented demands on Public Health and other response staff demanded long hours. For example, in January 2022, department outbreak investigators were supporting 467 active outbreaks and had closed 407 facility investigations in the prior two weeks.⁵⁵ The contact tracing team interviewed 90 percent of named contacts in the community and conducted approximately 500 investigations per week.⁵⁶ Reluctant to take time away from the job, many felt they could not reduce their workloads, take needed breaks, nor address their physical, emotional, or mental health needs.

Additional Strengths and Areas for Improvement for the COVID-19 Response

The COVID-19 After Action Report in Appendix C details strengths, areas for improvement, and areas of mixed findings for the key components of the emergency response, including incident management, epidemiological investigation and surveillance, equity and community partnerships, public information, healthcare system support, isolation and quarantine, resource management, the public information contact center, community-based initiatives, testing, fatality management, vaccination, Public Health internal operations, and responder safety and health.⁵⁷ Highlighted findings from the COVID-19 After Action Report are below, with details presented in Appendix C.

⁵³ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁵⁴ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁵⁵ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁵⁶ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁵⁷ PHSKC, COVID-19 After Action Report, pages 49 to 119, [\[LINK\]](#)

Table 3. Significant Strengths and Areas for Improvement for the COVID-19 Response, King County, WA, 2020 through 2022

Response	Strengths	Areas for Improvement
Incident Management	<ul style="list-style-type: none"> • HMAC consistently used standard emergency response processes. • HMAC coordinated effectively with multiple partners. 	<ul style="list-style-type: none"> • Designate an ADA coordinator. • Greater speed establishing priorities to support timely response. • Familiarize all staff with incident management structure.
Epidemiological Investigation and Surveillance	<ul style="list-style-type: none"> • The Analytics and Informatics team scaled data reporting in unprecedented ways. • Created informative COVID-19 Dashboards. • Strong teamwork and adaptability. 	<ul style="list-style-type: none"> • Establish interoperability between state and county data for contact tracing. • Include categories, such as disability, housing, detailed race/ethnicity groups, and LGBTQ+ status in notifiable conditions data.
Equity and Community Partnerships	<ul style="list-style-type: none"> • Leveraged existing relationships to share information. • Distributed resources and information to community-based and faith-based organizations. 	<ul style="list-style-type: none"> • Provide translation and interpretation for people with disabilities. • Establish stronger connections with tribes, especially at the pandemic's onset, were needed.
Public Information	<ul style="list-style-type: none"> • Positive relationships with subject matter experts, media, community media, social media, and external communications teams contributed to effective communications through many channels. 	<ul style="list-style-type: none"> • Streamline hiring and contracting processes to speed up communications operations.
Healthcare System Support	<ul style="list-style-type: none"> • Hospitals, medical directors, and emergency medical services (EMS) coordinated effectively as the pandemic progressed. 	<ul style="list-style-type: none"> • Ensure coordination between EMS and emergency preparedness teams. • Establish county-specific regional medical surge plan.
Isolation and Quarantine	<ul style="list-style-type: none"> • Coordinated communication channels, daily huddles and progress tracking, a centralized scheduling system, and strong leadership were key elements of the IQ team's success. • Guests at IQ sites received integrated behavioral health, medical care, and harm reduction services. 	<ul style="list-style-type: none"> • Develop staffing, logistics, and information technology support to meet 24/7 operational needs. • Determine staffing forecast approach to match patient surge needs.
Resource Management	<ul style="list-style-type: none"> • The Logistics and Supply Management team created effective standard ordering processes, forms, and job action sheets. 	<ul style="list-style-type: none"> • Scale contracting operations. • Secure adequate supplies, including personal protective equipment, as quickly as possible.
Public Information Contact Center (PICC)	<ul style="list-style-type: none"> • Staff were obtained from many partners, such as registered and student nurses, Peace Corps volunteers, and the Public Health Reserve Corps. 	<ul style="list-style-type: none"> • Prioritize information technology tools to PICC operations.

Response	Strengths	Areas for Improvement
Community-Based Initiatives	<ul style="list-style-type: none"> New services for businesses, such as Vax Verify, Safe Start, and Ventilation and Air Quality programs, were developed quickly. Technical assistance, supplies, and some cost reimbursements were offered. 	<ul style="list-style-type: none"> Communicate mandates and requirements to businesses.
Testing	<ul style="list-style-type: none"> Teams established partnerships across agencies, jurisdictions, and labs to meet the needs of testing sites. Recommendations from community partners helped inform where sites were located. 	<ul style="list-style-type: none"> Familiarize team members with ICS processes. Establish plans for setting up and scaling testing sites. Strengthen coordination and communication across the laboratory system.
Fatality Management	<ul style="list-style-type: none"> Pre-pandemic planning for mass fatality incidents created relationships and a foundation for the Medical Examiner's Office (MEO) response. 	<ul style="list-style-type: none"> Streamline and clarify data reporting structures to support data reporting.
Vaccination	<ul style="list-style-type: none"> The vaccine delivery team enacted a community-centered approach, a critical factor for the success of vaccine operations. Healthcare system partners and volunteers staffed clinics worked in coordinated ways. King County IT and county departments selected and implemented a vaccine registration system. 	<ul style="list-style-type: none"> Ensure consistent messaging to reduce confusion on the ground. Eliminate language access and disability accessibility barriers at vaccine sites. Increase mobile vaccination teams.
Public Health Internal Operations	<ul style="list-style-type: none"> Public Health created multi-disciplinary teams to implement complex strategies, such as vaccinations and tests for people experiencing homelessness, and the creation of facility ventilation guidance. 	<ul style="list-style-type: none"> Recognize impacts of workload demands on staff capacity Create predictability in disaster response funding levels.
Responder Safety and Health	<ul style="list-style-type: none"> The Safety Officers offered on-site counseling, safety guidance, and therapy dog visits, as well as online support meetings and wellbeing surveys. Security teams supported staff working in the field. 	<ul style="list-style-type: none"> Include Safety Officers in program design phases where relevant. Structure work such that team members can access mental and physical health wellbeing resources.

Source: COVID-19 After Action Report, September 2022. [\[LINK\]](#)

Barriers to Acquiring Resources

After making emergency declarations for COVID-19, authorities simplified many funding, contracting, and hiring processes to facilitate a swift flow of resources to the response efforts. However, some barriers to acquiring resources for the response remained despite the availability of funds. These included documenting compliance with complex reimbursement rules and following all steps in hiring processes.

Hiring and Onboarding Constraints – Hiring and onboarding were critical to scaling up the workforce to meet public health response needs, however these processes faced organizational challenges. While recognizing the unprecedented nature of the pandemic, we experienced notable administrative burdens and significant time constraints associated with filling positions. Public Health’s front line responders were taken away from emergency response responsibilities to complete administrative hiring processes. After hiring, many new staff reported they did not receive adequate onboarding information. These barriers limited scalability and contributed to staff burnout.

Lack of “Bridge Funding” – Over the years, public health as a field has often experienced a boom-and-bust cycle of funding: during and immediately after emergencies, public health emergency response funds are allocated, but as the emergency recedes, funding recedes. Planning activities are among the first to be reduced during times of budget shortfalls. Pandemic and other biological incident response planning, including continuity of operations planning, merit bridge funding to ensure that robust, current, equitable, and well-informed plans are in place when most needed. Bridge funding refers to local, state, or federal funding that is allocated between larger emergencies, such as pandemics. The federal public health infrastructure grants are examples of bridge funding.⁵⁸

Recommendations to Fill These Gaps

Based on the findings of the COVID-19 After Action Report, Public Health has identified four types of recommendations intended to improve future infectious disease and other biological incident responses. These recommendations are in the categories of building trust through relationships and communications; customizing emergency response actions to specific groups to prevent inequitable outcomes; continuing to improve emergency response operations by using standard processes and coordination methods, and adding workforce flexibility to surge in response to pandemic peaks and crests. Within these four areas, more specific recommendations are to:

1. *Develop Relationships and Building Trust* – Support, leverage, and formalize relationships developed during the COVID-19 response. Continue to regularly convene community partner organizations to strengthen partnerships. Invite partners to join emergency planning activities. Utilize two-way communication strategies to encourage partnerships with subject matter experts and community leaders.
2. *Improve Equity and Customizing Response* – Emergency response structures and approaches must include tailored actions and information to equitably serve communities, including Black, Indigenous, other people of color, people with disabilities, and King County residents in less resourced locations. Improve the diversity of the Public Health Reserve Corps. Designate an internal team, such as the Equity Response Team, to conduct initial equity reviews of proposed Public Health policies and programs. Ensure that continued work with community leaders includes compensation.
3. *Fine Tune Operations* – Improve the use of response plans and standard processes during a response and continue to improve cross-team coordination capacities. Evaluate innovations that worked well during COVID-19 and determine how they can be documented for use in the future. Establish standard ways for the logistics team to cover inventory tracking, shipping, and

⁵⁸ CDC, Public Health Infrastructure Grant, August 2023, [\[LINK\]](#)

handling before initiating distribution. Formalize incident command system refresher training processes for staff. Review structures to promote greater internal, cross-team coordination to help response teams stay aligned with changing guidance and awareness of activities being led by other teams.

4. *Increase Workforce Flexibility* – Increase Public Health’s capacity to hire and deploy staff on a surge basis and do more to ensure first responder staff safety. Use dedicated hiring staff rather than program staff working on the frontline to carry out hiring and onboarding tasks. Develop job responsibilities and roles needed for human resources as part of the workforce mobilization team. Improve Public Health’s capacity to hire, retain, and promote diverse staff. Make organization policy changes, such as establishing response priorities, cross-training staff members so staff can cover for others going on break, hiring staff more quickly, and allowing responders to rotate out of the response more frequently to better meet individual self-care needs.⁵⁹

Public Health staff and other governmental and non-governmental participants in the COVID-19 response identified these recommendations to help prepare Public Health for future emergencies. The recommendations build on lessons learned from successes and challenges experienced throughout the COVID-19 pandemic response. More detailed recommendations are in the COVID-19 After Action Report.⁶⁰ Efforts to address these recommendations represent important ways for King County to demonstrate its commitment to building a culture of equity and quality improvement and will require significant time and resources to accomplish fully.

V. Conclusion

The first three years of the COVID-19 global pandemic created an unprecedented public health emergency that resulted in thousands of illnesses and deaths, and tested health systems at all levels of government. During this difficult time, the King County Council, the Executive, and Public Health recognized the importance of pausing to reflect and incorporate lessons learned into an updated biological incident response annex. As required by Motion 15650, Public Health, in coordination with KCOEM, created an updated King County Biological Incident Response Annex, as it continues to implement COVID-19 prevention strategies and respond to other emergencies. Public Health identified critical infrastructure and other resources that were lacking, identified barriers to meeting these gaps, and made recommendations to improve responses going forward.

The COVID-19 pandemic spotlighted and exacerbated health inequities that have long been present in the U.S., and resulted in significant racial and ethnic disparities in COVID-19 cases, hospitalizations, and deaths across the country.⁶¹ Public Health and its partners took steps to mitigate the impacts of COVID-19 on individuals and communities disproportionately impacted by COVID-19 with varying degrees of success, even as these communities faced structural racism and social and economic

⁵⁹ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁶⁰ PHSKC, COVID-19 After Action Report, [\[LINK\]](#)

⁶¹ PHSKC, COVID-19 After Action Report, September 2022, [\[LINK\]](#)

vulnerabilities. The COVID-19 After Action Report and the Equity Response Annex address these complex issues more fully.^{62,63}

While emergency response processes cannot address health inequities fully, they must continually adapt to be more equitable to Black, Indigenous, other people of color, people with disabilities, and King County residents in less resourced locations. Continued improvements in equitable response planning and intentional strategy design — in partnership with specific populations — are needed, given the racially inequitable outcomes of COVID-19. Public Health recommends allocating adequate funding for staff and community member compensation, so that meaningful relationships and ongoing dialogues can be developed and maintained before, during, and after pandemics with groups at higher risk of poor health outcomes.

In addition, Public Health recommends continuing to develop and streamline standard operational processes during a response, with a focus on improving cross-team coordination capacities. It recommends developing staffing mechanisms that can respond effectively to outbreak surges and decelerations while ensuring first responder safety throughout the response, including ensuring breaks and self-care during long responses.

The COVID-19 response in King County had many strengths and weaknesses. Examining the inequitable outcomes by race/ethnicity and disability status from COVID-19 is critical in assuring equitable emergency response outcomes in the future and advancing King County's equity and social justice goals as laid out in the King County Equity and Social Justice Strategic Plan. These inequitable outcomes exist because there are persistent structurally racist policies and practices in the public health and healthcare systems. Documenting these inequities transparently and working to eliminate them reflects the values of being racially just and of aspiring to make King County a welcoming community where every person can thrive.

VI. Appendices

Appendix A: Motion 15650

Appendix B: King County Biological Incident Response Annex

Appendix C: COVID-19 After Action Report

⁶² PHSKC, COVID-19 After Action Report, September 2022, [\[LINK\]](#)

⁶³ PHSKC, Equity Response Annex, [\[LINK\]](#)

**KING COUNTY**

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report**Motion 15650****Proposed No. 2020-0183.3****Sponsors Dunn**

1 A MOTION requesting that the King County office of
2 emergency management and public health - Seattle & King
3 County work collaboratively to update the King County
4 Comprehensive Emergency Management Plan, the
5 Regional Hazard Mitigation Plan, the Regional
6 Coordination Framework, continuity of operations plans,
7 the King County Continuity of Government Plan and all
8 other relevant emergency management plans and
9 documents to address the risks from and response to
10 pandemics, incorporating lessons learned from the COVID-
11 19 outbreak, and to develop a pandemic response plan for
12 King County.

13 WHEREAS, on February 29, 2020, public health - Seattle & King County
14 confirmed the first cases of the novel coronavirus ("COVID-19"), including one death, in
15 the county, and

16 WHEREAS, COVID-19 is a respiratory disease that can result in serious illness
17 or death and can easily spread from person to person; and is classified by the World
18 Health Organization as a pandemic that spreads easily from person to person and may
19 result in serious illness or death, and

Motion 15650

20 WHEREAS, as of April 23, 2020, King County had reported 5,569 confirmed
21 cases of COVID-19, and at least 384 individuals in King County had died as a result of
22 the virus, and

23 WHEREAS, while COVID-19 is the worst pandemic to affect King County in
24 several generations, the possibility of pandemics of similar or greater impact in the future
25 is omnipresent, and changing climatic conditions are expected to multiply the threat of
26 zoonotic and other pandemics, and

27 WHEREAS, the mission of the office of emergency management is "to provide
28 for the effective direction, control and coordination of county government emergency
29 services functional units, and to provide liaison with other governments and the private,
30 nongovernmental sector, in compliance with a state-approved comprehensive emergency
31 management plan and to serve as the coordinating entity for cities, county governmental
32 departments and other appropriate agencies, during incidents and events of regional
33 significance," and the office is tasked with developing a comprehensive plan and program
34 for emergency management, and

35 WHEREAS, public health - Seattle & King County is responsible for planning
36 and developing local and regional capacity for responding to public health emergencies
37 and providing for the direction and mobilization of health resources, information and
38 personnel during emergencies and disasters in the county, and

39 WHEREAS, in 2005, Ordinance 15348 required the executive to develop a
40 pandemic influenza response plan, and

41 WHEREAS, Ordinance 15596 adopted the County's Pandemic Influenza
42 Response Plan in 2006, and Ordinance 15986 adopted an updated version of the plan the

Motion 15650

43 following year, and

44 WHEREAS, public health - Seattle & King County has, in the past, developed
45 other planning documents relating to influenza pandemics, such as the Influenza
46 Pandemic Planning Guide for Homeless and Housing Service Providers, and

47 WHEREAS, the COVID-19 pandemic presents an emergency with similar
48 characteristics to a pandemic influenza, with public health responses generally following
49 what is contained in the Pandemic Influenza Response Plan, but future pandemics of
50 different origins may require different responses, and

51 WHEREAS, the King County office of emergency management develops and
52 maintains a number of planning documents, such as the Regional Hazard Mitigation Plan,
53 the Comprehensive Emergency Management Plan, the Regional Coordination
54 Framework, King County continuity of operations plans and the King County Continuity
55 of Government Plan, and

56 WHEREAS, the COVID-19 pandemic is the first real-world test of these plans in
57 a large-scale, global pandemic outbreak affecting King County, and the lessons learned in
58 the outbreak must be used to prepare for future pandemics, whether they be viral,
59 bacterial or parasitic in origin, and

60 WHEREAS, the lessons learned during the COVID-19 pandemic outbreak have
61 application outside pandemic planning and should be used to prepare for other types of
62 emergencies under an all-hazards approach to emergency management;

63 NOW, THEREFORE, BE IT MOVED by the Council of King County:

64 A. The office of emergency management should work with public health - Seattle
65 & King County to update the Comprehensive Emergency Management Plan, the

Motion 15650

66 Regional Hazard Mitigation Plan, the Regional Coordination Framework, King County
67 continuity of operations plans, the King County Continuity of Government Plan and any
68 other relevant emergency management or disaster plans or documents to address the
69 threat of pandemics to King County, using the lessons learned from the COVID-19
70 pandemic and building upon the pandemic response plan described in section B of this
71 motion.

72 B. Public health - Seattle & King County, in coordination with the King County
73 office of emergency management, should create a new pandemic response plan and
74 update other relevant planning documents, expanding on the existing Pandemic Influenza
75 Response Plan and other emergency and disaster planning efforts, using lessons learned
76 from the COVID-19 pandemic. The plan should include the following topics, at a
77 minimum:

78 1. A response plan or plans addressing each pandemic phase identified by the
79 Centers for Disease Control and Prevention, including a description of the responsibilities
80 of relevant governmental and nongovernmental agencies in each pandemic phase, both
81 with and without presence of local cases;

82 2. Identification of critical infrastructure or resources that are currently lacking
83 that would be required in order to respond to pandemics, the barriers to acquiring or
84 developing the infrastructure or resources and recommendations for how to fill these
85 gaps; and

86 3. Any other information or strategies deemed appropriate by public health -
87 Seattle & King County.

88 C. The King County office of emergency management is requested to transmit all

Motion 15650

89 updated plans and documents described in section A of this motion, and a proposed
90 motion acknowledging receipt of the updated plans and documents, by September 1,
91 2022. The plans and documents should be filed in the form of a paper original and an
92 electronic copy with the clerk of the council, who will retain the original and provide an
93 electronic copy to all councilmembers, the council chief of staff and the lead staff to the
94 committee of the whole or its successor.

95 D. Public health - Seattle & King County is requested to transmit the pandemic
96 response plan and other updated documents and a proposed motion acknowledging
97 receipt of the pandemic response plan and other updated documents by September 1,
98 2022. The plan and documents should be filed in the form of a paper original and an
99 electronic copy with the clerk of the council, who will retain the original and provide an
100 electronic copy to all councilmembers, the council chief of staff and the lead staff to the
101 committee of the whole or its successor.

102 E. The King County office of emergency management and public health - Seattle

Motion 15650

103 & King County are requested to provide a briefing to the council on the status of the
104 pandemic response plan and other plan updates no later than September 1, 2021.
105

Motion 15650 was introduced on 5/12/2020 and passed by the Metropolitan King County Council on 7/7/2020, by the following vote:

Yes: 9 - Ms. Balducci, Mr. Dembowski, Mr. Dunn, Ms. Kohl-Welles,
Ms. Lambert, Mr. McDermott, Mr. Upthegrove, Mr. von Reichbauer
and Mr. Zahilay

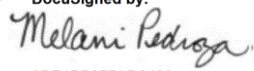
KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

DocuSigned by:

F8830816F1C4427...

Claudia Balducci, Chair

ATTEST:

DocuSigned by:

8DE1BB375AD3422...

Melani Pedroza, Clerk of the Council

Attachments: None

Appendix B: Biological Incident Response Annex

December 2023



EMERGENCY SUPPORT FUNCTION (ESF) #8 ANNEX

VERSION 1.0

DECEMBER 2023

TABLE OF CONTENTS

TABLE OF CONTENTS	2
DOCUMENT USE	3
RECORD OF CHANGES	3
ANNEX INTRODUCTION	4
INCIDENT OVERVIEW	9
AUTHORITIES AND RESPONSIBILITIES	13
INITIAL RESPONSE PROCESS	19
OPERATIONS INTRODUCTION	31
CONCEPT OF OPERATIONS	35
1. EPIDEMIOLOGY, SURVEILLANCE, AND DATA	36
2. HEALTH GUIDANCE AND PUBLIC INFORMATION	41
3. INFORMATION MANAGEMENT	56
4. MEDICAL COUNTERMEASURES.....	61
5. NON-PHARMACEUTICAL INTERVENTIONS.....	71
6. RESPONDER SAFETY AND WELLBEING.....	84
7. TESTING.....	89
DEMOBILIZATION	92
TRANSITION	95
PLAN MAINTENANCE	98
LIST OF ACRONYMS AND ABBREVIATIONS	99



DOCUMENT USE

This document, i.e., the King County *Biological Incident Response Annex* including all affiliated attachments created by Public Health – Seattle & King County (Public Health), represents an integration and modernization of multiple plans including, but not limited to, Public Health’s *Influenza Pandemic Response Plan* and *Medical Countermeasures Plan*. Effective at the publish date, this *Biological Incident Response Annex* will provide the operational guidance moving forward for public health activities in King County within the purpose and scope as defined in the Introduction section. All previous plans have been archived.

This document reflects the best available information and documentation at the time of the initial or most recent publishing. In alignment with the Plan Maintenance section, a Record of Changes will be maintained to keep track of version history, including dates of when changes are implemented and summaries of changes.

RECORD OF CHANGES

Version	Date	Summary of Changes
1.0	11/15/2023	Initial Publication

ANNEX INTRODUCTION

PURPOSE

The *Biological Incident Response Annex* (Annex) provides guidance for actions Public Health and regional partners might take before, during, or after a biological incident. Biological incidents are situations in which an agent of biological origins causes a significant local, regional, or national impact. These may include biological incidents such as outbreaks and pandemics, emergence of a novel infectious disease with significant health risks, or a suspected or confirmed bioterrorism event. “Annexes” are the parts of emergency operations plans that begin to provide specific information and direction. Annexes focus on operations: what the function is and who is responsible for carrying it out.¹

Some biological incidents will require limited response activities from Public Health, manageable with existing resources; other situations will require large-scale response efforts that involve multiple divisions within Public Health and the cooperation and coordination of Washington State Department of Health (DOH), tribal nations, neighboring jurisdictions, other King County departments, and additional Emergency Support Function #8 – Public Health, Medical, and Mortuary Services (ESF #8) partners.

Emergency proclamations at all levels of government will be implemented for bioterrorist incidents warranting activation of medication dispensing plans and the mobilization of medical equipment and supplies from federal stockpiles. The Annex establishes an equity-centered framework for incident recognition, response coordination, and decision-making during a response. The Annex also describes roles and responsibilities, effective communication, and ongoing planning across partners to protect community health and center equity during an outbreak.

During a biological incident, Public Health and regional partners will utilize the Annex to achieve the following goals:

- Limit the number of illnesses, hospitalizations, and deaths.
- Prioritize the most disproportionately impacted groups.
- Preserve continuity of essential functions (government, healthcare, education, and business).
- Limit societal disruption and economic losses.

The Annex coordinates with other Public Health preparedness plans and response activities at the local, national, and global level.

SCOPE

This Annex is an annex to the *Emergency Support Function #8 – Health, Medical and Mortuary Services (ESF #8) Plan* of the *King County Comprehensive Emergency Management Plan*, the *City of Seattle Comprehensive Emergency Management Plan*, and the *Regional Disaster Coordination Framework*. The *ESF #8 Plan* and its annexes are referenced in this Annex as they provide a broad description of the responsibilities, authorities, and actions associated with public health emergencies.

¹ US Federal Emergency Management Agency, [Guide for All-Hazard Emergency Operations Planning](#).

This Annex can be referenced by Public Health leadership and staff to facilitate effective incident management and a coordinated regional response during all phases of a biological incident. The Annex may be activated for a biological incident including outbreaks of existing reportable conditions, emerging infectious diseases, bioterrorism event, or pandemic that threatens the public's health. Public Health's Communicable Disease Epidemiology and Immunization Section (CD-Imms) routinely conducts surveillance for notifiable conditions, case and outbreak investigation, and disease response and prevention activities. The Annex is intended to be used for any biological incident requiring a response that exceeds any Department program or division's disease control capacity. A biological incident response will require timely and effective cross-collaborative use of public health and medical resources, including facilities, personnel, equipment, mental and behavioral health services, information, data, communication systems and resources, and pharmaceutical and other supplies.

This Annex primarily focuses on the roles, responsibilities, and activities of Public Health and the command structure, Health and Medical Area Command (HMAC) (led by Public Health), in preparing for and responding to a biological incident. However, specific responsibilities for key response partners are included to highlight points of coordination between agencies during a pandemic. Based on guidance from the Centers for Medicare and Medicaid Services, healthcare facilities, healthcare professionals (including business leaders), essential service providers, and local government officials, are required to develop and incorporate procedures and protocols addressing infectious disease preparedness and response activities into their respective emergency response plans.²

PLANNING CONSTRAINTS

This Annex includes Public Health's general procedures for responding to future biological incidents including biological terrorism. Although this Annex attempts to anticipate a range of needs and associated response options to a biological incident, it is impossible to predict and plan for every contingency and every aspect of a response. Public Health plans are not intended to be prescriptive, but rather they guide decision-making, resource allocation, and centering equity in all response actions. This Annex should be considered a framework for incident management and response, and Public Health leadership and staff who adapt or implement this Annex should maintain flexibility for action and innovation to best meet community needs during an infectious disease incident.

PLANNING ASSUMPTIONS

This Annex integrates key concepts of communicable disease control and prevention with emergency management principles and structure. The ability of Public Health and regional partners to provide a coordinated response to a biological incident is dependent upon the scope and severity of the event, impacted communities, countermeasure and other resource availability, and needs and the status of preparedness and organizational response capabilities. With these factors in mind, a biological incident response must account for the assumptions below.

Disease Severity and Population Impact: Planning will include biological incidents characterized by the severity of the spread of infection with outbreaks occurring locally, regionally, nationally, or globally.

² US Centers for Medicare and Medicaid Services: [Emergency Preparedness Rule](#).

Severity of spread will be considered in terms of both the rapidity of the spread of infection as well as the impact on populations, i.e., the operations outlined in this plan could be used to address large scale exposures to pathogens that may spread slowly but cause severe illness outcomes.

- Communities across the state and the country may be impacted simultaneously.
- It is not possible to predict the impact of a future biological incident or the staffing capacity at the time thus response plans must be flexible and scalable to the actual epidemiologic features of the outbreak, including mechanism of transmission, Public Health capacity, healthcare facility capacity, disease outcomes, case fatality rate, availability of medical countermeasures, and differential impacts on subgroups of the population.
- Initial response stages may require short-notice resource coordination and prioritization of response activities including needs around isolation and quarantine, availability of personal protective equipment, engagement of the regional health care delivery system, and mobilization/coordination of available medical countermeasures.
- There could be significant disruption of public and privately owned critical infrastructure including transportation, commerce, utilities, public safety, agriculture, education, healthcare, and communications.

Surveillance systems: Strong and robust surveillance systems in place at the local, state, and federal level are needed to detect threats and send alerts and notifications.

- Staff designated for monitoring mandatory reporting of infectious diseases – local public health departments, laboratories, regional and federal partners, and health care providers – will communicate through established processes, policies, and procedures regarding possible and confirmed cases, however, infectious disease threats may present unique challenges that require additional information needs and epidemiological capacity beyond what current systems can support.
- It will be important to coordinate infectious disease response strategies across Tribal partners, counties in the Puget Sound area, and the State because of population mobility across borders and a desire to provide consistent public health approaches across the region.

Information sharing: Frequent and effective communication and information sharing across jurisdictions and between the public and private sectors will be needed.

- Public Health officials will be expected to communicate clear, consistent, and timely public information and risk messaging based upon the best available data and infection control principles known at that time; the expectation is that this information may change rapidly and will be updated accordingly.
- The public, healthcare system, response agencies, and elected leaders will need frequent updates on the status of the outbreak, impacts on critical services, the steps HMA is taking to address the incident, and steps response partners and the public can take to protect themselves.

Healthcare system impact: The number of ill people requiring outpatient medical evaluation and care, hospitalization, home care, and isolation/quarantine resources could overwhelm the local healthcare system.

- Infections with high attack rates and large scale events causing significant clinical illness and/or case fatality rates will likely place overwhelming demands on the public health and healthcare systems, as well as other critical infrastructure. These systems will implement their surge plans to best attempt to mitigate the impact on operations and the healthcare system.
- Healthcare facilities and providers may need to modify their operational structure to respond to high patient volumes (e.g., telehealth options) and maintain functionality of critical systems, and increased demands for services while the medical workforce experiences absenteeism due to illness; shifts in resource allocation should be weighed against increasing risk for other disease threats (i.e., limiting clinic appointments for other urgent medical conditions or that may impact preventive care such as cancer screening and childhood immunizations)
- Resource management and conservation strategies may need to be implemented especially in settings where supply chain issues are present and significant demands are made on personal protective equipment (PPE) as well as certain pharmaceuticals and equipment.
- Infection prevention and control measures and strategies specific to management of the pathogen may need to be developed for implementation in congregate settings (i.e., community-based organizations, correctional facilities, schools and universities, faith-based organizations, homeless shelters, and encampments), and public spaces (i.e., businesses, healthcare facilities including acute care hospitals and long-term care facilities), and by those providing home-based care.
- Public Health may need to ensure implementation of alternate care facilities and services to relieve demand on inpatient and outpatient healthcare facilities to care for persons not ill enough to merit hospitalization or those in need of isolation or quarantine, but who cannot be cared for at home or are experiencing homelessness.
- Emergency Medical Service (EMS) responders may face extremely high call volumes for several weeks and may face reductions in available staff.
- The number of fatalities experienced during the first few weeks of a significant bioincident could overwhelm the resources of the Medical Examiner's Office, hospital morgues, and funeral homes.
- The demand for social and mental health services may increase dramatically.

Medical countermeasures (MCM): MCM, such as antibiotics (e.g., antibacterial, antiviral, and antifungal), treatment, pre- and post-exposure prophylaxis, anti-toxin, and other treatments, may be in extremely short supply.

- In consultation with DOH, a limited allocation of MCMs may need to be prioritized for use in certain groups at increased risk and/or providing essential services, (e.g., hospitalized patients, healthcare workers providing care for patients, first responders, and other groups based on national guidelines and local epidemiology). We are committed to centering equity in decision making regarding the allocation of scarce resources.

Vaccination: Vaccines may not be available initially for emerging disease threats or may be in short supply early in an outbreak event.

- As a vaccine becomes available, it may be ordered, distributed, and/or administered by Public Health based on state and federal guidance and coordination and local epidemiology.
- Insufficient supplies of vaccines will require an equity-led framework for the allocation and distribution of pharmaceutical interventions to reach the most disproportionately impacted groups and those at greatest risk of disease transmission, morbidity, and mortality.

- Insufficient supplies or lack of effective pharmaceutical interventions might also place greater emphasis on non-pharmaceutical infection control and public education tailored to the known modes of pathogen transmission to mitigate spread of the disease.

Equity: Equity should be included in incident response operations and centered in decision making.

- The *Equity Response Annex* (ERA) provides guidance and recommendations for how to meaningfully partner with communities during a response. The ERA includes decision making tools that can support response leadership with centering equity and communities along every step of the response.³
- Prioritize access to medical countermeasures based on local epidemiology and by centering individuals with less access to healthcare resources including those who are un/underinsured as well as those at high risk of illness.
- Identify multi-modal strategies for the dispensing and administration of medical countermeasures, including points of dispensing that are safe, familiar, and accessible to all community groups, as well as serving those who are homebound.
- Certain infection prevention and control strategies [e.g., social distancing, wearing a mask, closing schools and moving to alternate learning options (e.g., remote learning), closing community centers and other public gathering points, canceling public events] may cause social disruption and isolation, especially among population groups with a strong communal culture (as is present in many immigrant communities in King County). When making implementation decisions, Public Health, with input from relevant stakeholders, will weigh the known and potential benefits of such measures against their known and potential unintended consequences.
- Some persons will be unable or unwilling to comply with isolation and quarantine directives. For others, social distancing strategies may be less feasible (for example, homeless populations who live or are sheltered in congregate settings).
- Individuals with access and functional needs (including, but not limited to, people who are homeless, homebound, economically or transportation disadvantaged, hearing or visually impaired, or who have limited English proficiency) are often disproportionately affected by emergencies and may require additional assistance in an emergency.

Mutual aid: If the outbreak is widespread (regional, national, or global), it may not be possible to obtain resources from other areas. King County will not be able to rely on mutual aid resources, State, or Federal assistance to support local response efforts.

³ Public Health – Seattle & King County, 2023, [Equity Response Annex](#).

INCIDENT OVERVIEW

HAZARD DEFINITION

Biological incidents are situations in which an agent of biological origins causes a significant local, regional, or national impact. These may include identification of a pathogen or bio-toxin with significant health risks, emergence of a novel infectious disease, or a suspected or confirmed bioterrorism event.

Some biological incidents will require limited response activities from Public Health; other situations will require large-scale response efforts that involve multiple divisions within Public Health and the cooperation and coordination of federal partners (e.g. Centers for Disease Control and Prevention Port Health Stations), Washington State Department of Health (DOH), tribal nations, neighboring jurisdictions, other King County departments, and additional ESF #8 partners (including businesses).

In addition to the definition above, an infectious disease emergency may also include a declaration or order issued by the President of the United States or by the Governor of Washington under RCW 43.06.010(12) in every county in the state concerning any infectious or contagious disease outbreak, including a pandemic, that is of national or regional concern.⁴ Special and immediate actions are required to limit the spread of disease to the broader community.

Since 2000, there have been several large-scale biological incidents, which have had a devastating impact on lives and livelihoods around the globe, including the 2003 SARS outbreak, 2009 H1N1 influenza pandemic, 2014 Ebola outbreak, 2015 Zika epidemic, COVID-19 pandemic, and the 2022-2023 mpox outbreak. The complexities of planning for and responding to the emergence of novel pathogens emphasize the need for systematic frameworks for the following: describe the populations impacted and progression of a disease outbreak, weigh potential public health impacts, evaluate pathogen characteristics including transmissibility, risk factors, resistance to countermeasures, and disease severity, assess availability of effective medical countermeasures, determine gaps in healthcare resource access that may exacerbate existing health inequities and, make decisions about interventions.

Based on experiences from different pandemic responses, the Centers for Disease Control and Prevention (CDC) updated its Pandemic Intervals Framework.⁵ This framework, while focused on influenza pandemic planning, provides an overview for large-scale biological incidents caused by other pathogens. In this document, phases of a pandemic are described using six intervals. TABLE 1 shows Pandemic Intervals Framework alongside the World Health Organization (WHO) pandemic phases, and state and local indicators for CDC pandemic intervals. The Pandemic Intervals Framework provides recommendations for risk assessment, decision making, and a common methodology to describe pandemic activity that can inform public health actions. The duration of each pandemic interval may vary depending on the characteristics of the pathogen and the public health response. At this time, the CDC Pandemic Intervals Framework has not been updated following the COVID-19 pandemic.

⁴ Washington State Legislature. [Occupational diseases – Public health emergency – Infectious or contagious diseases.](#)

⁵ US Centers for Disease Control and Prevention. 2016. [Pandemic Intervals Framework.](#)

RECENT HISTORY

Severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2), the virus that causes coronavirus disease 2019 (COVID-19), was first identified in Wuhan, China in December 2019. On January 20, 2020, the first case of COVID-19 in the United States was identified in Washington state. The onset of the COVID-19 pandemic occurred at a time of global awakening to the deeply rooted inequities in our healthcare and social institutional structures. Locally, the COVID-19 pandemic further drew back the curtain on the impact of structural racism on health and healthcare in the United States. Through June 12, 2022, King County has had 2,850 deaths (0.6% of positive reported cases). Age-adjusted death rates of confirmed cases are highest among residents who are Native Hawaiian/Pacific Islander (749 per 100,000), American Indian/Alaska Native (452 per 100,000), Hispanic/Latinx (260 per 100,000), and Black (219 per 100,000). Case rates for most communities of color are higher than among White residents (106 per 100,000).

In May 2022, an outbreak of mpox (formerly known as monkeypox virus disease) suddenly and rapidly spread across Europe, the Americas, and all six WHO regions, with 110 countries reporting a combined approximate 87,000 cases and 112 deaths. Cases of mpox were reported from countries where the disease was not endemic and cases were increased in several endemic countries, i.e., most confirmed cases with travel history reported travel to countries in Europe and North America, rather than West or Central Africa where the mpox virus is endemic. The global outbreak affected primarily (but not only) gay, bisexual, and other men who have sex with men and spread person-to-person through touching, kissing, sex, or contact with contaminated sheets, clothes, or needles.

TABLE 1. PREPAREDNESS AND RESPONSE FRAMEWORK FOR NOVEL INFLUENZA A VIRUS PANDEMICS.

WHO Pandemic Phases	CDC Pandemic Intervals	CDC Pandemic Indicators
Interpandemic phase: Period between influenza pandemics	Investigation. When novel influenza A viruses are identified in people, public health actions focus on targeted monitoring and investigation. This can trigger a risk assessment of that virus with the Influenza Risk Assessment Tool (IRAT), which is used to evaluate if the virus has the potential to cause a pandemic.	Identification of novel influenza A infection in humans or animals anywhere in the world with potential implications for human health.
Alert phase: Influenza caused by a new subtype has been identified in humans	Recognition. When increasing numbers of human cases of novel influenza A illness are identified and the virus has the potential to spread from person-to-person, public health actions focus on <i>control</i> of the outbreak, including treatment of sick persons.	Increasing number of human cases or clusters of novel influenza A infection anywhere in the world with virus characteristics, indicating increased potential for ongoing human-to-human transmission.
Pandemic Phase: Global spread of human influenza caused by a new subtype	Initiation. A pandemic occurs when people are easily infected with a novel influenza A virus that can spread in a sustained manner from person-to-person.	Confirmation of human cases of a pandemic influenza virus anywhere in the world with demonstrated efficient and sustained human-to-human transmission.
	Acceleration. There is an upward acceleration (or “speeding up”) of the epidemiological curve as the new virus infects susceptible people. Public health actions at this time may focus on the <i>use of appropriate non-pharmaceutical interventions</i> in the community (e.g., school and child-care facility closures, social distancing), as well the <i>use of medications</i> (e.g., antivirals) <i>and vaccines</i> , if available. These actions combined can reduce the spread of the disease and prevent illness or death.	Consistently increasing rate of pandemic influenza cases identified in the United States, indicating established transmission.
	Deceleration. The deceleration (or “slowing down”) stage happens when pandemic influenza cases consistently decrease in the United States. Public health actions include continued vaccination, monitoring of pandemic influenza A virus circulation and illness, and reducing the use of non-pharmaceutical interventions in the community (e.g., school closures).	Consistently decreasing rate of pandemic influenza cases in the United States.
Transition Phase: Reduction in global risk, reduction in response activities, or progression toward recovery actions	Preparation. When pandemic influenza has subsided, public health actions include continued monitoring of pandemic influenza A virus activity and preparing for potential additional waves of infection. It is possible that a second pandemic wave could have higher severity than the initial wave. An influenza pandemic is declared ended when enough data shows that the influenza virus, worldwide, is similar to a seasonal influenza virus in how it spreads and the severity of the illness it can cause.	Low pandemic influenza activity but continued outbreaks possible in some jurisdictions.

HEALTH AND MEDICAL IMPACTS

There are several characteristics of biological incidents that differentiate them from other public health emergencies. First, biological incidents have the potential to suddenly cause illness in a very large number of people and/or animals and can overwhelm healthcare systems. A pandemic outbreak could also jeopardize essential community services by causing high levels of absenteeism in critical workforce for essential services. It is likely that initial doses of vaccines against a new virus will not be available for six to eight months following the emergence of the virus. Basic services, such as healthcare, law enforcement, fire, emergency response, communications, transportation, and utilities, could be disrupted during a pandemic. Additionally, a pandemic, unlike many other emergency events is expected to last for months to years.

In addition to disease characteristics, structural racism is a significant root cause of many health disparities during a biological incident, manifesting through laws and policies that create barriers to equitable and high-quality protective measures and treatment. In addition to individual acts of discrimination, structural racism pervades systems of power, informing decision-making and furthering health inequity. The existence of structural racism within our health and social institutions results in the systematic exclusion of people of color, Indigenous communities, people with disabilities, and incarcerated individuals when decisions are made during a public health emergency, contributing to ongoing health disparities among these groups. When understanding the impacts racism has on the health of communities, it is vital to use an intersectional lens – racism often does not occur in a vacuum, but intersects with other forms of discrimination, including discrimination based on ability, gender, or socioeconomic status.

The circumstances of biological incidents may vary based on multiple factors, including type of biological agent, scale of exposure, mode of transmission, and the social determinants of health in the areas where the pathogen is spreading. Public health measures to contain outbreaks are especially important for diseases with high morbidity or mortality and limited availability of medical countermeasures. Planning and preparing in advance of a biological incident is critical for an equitable and effective response. Planned response actions, when executed equitably, early, and efficiently, have the potential to limit community transmission, center racial equity and social justice, and reduce health impacts of exposure to an infectious disease or agent.

AUTHORITIES AND RESPONSIBILITIES

AUTHORITIES

Various state and local public officials have overlapping authorities regarding protecting public health and safety. The Governor of Washington, the State Board of Health, the Washington State Secretary of Health, the King County Executive, the King County Board of Health, the executive heads of cities and towns, and the Local Health Officer each can implement authorities within the scope of their jurisdiction aimed at protecting the public's health.

During a pandemic, the presence of overlapping authorities will necessitate close communication and coordination between elected leaders and the Local Health Officer to ensure decisions and response actions are clear and consistent.

A. Governor of Washington State

The Governor has authority to proclaim a state of emergency after finding that a disaster affects life, health, property, or the public peace. RCW 43.06.010(12). The Governor may assume direct operational control over all or part of local emergency management functions if the disaster is beyond local control. RCW 38.52.050. After proclaiming a state of emergency, the Governor has the authority to restrict public assembly, order periods of curfew, and prohibit activities that they believe should be prohibited to maintain life and health. RCW 43.06.220.

B. State Board of Health

The State Board of Health has authority to adopt rules to protect the public health, including rules for the imposition and use of isolation and quarantine, and for the prevention and control of infectious diseases. RCW 43.20.050(2). Local boards of health, health officials, law enforcement officials, and all other officers of the state or any county, city, or town shall enforce all rules that are adopted by the State Board of Health. RCW 43.20.050(4).

C. The State Secretary of Health

The Secretary of Health shall enforce all laws for the protection of the public health, and all rules, regulations, and orders of the State Board of Health. RCW 43.70.130(3). The Secretary also shall investigate outbreaks and epidemics of disease and advise Local Health Officers about measures to prevent and control outbreaks. RCW 43.70.130(5). The Secretary shall enforce public health laws, rules, regulations, and orders in local matters when there is an emergency, and the local Board of Health has failed to act with sufficient promptness or efficiency or is unable to act for reasons beyond its control. RCW 43.70.130(4). The Secretary has the same authority as Local Health Officers but will not exercise that authority unless: (a) the Local Health Officer fails or is unable to do so; (b) by agreement with the Local Health Officer or local board of health; or (c) when in an emergency the safety of the public health demands it. RCW 43.70.130(7).

D. King County Executive

The King County Executive may proclaim a state of emergency within King County when, in the judgment of the Executive, extraordinary measures are necessary to protect public peace, safety, and welfare. K.C.C. 12.52.030.A. Under a state of emergency, the Executive may impose

curfews, close any or all private businesses, close any or all public buildings and places including streets, alleys, schools, parks, beaches, and amusement areas, and proclaim any such orders as are imminently necessary for the protection of life and property. K.C.C. 12.52.030.B.

E. King County Board of Health

The jurisdiction of local Board of Health is coextensive with the boundaries of the county. RCW 70.05.035. The local Board of Health shall supervise all matters pertaining to the preservation of the life and health of the people within its jurisdiction. RCW 70.05.060. The Board shall enforce through the Local Health Officer the public health statutes of the state and the rules promulgated by the State Board of Health and the Secretary of Health. RCW 70.05.060(1). The Board may also enact such local rules and regulations as are necessary to preserve and promote the public health and to provide the enforcement of those rules and regulations. RCW 70.05.060(3).

F. Mayor of Seattle

The Mayor of Seattle may proclaim a state of civil emergency within the city when, in the judgment of the Mayor, extraordinary measures are necessary to protect public peace, safety, and welfare. SMC 10.02.010.A. Under a state of civil emergency, the Mayor may impose curfews, close any or all business establishments, close any or all public buildings and places including streets, alleys, schools, parks, beaches, and amusement areas, direct the use of all public and private health, medical, and convalescent facilities and equipment to provide emergency health and medical care for injured persons, and proclaim any such orders as are imminently necessary for the protection of life and property SMC 10.02.020.

G. Suburban City Executive Heads

Each political subdivision is authorized to exercise emergency functions. RCW 38.52.070. Suburban cities throughout King County may have explicit emergency powers and authorities in their municipal codes.

H. Local Health Officer

The Local Health Officer will exercise powers and duties outlined in RCW 70.05.070. The Local Health Officer has the authority to control and prevent the spread of any dangerous, contagious, or infectious diseases that may occur within his or her jurisdiction RCW 70.05.070(3).

The Local Health Officer will have the following responsibilities:

1. The Local Health Officer shall, when necessary, conduct investigations and institute disease control measures, including medical examination, testing, counseling, treatment, vaccination, decontamination of persons or animals, isolation, quarantine, and inspection and closure of facilities. WAC 246-100-036(3). The Local Health Officer may initiate involuntary detention for isolation and quarantine of individuals or groups pursuant to provisions of state regulations. WAC 246-100-040 through -070.
2. The Local Health Officer has the authority to carry out steps needed to verify a diagnosis reported by a healthcare provider, and to require any person suspected of having a reportable disease or condition to submit to examinations to determine the presence of the disease. The Local Health Officer may also investigate any suspected case of a reportable disease or other condition if necessary and require notification of additional conditions of public health importance occurring within the jurisdiction. WAC 246-101-505(11).

3. The Local Health Officer shall establish, in consultation with local healthcare providers, health facilities, emergency management personnel, law enforcement agencies, and other entities deemed necessary, plans, policies, and procedures for instituting emergency measures to prevent the spread of communicable disease. WAC 246-100-036(1).
4. The Local Health Officer may take all necessary actions to protect the public health in the event of a contagious disease occurring in a school or day care center. Those actions may include, but are not limited to, closing the affected school, closing other schools, ordering cessation of certain activities, and excluding persons who are infected with the disease. WAC 246-110-020(1). Prior to acting, the Local Health Officer shall consult with the State Secretary of Health, the superintendent of the school district or the chief administrator of the day care center and provide them and their board of directors a written decision directing them to take action. WAC 246-110-020 (2).
5. The Local Health Officer's powers are not contingent on a proclamation of emergency by the county Executive or an executive head of a city or town.

RESPONSIBILITIES

A. Public Health – Seattle and King County, Health and Medical Area Command (HMAC)

1. Facilitate countywide pandemic planning and preparedness efforts.
2. Coordinate the community's emergency public health response through ESF #8 and the Regional Disaster Coordination Framework.
3. Provide trainings for HMAC staff and responders on their role and topics such as Incident Command System (ICS), HMAC operations, Washington System for Tracking Resources, Alerts, and Communication (WATrac), and ESF #8 plan and functional annexes.
4. Educate the public, healthcare system partners, response partners, businesses, schools, childcare centers, community-based organizations, and elected leaders about pandemics, expected impacts and consequences, and preventive measures (Reference: *Risk Communication Plan*).
5. Monitoring and ensuring the safety and well-being of responders and public health staff.
6. Conduct county-wide surveillance to track the spread of the human disease and its impact on the community. Through liaison with veterinary, agriculture, and wildlife agencies, facilitate disease surveillance in animals in King County and monitor surveillance data.
7. Identify and declare diseases of public health significance during a biological incident and communicate such declarations to health system partners.
8. Establish a prioritized set of operational objectives and implementation strategies (*Incident Action Plan*) for the countywide health and medical response.
9. Jointly coordinate the accuracy and dissemination of health and medical information to the public through a Joint Information System.
10. Coordinate medical countermeasures requesting, distribution, and dispensing with state and federal partners.
11. Coordinate the implementation of non-pharmaceutical interventions including identifying personal protective equipment (PPE) supply needs and stockpiling.
12. Ensure the collection and development of situational awareness information for the health and medical response (Reference: *Health and Medical Area Command Procedures Manual*).
13. Coordinate planning for and implementation of disease containment strategies and authorities.

14. Provide ongoing technical support within established expectations to the healthcare system including current surveillance guidelines, recommendations for clinical case management, infection control measures, and laboratory testing.
15. Through the Northwest Healthcare Response Network (NWHRN), support the healthcare system's planning and response efforts for medical surge capacity including mass casualty and mass fatality incidents (Reference: *Region 6 Hospital Emergency Preparedness and Response Plan*).

B. Multi-Agency Coordinating (MAC) Group

If needed, a Multi-Agency Coordinating group may be formed and called upon to accomplish the following:

1. Provide policy-level guidance and establish overall direction and priorities for the health, medical and mortuary response across King County. The following parties within the King County healthcare system will participate on the MAC:
 - Local Health Officer.
 - See responsibilities outlined under *Authorities, Section H*.
 - Healthcare partners including veterinary partners.
 - Northwest Healthcare Response Network Executive Council.
 - Comprised of chief executives from the healthcare systems.
 - Informs and advises the Local Health Officer on issues and resource needs within the healthcare system.
 - EMS Medical Directors.
 - Comprised of the EMS Medical Directors for King County and the City of Seattle.
 - Direct the implementation of response protocols for all paramedics and Emergency Medical Technicians in King County.
 - Direct the implementation of the *Emergency Medical Services Pandemic Response Plan*, September 2023.
 - King County Medical Examiner.
 - Directs the county-wide response to mass fatalities events.
 - Maintains legal authorities governing the identification, transportation, and final disposition of human remains during mass fatalities events.
 - MAC Coordinator.
 - Develop briefing materials and communications for MAC Group.
 - Facilitate conference calls and in-person meetings.

An organizational structure utilizing Area Command and MAC to lead the health and medical response across King County will ensure that each agency involved in the response is aware of the plans, actions, and constraints of all others. No agency participating under HMAT will compromise their legal authorities or requirements. Participating agencies will minimize inefficiency and duplication of effort, improve information flow, and combine efforts toward achieving a single set of response objectives.

C. Local Hospitals, Clinics, Providers, and other Health System Partners

1. During a pandemic, all efforts will be employed to sustain the functionality of the healthcare system while maintaining the highest possible level of medical care. To accomplish this, healthcare system partners might need to:

- Limit the provision of healthcare services to patients with urgent health problems.
 - Take steps to increase healthcare system capacity for patients who require inpatient care.
 - Mobilize, reassign, and deploy staff within and between healthcare facilities to address critical shortfalls.
 - Implement patient triage and resource management processes.
 - Implement the crisis standards of care framework.⁶
 - Provide alternative mechanisms for patients to address non-urgent healthcare needs such as telephone and internet-based (telehealth) consultation.
2. Maximize the healthcare system's ability to provide medical care during a pandemic by working with the Northwest Healthcare Response Network. Specific steps include:
 - Identify and prioritize response issues and resources affecting the county-wide health system during a pandemic.
 - Develop mechanisms to efficiently share information and resources between the healthcare system and HMAC and relevant emergency operations centers, as appropriate. Centralize and consolidate requests as needed.
 - Through the Multi Agency Coordinating Group, coordinate with the Local Health Officer regarding policy level decisions affecting the operations of healthcare system.
 - Assure that healthcare professionals receive relevant communications from HMAC in a timely and efficient manner.
 3. Hospitals and other healthcare facilities will develop pandemic response plans⁷ consistent with the healthcare planning guidance contained in the *Health and Human Services Pandemic Influenza Plan*⁸. Healthcare facility pandemic response plans will address medical surge capacity and resource management and conservation to sustain healthcare delivery and communication capabilities when routine systems are overwhelmed and resource management and conservation to sustain healthcare delivery and communication capabilities when routine systems are overwhelmed.
 4. Hospitals may screen and/or limit individuals from entering the hospital.
 5. Healthcare facilities and healthcare providers will participate in local influenza surveillance activities.
 6. Hospitals will develop infection control plans to triage and isolate infectious patients and protect staff from disease transmission.

D. Washington State Department of Health

1. Coordinate statewide pandemic planning and preparedness efforts.
2. Coordinate statewide surveillance activities.
3. Operate a CDC Laboratory Response Network public health reference laboratory for testing of novel pathogens.
4. Coordinate submission of pandemic epidemiological data to CDC and dissemination of statewide data and situation updates to local health jurisdictions.
5. Provide state assistance, when available, and request federal assistance to support the local health and medical response.

⁶ Washington State Department of Health. 2021. [Crisis Standards of Care](#).

⁷ US Centers for Medicare and Medicaid Services. 2021. [Updated Emergency Preparedness Guidance](#).

⁸ US Department of Health and Human Services. 2005. [HHS Pandemic Influenza Plan](#).

6. May receive medical countermeasures from the Strategic National Stockpile (SNS) and immediately distribute these supplies to Public Health, first responders, or healthcare providers.
 - In consultation with Public Health, may request and place orders on behalf of Public Health for direct shipment to the department's vaccine depot or selected healthcare providers.
7. Educate and inform the public on the course of the pandemic and preventive measures in coordination with local partners.

E. US Department of Health and Human Services

1. Provide overall guidance on pandemic planning within the United States.
2. Coordinate the national response to a pandemic.
3. Provide guidance and tools to promote pandemic preparedness planning and coordination for states and local jurisdictions.
4. Provide guidance to state and local health departments regarding bioincident and pandemic response, including for prioritization of limited supplies of antiviral medications and vaccines.

F. US Centers for Disease Control and Prevention

1. Conduct national and international disease surveillance.
2. Serve as a liaison to the WHO.
3. Develop reference strains for vaccines and conduct research to understand transmission and pathogenicity with pandemic potential.
4. Develop, evaluate, and modify disease control and prevention strategies.
5. Lead for recommendations regarding disease control measures including administration of pandemic vaccine and guidance for implementation of vaccination programs; monitor vaccine safety.
6. Provide guidance to state and local health departments regarding bioincident and pandemic response, including for prioritization of limited supplies of antiviral medications and vaccines.
7. Provide field teams when available and requested to assist in local pandemic response.
8. Investigate pandemic outbreaks; define the epidemiology of the disease.
9. Monitor the nation-wide impact of a pandemic.
10. Coordinate the stockpiling of antiviral drugs and other essential materials within the Strategic National Stockpile.
11. Activate the SNS when the WHO declares a state of alert and deploy antiviral supplies to each state.
12. Coordinate the implementation of international – US travel restrictions.
13. Under federal authority, implement isolation, quarantine, and social distancing measures on tribal lands, as needed.

G. World Health Organization

1. Monitor global pandemic conditions and provide information updates.
2. Facilitate enhanced global pandemic preparedness, surveillance, vaccine development, and health response.
3. Provide international guidance on responding to the situation. Declare global pandemic phase and adjust phases based on current outbreak conditions.

INITIAL RESPONSE PROCESS

The *Biological Incident Response Annex* is intended for use in any biological incident that requires a response exceeding Communicable Disease Epidemiology and Immunization Section's (CD-Imms) established routine service capacity and/or requires an increased level of communication and coordination between Public Health – Seattle & King County (Public Health) department programs and external partners. Biological incidents are situations in which an agent of biological origins causes a significant local, regional, or national impact. These may include infectious disease outbreaks, identification of a pathogen with significant health risks, emergence of a novel infectious disease, or a suspected or confirmed bioterrorism event. Some biological incidents will require limited response activities from Public Health; other situations will require large-scale response efforts that involve multiple divisions within Public Health and the cooperation and coordination of Washington State Department of Health (DOH), tribal nations, neighboring jurisdictions, other King County departments, and additional Emergency Support Function #8 – Public Health, Medical, and Mortuary Services (ESF #8) partners.

This initial response process also serves as a model for warning and notification among Public Health divisions and programs outside of CD-Imms, such as Environmental Health Services Division (Environmental Health), Community Health Services Division, and other Prevention Division (Prevention) programs such as the Tuberculosis Control program, about local biological incidents or possible threats to the local communities. For responses to suspected or confirmed bioterrorism events, Public Health follows applicable State⁹ and Federal¹⁰ guidelines, in addition to the process below.

WARNING AND NOTIFICATION

The initial response process defines the routes of warning to and notification within Public Health of a biological incident. Some situations will warrant consideration of immediate Health and Medical Area Command (HMAC) activation depending on CD-Imms capacity to respond to the incident, while other incidents might include situational monitoring and other assessment steps before an activation is recommended. Biological incident response needs may vary by situation and additional considerations may factor into activation of HMAC. Once activation is recommended, the Public Health Preparedness Section (Preparedness) will convene appropriate staff to begin the process of organizing, prioritizing, and staffing Public Health's response.

WARNING

Public Health receives warning of a potential biological incident through multiple routes, including:

- Routine surveillance and investigations conducted by CD-Imms staff, including reports from DOH, healthcare providers and hospital partners, acute care facilities, clinical laboratories, the public, and others for all suspected, probable, and confirmed notifiable conditions.

⁹ Washington State Department of Health. [Bioterrorism and Terrorism](#).

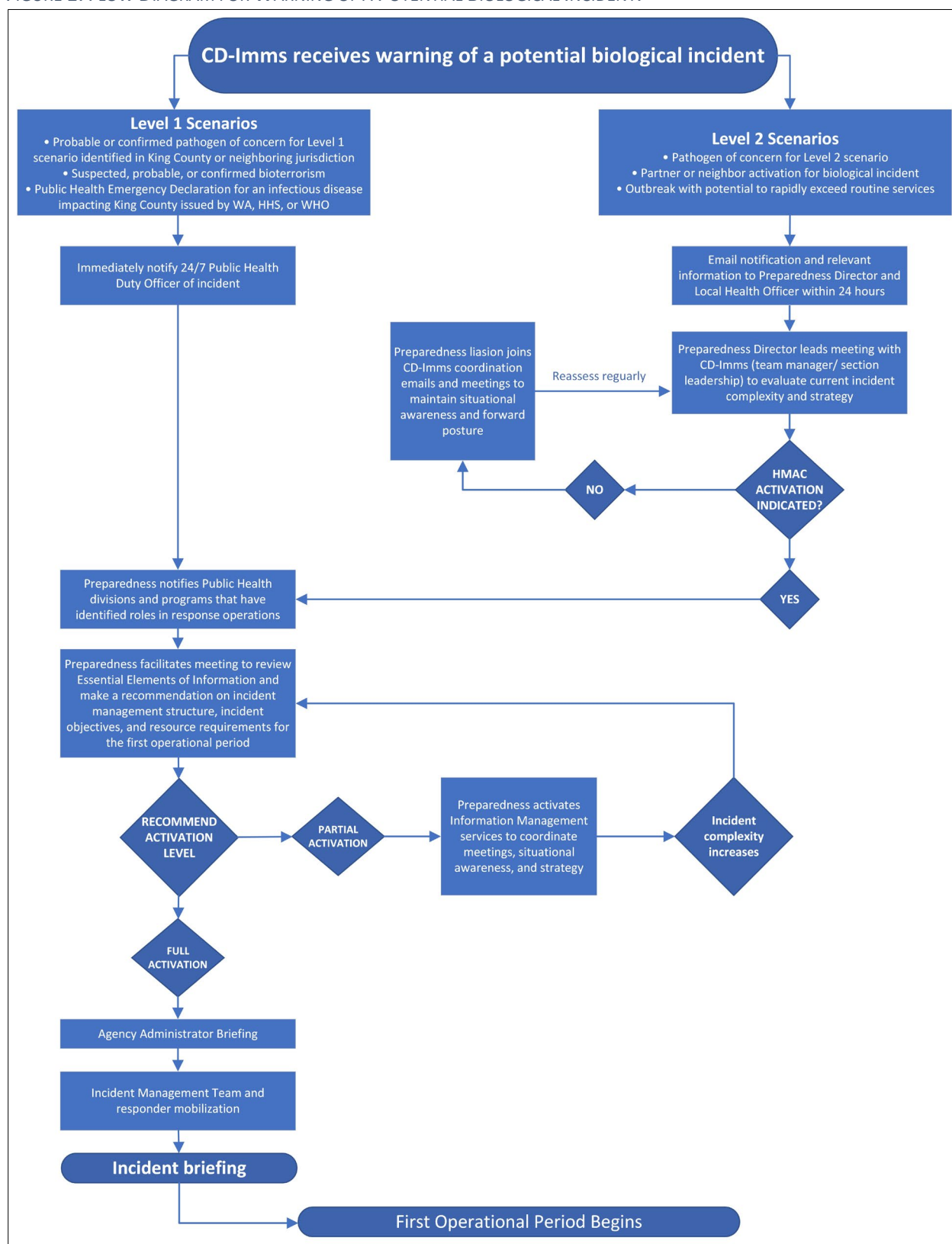
¹⁰ US Centers for Disease Control and Prevention. [Bioterrorism](#).

- Surveillance reports and alerts from external public health agencies or response partners about biological incidents with the potential to impact King County, such as:
 - World Health Organization (WHO).
 - Centers for Disease Control and Prevention (CDC) via the Health Alert Network (HAN).
 - US Department of Health and Human Services (HHS).
 - The Washington Secure Electronic Communications, Urgent Response and Exchange System (WA SECURES).
 - Northwest Healthcare Response Network (NWHRN) updates and WATrac alerts.
 - Neighboring local health jurisdiction or emergency management.
 - Federal Bureau of Investigation (FBI).
 - BioWatch Alert notification of an airborne pathogen detected by BioWatch program sensors.

NOTIFICATION

Warning of a biological incident may trigger two notification processes across Public Health and key response partners, depending on potential for rapid incident escalation. Please see **Figure 1** for process illustration.

FIGURE 1. FLOW DIAGRAM FOR WARNING OF A POTENTIAL BIOLOGICAL INCIDENT.



Level 1 Scenarios

Level 1 Scenarios include high-consequence pathogens and scenarios with significant potential to cause a severe, large and/or rapidly expanding event requiring a coordinated response.

Public Health defines Level 1 Scenarios as:

- Suspected or confirmed identification of specified pathogen of concern for Level 1 Scenarios or pathogen categories in King County or a neighboring jurisdiction.
- Suspected, probable, or confirmed bioterrorism.
- Public Health Emergency Declaration for an infectious disease impacting King County issued by Washington State, US Department of Health and Human Services (National Public Health Emergency), or World Health Organization (Public Health Emergency of International Concern).

Level 1 scenarios require immediate notification to the 24/7 Public Health Duty Officer and generally necessitate activation of HMAC.

TABLE 2. PUBLIC HEALTH LEVEL 1 SCENARIOS.

Level 1 Scenarios	
<p>The following scenarios require immediate telephone notification to the Public Health 24/7 Duty Officer, Prevention Division Director/Deputy Director, CD-Imms Disease Control Officer, and Local Health Officer.</p> <ul style="list-style-type: none"> • Probable or confirmed identification of specified pathogen of concern for Level 1 scenarios or pathogen categories in King County or neighboring jurisdiction. • Suspected, probable, or confirmed bioterrorism. • Public Health Emergency Declaration for an infectious disease impacting King County issued by Washington State, US Department of Health and Human Services (National Public Health Emergency), or World Health Organization (Public Health Emergency of International Concern). 	
Examples of Pathogens of Concern for Level 1 Scenarios (not an exhaustive list)	
<p>Disease or agent of suspected bioterrorism origin,¹¹ including but not limited to:</p> <ul style="list-style-type: none"> • Anthrax (<i>Bacillus anthracis</i>) • Cholera (non-travel related) • Plague (<i>Yersinia pestis</i>) • Ricin • Smallpox (<i>Variola major</i>) • Typhus fever • Viral Hemorrhagic Fevers¹² 	<p>Initial case(s) of an emerging infectious disease or biological incident with potential for significant illness or death, including:</p> <ul style="list-style-type: none"> • Highly pathogenic Coronavirus (MERS-CoV, SARS-CoV-1, Other Novel Coronavirus) • Influenza, novel • Waterborne outbreak (municipal drinking water supply)¹³ • Paramyxoviruses (Nipah virus, Hendra virus)

¹¹ US Centers for Disease Control and Prevention. [Bioterrorism Agents / Diseases](#).

¹² US Centers for Disease Control and Prevention. [Viral Hemorrhagic Fevers](#).

¹³ US Centers for Disease Control and Prevention. [Water, Sanitation, & Hygiene \(WASH\)-related Emergencies & Outbreaks](#).

LEVEL 2 SCENARIOS

Level 2 scenarios are situations in which the scope of Public Health response operations may initially be limited but have the potential to escalate if departmental resources are not immediately reprioritized to quickly respond to the disease. In these cases, CD-Imms might need support and resources from Preparedness to manage communication and resource coordination to effectively expand the Public Health's response capacity.

Public Health defines Level 2 Scenarios as:

- Identification of pathogen of concern for a Level 2 Scenario in King County.
- An outbreak which might quickly exceed CD-Imms' (or relevant Public Health program) initial capacity to manage the investigation and/or communication and coordination across Public Health and ESF #8 partners, including situations that involve:
 - Increased call or electronic message volumes to CD-Imms or other Public Health programs surpassing routine capacity with potential to require surge staffing support.
 - Increased inquiries from media or political representatives that would benefit from centralized and coordinated messaging through public information support.
 - Increased demand for information sharing and coordination with ESF #8 partners or other jurisdictions that would benefit from Information Management or Liaison functions.
 - Need for rapid communication, assessment, distribution, and administration of medical countermeasures.
 - Significant involvement of multiple internal Public Health programs stressing existing pathways for coordination, shared decision making, and exchange of situational awareness.
 - Isolation and quarantine capacity is required as part of the incident response.
 - Investigation or containment activities require resources that surpass routine service capacity.
- Response partner or neighboring jurisdiction Emergency Operations Center (EOC) activation notification for response to a biological incident that may impact King County.

Level 2 scenarios require a notification of the situation, emailed or otherwise, to the acting Preparedness Director and Local Health Officer within 24 hours for situational awareness. Key elements of information relating to the situation, such as scale, potential complexity, population impacted, and additional relevant information regarding programmatic capacity should be shared as known. This information will inform an assessment of incident complexity, the need for ongoing situational awareness, and the capability to quickly expand support should HMAC activation be indicated.

TABLE 3. PUBLIC HEALTH LEVEL 2 SCENARIOS.

Level 2 Scenarios	
<p>The following scenarios require notification to the Preparedness Director and Local Health Officer within 24 hours for ongoing situational awareness and assessment of incident complexity.</p> <ul style="list-style-type: none"> • Identification of a pathogen of concern for a Level 2 scenario in King County. • An outbreak or concern for a sudden increase in prevalence of any pathogen in King County with the potential to rapidly exceed routine services provided by CD-Imms (or relevant Prevention Division program), necessitating a large scale, coordinated response requiring multiple division and/or program areas. • Response partner or neighboring jurisdiction EOC activation notification for an infectious disease response that may impact King County. <p>Additional notifications may be required per CD-Imms (or relevant Prevention Division program) protocol.</p>	
Examples of Pathogens of Concern for Level 2 Scenarios (this list is not exhaustive)	
<ul style="list-style-type: none"> • Arboviral disease – locally acquired (West Nile virus, dengue, chikungunya, Zika, eastern and western equine encephalitis, St Louis encephalitis, and Powassan). • <i>Candida auris</i> (outbreak). • Diphtheria (toxigenic <i>C. diphtheriae</i> infections). • Emerging condition with outbreak potential. • Flaviviruses. • <i>Haemophilus influenzae</i> (invasive disease, children aged < 5 years). • Hantavirus pulmonary syndrome (cluster of locally acquired cases). • Hepatitis A (outbreak). • Hepatitis C (outbreak). 	<ul style="list-style-type: none"> • Legionellosis (outbreak). • Lyme Disease (local exposure only). • Measles. • Meningococcal disease (outbreak). • Mumps (outbreak). • Poliovirus infection. • Rabies (human, suspected or confirmed). • Rubella (acute disease). • Large outbreaks of suspected foodborne origin. • Plague (<i>Yersinia pestis</i>) (not suspected intentional). • Tuberculosis (in congregate settings, schools, or childcare setting).

ASSESSMENT

For Level 1 Scenarios, Preparedness will work with CD-Imms and other relevant programs and partners to begin collecting essential elements of information to inform initial incident action planning and

response activities in anticipation of an HMAC activation. For Level 2 Scenarios, an ongoing period of situational awareness and assessment to determine need for HMAC activation is described below.

LEVEL 2 SCENARIO SITUATIONAL AWARENESS AND ASSESSMENT

When an emergency does not indicate immediate HMAC activation, Preparedness will take a forward-leaning posture through ongoing situational awareness and assessment of evolving incident complexity.

Following notification by CD-Imms (or relevant Prevention Division program), the Preparedness Director will lead an initial meeting with CD-Imms or relevant Prevention Division program (team manager/section leadership) and Prevention Division Director/ Deputy Director, or their designees, to evaluate current incident complexity using the *Incident Complexity Assessment*. If current support needs for communication, coordination, and resourcing operations do not indicate activation of HMAC, parties will establish a strategy for ongoing monitoring. The Local Health Officer will participate in or be promptly informed of result of this assessment.

The strategy should establish:

- Incident-specific thresholds which may indicate partial or full HMAC activation.
- Potential resource, administrative and other response needs.
- A meeting cadence between the Preparedness Director and CD-Imms or relevant Prevention Division program (team manager/section leadership), or their designees, to reevaluate for any changes in incident complexity.
- An identified Preparedness staff member to act as a liaison and ensure situational awareness is maintained between CD-Imms (or relevant Prevention Division program) and Preparedness.
- CD-Imms (or relevant Prevention Division program) incident coordination emails and meetings in which to include a Preparedness staff liaison for situational awareness.

Public Health's Preparedness Section and CD-Imms (or relevant Prevention Division program) will maintain this posture until:

- Incident trajectory does not indicate potential for the current outbreak or incident to rapidly exceed routine services and resources managed by CD-Imms (or relevant Prevention Division program).
- or
- Incident-specific thresholds or incident complexity indicate activation of HMAC to support divisions and programs in preparing for and responding to a biological incident emergency.

ESSENTIAL ELEMENTS OF INFORMATION (EEI)

For both Level 1 and Level 2 responses, ongoing situational awareness should include an assessment of essential elements of information (EEI) to develop a shared understanding of the situation and inform assessment of incident needs and complexity. Key information areas for a biological incident response include:

- *Scale*
 - Current and projected outbreak size.
 - Exposure sites.

- Impacted population(s).
- *Urgency*
 - Disease characteristics, including transmissibility, severity, and clinical outcomes.
 - Availability of effective treatment and containment measures.
- *Complexity*
 - Political sensitivity and media interest.
 - Multitude of partners and actors.
 - Disease-specific factors, especially those including ongoing zoonotic transmission.
 - Potential resource, administrative, and other response needs.
- *Capacity*
 - Competing Public Health priorities.
 - Demand for services.
 - Funding and staff availability.
- *Equity*
 - Impacted population vulnerability.
 - Additional service needs.

INITIAL INCIDENT ACTION PLANNING

When HMAC activation is indicated, Preparedness will notify Public Health divisions and programs that have identified roles in response operations, which may include:

- Administration (Admin).
- Assessment, Policy Development & Evaluation Unit/ Chronic Disease and Injury Prevention (APDE/CDIP).
- Communications.
- Environmental Health Services (EH).
- Emergency Medical Services (EMS).
- Medical Examiner's Office (MEO).
- Office of Equity and Community Partnerships (OECPP).
- Preparedness Section.
- Prevention Division.
- Nursing Office.

Public Health divisions and programs with identified roles in response operations will be asked to attend a meeting facilitated by Preparedness to review essential elements of information (EEl) regarding the biological incident and make a timely and informed decision on the need to initiate incident action planning.

Prior to meeting, Preparedness will seek to gather information from King County Office of Emergency Management (King County OEM), City of Seattle Office of Emergency Management (Seattle OEM), Washington State Department of Health (DOH), and the Northwest Healthcare Response Network (NWHRN) regarding any current or planned actions by local emergency management, other city and county departments, and healthcare systems. These actions may further inform the need to initiate incident action planning.

After reviewing EEl and any other critical information requirements, meeting participants should:

- **Make a recommendation on an appropriate incident management structure.** Given the anticipated incident complexity for most infectious disease responses, it is recommended that Public Health's HMAC be partially or fully activated to support divisions and programs in preparing for a biological incident and managing any subsequent emergency response operations.
- **Make a recommendation on incident objectives and resource requirements for the first operational period.** Public Health should manage biological incidents by developing objectives that define what must be accomplished to protect community health and limit health disparities. The availability of personnel, equipment, supplies, and facilities should be considered when developing objectives. The length of the operational period (e.g., 8 hours, 12 hours, 24 hours, 1 week) will be determined by the needs of the incident, dependent on disease characteristics, evolving epidemiology, and ongoing impact on the community. In the case of a bioterrorist incident, ongoing needs would also be determined on the identification and neutralization of the source of the event. In rapidly escalating or highly complex incidents, the operational periods should be shorter to allow for an effective response to rapidly evolving events.

Participants should share meeting outcomes with other Public Health staff within their teams who may be responsible for responding to the biological incident. The following information should be shared as available and as authorized to responders:

- Trigger or level of activation met.
- Consolidated EEIs and other critical information requirements.
- Projected workforce needs and potential assignments.
- Any pre-incident steps staff need to take to prepare to respond.
- Responder safety information, including disease-specific PPE and infection control recommendations.

Public Health's *Workforce Mobilization Annex* includes additional considerations for communicating with potential responders.

AGENCY ADMINISTRATOR BRIEFING

Preparedness will schedule an *Agency Administrator Briefing* with the Public Health Director, Public Health Deputy Director, and Local Health Officer (LHO) and present the following:

- Trigger or level of activation met.
- Consolidated EEIs and other critical information requirements.
- Recommended incident management structure.
- Set and confirm expectations of response scope and operational capacity.
- Recommended incident objectives and resource requirements for the first operational period.
- Potential resource, administrative and other response needs.

Other Public Health Office of the Director (ODIR) staff may also attend the Agency Administrator briefing at the request of the Director of Public Health Director, Public Health Deputy Director, or Local Health Officer (LHO). Preparedness may also ask other Public Health divisions and programs that have identified roles in response operations to attend.

Briefing participants should agree to a final incident management structure as well as incident objectives and resource requirements for the first operational period.

INCIDENT MANAGEMENT TEAM AND RESPONDER MOBILIZATION

If HMAC is activated, Preparedness will mobilize staff from its HMAC Incident Management Team (IMT) roster to fill Command and General Staff positions within the Incident Command System (ICS). The following ICS positions are typically staffed by the HMAC IMT:

- Agency Administrator
- Incident/Area Commander
- Safety Officer
- Liaison Officer
- Equity Officer
- Public Information Officer
- Operations Section Chief
- Planning Section Chief
- Logistics Section Chief
- Finance and Administration Section Chief

The Area Commander (AC) will staff Command and General Staff positions as needed to manage the incident's coordination and organization, information sharing, equity considerations, and resource needs. They may also choose to staff more positions depending on what is needed to facilitate effective incident management.

Public Health divisions and programs with identified roles in biological incident response operations are responsible for assigning staff as responders to the HMAC Operations Section. Staffing for the following response areas within the Operations Section may be required:

- Epidemiology and Surveillance (including disease investigations and testing).
- Data Analysis and Management.
- Medical Countermeasures (including vaccination and therapeutics).
- Nonpharmaceutical Interventions (including PPE, isolation, and quarantine).
- Health Guidance and Public Information (including community mitigation, community wellbeing, and the Public Information Contact Center (PICC)).

Public Health's *Workforce Mobilization Annex* includes additional considerations for identifying and assigning responders.

HMAC activation is assumed in the proceeding sections of this Annex, but if HMAC is not activated, Public Health divisions and programs are still encouraged to use National Incident Management System (NIMS)-compliant concepts to effectively manage the impacts of a biological incident as they carry out response operations. Even if not initially activated, HMAC can also be partially or fully activated in support of divisions and programs as a biological incident unfolds.

INCIDENT BRIEFING

The Area Commander should deliver an *Incident Briefing* to the HMAC IMT and other responders. An *ICS 201 Incident Briefing* may be used to help prepare for and facilitate the briefing. An *HMAC Activation Notice* should be sent to Public Health leadership and staff and external partners, the HMAC IMT, and any other responders.

Following the briefing, HMAC begins its first operational period of the response.

OPERATIONS INTRODUCTION

The Incident Briefing leads into the initial operational period and marks the start of proactive incident management for an infectious disease response. Facilitated by the Health and Medical Area Command (HMAC) Planning Section, an *Incident Action Plan (IAP)* should be developed for the first operational period and then executed. The following objectives and strategies should be considered for inclusion in an IAP for an infectious disease response.

OVERVIEW

This section of the *Biological Incident Response Annex* serves to document the full scope of Public Health's concept of operations for responding to a biological incident. Different objectives and strategies may be selected to respond effectively and with a focus on health equity during different pandemic intervals. The following listed objectives and strategies are recommendations only; **all objectives can be used at any point during a biological incident response**, as required by the scope of the response and at the discretion of the Area Commander.

The following response objectives are organized by response areas which fall within the scope of *Emergency Support Function #8 – Public Health and Medical Services (ESF #8)*. They include:

- Epidemiology, Surveillance, and Data
- Health Guidance and Public Information
 - Public Information
 - Guidance synthesis and dissemination
 - Public Information Contact Center (PICC) Services
- Information Management
- Medical Countermeasures
 - Vaccination
 - Therapeutics
- Non-pharmaceutical Interventions
 - Infection Control
 - Personal Protective Equipment
 - Isolation and Quarantine
- Responder Safety and Wellbeing
- Testing

A brief description of each response area is provided below. Objectives are intended to inform resource and operational priorities for each operational period of a response and are captured in the Incident Action Plan's *ICS 202* document.

RESOURCING OPERATIONS

Public Health operations require resources and personnel to be reprioritized, acquired, staged, transported, dispensed, tracked, and eventually demobilized throughout the course of a response. There are three critical resourcing dependencies which impact the status of Public Health's preparedness and response capabilities: finance, policy, and critical infrastructure. Limitations and

stipulations in these areas constrain the ability to rapidly activate and conduct emergency response operations.

During the initial response process, a review of needs in these three areas should be conducted prior to the first operational period. Elements to consider include:

FINANCE

- Available emergency funding sources.
- Emergency time codes.
- Existing memorandums of agreement or understanding (MOUs), contracts, and emergency contracting processes.

POLICY

- Federal, state, and local policies and emergency rulings relating to biological incident response capabilities. Changes to these policies during a response may supersede planned assumptions and processes, particularly with respect to laboratory testing, medical countermeasures, and non-pharmaceutical interventions.
- County and Department contracting policies.
- County and Department policies and protocols relating to language access services, such as translation, interpretation, and a culturally informed review of material for distribution.
- County and Department staffing policies and labor agreements relating to deployment of staff outside their normal duties, particularly with respect to public health nurses and Environmental Health Division staff.

CRITICAL INFRASTRUCTURE

Resources must be diverted from steady state routine operations to support an emergency response. When sufficient resources and critical infrastructure such as personnel, facilities, equipment, supplies, and funding are not available, it delays the ability to carry out response operations and provide support to affected communities. Further, critical infrastructure must be supported by common emergency response organizational structures, decision-making frameworks, and information sharing networks that maximizes its use. Given historical responses to infectious disease outbreaks, **capabilities that may have insufficient critical infrastructure or have insufficient support include:**

- **Equity and community-centered processes:** funding and staffing may be significantly reduced for positions that built key relationships with communities during responses once response operations are demobilized, this has the potential to create barriers to positive, sustained relationships with communities; funding and training opportunities for Public Health staff to practice developing community- and accessibility-centered approaches during response are essential; additional contracts, staffing, translation, and technical advisor positions are necessary to adequately staff and carry out the identified equity objectives and strategies in this annex.
- **Medical countermeasures:** resolving conflicting decision-making authority for prioritization of limited testing, treatment, and vaccination resources; limited resources to support Public Health-led distribution, dispensing, and administration directly to partners and communities; Public Health laboratory and clinic service capacity; ensuring alignment process with

Washington State Department of Health (DOH) and neighboring local health jurisdictions in regional efforts and resource prioritization and allocation.

- **Isolation and Quarantine (IQ):** planning for IQ sites and services, such as hotel, motel, and adult family home availability and related contracts; ability to use of DOH IQ site; resources required to establish an IQ site or facility; availability of staff with behavioral health training to triage and support complex guest needs.
- **Care coordination:** define triggers for *Emergency Support Function #6 – Mass Care* (ESF #6) support during early stages of infectious disease spread; Public Health staff and resources to provide these services directly; necessary transportation contracts, resources, and staffing.
- **Surge staffing:** foundational department staffing; budget constraints; needed employee scope of work and reassignment procedures; needed mechanisms for reassignment.
- **Guidance and information:** Public Health resources to support translation, interpretation, and culturally appropriate outreach needs; availability of existing translations of key biological incident response information.

During the initial stages of a biological incident, there may be an opportunity to *contain or limit the spread*¹⁴ of the disease and it is critical to adequately resource priority strategies as quickly as possible. Policies, funding, and improved critical infrastructure in the above areas will directly support quicker, more effective biological incident response operations across King County.

USING OBJECTIVES AND STRATEGIES

The following objectives and strategies are arranged to both guide the development of incident priorities and strategic direction and direct operational staff to relevant guidance and operational documentation.

PLANNING AND PRIORITIZING RESPONSE ACTIVITIES

The objectives can be used to inform development of the *Incident Action Plan*, documented in *ICS 202*. Objectives are templates to be adapted to fit the response scope and remain responsive to community needs. By identifying lead and support positions, the objectives below can also support development of an initial incident organizational chart and better identify relevant positions required to manage the activated response areas.

The *Lead* and *Support* components refer to HMAc functional areas, organizational elements, and leadership positions, unless otherwise stated (King County Human Resources Department, King County Information Technology (IT), etc.). Identified *Lead* and *Support* roles may include command staff and functional areas, such as the HMAc Planning Section, and key organizational elements within the HMAc Operations Section, such as an *Epidemiology and Surveillance Branch* or the *Community Mitigation and Wellbeing Branch*.

While these elements are named in the *Concept of Operations* below, there is no one way to structure the response to a biological incident. HMAc's organizational structure will develop in a modular fashion based on the incident's size and complexity. A single position may be enough to oversee isolation and quarantine response activities in a small-scale response, or an entire *Isolation and Quarantine Group*

¹⁴ Prevent Epidemics. [Box It In: Executive Summary](#).

may be required. Leads are identified to ensure accountability for each objective and strategy, with the understanding that supervisory positions may delegate responsibility and supervisory levels may be added to the organizational structure as needed.

OPERATIONS SECTION USE

Objectives can also be used to quickly find operational documents to support the identified strategies and carry out tactical activities by Operations Section branches. Relevant documents are linked as *Resources*. These documents serve to direct responders from this annex to Public Health’s virtual response space, which includes more operational documents and response tools. The objective and strategy layout includes (see [FIGURE 2](#)):

FIGURE 2. OPERATIONS SECTION LAYOUT.

Response Area:

A defined scope of response activities within the responsibilities defined in *ESF #8*.

Objective:

High level priority action statement which aligns with scope of Public Health’s roles and responsibilities outlined in *ESF #8*.

- **Strategy:**
Targeted action statement relating to the objective. Not all strategies may be implemented; they are strategies to select or prioritize based on the biological incident.
 - **Lead:**
HMAC element responsible for carrying out the objective and strategy.
 - **Support:**
HMAC element with whom the *Lead* should coordinate with while carrying out the response activity. This may include external partners, like King County Office of Emergency Management or King County Department of Human and Community Services.
 - **Resource:**
Documents which may include further guidance or information to support carrying out an objective or strategy, including: 1) existing Public Health response documents which can inform the objective/strategy, such as the *HMAC Playbook* and procedures, *Equity Response Annex*, *Risk Communications Annex*; 2) a DOH, CDC, or relevant guidance and evidence-based document which informs how this objective/strategy should be carried out, such as the *WA DOH NPI Guide*.

CONCEPT OF OPERATIONS

The following section provides a description of each response area and a list of objectives and strategies within their scope of response.

1 | EPIDEMIOLOGY, SURVEILLANCE, AND DATA

The Epidemiology and Surveillance response operations will primarily focus on establishing a case definition and identifying cases, contacts of cases and other exposed persons, the populations most at risk, characterize the clinical illness and severity, identifying and responding to outbreaks in the community, identifying source(s) of the infectious disease emergency, and coordinating with laboratory services. The information obtained by epidemiology and surveillance activities will be used to guide response activities including but not limited to disease containment, medical countermeasures needs and distribution, non-pharmaceutical interventions, situational awareness and messaging to response partners and the public.

Data response operations emphasize maintaining an efficient data system that stores and analyzes rapidly changing epidemiological surveillance data before, during, and after an infectious disease response. During an infectious disease response, the *Data Branch* will identify data sources to inform response operations, provide analyses, and develop surveillance reports that facilitate informed decision-making by response leadership. The branch will also provide subject matter expertise to inform the development of public messaging and guidance to response partners. The branch's analyses, along with information gathered through case interviews, help identify trends, hotspots, and emerging challenges, enabling the identification and implementation of proactive response measures. In addition, the branch develops data visualizations and dashboards that are accessible to the public and complement the implementation of disease response activities.

In an infectious disease response, the *Epidemiology and Surveillance Branch* and *Data Branch* will work closely together to ensure efficient response operations. Information gathered through contact tracing and disease investigations by the Epidemiology and Surveillance team will bolster the analyses of the *Data Branch*. Additionally, insights generated by the *Data Branch* will contribute to refining surveillance strategies and targeting outreach and interventions. Consequently, the objectives and strategies outlined in this section incorporate the interplay of response operations between the *Data Group* and *Epidemiology and Surveillance Branch*, while also providing a high-level overview of the independent operations of each of the two teams.

DETERMINE AND PREPARE

OBJECTIVE: IDENTIFY APPROPRIATE COUNTYWIDE DISEASE SURVEILLANCE STRATEGIES AND COORDINATE WITH LOCAL, REGIONAL, AND NATIONAL PARTNERS ON SURVEILLANCE STRATEGIES AND REPORTING.

- *Strategy:* Use existing national, state, and local data sources and/or information to assess disease characteristics and additional essential elements of information to determine appropriate local surveillance and disease investigation activities.

- **Lead:** Epidemiology and Surveillance Branch; Data Branch.
- **Strategy:** Coordinate surveillance activities with the disease control activities of the CDC, state agencies, and health departments in adjacent jurisdictions (i.e., aligning case definitions, identifying populations at risk, routes of transmission, new sources of the disease agent, etc.).
 - **Lead:** Area Commander; Data Branch; Epidemiology and Surveillance Branch.
 - **Support:** Operations Section Chief.

OBJECTIVE: DEVELOP TOOLS AND SYSTEMS TO CARRY OUT CASE INVESTIGATIONS, DATA COLLECTION, AND ANALYTICS.

- **Strategy:** Develop informatics infrastructure including processes for data management, cleaning, integration, transfer, and analyses.
 - **Leads:** Data Branch; Epidemiology and Surveillance Branch.
- **Strategy:** Develop data collection forms and databases based on epidemiology of the infectious disease.
 - **Leads:** Data Branch; Epidemiology and Surveillance Branch.
- **Strategy:** Develop investigation protocol, toolkit, and other materials relevant to the epidemiology of the infectious disease to support provision of standardized guidance that synthesizes national/state/local guidance on mitigating disease spread for external partners.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Data Branch.

OBJECTIVE: PROVIDE GUIDANCE ON LOCAL EPIDEMIOLOGY AND INFECTION CONTROL PRACTICES TO PUBLIC, HEALTHCARE PROVIDERS, OTHER RESPONSE PARTNERS, AND COMMUNITY PARTNERS.

- **Strategy:** Develop standardized guidance/letters that synthesize national/state/local guidance for external partners
 - **Leads:** Epidemiology and Surveillance Branch; Local Health Officer; Public Information Officer.
- **Strategy:** Coordinate with internal partners to translate communications materials into the relevant languages
 - **Leads:** Epidemiology and Surveillance Branch; Public Information Officer.
 - **Resource:** *Risk Communications Annex.*
 - **Resource:** *Equity Response Annex.*

OBJECTIVE: IDENTIFY EPIDEMIOLOGICAL INVESTIGATION AND DATA AND ANALYTICS DATA/INFORMATICS AND STAFFING NEEDS AND DEVELOP TOOLS AND PROCESSES TO TRAIN STAFF TO CARRY OUT EPIDEMIOLOGICAL INVESTIGATIONS.

- **Strategy:** Develop a sustainable Epidemiology, Surveillance, and Data staffing structure that meets the needs and complexity of response operations.
 - **Lead:** Epidemiology and Surveillance Branch; Data Branch.
 - **Support:** Logistics Section.
 - **Resource:** *Workforce Mobilization Annex.*
- **Strategy:** Identify training needs for Epidemiology, Surveillance, and Data response staff
 - **Leads:** Operations Chief; Epidemiology and Surveillance Branch; Data Branch.
 - **Support:** Logistics Section.

- **Strategy:** Identify data collection, cleaning, analysis, and reporting mechanisms that may be needed based on the epidemiology of the disease.
 - **Lead:** Data Branch.

IMPLEMENT

OBJECTIVE: CARRY OUT CASE AND CONTACT INVESTIGATIONS TO DETERMINE THE CAUSE OF DISEASE, THE SOURCE OF DISEASE, THE MODE OF TRANSMISSION, CLINICAL MANIFESTATIONS, RISK FACTORS FOR DISEASE, EXPOSURES AND ANY OTHER FACTORS THAT MAY BE ASSOCIATED WITH ILLNESS.

- **Strategy:** Implement active and passive symptom monitoring processes for the public and response staff as appropriate and determine a cadence for reporting surveillance activities
 - **Lead:** Operations Section Chief; Epidemiology and Surveillance Branch; Data Branch
- **Strategy:** Collect information about suspected and confirmed cases, possible contacts, other exposed persons and exposure risk settings, disease characteristics, and clinical characteristics in a methodologically appropriate and efficient manner.
 - **Lead:** Epidemiology and Surveillance Branch; Data Branch.
- **Strategy:** Conduct facility investigations and provide subject matter expertise around coordination of response activities focused on those at greatest risk and those most negatively impacted (e.g., healthcare facilities, long-term care facilities, homeless shelters, Emergency Medical Services (EMS), correctional facilities, and other high-risk congregate facilities).
 - **Lead:** Operations Section Chief; Epidemiology and Surveillance Branch; Data Branch.

OBJECTIVE: COORDINATE, ANALYZE, AND/OR UNDERTAKE LABORATORY TESTING AS REQUIRED TO MONITOR THE EMERGENCY AND FOR INDIVIDUAL PATIENT CARE.

- **Strategy:** Establish and maintain laboratory testing criteria with WA PHL, KC PHL, and commercial laboratories.
 - **Lead:** Epidemiology and Surveillance Branch.
- **Strategy:** Staff testing response unit as needed.
 - **Lead:** Epidemiology and Surveillance Branch.
- **Strategy:** Establish and maintain internal specimen tracking process (if coordinating testing via DOH/CDC).
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Data Branch.
- **Strategy:** Obtain, prioritize, and submit specimens for laboratory testing.
 - **Lead:** Logistics Section; Epidemiology and Surveillance Branch.
 - **Support:** Safety Officer.

OBJECTIVE: PROVIDE SUBJECT MATTER EXPERTISE ON SURVEILLANCE AND EPIDEMIOLOGY TO HEALTHCARE PROVIDERS/FACILITIES AND OTHER HIGH RISK NON-HEALTHCARE SETTINGS.

- **Strategy:** Prepare data for reporting and surveillance by integrating data sources, cleaning data, applying case and outbreak definitions to the data, and setting up data dashboards/reports.

- **Lead:** Data Branch.
- **Support:** Epidemiology and Surveillance Branch; Public Information Officer.
- *Strategy:* Coordinate with relevant HMAC Operations teams on laboratory testing, treatment guidelines, and infection control guidance.
 - **Lead:** Data Branch; Epidemiology and Surveillance Branch.

OBJECTIVE: PROVIDE SUBJECT MATTER EXPERTISE ON INFECTION CONTROL TO HEALTHCARE PROVIDERS/FACILITIES AND OTHER HIGH RISK NON-HEALTHCARE SETTINGS.

- *Strategy:* Provide coordinated guidance, advice on infection control, and surveillance-related communications to local health partners (i.e., UW/HMC Health System, NWHRN, health advisories) and community partners (i.e., HCHN/HSP network, community health boards, school/childcare networks, animal facilities) regarding epidemiology, testing, infection control, and treatment guidelines.
 - **Lead:** Public Information Officer; Data Branch; Epidemiology and Surveillance Branch; Local Health Officer.
- *Strategy:* Coordinate with Community Mitigation and Wellbeing Branch, King County Office of Emergency Management and Washington State Department of Health on the allocation and distribution of personal protective equipment in accordance with the statewide guidelines for prioritization.
 - **Lead:** HMAC Operations leadership; Epidemiology and Surveillance Branch.
 - **Support:** Data Branch.

MONITOR AND ASSESS

OBJECTIVE: MONITOR AND ASSESS IMPLEMENTED EPIDEMIOLOGY, SURVEILLANCE, AND DATA RESPONSE STRATEGIES.

- *Strategy:* Adjust implementation to active and passive disease monitoring processes as needed.
 - **Lead:** Epidemiology and Surveillance Branch; Data Branch.
- *Strategy:* Monitor disease trends to assess for changing needs, evaluate effectiveness of strategies to drive continuous quality improvement in response activities, and modify strategies as needed.
 - **Lead:** Epidemiology and Surveillance Branch; Data Branch.
- *Strategy:* Utilize community feedback mechanism and data to monitor and assess implemented strategies, evaluate effectiveness, and modify strategies as needed.
 - **Lead:** Epidemiology and Surveillance Branch; Data Branch; Community Mitigation and Wellbeing Branch.
- *Strategy:* Expand capacity for disease investigation, community-wide testing, non-pharmaceutical intervention strategies, and medical surge resources, to support changes in implementation of non-pharmaceutical intervention strategies, as needed.
 - **Lead:** Logistics Section; Epidemiology and Surveillance Branch; Data Branch.

INTEGRATE

OBJECTIVE: PROVIDE SUBJECT MATTER EXPERTISE AND TECHNICAL GUIDANCE TO INTEGRATE ACTIVITIES ACROSS HMAC STRUCTURE AND IN ALIGNMENT WITH JURISDICTIONAL PARTNERS.

- *Strategy:* Provide technical input on surveillance, epidemiology, and clinical issues for the development of internal and external guidance, communications, and policy development.
 - **Lead:** Data Branch Team; Epidemiology and Surveillance Branch.
 - **Support:** Public Information Officer; Community Mitigation and Wellbeing.
- *Strategy:* Consistently coordinate with HMAC leadership, King County Office of Equity and Social Justice, and community partners to assess communities' needs and seek input on key strategies for at-risk populations.
 - **Lead:** Data Branch; Epidemiology and Surveillance Branch.
- *Strategy:* Provide subject matter expertise through data and guidance to *Community Mitigation and Wellbeing Branch* and *Isolation and Quarantine Group*.
 - **Leads:** Isolation and Quarantine Group; Epidemiology and Surveillance Branch; Data Branch.
 - **Support:** Equity Officer.
- *Strategy:* Participate in coordination of regional medical surge operations, such as community wellness, alternate care systems and crisis standards of care.
 - **Lead:** Operations Section Chief.
- *Strategy:* Coordinate data reporting with *Public Information Officer* and *Community Mitigation and Wellbeing Branch*.
 - **Lead:** Data Branch; Public Information Officer.
 - **Support:** Community Mitigation and Wellbeing; Equity Officer.
- *Strategy:* Coordinate with *Safety Officer* to provide technical guidance on standards and guidelines for responder safety and health.
 - **Lead:** Safety Officer; Epidemiology and Surveillance Branch.
 - **Support:** Public Information Officer; Equity Officer.
- *Strategy:* Coordinate with *Logistics Section* for staff, supplies, and resources that may be needed to support epidemiology, surveillance, and data operations.
 - **Lead:** Data Branch; Epidemiology and Surveillance Branch.
 - **Support:** Logistics Section; Equity Officer.

2 | HEALTH GUIDANCE AND PUBLIC INFORMATION

Providing accurate, timely, and accessible information about disease outbreaks and emerging infections to the public, healthcare providers, and response partners is integral to an infectious disease response. Coordination of federal, state, and local health guidance ensures that providers and the public receive clear and consistent information. Expanding collaborations beyond traditional state and territorial public health partners to include impacted and at-risk community groups is a key component for effectively and inclusively developing and disseminating information about an emerging infectious disease.

Response operations focused on Health Guidance and Public Information emphasize collaboration across response teams to create timely, evidence-based communications that are inclusive of community groups. It is well-documented that the accessibility and comprehensibility of health information significantly impact the public's response to infectious diseases and biological incidents. Consequently, disseminating health guidance in multiple formats and languages is instrumental in reaching different community groups, reducing transmission, and ensuring adherence to recommended interventions. Central to the objectives and strategies outlined below are rooted in scientific rigor, equity-based best practices, and a commitment to inclusivity in risk communication.

These objectives and strategies describe response activities conducted by the Public Information Officer and their support staff, *Communications Response Team*. The guidance development and outreach components describe response activities overseen by a *Community Mitigation and Wellbeing Branch*. As communications and guidance development are cross cutting functions, a *Health Guidance and Public Information Task Force* may need to be created, and should include staff with communications, equity, policy, and disease-specific subject matter expertise. Communications technical advisors may also be embedded in other organizational units across the Operations Section as needed.

DETERMINE

OBJECTIVE: DETERMINE APPROPRIATE RISK COMMUNICATIONS STRATEGIES TO PROVIDE ACCURATE AND ACTIONABLE INFORMATION TO IMPACTED COMMUNITIES, RESPONSE PARTNERS, AND THE PUBLIC.

- *Strategy:* Assess essential elements of information (EELs) to inform an initial assessment of the situation.
 - **Lead:** Public Information Officer.
- *Strategy:* Develop recommendations, including identified resource needs, for HMAC Command Staff regarding implementing risk communications strategies.
 - **Lead:** Public Information Officer.
- *Strategy:* Approve recommendations and planning steps.
 - **Lead:** Public information Officer.
 - **Support:** Area Commander; Operations Section Chief.
- *Strategy:* Staff relevant HMAC positions to manage implementation of recommendations.
 - **Lead:** Public Information Officer.

OBJECTIVE: DETERMINE GUIDANCE DEVELOPMENT AND DELIVERY NEEDS BASED ON INFECTIOUS DISEASE CHARACTERISTICS AND AFFECTED POPULATION.

- *Strategy:* Assess essential elements of information (EELs) to inform an initial assessment of the situation.
 - **Lead:** Public Information Officer.
 - **Support:** Epidemiology and Surveillance Branch; Equity Officer; Operations Section Chief
- *Strategy:* Develop recommendations, including identified resource needs, for HMAC Command Staff regarding implementation of guidance development strategies.
 - **Lead:** Public Information Officer.
 - **Support:** Epidemiology and Surveillance Branch; Equity Officer; Operations Section Chief; Logistics.
- *Strategy:* Approve recommendations and planning steps.
- *Strategy:* Staff relevant HMAC positions to manage implementation of recommendations.
 - **Lead:** Public Information Officer.
 - **Support:** Logistics, Operations Section Chief.
- *Strategy:* Embed *Communications Response Team* staff and communications subject matter experts within key Operations Section branches to coordinate priority tasks and information sharing with the Public Information Officer.
 - **Lead:** Public Information Officer.
 - **Support:** Operations Section Chief.
- *Strategy:* Staff *Health Guidance and Information Task Force* with staff from *Community Mitigation and Wellbeing Branch*, *Communications Response Team*, and other technical experts as needed. This task force may be expanded or duplicated to address key populations and settings, and should include staff with communications, equity, police, and disease-specific subject matter expertise.
 - **Lead:** Public Information Officer.
 - **Support:** Logistics, Operations Section Chief.

PREPARE

PUBLIC INFORMATION

OBJECTIVE: DEVELOP COMMUNICATIONS MANAGEMENT PROCESS.

- *Strategy:* Develop and maintain responder resource documents to communicate core messages on current situation, risk to key populations, risk to public, and additional information relevant to the response.
 - **Lead:** Public Information Officer.
 - **Support:** Communications Response Team; Epidemiology and Surveillance Branch; Planning Section – Situation Unit.
- *Strategy:* Establish information release process to ensure accurate public information is shared in a timely manner.
 - **Lead:** Public Information Officer.
 - **Support:** Communications Response Team; Epidemiology and Surveillance Branch; Planning Section – Situation Unit.
- *Strategy:* Develop priority content translation process to ensure messaging and recommendations are available in multiple languages, formats, and with the option for interpretation for where to seek ongoing and critical health services.
 - **Lead:** Public Information Officer.

- **Support:** Equity Officer; Language Access; Community Mitigation and Wellbeing Branch
 - **Resource:** *Equity Response Annex; Risk Communications Annex.*
- **Strategy:** Determine need and scope of responsibilities for internal communications, including messaging to non-response Public Health employees, support for leadership messaging, and alignment with King County Human Resources messaging.
 - **Lead:** Public Health Director of Communications.
 - **Support:** Public Information Officer; Communications Response Team; Public Health Employee Services, King County Human Resources (Safety & Claims), Safety Officer.
 - **Resource:** *Equity Response Annex; Risk Communications Annex.*

OBJECTIVE: DEVELOP MEDIA ENGAGEMENT AND MANAGEMENT PLAN.

- **Strategy:** Develop schedule for regular media updates via press conferences, interviews, and other interactions with the media.
 - **Lead:** Public Information Officer.
- **Strategy:** Develop process to receive and manage media inquiries and requests.
 - **Lead:** Public Information Officer.
- **Strategy:** Develop process to manage media at Public Health sites.
 - **Lead:** Public Information Officer.
- **Strategy:** Develop process to prepare and train spokespeople, as needed.
 - **Lead:** Public Information Officer.
- **Strategy:** Develop process to identify and monitor media coverage, including broadcast, print, social media, and online media.
 - **Lead:** Public Information Officer.
 - **Resource:** *Risk Communications Annex.*

OBJECTIVE: DEVELOP SOCIAL MEDIA ENGAGEMENT AND MANAGEMENT PLAN.

- **Strategy:** Develop process for developing online content, including blogs, social media posts, videos, and other content, across all social media platforms in an accessible and relevant way.
 - **Lead:** Public Information Officer.
- **Strategy:** Develop process to review social media engagement for rumor control and elevation to appropriate responders for response, as needed.
 - **Lead:** Public Information Officer.

OBJECTIVE: DEVELOP COMMUNITY ENGAGEMENT AND OUTREACH PLAN TO PROVIDE ACCURATE, RELEVANT, AND ACTIONABLE INFORMATION TO AT-RISK COMMUNITIES AND SETTINGS.

- **Strategy:** Synthesize input from community partners, *Equity Officer* and team, and *Epidemiology and Surveillance Branch* to determine at-risk community needs and outreach strategies to address health disparities, risk disparities, and information gaps.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Equity Response Team, Equity Officer.
 - **Resource:** *Equity Response Annex; Risk Communications Annex.*
- **Strategy:** Develop process to conduct in-language and culturally informed outreach to Populations Impacted by Inequity and most impacted communities.
 - **Lead:** Public Information Officer.

- *Strategy:* Develop process to promote health and safety messages on platforms in addition to Public Health’s regular channels, considering alternative outlets to target specific at-risk groups (radio channels; community blogs and newspapers; community centers; faith-based organizations; schools; libraries; etc.)
 - **Lead:** Public Information Officer.
 - **Support:** Equity Officer; Community Mitigation and Wellbeing Branch.
 - **Resource:** *Equity Response Annex; Risk Communications Annex.*
- *Strategy:* Develop process to collect feedback to monitor and assess effectiveness of community engagement and outreach, including guidance effectiveness and community recommendations.
 - **Lead:** Public Information Officer.
- *Strategy:* Staff additional community engagement HMAC positions to support engagement and outreach plan, as needed.
 - **Lead:** Public Information Officer, Communications Response Team.
 - **Support:** Community Mitigation and Wellbeing Branch; Logistics Section; Operations Section Chief.
- *Strategy:* Develop process to provide risk communications support to outreach and dissemination strategies and team.
 - **Lead:** Community Mitigation and Wellbeing Branch.

OBJECTIVE: DEVELOP RISK COMMUNICATIONS TO PROVIDE ACCURATE, RELEVANT, AND ACTIONABLE INFORMATION TO IMPACTED COMMUNITIES AND POPULATIONS.

- *Strategy:* Develop social media content designed to reach impacted communities and populations.
 - **Lead:** Public Information Officer.
- *Strategy:* Develop media content and engagement opportunities (press releases, interviews, Q&A sessions) designed to reach impacted communities and populations.
 - **Lead:** Public Information Officer.
- *Strategy:* Develop direct outreach and community engagement content and engagement opportunities (community radio spots, community engagement and information sessions) designed to reach impacted communities and populations.
 - **Lead:** Community Mitigation and Wellbeing Branch.

OBJECTIVE: DEVELOP RISK COMMUNICATIONS TO PROVIDE ACCURATE, RELEVANT, AND ACTIONABLE INFORMATION TO RESPONSE PARTNERS.

- *Strategy:* Develop social media content designed to inform and support key response partners (hospitals, healthcare systems, emergency services partners, distribution partners, emergency management partners, etc.).
 - **Lead:** Public Information Officer.
- *Strategy:* Develop media content and engagement opportunities designed to inform and support key response partners (hospitals, healthcare systems, emergency services partners, distribution partners, emergency management partners, etc.).
 - **Lead:** Public Information Officer.
- *Strategy:* Develop direct outreach and community engagement content and engagement opportunities designed to inform and support key response partners (hospitals, healthcare systems, emergency services partners, distribution partners, emergency management partners, etc.).

- **Lead:** Public Information Officer.
- **Support:** Community Mitigation and Wellbeing Branch.

OBJECTIVE: DEVELOP RISK COMMUNICATIONS TO PROVIDE ACCURATE, RELEVANT, AND ACTIONABLE INFORMATION TO THE PUBLIC.

- *Strategy:* Develop social media content designed to inform and support the public.
- *Strategy:* Develop media content and engagement opportunities (press releases, interviews, Q&A sessions) designed to inform and support the public.
 - **Lead:** Public Information Officer.
- *Strategy:* Develop direct outreach and community engagement content and engagement opportunities (community radio spots, community engagement and information sessions) designed to inform and support key response partners the public.
 - **Lead:** Public Information Officer.
 - **Support:** Community Mitigation and Wellbeing Branch; Epidemiology and Surveillance Branch; Equity Officer.

HEALTH GUIDANCE

OBJECTIVE: DEVELOP HEALTH AND SAFETY GUIDANCE SYNTHESIS AND DISSEMINATION PROCESS.

- *Strategy:* Determine and approve key sources of health and safety guidance (WA DOH, CDC) to be used across response branches and functions.
 - **Lead:** Public Information Officer.
 - **Support:** Epidemiology and Surveillance Branch; Equity Officer; Operations Section Chief, Planning Section – Situation Unit.
- *Strategy:* Develop process to synthesize health and safety guidance relevant to the incident for priority populations and settings.
 - **Lead:** Public Information Officer.
 - **Support:** Epidemiology and Surveillance Branch; Safety Officer; Equity Officer; Community Mitigation and Wellbeing Branch.
- *Strategy:* Develop process to integrate language access (including translation and interpretation services) and culturally informed language into guidance synthesis and dissemination process.
 - **Lead:** Public Information Officer.
 - **Support:** Epidemiology and Surveillance Branch; Safety Officer; Equity Officer; Community Mitigation and Wellbeing Branch.

IMPLEMENT

COMMUNICATION STRATEGIES

OBJECTIVE: COMMUNICATE ACCURATE AND ACTIONABLE RISK COMMUNICATIONS FOR IMPACTED COMMUNITIES AND POPULATIONS.

- *Strategy:* Utilize *social media platforms* to communicate key risk messages to impacted communities and populations.
 - **Lead:** Public Information Officer.
- *Strategy:* Utilize *media channels* to communicate key risk messages to impacted communities and populations.
 - **Lead:** Public Information Officer.
- *Strategy:* Utilize *community engagement and outreach process* to communicate key risk messages to impacted communities and populations.
 - **Lead:** Community Mitigation & Wellbeing Branch.
- *Strategy:* Provide messaging and recommendations in multiple languages, formats, and with the option for interpretation for where to seek ongoing and critical health services.
 - **Leads:** Public Information Officer.
 - **Support:** Equity Officer; Community Mitigation and Wellbeing Branch
 - **Resource:** *Equity Response Annex.*
 - **Resource:** *Risk Communications Annex.*

OBJECTIVE: COMMUNICATE ACCURATE AND ACTIONABLE RISK COMMUNICATIONS FOR AT-RISK POPULATIONS AND SETTINGS.

- *Strategy:* Utilize *social media platforms* to communicate key risk messages to at-risk communities and populations.
 - **Lead:** Public Information Officer.
- *Strategy:* Utilize *media channels* to communicate key risk messages to at-risk communities and populations. Promote health and safety messages on platforms in addition to Public Health's regular channels, considering alternative outlets to target specific at-risk groups (radio channels; community blogs and newspapers; community centers; faith-based organizations; schools; libraries; etc.).
 - **Lead:** Public Information Officer.
 - **Support:** Equity Officer; Community Mitigation and Wellbeing Branch.
 - **Resource:** *Equity Response Annex.*
- *Strategy:* Utilize *community engagement and outreach process* to communicate key risk messages to at-risk communities and populations.
- *Strategy:* Establish Speakers Bureau to support direct outreach and engagement with the public, key response partners, and key at-risk populations.
- *Strategy:* Provide messaging and recommendations in multiple languages, formats, and with the option for interpretation for where to seek ongoing and critical health services.
 - **Lead:** Public Information Officer.
 - **Support:** Equity Officer; Community Mitigation and Wellbeing Branch.
 - **Resource:** *Equity Response Annex.*

OBJECTIVE: COMMUNICATE ACCURATE AND ACTIONABLE RISK COMMUNICATIONS FOR RESPONSE PARTNERS.

- *Strategy:* Utilize social media platforms to communicate key risk messages to response partners.
 - **Lead:** Public Information Officer.
- *Strategy:* Utilize media channels to communicate key risk messages to response partners.
 - **Lead:** Public Information Officer.
- *Strategy:* Utilize community engagement and outreach process to communicate key risk messages to response partners.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Equity Officer; Public Information Officer.

OBJECTIVE: COMMUNICATE CORE RISK COMMUNICATIONS TO PROVIDE ACCURATE AND ACTIONABLE INFORMATION FOR THE PUBLIC.

- *Strategy:* Utilize social media platforms to communicate key risk messages to the public.
 - **Lead:** Public Information Officer.
- *Strategy:* Utilize media channels to communicate key risk messages to the public.
 - **Lead:** Public Information Officer.
- *Strategy:* Utilize community engagement and outreach process to communicate key risk messages to the public.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Equity Officer; Public Information Officer.

OBJECTIVE: COMMUNICATE KEY RISK MESSAGING INTO LANGUAGES RELEVANT TO IMPACTED AND AT-RISK POPULATIONS AND COMMUNITIES.

- *Strategy:* Utilize priority content translation process with Language Access, *Equity Response Team*, and *Equity Officer* to translate key information is available in relevant languages other than English.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Equity Officer; Public Information Officer.
- *Strategy:* Develop content for social media, media, and direct community outreach and engagement.
 - **Lead:** Public Information Officer; Community Mitigation and Wellbeing Branch.
 - **Support:** Equity Officer.
- *Strategy:* Staff an education and outreach cadre with appropriate translators included (such as a *Health Educators Surge Team*).
 - **Lead:** Public Information Officer; Community Mitigation and Wellbeing Branch.
 - **Support:** Equity Officer.
- *Strategy:* Provide messaging and recommendations in multiple languages, formats, and with the option for interpretation for where to seek response services.
 - **Leads:** Public Information Officer; Equity Officer; Community Mitigation and Wellbeing Branch
 - **Resource:** *Equity Response Annex*.

GUIDANCE SYNTHESIS AND DISSEMINATION STRATEGIES

OBJECTIVE: SYNTHESIZE AND DISSEMINATE HEALTH GUIDANCE SPECIFIC TO THE BIOLOGICAL INCIDENT FOR IMPACTED COMMUNITIES AND POPULATIONS.

- *Strategy:* Synthesize and disseminate guidance addressing symptom identification, testing, treatment, and containment.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch, Public Information Officer, Community Mitigation and Wellbeing Branch; Health Guidance and Information Task Force, if activated.

OBJECTIVE: SYNTHESIZE AND DISSEMINATE HEALTH GUIDANCE SPECIFIC TO THE BIOLOGICAL INCIDENT FOR AT-RISK POPULATIONS AND SETTINGS.

- *Strategy:* Develop and disseminate guidance addressing prevention, testing, containment, contact tracing, zoonotic health guidance, and related resources that centers the needs of populations impacted by inequities and at-risk groups and settings.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer; Communications Response Team; Health Guidance and Information Task Force, if activated; Testing Group; Therapeutics Group; Vaccination Group; Isolation and Quarantine Group.
- *Strategy:* Support Environmental Health with development and dissemination of sanitation, hygiene, and indoor air quality guidance related to the infectious disease response.
 - **Lead:** Public Information Officer; Communications Response Team.
 - **Support:** Environmental Health.
- *Strategy:* Ensure that guidance and resources include anti-racist language developed in multiple formats (to support Access and Functional Needs (AFN) communities), languages, and include the option for interpretation.
 - **Leads:** Public Information Officer; Equity Officer.
 - **Support:** Community Mitigation and Wellbeing Branch.
 - **Resource:** *Equity Response Annex.*

OBJECTIVE: SYNTHESIZE AND DISSEMINATE HEALTH GUIDANCE SPECIFIC TO RESPONSE PARTNERS.

- *Strategy:* Synthesize and disseminate guidance for handling and storing of vaccines, treatments, and other medical countermeasures.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer; Vaccination Group; Therapeutics Group; Communications Response Team.

OBJECTIVE: SYNTHESIZE AND DISSEMINATE HEALTH GUIDANCE SPECIFIC TO THE BIOLOGICAL INCIDENT FOR THE PUBLIC.

- *Strategy:* Develop guidance for general public actions for prevention, mitigation, containment, and treatment.

- **Lead:** Public Information Officer.
- **Support:** Epidemiology and Surveillance Branch.
- *Strategy:* Disseminate guidance for public actions for prevention, mitigation, containment, and treatment.
 - **Lead:** Public Information Officer.
 - **Support:** Communications Response Team, Community Mitigation and Wellbeing Branch, Health Guidance and Information Task Force, if activated.

DIRECT OUTREACH STRATEGIES

OBJECTIVE: CONDUCT IN-LANGUAGE AND CULTURALLY INFORMED OUTREACH TO AT-RISK AND MOST IMPACTED COMMUNITIES.

- *Strategy:* Distribute relevant information and guidance to populations impacted by inequity and most impacted communities.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Equity Officer or Equity Technical Advisor; Communications Response Team; Health Guidance and Information Task Force, if activated.
 - **Resource:** *Equity Response Annex.*
- *Strategy:* Conduct outreach to community-based organizations, faith-based organizations, community centers, and other organizations active in disasters to ensure guidance and information is disseminated effectively.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer; Communications Response Team; Equity Officer
 - **Resource:** *Equity Response Annex.*
 - **Resource:** *Workforce Mobilization Annex.*
- *Strategy:* Provide volunteer management support for outreach activities, if necessary.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Logistics Section; Operations Section.
 - **Resource:** *Equity Response Annex.*
 - **Resource:** *Workforce Mobilization Annex.*

MONITOR AND ASSESS

COMMUNICATION STRATEGIES

OBJECTIVE: CONTINUALLY COLLECT, DOCUMENT, AND ANALYZE INFORMATION FROM HMIC, MEDIA, AND OTHER PARTNER AGENCIES TO ENSURE CONTENT IS ACCURATE AND ACTIONABLE.

- *Strategy:* Utilize communications management process to ensure response communications and guidance documents are accurate and updated regularly.
 - **Lead:** Public Information Officer.
- *Strategy:* Report on major updates regarding media or social media reports, outreach strategies, response partner communications, and other risk communications-related information to response Command and General Staff.

- **Lead:** Public Information Officer.
- **Support:** Equity Officer.

OBJECTIVE: MONITOR AND ASSESS SOCIAL MEDIA SITES FOR COMMUNITY NEEDS, MISINFORMATION, AND GAPS IN INFORMATION RELATING TO THE HAZARD AND AVAILABLE RESOURCES AND SERVICES.

- *Strategy:* Coordinate with *Community Mitigation and Wellbeing Branch* to identify sources of information utilized by at-risk populations and settings.
 - **Lead:** Public Information Officer.
- *Strategy:* Utilize communications management process to manage rumor control and obtain verification of all information prior to release to the public or response partners.
 - **Lead:** Public Information Officer.
 - **Support:** Equity Officer.

GUIDANCE SYNTHESIS AND DISSEMINATION STRATEGIES

OBJECTIVE: MONITOR AND ASSESS EFFECTIVENESS OF GUIDANCE CONTENT.

- *Strategy:* Utilize engagement and feedback process to assess effectiveness of guidance, including data elements around health literacy and cultural appropriateness.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer; Equity Officer; Equity Response Team; Public Health Language Access Program.

OBJECTIVE: MONITOR AND ASSESS EFFECTIVENESS OF GUIDANCE SYNTHESIS AND DEVELOPMENT PROCESS.

- *Strategy:* Identify gaps and process improvements to streamline guidance synthesis and development roles and responsibilities between *Public Information Officer, Communications Response Team, and Community Mitigation and Wellbeing Branch*.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer; Communications Response Team.

DIRECT OUTREACH STRATEGIES

OBJECTIVE: MONITOR AND ASSESS EFFECTIVENESS OF GUIDANCE DISSEMINATION.

- *Strategy:* Utilize engagement and feedback process to assess effectiveness of guidance dissemination to intended communities and audiences.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer; Equity Officer.
- *Strategy:* Share qualitative and quantitative guidance feedback with *Epidemiology and Surveillance Branch, Data Branch, and other relevant HMAC operations* to improve health outcomes.
 - **Lead:** Community Mitigation and Wellbeing Branch.

- **Support:** Epidemiology and Surveillance Branch, Data Branch, Equity Officer, Operations Section Chief.

INTEGRATE OPERATIONS

OBJECTIVE: DEVELOP PROCESS TO ENSURE COMMAND AND GENERAL STAFF RECEIVE TIMELY UPDATES RELATING TO COMMUNICATIONS PROCESSES.

- *Strategy:* Ensure process of updating information integrates guidance changes from *Epidemiology and Surveillance Branch* and is shared among General and Command Staff at regular intervals.
 - **Lead:** Public Information Officer.
- *Strategy:* Socialize location of key internal information documents with *Public Information Contact Center (PICC) Group, Safety Officer, Epidemiology and Surveillance Branch, Equity Officer*
 - **Lead:** Public Information Officer.

OBJECTIVE: TRACKING PROGRESS OF COMMUNICATIONS PRODUCT DEVELOPMENT.

- *Strategy:* Track content development, including translations, in central location to support outreach and engagement efforts by vaccination, testing, treatment, and other operational teams.
 - **Lead:** Public Information Officer.
- *Strategy:* Develop and implement templates and communications guides for content being developed by response site locations, such as community vaccination events, testing sites, treatment sites, and other operational sites.
 - **Lead:** Public Information Officer.
 - **Support:** Communications Response Team.

OBJECTIVE: MAINTAIN PROCESS TO INTEGRATE ACTIVITIES OF THE *COMMUNITY MITIGATION AND WELLBEING* ACTIVITIES WITH *COMMUNICATIONS RESPONSE TEAM* AND *PUBLIC INFORMATION OFFICER*.

- *Strategy:* Establish scope and responsibilities of content creation and support between Community Mitigation and Wellbeing Branch with *Communications Response Team* and *Public Information Officer*; consider ongoing need for joint *Health Guidance and Information Task Force*.
 - **Lead:** Public Information Officer; Community Mitigation and Wellbeing Branch.
- *Strategy:* Establish regular check ins and approval process between *Communications Response Team* and *Community Mitigation and Wellbeing Branch*, as needed.
 - **Lead:** Public Information Officer; Community Mitigation and Wellbeing Branch.

OBJECTIVE: COORDINATE COMMUNICATIONS TO INTERNAL PUBLIC HEALTH EMPLOYEES, INCLUDING INTERNAL COMMUNICATIONS ON EMPLOYEE SAFETY AND WELLBEING, AS WELL AS LEADERSHIP MESSAGES.

- *Strategy:* Support Safety Officer in dissemination of safety and wellbeing messaging across response and to non-response Public Health employees, as needed.
- *Strategy:* Coordinate support for internal Public Health and King County employee messaging with Public Health Human Resources and King County Human Resources Department, as needed.
 - **Lead:** Public Information Officer.
 - **Support:** Communications Response Team.

OBJECTIVE: MAINTAIN COORDINATION PROCESS FOR GUIDANCE DISSEMINATION STRATEGIES AND COMMUNITY ENGAGEMENT STRATEGIES.

- *Strategy:* Coordinate with *Epidemiology and Surveillance Branch* and *Data Branch* to identify and align guidance strategies and direct outreach strategies with gaps in health impacts to key at-risk populations.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch; Data Branch; Communications Response Team.

OBJECTIVE: MAINTAIN AWARENESS OF UPDATES OR CHANGES TO CENTERS FOR DISEASE CONTROL AND PREVENTION GUIDANCE, WA DEPARTMENT OF HEALTH GUIDANCE, AND OTHER RELEVANT GUIDANCE AND BEST PRACTICES.

- *Strategy:* Work with *Planning Section – Situation Unit* to track changes to official guidance, relevant policies, or other policies which may impact Public Health’s response. This may include state and federal response policies, CDC guidance on infection control, nonpharmaceutical interventions, and availability or access to vaccines, testing, and treatment.
 - **Lead:** Public Information Officer.
 - **Support:** Planning Section; Communications Response Team.

PUBLIC INFORMATION CONTACT CENTER (PICC)

DETERMINE

OBJECTIVE: DETERMINE APPROPRIATE PICC SERVICES TO ACTIVATE TO PROVIDE ACCURATE AND ACTIONABLE INFORMATION TO IMPACTED PATIENTS, AT-RISK POPULATIONS AND SETTINGS, RESPONSE PARTNERS, AND THE PUBLIC.

- *Strategy:* Assess essential elements of information (EElS) to inform an initial assessment of the situation.
 - **Lead:** HMAC Operations Section Chief
 - **Support:** Surveillance and Epidemiology Branch; Public Information Officer; Equity Officer.
- *Strategy:* Develop recommendations, including identified resource needs, for HMAC Command Staff regarding implementing PICC services.
- *Strategy:* Approve recommendations and planning steps.

- *Strategy:* Staff relevant HMAC positions to manage implementation of recommendations.
 - **Lead:** Planning Section – Resource Unit.
 - **Support:** Logistics.

PREPARE

OBJECTIVE: DEVELOP CALL TRIAGE PROCESS TO SUPPORT EPIDEMIOLOGY AND SURVEILLANCE BRANCH RESPONSE NEEDS.

- *Strategy:* Develop tracking system in support of Epidemiology and Surveillance Branch response needs, particularly around isolation and quarantine measures; individuals experiencing homelessness; and additional criteria as determined by Epidemiology and Surveillance Branch.
 - **Lead:** PICC Director.
 - **Support:** Epidemiology and Surveillance Branch; Data Branch; Public Information Officer.
- *Strategy:* Develop triage process for potential callers, including healthcare providers and alternate healthcare settings, impacted communities and settings (patients, exposed individuals, high risk settings such as gyms, businesses, etc.), at-risk populations and settings (congregate settings, schools, those experiencing homelessness, etc.), response partners, and public.
 - **Lead:** PICC Director.
 - **Support:** Epidemiology and Surveillance Branch; Data Branch; Public Information Officer.
- *Strategy:* Identify and document resources to support queries, including information around: isolation and quarantine, vaccination, treatment, wraparound services, and other response service areas relevant to the response.
 - **Lead:** PICC Director.
 - **Support:** Epidemiology and Surveillance Branch; Data Branch; Public Information Officer.

OBJECTIVE: DEVELOP PROCESS WITH EPIDEMIOLOGY AND SURVEILLANCE BRANCH TO ENSURE PICC HAS ACCURATE AND UPDATED INFORMATION AND HEALTH GUIDANCE TO SHARE WITH CALLERS.

- *Strategy:* Develop process which includes steps for health data and guidance input, resource material creation (hot sheets, factsheets), and PICC organization process.
 - **Lead:** PICC Director.
 - **Support:** Epidemiology and Surveillance Branch; Data Branch; Public Information Officer.

OBJECTIVE: DEVELOP RESOURCE MATERIALS FOR PICC STAFF TO EFFECTIVELY ANSWER QUERIES FROM HEALTHCARE PROVIDERS, AT-RISK POPULATIONS, AND SETTINGS, IMPACTED INDIVIDUALS (PATIENTS AND SITE CLIENTS), AND THE PUBLIC.

- *Strategy:* Develop hot sheets, contact lists, and other material required by PICC staff to effectively answer and triage caller queries prior to PICC number being shared publicly.
- *Strategy:* Develop PICC staff training and onboarding resources and material.

- *Strategy:* Develop feedback mechanism to capture and address queries falling outside of staff knowledge or resources.
- *Strategy:* Develop process with Language Access and *Equity Officer* to prioritize translation and interpretation services relating to PICC materials and call queries.

OBJECTIVE: DEVELOP STRATEGY TO COMMUNICATE PICC CONTACT INFORMATION, HOURS, AND SCOPE OF SERVICES TO INTENDED AUDIENCES.

- **Lead:** PICC Director.
- **Support:** Public Information Officer; Operations Section Chief; Epidemiology and Surveillance Branch.

IMPLEMENT

OBJECTIVE: TRIAGE AND ADDRESS REQUESTS FOR INFORMATION FROM HEALTHCARE PROVIDERS AND ALTERNATIVE HEALTHCARE SETTINGS.

OBJECTIVE: TRIAGE AND ADDRESS REQUESTS FOR INFORMATION FROM IMPACTED POPULATIONS AND SETTINGS.

OBJECTIVE: TRIAGE AND ADDRESS REQUESTS FOR INFORMATION FROM AT-RISK POPULATIONS AND SETTINGS.

- *Strategy:* Address queries from callers at higher risk due to the disease characteristics and outbreak, such as age-specific populations, due to workplace settings, school or other congregate settings, and other higher risk factors related to the infectious disease.
- *Strategy:* Address queries from community members at higher risk due to broader social determinants of health and barriers to preventative, containment, or treatment information or resources.
- *Strategy:* Address queries from service providers, community and faith-based organizations, and others who serve at-risk populations and settings.

OBJECTIVE: TRIAGE AND ADDRESS REQUESTS FOR INFORMATION FROM THE GENERAL PUBLIC.

MONITOR AND ASSESS

OBJECTIVE: MONITOR AND ASSESS CALLER QUERY TOPICS AND IDENTIFY GAPS IN AVAILABLE INFORMATION.

- *Strategy:* Develop and utilize call monitoring dashboard, if needed.
- *Strategy:* Share assessments with *Epidemiology and Surveillance Branch*, *Public Information Officer* and *Communications Response Team*, *Equity Officer*, and other relevant response partners, such as *Isolation and Quarantine Group*, as applicable.

OBJECTIVE: MONITOR AND ADDRESS EFFECTIVENESS OF CALL TRIAGE PROCESS.

- *Strategy:* Use monitoring and feedback mechanism to assess effectiveness of PICC services, including triage process, and implement improvements to meet changing response needs.

INTEGRATE OPERATIONS
OBJECTIVE: INTEGRATE FEEDBACK ON PICC RESOURCES, TRIAGE INFORMATION, AND CALLER EXPERIENCE INTO EPIDEMIOLOGY AND SURVEILLANCE BRANCH, PUBLIC INFORMATION OFFICER/COMMUNICATIONS RESPONSE TEAM, AND EQUITY OFFICER OPERATIONS.

- *Strategy:* Provide feedback to *Epidemiology and Surveillance Branch* on guidance and information gaps and collaborate to improve resources available to PICC staff.
- *Strategy:* Provide feedback and develop improvement process on triage thresholds and triage flow chart.
- *Strategy:* Provide feedback and recommendations on common questions and information which may be better shared through Public Information Officer or *Communications Response Team's* public information channels and platforms.
- *Strategy:* Provide feedback to Equity Officer to better inform equity impact analysis and response operations.

3 | INFORMATION MANAGEMENT

These response activities describe the collection, assessment, documentation, and dissemination of information across the HMAC response structure, ensuring situational awareness of both response operations and the ongoing biological incident.

IMPLEMENT

COORDINATION

OBJECTIVE: IMPLEMENT AND MAINTAIN ESTABLISHED INCIDENT PLANNING CYCLE.

- **Strategy:** Coordinate and facilitate meetings to establish incident objectives; clarify issues and concerns; identify limitations and restrictions; discuss intra-agency issues.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook; Command and General Staff Meeting agenda.*
- **Strategy:** Coordinate and facilitate meetings to plan strategies, tactics, and resource needs to meet established incident objectives; share information relevant to the incident objectives; discuss current operations and completed response activities.
 - **Lead:** Operations Section.
 - **Support:** Planning Section.
 - **Resource:** *HMAC Playbook; Operations Strategy & Tactics Meeting agenda.*
- **Strategy:** Coordinate meetings to prepare and disseminate the established action plan and resource assignments.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook; Planning Meeting Agenda.*
- **Strategy:** Coordinate meetings to execute the action plan and relevant situational awareness information.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook; Operational Briefing Agenda.*

INFORMATION GATHERING

OBJECTIVE: TRACK RELEVANT DATA AND INFORMATION SOURCES TO MAINTAIN SITUATIONAL AWARENESS OF THE INCIDENT RELATING TO KEY RESPONSE ELEMENTS SUCH AS DISEASE CHARACTERISTICS, AFFECTED POPULATIONS, PREVENTION, TESTING, TREATMENT, AND CONTAINMENT STRATEGIES.

- **Strategy:** Monitor epidemiology and surveillance updates through channels established by the *Epidemiology and Surveillance Branch*.
 - **Lead:** Planning Section.
 - **Support:** Epidemiology and Surveillance Branch.
 - **Attachment:** *Situational Awareness Tracker.*
 - **Resource:** *Situation Unit Job Aid.*

- *Strategy:* Monitor relevant external information sources approved by the Public Information Officer and *Epidemiology and Surveillance Branch*.
 - **Lead:** Planning Section.
 - **Support:** Public Information Officer; Epidemiology and Surveillance Branch
 - **Attachment:** *Situational Awareness Tracker*.
 - **Resource:** *Situation Unit Job Aid*.

OBJECTIVE: MAINTAIN SITUATIONAL AWARENESS OF KEY HMAC, ESF #8, AND RELATED PARTNER RESPONSE ACTIVITIES.

- *Strategy:* Utilize information collection process to maintain awareness of HMAC directed, conducted, and planned response activities.
 - **Lead:** Planning Section.
 - **Resource:** *Situation Unit Job Aid; Operational Summary Form*.
- *Strategy:* Monitor relevant ESF #8 and emergency management response partner briefings, reports, and communication channels to maintain situational awareness of response activities.
 - **Lead:** Planning Section.
 - **Attachment:** *Situational Awareness Tracker*.
- *Strategy:* Monitor status of other Public Health departmental services.
 - **Lead:** Planning Section.
 - **Support:** Public Health Office of the Director; Continuity of Operations (COOP) Lead.
 - **Resource:** *Public Health Continuity of Operations Plan*.

OBJECTIVE: MONITOR RELEVANT LOCAL, STATE, NATIONAL, AND INTERNATIONAL POLICY, PROCLAMATIONS, AND MANDATES IMPACTING RESPONSE ACTIVITIES AND RESOURCES.

- *Strategy:* Monitor relevant state and federal channels for policy proclamations, mandates, and strategies impacting response activities.
 - **Lead:** Public Information Officer.
 - **Support:** Planning Section.
- *Strategy:* Monitor relevant response partner briefings, reports, and communication channels to maintain situational awareness of policy and response activities impacting King County.
 - **Lead:** Policy Officer.
 - **Support:** Planning Section.
 - **Attachment:** *Situational Awareness Tracker*.
 - **Resource:** *Situation Unit Job Aid; Government Liaison Job Description; Policy Officer Job Description*.

ANALYSIS

OBJECTIVE: PREPARE SITUATIONAL BRIEFINGS, REPORTS, DISPLAYS, BRIEFING TOOLS, AND OTHER INFORMATION PRODUCTS AS NEEDED TO EFFECTIVELY ASSESS THE SITUATION.

- *Strategy:* Integrate *Epidemiology and Surveillance Branch* reports, vaccination, testing, other response tracking data, and relevant external data visualization products into coordination meeting resources (briefing documents, PowerPoints, attachments) and HMAC displays (projected displays, written, on HMAC television screen, etc.).

- **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook.*

DOCUMENTATION

OBJECTIVE: DOCUMENT KEY SITUATIONAL AWARENESS DATA ELEMENTS, INCLUDING EPIDEMIOLOGICAL DATA, COMMUNITY SPREAD, VACCINE, TREATMENTS, GUIDANCE RECOMMENDATIONS, AND RELATED INFORMATION.

- **Strategy:** Maintain updated documentation of key situational awareness data for use by HMAC responders, in alignment with Public Information Officer and *Communications Response Team* documents.
 - **Lead:** Planning Section.
 - **Resource:** *Risk Communications Response Annex; Situation briefing for internal and partner communications.*
- **Strategy:** Document key data elements for use by response partners, such as ESF #8 responders, emergency managers, emergency response, key healthcare partners, and other response agencies and organizations in routine snapshots or situation reports.
 - **Lead:** Planning Section.
 - **Resource:** *Situation Report Template; Snapshot Template.*

OBJECTIVE: DOCUMENT CONDUCTED AND PLANNED HMAC AND PARTNER RESPONSE ACTIVITIES, INCLUDING OPERATIONAL ACTIVITIES, POLICY UPDATES, STRATEGIC OBJECTIVES, AND OTHER INFORMATION RELEVANT TO THE RESPONSE.

- **Strategy:** Document, record, and file notes from operational period meetings, as needed.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook.*
- **Strategy:** Document incident goals, operational period objectives, response strategies, safety messages, meeting schedule, and critical updates in an Incident Action Plan, as necessary.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook; IAP Templates.*
- **Strategy:** Use responder tracking mechanism to document Organizational Chart, Organizational Assignment List, and Communications list for key response rolls.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook; Resource Unit Job Aid; IAP Templates.*
- **Strategy:** Document incident goals, operational period objectives, response strategies, and critical updates in format for sharing during Incident Briefings, as necessary.
 - **Lead:** Planning Section
 - **Support:** Operations Section Chief.
 - **Resource:** *HMAC Playbook; Incident Briefing template.*

OBJECTIVE: MAINTAIN AND MANAGE DOCUMENTATION.

- *Strategy:* Maintain document duplication and filing system to ensure HMAC sections maintain and submit appropriate files for post-incident documentation purpose.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook; Documentation Unit job aid.*
- *Strategy:* Clarify and communicate responses expectations for documentation, reporting, and retention requirements.
 - **Lead:** Planning Section.
 - **Resource:** *Documentation Unit job aid.*
- *Strategy:* Maintain a document security plan to manage the confidentiality and security of any classified, confidential, sensitive, and FOUO (for official use only) documentation, intelligence, data, or incident information.
 - **Lead:** Planning Section.
 - **Resource:** *Documentation Unit job aid.*
- *Strategy:* Ensure all units within section that handle data or intelligence are aware of and maintain a document security plan to manage the confidentiality and security of any classified, confidential, sensitive, and FOUO documentation, intelligence, data, or incident information.
 - **Lead:** Planning Section.
 - **Resource:** *Documentation Unit job aid.*

DISSEMINATION

OBJECTIVE: DISSEMINATE INFORMATION ACROSS RESPONSE OPERATIONS AND TO RESPONSE PARTNERS.

- *Strategy:* Disseminate information via HMAC snapshots, situation reports, and IAPs as needed.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook; WebEOC SOP; HMAC Distribution List.*

OBJECTIVE: RESPOND TO HMAC AND RESPONSE PARTNER REQUESTS FOR RESPONSE-RELATED INFORMATION AND RESOURCES.

- **Lead:** Planning Section.
- **Support:** Public Information Officer; Policy Officer.

OBJECTIVE: MAINTAIN SYSTEMS OF INFORMATION EXCHANGE THAT ARE SECURE, RELIABLE, AND SCALABLE.

- *Strategy:* Use responder tracking mechanism to maintain HMAC distribution lists for responders that should receive HMAC notifications and relevant meeting invitations.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook; Resource Unit job aid.*
- *Strategy:* Maintain HMAC distribution lists for supporting ESF #8 agencies, other ESFs, city, county, and/or state EOCs that should receive HMAC notifications.
 - **Lead:** Planning Section.
 - **Resource:** *HMAC Playbook; HMAC Distribution List.*

- *Strategy:* Maintain a dissemination security plan to manage the confidentiality and security of any classified, confidential, sensitive, and 'For Official Use Only' (FOUO) documentation, intelligence, data, or incident information shared with responders or partners.
 - **Lead:** Planning Section.
- *Strategy:* Maintain dissemination lists to meet situational awareness needs across response operations both internal and external to HMAC.
 - **Lead:** Planning Section.

4 | MEDICAL COUNTERMEASURES

Medical countermeasures (MCM) are medicines and medical supplies that can be used to diagnose, prevent, or treat diseases in response to an intentional, accidental, or naturally occurring biological incident, such as an emerging infectious disease or bioterrorist attack. These supplies may include, but not be limited to, those which are FDA-approved, under Emergency Use Authorization (EUA), under Expanded Access (often referred to as “compassionate use”), or an investigational new drug (IND). MCM include a broad spectrum of medical assets, such as diagnostic devices, personal protective equipment (PPE), vaccines or antibiotics (e.g., antibacterials, antivirals, antiparasitics, and antifungals), which are used to provide pre-exposure prophylaxis (PrEP), treatment, or post-exposure prophylaxis (PEP). Ensuring the timely and equitable provision of MCM is critical to minimizing morbidity and mortality, preserving continuity of essential business functions, minimizing social disruptions, and minimizing economic losses and exacerbated health disparities during a biological incident. The objectives and strategies outlined specifically for vaccination and therapeutics should meet the needs of a widespread event that impacts King County, but also be scalable to cover smaller-scale incidents for localized, focally affected communities. Throughout a response, these objectives and strategies may vary depending on the size and characteristics of the population impacted, the availability and type of MCM, changes in understanding of disease epidemiology or shifts in disease characteristics, as well as resources such as internal staffing and capacity of governmental, community, and private partners. For instance, the number of health care personnel qualified to administer vaccines or dispense pharmaceuticals, and the number of available volunteers to perform support functions, may limit the rate at which MCM is dispensed.

THERAPEUTICS

To ensure the timely and equitable provision of therapeutics, which include but are not limited to antibiotics, (such as antibacterials, antivirals, antiparasitics, and anti-fungal), immunoglobulins, or monoclonal antibodies, in response to an intentional, accidental, or naturally occurring biological incident, such as an emerging infectious disease outbreak or bioterrorist attack. The objectives and strategies below should meet the needs of a widespread event that impacts King County, but also be scalable to cover smaller-scale incidents for localized populations. Strategies for vaccines and other medical countermeasures are covered elsewhere throughout the *Biological Incident Response Annex*.

PREPARATION

OBJECTIVE: COORDINATE WITH LOCAL, STATE, AND FEDERAL PARTNERS TO ENSURE READINESS TO REQUEST, DISTRIBUTE, AND/OR DISPENSE MEDICATION TO HEALTHCARE PROVIDERS FOR ADMINISTRATION TO AFFECTED POPULATIONS WITHIN KING COUNTY.

- **Strategy:** Engage early with internal and external planning partners who are critical to supporting response efforts and providing treatment services.
 1. Coordinate with the Washington State Department of Health (DOH) to:
 - a. Develop eligibility, prioritization, and allocation criteria, based on the local epidemiology of the disease, with efforts to have consistency across the state.
 - b. Develop or update documentation, such as screening forms, consent forms, and standing orders).

- c. Write and sign standing orders where appropriate to rapidly expand capacity to administer therapeutics.
 - d. Ensure Public Health – Seattle & King County (Public Health) activities center equity in eligibility and allocation decision-making when demand for medical supplies exceed availability.
 - e. Assess existing stock of medications available at the DOH Medical Logistics Center, as well as locally within healthcare facilities and pharmacies.
 - f. Confirm processes for medication order requests from the Strategic National Stockpile (SNS).¹⁵
 - g. Establish roles and responsibilities for receiving and distributing medication between the DOH Medical Logistics Center, Public Health locations, healthcare facilities, including pharmacies, and healthcare professionals.
 - h. Engage with federally recognized and non-recognized tribal nations.
- 2. Coordinate with the Northwest Healthcare Response Network (NWHRN), convene leadership from local healthcare systems and clinics to provide clinical guidance, critical updates, and identify their availability, capacity, and needs in order to dispense and administer therapeutics.
- 3. Coordinate with the Washington State Pharmacy Association (WSPA) to:
 - a. Identify local pharmacy capacity for storing and handling therapeutics.
 - b. Identify local pharmacy capacity for dispensing and administering therapeutics.
 - c. Identify sites for Points of Dispensing (PODs) that are safe and accessible to impacted populations and communities through existing agreements and contracts.
 - d. Identify need for closed PODs, such as hospitals serving their own staff and patients, private businesses serving employees and their families, or universities serving their students.
- **Lead:** Medical Countermeasures (MCM) Branch.
 - **Support:** Operations Section Chief, Logistics Section, Liaison Officer, Equity Officer, Local Health Officer (LHO) or their designee.
- *Strategy:* Review and establish Public Health’s roles and responsibilities for augmenting existing infrastructure related to ordering, receiving, storing, distributing, dispensing and/or administering medication that can be used to treat or prevent illness among individuals.
 - 1. Explore new sites for open PODs that are safe and accessible to impacted populations and communities.
 - 2. Ensure clinical and non-clinical staff and volunteers are properly trained across all POD operations.
 - 3. Provide technical guidance to partners organizing and leading their own POD operations.
 - 4. Coordinate internally with King County departments, divisions, and programs that serve high-risk groups, such as Healthcare for the Homeless, King County Jails, and the Department of Community and Human Services, to ensure access to therapeutics for people experiencing homelessness or reside in unstable or temporary housing.
 - 5. Coordinate with Emergency Medical Services (EMS) to support potential medication dispensing.
 - 6. In the event of serving as a regional distribution hub, ensure the Chinook pharmacy site, currently serving as a vaccine depot, can be properly staffed, and is able to accommodate the receiving, storage, and distribution of therapeutics.

¹⁵ Administration for Strategic Preparedness and Response. [Strategic National Stockpile](#).

7. Ensure residents who are unable to receive therapeutics at existing PODs or healthcare facilities (such as individuals who are home-bound or in long-term care facilities) have access through alternative channels or mobile teams that can deliver or administer at their place of residence.
 - **Lead:** Medical Countermeasures Branch.
 - **Support:** Operations Section Chief, Logistics Section, Liaison Officer, Equity Officer, Local Health Officer or their designee.
- **Strategy:** In the event of bioterrorism identified by the United States Postal Service's (USPS) Biohazard Detection System Program (BDS) or the Department of Homeland Security's (DHS) BioWatch Program, support initial response efforts as outlined in regional plans.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Medical Countermeasures Branch, Area Commander, Operations Section Chief, Logistics Section, Liaison Officer, Public Information Officer (PIO), Local Health Officer or their designee.
- **Strategy:** Provide technical input into local guidance, policy development, communications, and content development.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Medical Countermeasures Branch, Operations Section Chief, Logistics Section, Policy Officer, Liaison Officer, Public Information Officer, Local Health Officer or their designee.
- **Strategy:** Identify, and potentially develop, the data systems and technology that will be required for order requests, inventory tracking, dose dispensing, reporting, and data sharing.
 - **Lead:** Epidemiology & Surveillance Branch.
 - **Support:** Medical Countermeasures Branch, Logistics Section Chief.

DISTRIBUTION AND DISPENSING IMPLEMENTATION

OBJECTIVE: FOR THERAPEUTIC ADMINISTRATION AND/OR DISPENSING, IMPLEMENT AN EQUITABLE STRATEGY TO ENSURE A WIDE RANGE OF ACCESS POINTS TO IMPACTED AND HIGHEST-RISK POPULATIONS.

- **Strategy:** When necessary, open PODs operated by Public Health at Public Health Clinics or other locations established through Memorandums of Understanding (MOUs).
 1. Ensure sites are accessible, provide appropriate accommodations, and interpretation is available.
 2. Coordinate with law enforcement if security is required on-site.
 - **Lead:** Medical Countermeasures Branch.
 - **Support:** Operations Section Chief, Epidemiology and Surveillance Branch, Logistics Section Chief, LHO or their designee.
 - **Resources:** Preparedness MCM MOUs; COVID Community Vaccination Events (CVE) and POD playbooks (inclusive of site layouts, staffing structures, supply lists, and job action sheets).
- **Strategy:** Coordinate with public and private partners to operate open and closed PODs throughout King County.
 - **Lead:** Medical Countermeasures Branch.
 - **Support:** Operations Section Chief, Logistics Section, Liaison Officer, Equity Officer.

- **Resources:** Preparedness MCM MOUs; COVID POD playbooks (inclusive of site layouts, staffing structures, supply lists, and job action sheets).
- **Strategy:** Address the unique needs and circumstances of communities and populations at higher risk during the incident, as well as those who may be disproportionately impacted due to historical and current inequities.
 1. Utilizing data, current epidemiology, and input from community, identify barriers, possible solutions and outreach strategies for populations and sectors at highest risk.
 2. Ensure educational materials and information shared is in language and formats accessible to all groups.
 3. Build upon established relationships with community partners.
 4. Collaborate with community navigators.
 5. Partner with healthcare systems, clinics, providers, and community-based organizations who specialize in serving the impacted population.
 - **Lead:** Therapeutics Group and Community Mitigation and Wellbeing Branch.
 - **Support:** Medical Countermeasures Branch Director, Epidemiology and Surveillance Branch, Operations Section Chief, Logistics Section, Liaison Officer, Equity Officer.
- **Strategy:** Coordinate with DOH and healthcare partners to support and facilitate provider enrollment and onboarding for a Food and Drug Administration (FDA) Investigational New Drug (IND) Application. Consider partnering with a healthcare system to serve as a regional hub for receiving and distributing treatment; develop protocols for providers to accessing available inventory.
 - **Lead:** Therapeutics Group.
 - **Support:** Operations Section Chief.

MONITOR AND ASSESS:

OBJECTIVE: CONTINUOUSLY REVIEW THERAPEUTIC ADMINISTRATION AND DISPENSING RATES AND DEMOGRAPHICS, AND UPDATE STRATEGIES FOR RESOURCE ALLOCATION AND TARGETED OUTREACH APPROACHES TO MEET THE NEEDS OF THE COMMUNITY.

- **Strategy:** Solicit on-going community feedback and enhance outreach strategies specifically focused on impacted populations, communities, and/or sectors experiencing hesitancy or barriers to access.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Therapeutics Group Supervisor, Epidemiology and Surveillance Branch, Operations Section Chief, Logistics Section Chief, Liaison Officer, Equity Officer.
- **Strategy:** Ensure public messaging and information included on the public health website is tailored to address the specific concerns of disproportionately impacted communities and those historically impacted by inequity in healthcare resource access.

Lead: Therapeutics Group.

Support: Epidemiology and Surveillance Branch, Operations Section Chief, Logistics, Section Chief, Community Mitigation and Wellbeing Branch, Liaison Officer, Equity Officer.

OBJECTIVE: MAINTAIN ONGOING AWARENESS OF EVOLVING SAFETY PROTOCOLS AND CLINICAL BEST PRACTICES

- **Strategy:** Report adverse reactions experienced at public health operated PODs.

1. Coordinate with DOH to ensure protocols and procedures for reporting and follow-up are developed and updated as necessary.
2. Ensure staff have received the proper training on responding to and reporting adverse reactions.
- *Strategy:* Coordinate with DOH to follow-up on reported adverse reactions experienced at all King County sites administering treatment or dispensing medication.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Therapeutics Group Supervisor, POD Group supervisor, Policy officer, PIO, communications response team, Local Health Officer or their designee.

INTEGRATE OPERATIONS

OBJECTIVE: MEDICAL COUNTERMEASURES BRANCH DIRECTOR AND THERAPEUTICS GROUP SUPERVISOR WILL INTEGRATE EFFORTS ACROSS THE HEALTH AND MEDICAL AREA COMMAND (HMAC) STRUCTURE TO ENSURE COORDINATION, PROPER SAFETY MEASURES, APPROPRIATE INTERNAL AND EXTERNAL COMMUNICATION, IDENTIFICATION OF NEEDED RESOURCES AND ADMINISTRATIVE SUPPORT, AND THAT EFFECTIVE UTILIZATION AND PRIORITIZATION OF AVAILABLE RESOURCES ARE IMPLEMENTED.

- *Strategy:* Track and escalate issues and problems related to distribution, dispensing, or administration to Operations Section Chief, Logistics Section, or others as needed.
- *Strategy:* Ensure Policy Officer and Government Affairs response staff are equipped to advocate for and communicate around current and projected response needs and countermeasure allocation and distribution.
- *Strategy:* Provide ongoing technical input into local guidance related to therapeutics, policy development, and communications.
 1. Technical input supports the PIO, PICC, or risk communication teams with:
 - a. Responding to inquiries from internal groups, external partners, and the public
 - b. Developing, sharing, and disseminating timely information to the public and partners through different communication channels, which may include social media, Public Health blog, local media outlets, Public Health website, healthcare facility listservs, regional partners (i.e., NWHRN) and during coordination meetings.
 - c. Technical input may also be used to support content development for responder safety materials.
- *Strategy:* Ensure standards and guidelines for responder safety and health, including personal protective equipment (PPE) and respirator fit testing, are identified, and implemented (refer to Responder Safety and Health guide).
- *Strategy:* Coordinate with Safety Officer to develop guidelines and processes for reporting and reviewing adverse events experienced at Public Health operated PODs.
- *Strategy:* Coordinate with Logistics Section for supplies and resources that may be needed to support Public Health operated PODs.
- *Strategy:* Coordinate with Finance and Administration Section for staffing needs at public health operated PODs, as well as facilitating contracts or MOUs for sites or staffing.
 - **Lead:** Medical Countermeasures Branch and Therapeutics Group.

VACCINATION

Ensuring the timely and equitable provision of authorized and/or approved vaccines may be necessary to minimizing morbidity and mortality during a biological incident. The objectives and strategies below should meet the needs of a widespread event that impacts King County, but also be scalable to cover smaller-scale incidents for localized and affected populations. Throughout a response, these objectives and strategies may vary depending on the size and characteristics of the population impacted, the availability of vaccines, epidemiology of the disease, and resources such as internal staffing and capacity of governmental, community and private partners.

PREPARATION

OBJECTIVE: COORDINATE WITH LOCAL, STATE AND FEDERAL PARTNERS TO ENSURE READINESS FOR LOCAL VACCINATION OPERATIONS.

- *Strategy:* Engage early with internal and external planning partners who are critical to vaccine outreach and delivery services.
 1. Coordinate with the Washington State Department of Health (DOH) to:
 - a. Center equity in allocation decision-making when demand for vaccine exceeds availability.
 - b. Develop eligibility, prioritization, and allocation criteria, based on local epidemiology of the disease.
 - c. Develop required documentation (e.g., screening and intake forms, standing orders).
 - d. Establish a local vaccine uptake goal based on the severity of illness, local epidemiology, and availability of supply, acknowledging that goals may shift as the incident evolves. Uptake goals should consider equitable rates across race, ethnicity, and geography.
 - e. Establish anticipated timelines, expected allocations, roles, and responsibilities for receiving and distributing vaccines between the DOH Medical Logistics Center, Public Health locations, healthcare facilities, pharmacies, and healthcare professionals.
 2. Identify Public Health's role in ordering, receiving, storing, distributing and/or administering vaccine based on the epidemiology of the outbreak and characteristics of available vaccine products, including (but not limited to) one or more of the potential options below:
 - a. Serving as a regional vaccine distribution hub (depot).
 - b. Operating Points of Dispensing (PODs) at Public Health Clinics
 - c. Operating a medium to high-volume fixed site.
 - d. Deploying Public Health mobile teams to individual homes, congregate settings, or community locations (such as homeless service sites, long-term care facilities, senior centers, schools and child-care, businesses, and faith-based organizations).
 - e. Creating a Community Vaccination Events (CVE) Team to identify and prioritize vaccine access points for groups and communities in locations including, but not limited to senior centers, farmer's markets, faith-based organizations, and community-based organizations.

- f. Utilizing existing contracts, or developing new contracts, with mobile vaccinators to augment federal and local efforts to vaccinate high-risk populations in their homes, congregate settings, or community sites.
- g. Leveraging existing programs focused on serving other high-risk populations, such as the mobile medical van or Jail Health Services Division.
- h. Coordinating between the Centers for Disease Control and Prevention (CDC), DOH, and healthcare partners on forms and processes related to investigational vaccines.
- i. In some circumstances, during a local or state-level emergency proclamation, the local health officer or their designee may coordinate with the King County Executive to request the Governor waive state laws and rules associated with prescribing, storing, handling, and dispensing medications for the duration of the incident.
- j. In coordination with the Northwest Healthcare Response Network (NWHRN), convene leadership from local healthcare systems and vaccine delivery partners to identify their availability, capacity, and needs to be able to administer vaccine to their own personnel, their patients, and the community.
- k. Identify POD sites for immediate and first wave operations through existing agreements and contracts.
- l. Explore new sites for temporary or fixed PODs that are safe and accessible to impacted populations and communities.
- m. Provide technical input into local guidance, policy development, communications, and content development.
- n. Identify the data systems and technology that will be required for vaccine inventory and dose administration tracking, reporting, data sharing, depot requests, community clinic requests, referrals, or POD operations (e.g., scheduling/registration platforms).
 - **Lead:** Medical Countermeasures Branch.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer; Operations Section Chief; Logistics Section; Liaison Officer; Equity Officer; Policy Officer; Local Health Officer (LHO) or their designee.
- *Strategy:* Address the unique needs and circumstances of communities and populations at *higher risk during the incident, as well as those who may be disproportionately impacted* due to historical and current inequities.
 1. Ensure educational materials and information shared is in language and formats accessible to all groups.
 2. Build upon established relationships with community partners.
 3. Collaborate with community navigators.
 4. Partner with healthcare systems, clinics, pharmacies, providers, and community-based organizations who specialize in serving the impacted population, or communities at higher risk of disease burden.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Medical Countermeasures Branch; Epidemiology and Surveillance Branch; Operations Section Chief; Equity Officer.
- *Strategy:* Draft regional vaccine delivery strategy based on federal and state guidance, community feedback, and local resource availability.
 1. Update equity principals for vaccine delivery based on community feedback.
 - **Lead:** Medical Countermeasures Branch.

- **Support:** Epidemiology and Surveillance Branch; Public Information Officer; Operations Section Chief; Equity Officer; Policy Officer.

DISTRIBUTION AND DISPENSING IMPLEMENTATION

OBJECTIVE: IMPLEMENT A MULTI-MODAL VACCINE STRATEGY AS APPROPRIATE TO THE SPECIFIC BIOLOGICAL INCIDENT, CENTERED IN EQUITABLE APPROACHES TO ENSURE A DIVERSE RANGE OF ACCESS POINTS TO SERVE IMPACTED AND HIGHEST RISK POPULATIONS.

- *Strategy:* Open PODs led by public health at public health clinics or other locations established through Memorandums of Understanding (MOUs).
 1. Ensure sites are accessible, provide appropriate accommodations, and interpretation is available.
 2. Ensure clinical and non-clinical staff and volunteers are properly trained across all POD operations.
 3. Coordinate with law enforcement if security is required on site.
 - **Lead:** Vaccination Group.
 - **Support:** Epidemiology and Surveillance Branch; Community Mitigation and Wellbeing Branch; Operations Section Chief; Logistics Section; Policy Officer; Equity Officer; Safety Officer.
- *Strategy:* Coordinate with external partners to operate open and closed PODs throughout King County. Explore private/public partnerships to support medium to high-volume fixed sites.
 - **Lead:** Vaccination Group.
 - **Support:** Operations Section Chief; Logistics Section Chief; Policy Officer; Equity Officer.
- *Strategy:* Identify intake and referral processes for scheduling and assigning mobile vaccinators to community locations or private residences.
 - **Lead:** Vaccination Group.
 - **Support:** Public Information Contact Center (PICC) Group; Operations Section Chief.
- *Strategy:* Utilizing data, current epidemiology, and input from community, identify barriers, possible solutions and outreach strategies for populations and sectors at highest risk.
 - **Lead:** Vaccination Group.
 - **Support:** Epidemiology and Surveillance Branch; Community Mitigation and Wellbeing Branch; Operations Section Chief.

MONITOR AND ASSESS

OBJECTIVE: REVIEW VACCINE UPTAKE RATES TO UPDATE STRATEGIES FOR RESOURCE ALLOCATION AND TARGETED OUTREACH APPROACHES TO MEET THE NEEDS OF THE COMMUNITY.

- *Strategy:* Evaluate uptake goals throughout the vaccination campaign, as goals may shift as epidemiology and severity of incident evolves.
 1. In partnership with community and faith-based partners, continuously review delivery strategies to ensure the needs of the community are being met, including but not limited to information being disseminated in diverse languages and formats, vaccine access points are in safe and familiar locations, transportation barriers are addressed, vaccine sites are

- universally accessible and accommodating, translation services are offered, and technology barriers are addressed.
2. Solicit on-going community feedback to better understand concerns and barriers to vaccination efforts.
 3. Enhance outreach strategies specifically focused on populations, communities, and/or sectors in which vaccine uptake is low, but disease burden is high.
 - **Lead:** Vaccination Group.
 - **Support:** Epidemiology and Surveillance Branch; Community Mitigation and Wellbeing Branch; Operations Section Chief; Equity Officer.
 - **Strategy:** Ensure public messaging is tailored to address the specific concerns of disproportionately impacted and communities impacted by historic inequities in healthcare resource access.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Medical Countermeasures Branch; Operations Section Chief; Public Information Officer.

OBJECTIVE: MAINTAIN ONGOING AWARENESS OF EVOLVING SAFETY PROTOCOLS AND CLINICAL BEST PRACTICES.

- **Strategy:** Ensure adverse reactions experienced at public health operated PODs are reported into the Vaccine Adverse Event Reporting System (VAERS) within the required timeframe.
- **Strategy:** Ensure local healthcare providers are aware of procedures for identifying and reporting potential vaccine adverse events (e.g., VAERS reports) and facilitate reporting of such events when appropriate.
- **Strategy:** Coordinate with Washington State Department of Health (DOH) to follow-up reported adverse reactions experienced at all King County vaccination sites.
 - **Lead:** Safety Officer.
 - **Support:** Medical Countermeasures Branch; Operations Section Chief; Policy Officer; Local Health Officer (LHO) or their designee.

INTEGRATE OPERATIONS

OBJECTIVE: INTEGRATE EFFORTS ACROSS THE HMAC STRUCTURE TO ENSURE COORDINATION, PROPER SAFETY MEASURES, APPROPRIATE INTERNAL AND EXTERNAL COMMUNICATION, AND EFFECTIVE UTILIZATION AND PRIORITIZATION OF AVAILABLE RESOURCES ARE IMPLEMENTED.

- **Strategy:** Track and escalate issues and problems related to vaccine distribution and dispensing to *Operations Section Chief, Logistics Section*, or others as needed.
- **Strategy:** Ensure *Policy Officer* and Government Affairs response staff are equipped to advocate for and communicate around vaccine allocation, distribution, and administration.
- **Strategy:** Provide ongoing technical input into local guidance related to vaccines, development of internal and external guidance, policy development, and communications.
 1. Technical input supports the *Public Information Officer (PIO), Public Information Contact Center (PICC) Group*, or *Communications Response Team* with:
 - a. Responding to inquiries from internal groups, external partners, and the public
 - b. Developing, sharing, and disseminating timely information to the public and partners through different communication channels, which may include

social media, Public Health blog, local media outlets, Public Health website, healthcare facility listservs, regional partners (i.e., NWHRN), and during coordination meetings.

- c. Technical input may be used to support content development for responder safety materials.
- d. Technical input may also be offered to support decision-making related to implementation of vaccine mandates or verification policies by the Policy Officer, Local Health Officer, or Director of Public Health.
- *Strategy:* Ensure standards and guidelines for responder safety and health, including PPE and respirator fit testing, are identified, and implemented.
- *Strategy:* Coordinate with *Safety Officer* to develop guidelines and processes for reporting and reviewing adverse events experienced at Public Health-operated PODs.
- *Strategy:* Coordinate with *Logistics Section* for supplies and resources that may be needed to support Public Health-operated PODs.
- *Strategy:* Coordinate with *Finance and Administration Section* for staffing needs at Public Health-operated PODs, as well as facilitating contracts or MOUs for sites or staffing.
 - **Lead:** Vaccination Group.

5 | NON-PHARMACEUTICAL INTERVENTIONS

These objectives guide implementation of non-pharmaceutical interventions (NPIs) to minimize the spread of infectious disease in the community, prioritizing measures to support high risk populations and settings. NPIs encompass an array of objectives and strategies that, when effectively implemented, often serve as the initial line of defense in curtailing the transmission of infectious disease agents, especially when pharmaceutical interventions such as vaccines or antiviral medications may not be readily available or highly efficacious. This section of the *Biological Incident Response Annex* is dedicated to an exploration of NPI objectives and strategies with a primary focus on three pivotal areas:

- *Infection Prevention and Control* practices across different settings and communities.
- *Personal Protective Equipment*.
- *Isolation and Quarantine*.

The implementation of the objectives and strategies outlined in this section will require coordination across the Health and Medical Area Command (HMAC) and will be guided by resources such as the *Non-Pharmaceutical Interventions and Community Mitigation Guide*. The strategies outlined here are a menu of strategies from which response operations may be crafted, although not all may be possible, and activities may be implemented sequentially and not simultaneously.

INFECTION PREVENTION AND CONTROL

PREPARE

OBJECTIVE: COORDINATE WITH LOCAL AND STATE PARTNERS TO DISCUSS (OR REVIEW) NATIONAL GUIDANCE AND LOCAL EPIDEMIOLOGICAL DATA FOR INFECTION PREVENTION AND CONTROL INTERVENTIONS.

- **Strategy:** Based on current data and in collaboration with key response and community partners, assess the current potential utility and feasibility for implementing personal infection prevention and control measures, e.g., masking, voluntary home isolation, respiratory etiquette, hand hygiene.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer.
- **Strategy:** Based on epidemiological data and in collaboration with key response and community partners, assess the potential utility and feasibility of implementing community infection prevention and control measures (e.g., voluntary home isolation, masking in community settings, closures of schools, workplaces and other congregate settings, cancellations of public gatherings).
 - **Lead:** Local Health Officer; Community Mitigation and Wellbeing Branch; Policy Officer
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer.
- **Strategy:** Based on epidemiological data and in collaboration with key response and community partners, assess the potential utility and feasibility of implementing environmental infection prevention and control measures (e.g., community-wide sanitation and hygiene protocols, congregate setting sanitation and hygiene protocols, ventilation guidance).
 - **Lead:** Local Health Officer; Community Mitigation and Wellbeing Branch.

- **Support:** Epidemiology and Surveillance Branch; Public Information Officer.
- **Strategy:** Prepare for the implementation of infection prevention and control measures that involve budgetary and staffing considerations (i.e., setting-specific infection prevention and control technical assistance).
 - **Lead:** Operations Section Chief; Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch.
- **Strategy:** Convene local community partners for informational sessions to identify barriers and potential adverse effects associated with the implementation of infection prevention and control strategies in different settings (e.g., schools, daycares, workplaces, faith-based organizations, shelters).
 - **Lead:** *Community Mitigation and Wellbeing Branch.*

OBJECTIVE: DEVELOP INFORMATION SHARING AND COMMUNITY ENGAGEMENT PLAN TO DISSEMINATE INFECTION PREVENTION AND CONTROL INITIATIVES.

- **Strategy:** Collaborate with internal partners (within Public Health and across King County) to plan for public information and community engagement campaigns to disseminate information regarding personal, community, and environmental infection prevention and control measures.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer.
- **Strategy:** Reach out to external partners (including businesses and other community partners) that have existing relationships with programs at Public Health and King County to collaboratively develop public communications and plan for disseminating information regarding personal, community, and environmental infection prevention and control measures to communities.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer.
- **Strategy:** Coordinate across HMAC leadership to consider a compensated community taskforce, convening community partners through informational sessions to gather feedback on infection prevention and control strategy implementation, or other approaches.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief.

IMPLEMENT

OBJECTIVE: INCREASE PUBLIC AWARENESS AND UNDERSTANDING OF INFECTION PREVENTION AND CONTROL MEASURES IN DIFFERENT SETTINGS ACROSS KING COUNTY.

- **Strategy:** Create informational resources about infection prevention and control measures in multiple languages and formats (i.e., ASL, Braille, audio) that are reflective of the diverse linguistic needs of the county's population.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer.
- **Strategy:** Create compensated community task forces comprised of community leaders, healthcare professionals, and representatives from community groups to guide the development of guidance for infection prevention and control implementation efforts.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer.

- *Strategy:* Conduct culturally appropriate and targeted outreach campaigns by utilizing established and trusted communication and outreach channels (including but not limited to digital platforms, social media, and local media outlets) to share information regarding personal, community, and environmental infection prevention and control measures.
 - **Lead:** Public Information Officer; Communications Response Team.
 - **Support:** Community Mitigation and Wellbeing Branch.
- *Strategy:* Organize culturally tailored informational sessions on infection prevention and control measures for community members, healthcare providers, and local organizations to foster a shared understanding, get feedback on implementation, and foster a collaborative approach.
 - **Lead:** Community Mitigation and Wellbeing Branch; Communications Response Team.
 - **Support:** Public Information Officer.

OBJECTIVE: CARRY OUT APPROPRIATE INFECTION PREVENTION AND CONTROL STRATEGIES THAT ALIGN WITH THE EPIDEMIOLOGY AND SEVERITY OF THE DISEASE AND ARE INFORMED BY COMMUNITY PRACTICES.

- *Strategy:* Support implementation of specific *personal* infection prevention and control strategies that mitigate the spread of community transmission based on the epidemiology of the disease and communicate recommended measures to the public (e.g., voluntary home isolation, respiratory etiquette, hand hygiene, mask use, improved indoor air quality).
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer.
- *Strategy:* Support implementation of specific *community* infection prevention and control strategies that mitigate the spread of community transmission based on the epidemiology and severity of the disease and communicate recommended measures to the public (e.g., voluntary home quarantine of non-ill household members of infected persons, masking in community settings, respiratory etiquette, hand hygiene).
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer.
- *Strategy:* Support implementation of specific *environmental* infection prevention and control strategies that mitigate the spread of community transmission based on the epidemiology and severity of the disease and communicate recommended measures to the public.
 - **Lead:** Community Mitigation and Wellbeing Branch
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer
- *Strategy:* Assess the feasibility of recommending closures, cancellations, and/or physical distancing measures of mass gathering sites, workplaces, schools, and community events.
 - **Lead:** Local Health Officer; Area Commander.
 - **Support:** Public Information Officer; Community Mitigation and Wellbeing Branch.

OBJECTIVE: ADDRESS BARRIERS TO INFECTION PREVENTION AND CONTROL MEASURE ADOPTION WITHIN UNDERSERVED AND AT-RISK COMMUNITIES IN KING COUNTY.

- *Strategy:* Identify barriers to infection prevention and control measure adoption using feedback from the *Isolation and Quarantine Group, Equity Officer, and Communications Response Team.*
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Isolation and Quarantine Group; Equity Officer; Communications Response Team.

- *Strategy:* Develop community-specific strategies and resources, considering cultural norms, language preferences, and socioeconomic considerations to enhance infection prevention and control measure adherence and sustainability within diverse communities.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer.
- *Strategy:* Develop communication campaigns that consider language, cultural norms, and socioeconomic factors to effectively convey the importance and benefits of infection prevention and control measures within specific communities to support response communications efforts.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer.
- *Strategy:* Establish programs that offer financial assistance for individuals from low-income backgrounds to access essential infection prevention and control supplies.
 - **Lead:** Community Mitigation and Wellbeing Branch.

MONITOR AND ASSESS

OBJECTIVE: UTILIZE DATA FOR EVIDENCE-BASED DECISION-MAKING AND TO MONITOR AND ASSESS IMPLEMENTATION OF INFECTION PREVENTION AND CONTROL MEASURES TO IDENTIFY ONGOING CHALLENGES, DISPARITIES, AND ADJUST STRATEGIES ACCORDINGLY.

- *Strategy:* Maintain community engagement mechanisms to connect with community members, community-based organizations, and leaders to gather insights and perspectives on implementation of infection prevention and control measures, ensuring community involvement in decision-making processes.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer.
- *Strategy:* Based on response staff capacity, conduct periodic surveys focused on infection prevention and control measure adherence, knowledge, and attitudes, with a particular emphasis on collecting data from diverse racial, ethnic, and socioeconomic groups. Utilize stratified sampling techniques to ensure representative data collection.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer.
- *Strategy:* Analyze monitoring and assessment data regularly to identify trends, patterns, and disparities in implementation of infection prevention and control measures across racial, ethnic, and socioeconomic groups. Use this evidence to inform targeted interventions and adjust strategies as needed.
 - **Lead:** Epidemiology and Surveillance Branch; Data Branch.
 - **Support:** Public Information Officer; Community Mitigation and Wellbeing Branch.
- *Strategy:* Share monitoring and assessment data with local health departments, healthcare providers, and policymakers, fostering collaboration and collective action in addressing disparities and improving implementation of infection prevention and control strategies.
 - **Lead:** Public Information Officer.
 - **Support:** Community Mitigation and Wellbeing Branch; Epidemiology and Surveillance Branch.

- *Strategy:* Conduct equity assessments and use health equity metrics including economic and social impact of infection prevention and control measures on impacted populations (i.e., considering factors such as unemployment rates, housing stability, food security, and access to healthcare).
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch.

INTEGRATE OPERATIONS

OBJECTIVE: INTEGRATE INFECTION PREVENTION AND CONTROL IMPLEMENTATION EFFORTS ACROSS HMAC STRUCTURE TO ENSURE COORDINATION AND EFFECTIVE UTILIZATION AND PRIORITIZATION OF AVAILABLE STAFFING AND RESOURCES.

- *Strategy:* Track and escalate issues and problems related to implementation of setting specific infection prevention and control measures to *Operations Section Chief, Logistics Section*, or others as needed.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Officer.
- *Strategy:* Establish a meeting series with *Epidemiology and Surveillance Branch* to identify trends in adherence to infection prevention and control measures and any associated changes in community health outcomes.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch.

PERSONAL PROTECTIVE EQUIPMENT

PREPARE

OBJECTIVE: COORDINATE WITH LOCAL, STATE, AND FEDERAL PARTNERS ON SPECIFIC PPE GUIDANCE AND IMPLEMENTATION, POTENTIAL SUPPLY SHORTAGES, AND PROCUREMENT OPTIONS.

- *Strategy:* Coordinate with state and develop a plan for addressing potential PPE supply shortages by reviewing existing warehouse inventory of all PPE supplies and identifying demand across response and community partners.
 - **Lead:** Logistics Section.
 - **Support:** Operations Section Chief.
- *Strategy:* In coordination with the Northwest Healthcare Response Network (NWHRN), convene healthcare partners to discuss PPE guidelines and assess for any shortages of supplies across King County facilities.
 - **Lead:** Operations Section Chief.
 - **Support:** Logistics Section.
- *Strategy:* In coordination with the Emergency Medical Services Division (EMS), convene regional EMS agencies to discuss PPE guidelines and assess for any shortages of supplies.
 - **Lead:** Operations Section Chief.
 - **Support:** Logistics Section.
- *Strategy:* In coordination with local community partners (CBOS, FBOs, community centers, schools, etc.), identify any shortages and/or PPE supply needs.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief; Logistics Section Chief.
- *Strategy:* Identify vendors that can supply required PPE.
 - **Lead:** Logistics Section.
 - **Support:** Operations Section Chief.
- *Strategy:* Begin outlining prioritization criteria for PPE distribution to prepare for scarce supplies.
 - **Lead:** Operations Section Chief.
 - **Support:** Logistics Section.

IMPLEMENT

OBJECTIVE: USING A DATA-DRIVEN APPROACH, SUPPORT ALLOCATION PRIORITIZATION AND DISTRIBUTION OF PPE TO IMPACTED GROUPS AND FACILITIES IN ACCORDANCE WITH STATEWIDE GUIDANCE (AS AVAILABLE).

- *Strategy:* Use data to assess most frequently requested items and order available supplies through regular procurement channels.
 - **Lead:** Logistics Section.
 - **Support:** *Epidemiology and Surveillance Branch.*
- *Strategy:* In the event of supply shortages, coordinate with King County OEM and DOH to request supplies from the Strategic National Stockpile.
 - **Lead:** Logistics Section.

- **Support:** Operations Section Chief.
- *Strategy:* Coordinate with King County Office of Emergency Management and Washington State Department of Health on the allocation and distribution of PPE.
 - **Lead:** Logistics Section; Operations Section.
- *Strategy:* Utilize allocation prioritization tool developed during COVID-19 response to ensure equitable distribution of PPE supplies to facilities and communities at highest risk and need, with particular focus on communities with highest disease burden rate and limited resources.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief; Logistics Section; Equity Officer.

OBJECTIVE: ENSURE EQUITABLE ACCESS TO PPE RESOURCES AND SUPPORT FOR HIGH-RISK, HIGH-NEED POPULATIONS IN KING COUNTY.

- *Strategy:* Distribute affordable or free PPE supplies to high-risk residents who may face financial barriers through partnerships with local businesses, King County departments (Library System, Department of Local Services, Department of Community and Human Services), local community and faith-based organizations, and others.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer.
- *Strategy:* Identify diverse communication channels and platforms to reach at-risk populations, including multilingual informational spaces where individuals can seek guidance on accessing PPE and receive assistance tailored to their specific needs.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Public Information Officer.
- *Strategy:* Coordinate delivery and appropriate use of sanitation and hygiene resources to key congregate settings at high risk of or disproportionately affected by disease transmission.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Epidemiology and Surveillance Branch; Washington State Department of Health Incident Management Team.

OBJECTIVE: COORDINATE WITH LOCAL AND STATE PARTNERS TO IMPLEMENT PPE ALLOCATION PRIORITIZATION AND DISTRIBUTION APPROACH.

- *Strategy:* Coordinate with King County Office of Emergency Management (King County OEM) and Washington State Department of Health (DOH) to request supplies from the Strategic National Stockpile.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Logistics Section.
- *Strategy:* Coordinate with King County OEM and DOH on the allocation and distribution of PPE.
 - **Lead:** Community Mitigation and Wellbeing Branch.
- *Strategy:* Utilize prioritization tool to ensure equitable distribution of supplies to facilities and communities at highest risk.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief; Logistics Section Chief; Equity Officer.

MONITOR AND ASSESS

OBJECTIVE: REVIEW IMPLEMENTATION OF PPE STRATEGIES FOR ONGOING CHALLENGES.

- *Strategy:* Review ongoing supply shortages and support for distributing PPE to local community partners.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief; Logistics Section Chief.
- *Strategy:* Continue to coordinate with local and state partners on prioritization, allocation, and distribution, scaling as needed.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief; Logistics Section Chief.
- *Strategy:* Coordinate with the warehouse to monitor supply and track expiration date.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief; Logistics Section Chief.

 INTEGRATE OPERATIONS
OBJECTIVE: INTEGRATE AND UPDATE PPE IMPLEMENTATION EFFORTS TO ALIGN WITH LOCAL AND STATE INITIATIVES TO ENSURE EFFECTIVE UTILIZATION AND PRIORITIZATION OF AVAILABLE RESOURCES.

- *Strategy:* Coordinate with state and local partners on changes to PPE guidance based on resource supply and epidemiology of the disease.
 - **Lead:** IQ Group Supervisor.
 - **Support:** Operations Section Chief; Logistics Section Chiefs.

OBJECTIVE: INTEGRATE PPE IMPLEMENTATION EFFORTS ACROSS HMAC STRUCTURE TO ENSURE COORDINATION AND EFFECTIVE UTILIZATION AND PRIORITIZATION OF AVAILABLE RESOURCES.

- *Strategy:* Work with *Safety Officer* to develop PPE acquisition and distribution process for incident response staff.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief.
- *Strategy:* Track and escalate issues and problems related to prioritization and distribution of PPE to *Operations Section Chief, Logistics Section, or others as needed.*
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief.
- *Strategy:* Ensure *Policy Officer* and Government Affairs response staff are equipped to advocate for and communicate around distribution and allocation of PPE.
 - **Lead:** Community Mitigation and Wellbeing Branch.
 - **Support:** Operations Section Chief.

ISOLATION AND QUARANTINE

DETERMINE

OBJECTIVE: DETERMINE WHETHER ISOLATION AND/OR QUARANTINE MEASURES ARE APPROPRIATE DISEASE CONTAINMENT AND MITIGATION STRATEGIES TO ADDRESS THE SPREAD OF DISEASE IN THE COMMUNITY.

- **Strategy:** Assess disease characteristics and additional essential elements of information to determine appropriate containment and/or mitigation strategies.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Operations Section Chief; Local Health Officer; Area Commander; Equity Officer; Data Branch.
 - **Resource:** DOH Non-Pharmaceutical Interventions (NPI) Implementation Guide.¹⁶
- **Strategy:** Develop strategy implementation recommendations to present to HMAC Command Staff.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Operations Section Chief.
 - **Attachment:** *Isolation and Quarantine Joint Service Plan.*
 - **Attachment:** *Non-Pharmaceutical Interventions and Community Mitigation Guide.*
- **Strategy:** Approve disease containment and/or mitigation recommendations and planning steps.
 - **Lead:** Local Health Officer; Area Command; Operations Section Chief.
 - **Support:** Equity Officer; Public Information Officer; Safety Officer; Logistics Section.
- **Strategy:** Determine and recommended resource needs to implement isolation and quarantine measures. Consider support from Washington Department of Health and Washington Health and Human Services, where applicable.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Logistics Section.
- **Strategy:** Staff appropriate HMAC positions to manage implementation plan, as needed.
 - **Lead:** Epidemiology and Surveillance Branch Director.
 - **Support:** Logistics Section; Epidemiology and Surveillance Branch
 - **Attachment:** *Isolation and Quarantine Joint Service Plan.*
 - **Attachment:** *Non-Pharmaceutical Interventions and Community Mitigation Guide.*

OBJECTIVE: DETERMINE NEED FOR ACTIVATION OF EMERGENCY SUPPORT FUNCTION #6 – MASS CARE (ESF #6).

- **Strategy:** Define scope of care coordination and wraparound services needed to support individuals isolating and quarantining at home and at other locations (hotels, motels, and IQ sites).
- **Strategy:** Define roles and responsibilities between *Isolation and Quarantine Group* aligning with ESF #8 scope and that of ESF #6.

¹⁶ Washington State Department of Health. [Non-Pharmaceutical Interventions \(NPI\) Implementation Guide.](#)

- **Lead:** Operations Section Chief.
- **Support:** King County ESF #6 lead agency.
 - **Resources:** *Emergency Support Function #6 – Mass Care Plan.*

PREPARE

OBJECTIVE: DEVELOP PROCESS TO MANAGE ISOLATION AND QUARANTINE REQUESTS AND REFERRALS.

- *Strategy:* Define priority populations and resources required to support IQ referrals and care coordination support.
- *Strategy:* Develop IQ referral and triage coordination process with *Epidemiology and Surveillance Branch* to align with approved mitigation strategies.
- *Strategy:* Develop IQ care coordination support process with *Epidemiology and Surveillance Branch* to align with determined levels of care coordination and wraparound services.
- *Strategy:* Develop initial fact sheets or protocol guides with answers to legal questions and other matters for staff engaging with affected individuals, key settings (healthcare, etc.) or the public.
- *Strategy:* Identify a call line to handle IQ questions.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Contact Center (PICC) Group.

OBJECTIVE: DEVELOP PROCESS TO IDENTIFY, MONITOR, AND TRACK CASES AMONG INDIVIDUALS EXPERIENCING HOMELESSNESS AND/OR LIVING IN CONGREGATE SHELTER SETTINGS AND CONNECT THEM TO APPROPRIATE HEALTHCARE OR IQ FACILITIES AND RESOURCES.

- *Strategy:* Develop congregate setting and shelter outbreak reporting process and community feedback mechanism.
 - **Support:** Epidemiology and Surveillance Branch; Data Branch; Community Mitigation and Wellbeing Branch.
- *Strategy:* Monitor and track cases identified as experiencing homelessness by case investigators and data staff for follow up regarding care coordination and out of home IQ services.
 - **Support:** Epidemiology and Surveillance Branch.
- *Strategy:* Recommend expansion of isolation and quarantine services to meet community needs, as needed.

OBJECTIVE: INTEGRATE DISEASE INVESTIGATIONS, REPORTING, AND DATA REQUIREMENTS INTO ISOLATION AND QUARANTINE OPERATIONAL PROCESSES.

- *Strategy:* Develop monitoring, reporting, and/or data sharing processes with *Epidemiology and Surveillance Branch* to manage and continually assess isolation and quarantine implementation measures.
- *Strategy:* Coordinate clinical monitoring data submission to the *Data Branch* for relevant operations, specifically implementation of isolation and quarantine sites and services strategy.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Contact Center (PICC) Group; Logistics Section.

OBJECTIVE: DEVELOP PROCESS TO RECEIVE AND MONITOR COMMUNITY FEEDBACK AND EMBED FEEDBACK MECHANISM INTO OPERATIONS.

- **Lead:** Isolation and Quarantine Group.
- **Support:** Public Information Officer; Community Mitigation and Wellbeing Branch; Equity Officer; Equity Response Team.

OBJECTIVE: IDENTIFY CARE COORDINATION AND WRAPAROUND SERVICE NEEDS FOR THOSE DISPROPORTIONATELY IMPACTED BY ISOLATION AND QUARANTINE MEASURES AT HOME OR IN AN EXTERNAL LOCATION.

- *Strategy:* Identify priority at and high-risk populations and settings in need of care coordination support.
- *Strategy:* Identify needs relating to healthcare and behavioral health services; grocery and food delivery; laundry services; and additional care coordination resources.
- *Strategy:* Develop process to connect individuals in isolation and quarantine in need of care coordination to the appropriate support services.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Emergency Support Function #6 – Mass Care (ESF #6).

IMPLEMENT

OBJECTIVE: IMPLEMENT APPROPRIATE INDIVIDUAL AND COMMUNITY ISOLATION AND QUARANTINE MEASURES.

- **Lead:** Isolation and Quarantine Group.
- *Strategy:* Develop and disseminate isolation and quarantine recommendations and guidance to support community-based isolation and quarantine, prioritizing at-risk settings based on disease epidemiology and severity (examples include healthcare settings, congregate settings, schools, long-term care facilities, and adult family homes), and guidance for general public.
 - **Support:** Public Information Officer; Communications Response Team; Community Mitigation and Wellbeing Branch.
- *Strategy:* Implement and manage isolation and quarantine external site services.
- *Strategy:* Develop and disseminate Local Health Officer orders, directives, and/or involuntary compliance measures relating to isolation and quarantine.
- *Strategy:* Implement port of entry isolation and quarantine measures.

OBJECTIVE: IMPLEMENT IQ CARE COORDINATION SUPPORT PROCESS.

- *Strategy:* Receive and review requests for care coordination and wraparound services for individuals isolating and quarantining at home, including requests for meals, medication support, transportation for essential medical care, etc.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Contact Center (PICC) Group; Community Mitigation and Wellbeing Branch.

OBJECTIVE: IMPLEMENT IQ REFERRAL AND TRIAGE PROCESS.

- *Strategy:* Receive and review out of home IQ referrals from *Epidemiology and Surveillance Branch*.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Epidemiology and Surveillance Branch; Public Information Contact Center (PICC) Group.

MONITOR AND ASSESS

OBJECTIVE: MONITOR AND ASSESS IMPLEMENTED MEASURES TO ENSURE THEY MEET COMMUNITY AND RESPONSE NEEDS.

- *Strategy:* Utilize *Epidemiology and Surveillance Branch* data to track isolation and quarantine measures' impact on transmission and key at-risk population health outcomes, as possible.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Epidemiology and Surveillance Branch.
- *Strategy:* Utilize community feedback mechanisms to monitor and assess isolation and quarantine measures (including guidance development) for accessibility, usability, cultural relevance, and accuracy.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Community Mitigation and Wellbeing Branch; Communications Response Team; IQ Site Supervisors.
- *Strategy:* Utilize monitoring system to ensure individuals experiencing homelessness and those living in congregate settings have alternative locations to isolate and quarantine effectively and that resources are matching demand.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Epidemiology and Surveillance Branch; Data Branch; Community Mitigation and Wellbeing Branch.
- *Strategy:* Utilize monitoring and feedback processes to address gaps in care coordination services for individuals isolating and quarantining at home as well as at external sites.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Emergency Support Function #6 – Mass Care (ESF #6).

INTEGRATE OPERATIONS

OBJECTIVE: INTEGRATE ISOLATION AND QUARANTINE OPERATIONS ACROSS HMAC STRUCTURE TO ENSURE COORDINATION AND EFFECTIVE UTILIZATION AND PRIORITIZATION OF AVAILABLE RESOURCES.

- *Strategy:* Develop isolation and quarantine public information content which can be provided to at-risk or affected populations, based on implemented IQ strategies.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Public Information Officer; Operations Section Chief; Community Mitigation and Wellbeing Branch.
- *Strategy:* Distribute isolation and quarantine guidance among HMAC and Public Health field responders.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Safety Officer; Operations Section Chief.

OBJECTIVE: RESOLVE, TRACK, AND ESCALATE ISSUES AND PROBLEMS RELATED TO ISOLATION AND QUARANTINE TO OPERATIONS SECTION CHIEF.

- *Strategy:* Report operational updates at Operations Meetings; elevate concerns, issues, or feedback to relevant HMAC Operations branches and Command Staff, such as the *Equity Officer*, through the *Operations Section Chief*.
 - **Lead:** Isolation and Quarantine Group Supervisor.
- *Strategy:* Provide requested isolation and quarantine data, such as data on individuals served, planning considerations and requirements, and additional reporting deliverables defined by the *Operations Section Chief*.
 - **Lead:** Isolation and Quarantine Group Supervisor.
 - **Support:** Data Branch.

OBJECTIVE: PROVIDE RELEVANT INFORMATION AND GUIDANCE TO POLICY OFFICER AND GOVERNMENT AFFAIRS RESPONSE STAFF TO ENSURE THEY ARE EQUIPPED TO ADVOCATE FOR AND SHARE INFORMATION ON ISOLATION AND QUARANTINE MEASURES.

- *Strategy:* This may include discussions on isolation and quarantine site considerations and criteria, isolation, and quarantine impacts on workforce among King County employees, and requests for policy decisions relating to employees and staffing.
 - **Lead:** Isolation and Quarantine Group.
 - **Support:** Policy Officer.
- *Strategy:* Elevate gaps in measures which can be addressed through partner support, such as Washington State Department of Health (DOH) isolation and quarantine facility, coordinated care services, including transportation and meal support needs, etc.
 - **Lead:** Isolation and Quarantine Group.

OBJECTIVE: INTEGRATE OPERATIONS INTO EXISTING HMAC PROCESSES TO GATHER FEEDBACK FROM AT-RISK COMMUNITIES AND SERVICE PROVIDERS.

- *Strategy:* Establish process to receive community feedback from *Community Wellbeing and Mitigation Branch* operations. Consider feedback from homelessness service providers, refugee service providers, and other at-risk communities and settings.
- *Strategy:* Include *Community Mitigation and Wellbeing Branch* and *Equity Officer* in any development of processes to receive feedback from community and service providers directly.

6 | RESPONDER SAFETY AND WELLBEING

During the response to any biological incident, the safety and wellbeing of Health and Medical Area Command (HMAC) response staff is paramount. Within the HMAC structure, the Safety Officer is responsible for overseeing and implementing infection control measures, safety measures, and wellbeing measures to be followed and utilized by all response staff. The scope of this response area includes measures that are applicable to HMAC response staff only and field sites directly managed or staffed by Public Health response staff. This response area does not include developing guidance for response partners, such as healthcare employees or emergency medical services systems. Processes for external safety and health guidance can be found in the *Health Guidance and Public Information* response area.

DETERMINE

OBJECTIVE: DETERMINE APPROPRIATE MEASURES TO PROTECT THE SAFETY AND WELLBEING OF RESPONSE STAFF.

- **Strategy:** Assess essential elements of information (EELs) to inform an initial safety assessment of the situation and responders.
 - **Lead:** Safety Officer.
 - **Support:** Epidemiology and Surveillance Branch; Logistics Section.
- **Strategy:** Develop policies and processes, which include identified resource needs, for HMAC Command Staff regarding implementing safety and wellbeing measures for response staff.
 - **Support:** Public Health Employee Health; King County Human Resources
- **Strategy:** Approve recommendations and planning steps.
- **Strategy:** Staff relevant HMAC positions to manage implementation of recommendations.
 - **Lead:** Safety Officer.

PREPARE

OBJECTIVE: DEVELOP RESPONDER SAFETY AND WELLBEING MONITORING PROCESS TO IDENTIFY AND ADDRESS RESPONDER NEEDS.

- **Strategy:** Determine whether the response requires enhanced systems to monitor responder health and wellbeing.
- **Strategy:** Contribute safety and wellbeing components into the responder tracking system to accurately meet response scope and needs, as needed.
 - **Lead:** Safety Officer.
 - **Support:** Planning Section – Resource Unit; Logistics Section.
- **Strategy:** Develop responder feedback mechanism to identify burnout, stress, and other impacts to workforce.
- **Strategy:** Develop responder wellbeing assessment or survey to inform provision of Employee Assistance Program (EAP) and other wellbeing resources.
- **Strategy:** Develop process to disseminate feedback and use of feedback to response staff.

OBJECTIVE: DEVELOP NECESSARY INFECTION CONTROL MEASURES FOR RESPONSE STAFF.

- *Strategy:* Develop health and safety infection control protocols for key operational sites, such as testing, vaccinations, and isolation and quarantine sites.
 - **Lead:** Safety Officer.
- *Strategy:* Develop sanitation and hygiene recommendations in line with *Epidemiology and Surveillance Branch* recommendations, as needed.
- *Strategy:* Develop PPE protocols, training, and guidance to access available PPE, including fit testing processes and protocols.

OBJECTIVE: DEVELOP NECESSARY SAFETY MEASURES FOR RESPONSE STAFF AND OPERATIONAL SITES.

- *Strategy:* Develop safety protocols and guidance relating to additional or cascading hazards, including sharps guidance, severe weather exposure guidance, and physical safety guidance.
 - **Lead:** Safety Officer.
- *Strategy:* Develop safety protocols and guidance for key operational sites, such as testing, vaccinations, and isolation and quarantine sites.
 - **Lead:** Safety Officer.
 - **Support:** Site Safety Officers.

OBJECTIVE: DEVELOP SAFETY AND WELLBEING GUIDANCE AND TRAINING FOR RESPONSE STAFF ACROSS ALL RESPONSE OPERATIONS.

- *Strategy:* Conduct assessment of responder health and safety training needs, as needed.
- *Strategy:* Develop relevant responder safety and wellbeing guidance resources, including recommendations for external resources and tools.
- *Strategy:* Develop appropriate responder safety and wellbeing training in relevant formats and including feedback mechanism and contact process for staff to receive further guidance, as needed.
 - **Lead:** Safety Officer.
 - **Support:** Public Information Officer; Risk Communications Team; King County IT (KCIT); Logistics; Operations Section Chief.

OBJECTIVE: DELINEATE ROLES AND RESPONSIBILITIES REGARDING EMPLOYEE AND RESPONDER HEALTH AND SAFETY.

- *Strategy:* Delineate roles and development of system for monitoring responder and non-response employee health between *Safety Officer* and *Public Health Employee Health*.
 - **Lead:** Safety Officer.
 - **Support:** Public Health Employee Health.
- *Strategy:* Advise on appropriate guidance and resources required to protect the health and safety of Public Health employees not involved in the response.
 - **Lead:** Safety Officer.
 - **Support:** Public Health Employee Health; King County Human Resources; King County Employee Assistance Program and Balanced You; Equity Officer.
- *Strategy:* Establish a *Responder Safety Team* to manage objectives and response activities.
 - **Lead:** Safety Officer.
 - **Support:** Public Health Employee Health; King County Human Resources; Planning Section; Logistics Section.
- *Strategy:* Establish a *Responder Wellbeing Team* to manage objectives and response activities.

- **Lead:** Safety Officer.
- **Support:** Public Health Employee Health; King County Human Resources; Planning Section; Logistics Section; King County Employee Assistance Program (EAP) and Balanced You.

IMPLEMENT

OBJECTIVE: IMPLEMENT INFECTION CONTROL MEASURES TO SUPPORT RESPONDER SAFETY.

- *Strategy:* Customize any health screening tools based on the needs of the response.
- *Strategy:* Implement fit-testing processes and protocols for response staff.
- *Strategy:* Recommend provision of infection control measures (HEPA filters, personal protective equipment, and other environmental controls) in HMAC response spaces.
 - **Lead:** Safety Officer.
 - **Support:** Logistics Section.

OBJECTIVE: IMPLEMENT SAFETY MEASURES TO SUPPORT RESPONDER SAFETY.

- *Strategy:* Implement relevant safety measures across *Operations Section's* response activities to protect the safety of responders, such as: sharps guidance, severe weather exposure guidance, physical safety guidance, etc.
 - **Lead:** Safety Officer.
- *Strategy:* Implement relevant safety measures across other HMAC sections' scope of response activities to protect the safety of responders, such as: severe weather exposure guidance, physical safety guidance, etc.
 - **Lead:** Safety Officer.

OBJECTIVE: IMPLEMENT WELLBEING MEASURES TO SUPPORT RESPONDER WELLBEING.

- *Strategy:* Recommend safe work/rest ratio and staffing support accommodations (e.g., childcare, meals, overnight needs, ergonomic resources).
 - **Lead:** Safety Officer.
- *Strategy:* Integrate wellbeing check-ins and available wellbeing resources into response staff's operational processes (e.g., staff facilitation, classes, EAP resources).
 - **Lead:** *Responder Wellbeing Team.*
- *Strategy:* Integrate available wellbeing support into response staff's operational processes.
 - **Lead:** *Responder Wellbeing Team.*

OBJECTIVE: DELIVER SAFETY AND WELLBEING GUIDANCE AND TRAINING TO RESPONSE STAFF ACROSS ALL RESPONSE OPERATIONS.

- *Strategy:* Provide appropriate PPE guidance and training for response staff.
 - **Support:** Logistics Section; Operations Section Chief; Public Health Employee Health.
- *Strategy:* Provide appropriate safety trainings and guidance (sharps, severe weather, physical safety) to response staff.
- *Strategy:* Deliver relevant responder safety and wellbeing guidance resources in accessible formats, including recommendations for external resources and tools.
 - **Lead:** Safety Officer.
 - **Support:** Logistics Officer; Operations Section Chief.

- *Strategy:* Deliver appropriate responder safety and wellbeing training in accessible formats. Include feedback mechanism and contact process for staff to receive further guidance, as needed.
 - **Lead:** Safety Officer.
 - **Support:** Communications Response Team; Equity Officer; King County IT.

MONITOR AND ASSESS

OBJECTIVE: CONDUCT RESPONDER SAFETY AND WELLBEING MONITORING AND SURVEILLANCE BASED ON IDENTIFIED RISKS, RESPONDER ROLES, AND RECOMMENDATIONS OF SUBJECT MATTER EXPERTS THROUGHOUT RESPONSE.

- *Strategy:* Utilize responder safety and wellness monitoring process to continually assess and determine appropriateness and effectiveness of wellness and safety measures.
 - **Lead:** Safety Officer.
 - **Support:** Public Health Employee Health.

OBJECTIVE: CONTINUOUSLY ASSESS SAFETY NEEDS AND REVISE SAFETY STAFFING PLAN AS NECESSARY.

- *Strategy:* Assess and recommend changes to responder safety requirements and recommendations, including infection control measures, safety measures, and wellbeing measures to meet the needs and scope of the response.
- *Strategy:* Conduct regular site visits to engage with field staff to review safety of facility and procedures used by staff and make recommendations for improvements.
 - **Lead:** Safety Officer or delegated Responder Safety Team.
 - **Support:** Operations Section Chief and/or appropriate Branch or Group Supervisor.
- *Strategy:* Establish reporting process with Public Health site safety staff.
- *Strategy:* Request additional staffing for Assistant Safety Officer and/or safety and wellbeing Technical Specialist positions to support scope of safety activities.

OBJECTIVE: CONTINUOUSLY ASSESS WELLBEING NEEDS AND REVISE WELLBEING STAFFING PLAN AS NECESSARY.

- *Strategy:* Assess and recommend changes to wellbeing measures and resources, including available resources from EAP, Balanced You, and others.
- *Strategy:* Request additional staffing for Assistant Safety Officer and/or wellbeing Technical Specialist positions to support scope of safety activities.
 - **Lead:** Safety Officer.
 - **Support:** King County Employee Assistance Program, Responder Wellbeing Team.

INTEGRATE OPERATIONS

OBJECTIVE: MAINTAIN ACCURACY AND ALIGNMENT OF SAFETY RECOMMENDATIONS AND PROTOCOLS WITH INFECTIOUS DISEASE GUIDANCE.

- *Strategy:* Align responder safety recommendations and protocols with *Epidemiology and Surveillance Branch* infection prevention and control guidance.

- **Lead:** Safety Officer.
- **Support:** Epidemiology and Surveillance Branch.
- *Strategy:* Recommend alignment of employee safety recommendations and protocols with *Epidemiology and Surveillance Branch* infection prevention and control guidance.
 - **Lead:** Safety Officer.
 - **Support:** Responder Safety Team; Epidemiology and Surveillance Branch; Public Health Employee Health.

OBJECTIVE: INTEGRATE RESPONDER FEEDBACK INTO SAFETY AND WELLBEING RECOMMENDATIONS AND PROTOCOLS.

- *Strategy:* Develop information sharing process to ensure feedback informs available safety and wellbeing guidance resources and trainings.
- *Strategy:* Develop information sharing process to ensure feedback informs equitable distribution of PPE and hygiene and sanitation resources among staff.
 - **Lead:** Safety Officer.
 - **Support:** Operations Section Chief; Logistics Section Chief.

OBJECTIVE: INTEGRATE SAFETY AND WELLBEING TRAININGS, RESOURCES, AND GUIDANCE INTO RESPONDER ONBOARDING AND ORIENTATION PROCESS.

- *Strategy:* Work with *Resource Unit* to incorporate documents, links, and other resources directing onboarding responders to safety and wellbeing resource, requirements, and support options.
 - **Lead:** Safety Officer.
 - **Support:** Planning Section – Resource Unit; Logistics Section.

OBJECTIVE: UTILIZE DEMOBILIZED RESPONDER TRACKING PROCESS TO TRACK PREVIOUSLY REPORTED AND NON-REPORTED ILLNESSES, INJURIES, ACCIDENT, AND INCIDENTS.

- *Strategy:* Integrate tracking process with *Logistics Section's* demobilization process to ensure accuracy.
 - **Lead:** Safety Officer.
 - **Support:** Logistics Section; Planning Section – Resource Unit.
- *Strategy:* Establish an *Employee Health Group* or similar unit to follow up and address employee needs following the response, as needed.
 - **Lead:** Safety Officer.

7 | TESTING

To limit the spread of infection and risk of severe disease by ensuring that the community has equitable access to testing resources through a variety of modalities, such as provider offices, fixed testing locations, or at-home kits, when community-based diagnostic tests are available and indicated in the Public Health – Seattle & King County (Public Health) response. Timely testing can be important for determining necessary treatment and isolation measures for minimizing exposure to others.

PREPARE

OBJECTIVE: COORDINATE WITH LOCAL, STATE, AND FEDERAL PARTNERS TO UNDERSTAND TESTING METHODS, GUIDELINES AND AVAILABILITY OF SUPPLIES DURING THE INITIAL STAGES OF A BIOLOGICAL INCIDENT.

- *Strategy:* Coordinate with the Centers for Disease Control and Prevention (CDC) and Washington State Department of Health (DOH) on establishing testing criteria, protocols, and guidance for interpretation of results for provider referrals, specimen collection and handling, reporting, and shipping. Coordination may also include ensuring local labs are vetted and approved for testing.
 1. Just in time training on specimen collection, handling, storage, and shipping may be required for bioterrorism agents and other novel organisms that not covered by standard processes.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Operations Section Chief; Logistics Section.
- *Strategy:* Engage early with internal and external planning partners who are critical to testing services.
 1. Identify Public Health’s role in providing low-barrier direct testing services, from individuals to large-scale fixed sites.
 - a. Explore site options for fixed-site testing operations.
 - b. Identify need for Public Health staff to conduct testing services in congregate settings that may include long-term care facilities and locations frequented by people experiencing homelessness.
 - c. Identify need for Public Health to conduct testing services in focused on highest risk populations in collaboration with community leaders and community-based organizations.
 - d. Identify the Public Health lab’s role for testing samples.
 - e. Identify the role of Public Health programs, such as Jail Health Services or Sexual Health Clinic, for supporting testing operations of their own patients. At some locations, testing community members may be appropriate, and necessary.
 - f. Coordinate with DOH, healthcare systems, pharmacies, and neighboring jurisdictions to plan for a regional approach to community testing across high-risk sectors, such as schools and businesses.
 - g. Coordinate with CDC’s Division of Global Migration and Quarantine (DGMQ) to align workflows and responsibilities when testing needs to be arranged for travelers at SeaTac International Airport.
 - h. Contract with mobile testing partners to augment Public Health’s capacity to provide services in congregate settings and for individuals who are homebound.

- i. Coordinate with state and federal partners in the event that diagnostics need to be requested from the Strategic National Stockpile.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Operations Section Chief; Logistics Section; Community Mitigation and Wellbeing Branch; Liaison Officer; Equity Officer; Policy Officer.
- **Strategy:** Coordinate with DOH and NWHRN to update healthcare community on testing guidelines and protocols.
 1. Assess partner's capacity for providing direct testing services in a healthcare or community setting.
 - **Lead:** Epidemiology and Surveillance Branch.
- **Strategy:** Provide technical input into local guidance, policy development, communications, and content development.
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Operations Section Chief; Public Information Officer (PIO); Equity Officer; Policy Officer; Community Mitigation and Wellbeing Branch.
- **Strategy:** Identify any technology that may be required for testing services at Public Health-operated sites (e.g., scheduling platforms, documentation, reporting).
 - **Lead:** Epidemiology and Surveillance Branch.
 - **Support:** Operations Section Chief; Logistics Section.
- **Strategy:** Order supplies in preparation for Public Health's direct service role during initial stages of testing (e.g., Public Health clinics or congregate settings).
 - **Lead:** Logistics Section.
 - **Support:** Epidemiology and Surveillance Branch; Operations Section Chief; Equity Officer; Policy Officer.

IMPLEMENT

OBJECTIVE: WHEN APPROPRIATE, CONDUCT AND COORDINATE TARGETED COMMUNITY-BASED TESTING FOR HIGH-RISK POPULATIONS AND ESSENTIAL SERVICE PERSONNEL.

- **Strategy:** Based on community feedback and recommendations, we will as local epidemiology, determine testing locations to reach highest-risk populations, ensuring equitable access to testing, and addressing the unique needs of historically marginalized groups, such as those with access and functional needs and people who speak a primary language other than English.
 1. Ensure educational materials and information shared is in language and formats accessible to all groups.
 2. Build upon established relationships with community partners.
 3. Collaborate with community navigators.
 4. Partner with healthcare systems, clinics, providers, and community-based organizations who specialize in serving the impacted population.
 5. Consider additional accommodations at testing sites for reducing stigma for high-risk groups, such as measures that support maintaining the privacy of individuals seeking testing.
 - **Lead:** Testing Group.
 - **Support:** Operations Section Chief; Equity Officer; Policy Officer; Logistics Section; Community Mitigation and Wellbeing Branch.

- *Strategy:* When necessary, operate one or more Public Health fixed-site testing locations in King County.
 - **Lead:** Testing Group.
 - **Support:** Operations Section Chief; Equity Officer; Policy Officer; Logistics Section; Community Mitigation and Wellbeing Branch; Isolation and Quarantine Branch.
- *Strategy:* Ensure partner-operated sites are located in “testing deserts” and are accessible to high-risk groups and communities with historic inequities in healthcare access who may be at risk for infection.
 - **Lead:** Testing Group.
 - **Support:** Operations Section Chief, Equity Officer, Policy Officer, Logistics Section, Community Mitigation and Wellbeing Branch.
- *Strategy:* Coordinate with the healthcare community to provide testing for their patients and staff.
 - **Lead:** Testing Group.
- *Strategy:* Provide guidance to healthcare community on connecting eligible patients to available treatment options.
 - **Lead:** Testing Group.

OBJECTIVE: COORDINATE DISTRIBUTION OF HOME TEST KITS (WHEN INDICATED).

- *Strategy:* Procure and store test kits at a Public Health Warehouse.
 - **Lead:** Testing Group.
 - **Support:** Logistics Section.
- *Strategy:* Using an equity prioritization tool, coordinate with internal programs and external partners to distribute kits to highest risk groups (FBOs, CBOs, libraries, schools, businesses, long-term care facilities).
 - **Lead:** Testing Group.
 - **Support:** Logistics Section, Community Mitigation and Wellbeing Branch, Operations Section Chief, Equity Officer.

MONITOR AND ASSESS

OBJECTIVE: EVALUATE TESTING NEEDS IN THE COMMUNITY AND EXPAND, SCALE OR TRANSITION FIXED TESTING SITES AND DISTRIBUTION OF HOME TESTING KITS IN RESPONSE TO DEMAND, AVAILABLE RESOURCES AND PARTNER CAPACITY.

- *Strategy:* Engage with community for ongoing feedback related to testing access for high-risk groups.
- *Strategy:* Review case rates and ensure testing needs are met in geographical areas with highest disease burden.
- *Strategy:* Increase or decrease the volume or location of testing sites based on local Epidemiology.
 - **Lead:** Testing Group.
 - **Support:** Logistics Section, Community Mitigation and Wellbeing Branch, Operations Section Chief, Equity Officer, Policy Officer.

INTEGRATE OPERATIONS

OBJECTIVE: INTEGRATE TESTING OPERATIONS ACROSS HEALTH AND MEDICAL AREA COMMAND (HMAC) STRUCTURE TO ENSURE COORDINATION, PROPER SAFETY MEASURES, APPROPRIATE INTERNAL AND EXTERNAL COMMUNICATION, AND EFFECTIVE UTILIZATION AND PRIORITIZATION OF AVAILABLE RESOURCES ARE IMPLEMENTED.

- *Strategy:* Provide ongoing technical input into local guidance related to testing, development of internal and external guidance, policy development, and communications.
 1. Technical input supports the PIO, Public Information Contact Center (PICC), or communication response teams with:
 - a. Responding to inquiries from internal groups, external partners, and the public.
 - b. Developing, sharing, and disseminating timely information to the public and partners through different communication channels, which may include social media, Public Health blog, local media outlets, Public Health website, healthcare facility listservs, regional partners (i.e., NWHRN) and during coordination meetings.
 - c. Technical input may also be used to support content development for responder safety materials.
 - d. Ensure information is in languages and formats that reach as many communities as possible in King County.
- *Strategy:* Resolve, track and escalate issues and problems related to testing to Operations Section Chief, Isolation and Quarantine Group Supervisor, or others as needed.
- *Strategy:* Ensure Policy Officer and Government Affairs response staff are equipped to advocate for and communicate around testing needs and challenges.
- *Strategy:* Coordinate with Safety Officer to develop guidelines and processes for testing in the field.
 1. Ensure standards for responder safety and health, including PPE and respiratory fit-testing, are identified and implemented.
- *Strategy:* Coordinate with Logistics Section for supplies and resources that may be needed to support Public Health testing activities.
- *Strategy:* Coordinate with Finance and Administration Section for staffing needs, as well as facilitating contracts or Memorandums of Understanding (MOUs) for sites or staffing.
 - **Lead:** Epidemiology and Surveillance Branch/Testing Group.

DEMOBILIZATION

Demobilization refers to activities that focus on disengaging response resources as incident objectives are met and transitioning response staff and activities to routine services. Planning for demobilization begins at the start of the response to ensure an orderly and appropriately phased conclusion of response activities. During a larger biological incident response, different activities and/or roles may demobilize or transition to division-led operations at different stages of the outbreak. Transition planning is a key component to effective demobilization of response operations. This Section will describe how response personnel and activities will be reduced and/or closed out as the biological incident abates.

Demobilization and transition actions may commence with consideration of the following factors: decision-making criteria, phased demobilization, continual surveillance and monitoring, logistics and supply chain, communication and public engagement, and after-action review and corrective action planning.

DECISION-MAKING CRITERIA

Epidemiological Metrics: The demobilization timeline should be closely linked to epidemiological data, such as infection rates, case-fatality rates, hospitalization rates, and test positivity rates. In addition, the scale and size of the current outbreak/progression of the incident, sites of potential exposure and where disease transmission risk is highest, any additional unique disease characteristics (i.e., evolution of the pathogen), and availability of effective treatment, vaccination, and containment measures. A sustained decline in these metrics may trigger the initiation of demobilization plans.

Healthcare System Capacity: The status of healthcare facilities, including bed availability, ventilator capacity, and medical supply stocks, must be continuously assessed. Demobilization should be contingent on the healthcare system's ability to manage cases without being overwhelmed.

Vaccine and Therapeutics Availability: Availability and distribution of vaccines and therapeutics play a pivotal role in demobilization. Widespread vaccination coverage may allow for a more expedited demobilization.

Local Response Partner Input: Collaboration with other local health departments, healthcare providers, and community groups and leaders are essential in the decision-making process for demobilizing response operations. Specifically, identifying the status of critical infrastructure and essential services as well as impacts on different community groups. Their insights can inform decisions on demobilization readiness.

PHASED DEMOBILIZATION

Response Staff and Personnel: Demobilization should occur in a phased approach, identifying essential operations and prioritizing the release of staff that work in operations that are deemed as no longer essential, while maintaining a core workforce for ongoing surveillance and response. Rotate personnel to mitigate exhaustion and ensure a capable response team is retained.

Resource Deactivation: Gradual deactivation of resources and facilities is key. Maintain a sufficient reserve of resources in case of resurgence. Medical equipment, field hospitals, and stockpiles must be carefully assessed for repurposing or redeployment.

Community Education: A demobilization phase should include a concerted effort to educate the public about continued hygiene practices, vaccination opportunities, and potential risks, emphasizing the need for continued vigilance.

CONTINUAL SURVEILLANCE AND MONITORING

Notifiable Disease and Syndromic Surveillance: Continue surveillance to detect potential outbreaks or resurgence. Maintain a robust reporting system for rapid response to any suspicious clusters.

Testing Infrastructure: Sustain testing infrastructure for early case detection, contact tracing, and surveillance. Adapt testing capacity to evolving community needs.

Healthcare Preparedness: Maintain the ability to rapidly expand healthcare capacity if needed. Develop protocols for timely reactivation of field hospitals and other surge resources in case of resurgence.

LOGISTICS AND SUPPLY CHAIN

Strategic Stockpile Management: Maintain a strategic stockpile of essential medical supplies, personal protective equipment, and pharmaceuticals to support healthcare facilities. Ensure these supplies are rotated to prevent expiration.

Resource Redistribution: Resources that are no longer needed in the primary response area should be strategically redistributed to regions still grappling with the outbreak or stored for future needs.

COMMUNICATION AND PUBLIC ENGAGEMENT

Clear Messaging: Continue clear and consistent communication with the public, using appropriate channels to disseminate information on the state of the infectious disease emergency and the rationale behind demobilization decisions.

Psychosocial Support: Provide access to psychosocial support services to address the mental health needs of responders and the public as they adapt to changes in emergency response services and/or the end of the infectious disease emergency.

AFTER-ACTION REVIEW AND CORRECTIVE ACTION PLANNING

Debriefing and Evaluation: Following the demobilization of response operations, conduct a comprehensive after-action review (AAR) involving all response partners to identify strengths and areas for improvement in the demobilization and transition process. This evaluation to collect lessons learned

and recommendations for improvement. Public Health staff involved in the response are expected to participate in evaluation or debrief sessions as part of the demobilization process. For longer activations there may be one or more debrief sessions part-way through the response to have feedback at different stages of the response. Focus on things that went well, areas for improvement, and recommendations for the future. As needed, also gather feedback via interviews, surveys, at staff meetings during the response, and through other methods. A compilation and analysis of lessons learned gathered through the debrief sessions and other activities will make up the After-Action Report and Corrective Action Plan.

Documentation: Maintain detailed records of demobilization activities, lessons learned, and recommendations for future planning, updating the infectious disease response plan accordingly. In conclusion, the demobilization and transition phase in an infectious disease emergency response plan requires a structured and adaptable approach, founded on epidemiological data, healthcare capacity, and community needs. By strategically phasing the demobilization, maintaining surveillance, safeguarding logistics, and fostering clear communication, public health agencies can ensure a smooth transition from emergency response to recovery and readiness for future challenges. Demobilization is a dynamic process that necessitates close collaboration with all stakeholders and ongoing monitoring to safeguard public health.

DEMOBILIZATION CHECKLIST

Demobilization checklist

- ☐ Review the Incident Action Plan and resources to determine the size and extent of the demobilization effort.
- ☐ Coordinate demobilization with Command and General Staff and the Continuity of Operations Branch.
- ☐ Identify surplus resources and probable release time in coordination with the Logistics Section. Identify logistic (including transportation and supply) needs to support demobilization and transition activities.
- ☐ Develop a plan detailing specific responsibility, release priorities, procedures, and necessary checklists to guide staff who are being demobilized and/or transition.
- ☐ Track progress of demobilization and transition
- ☐ Ensure that all Operations Section Branches understand their demobilization and/or transition responsibilities and the procedure for demobilizing.
- ☐ Hold a debrief with all activated staff.
- ☐ Gather feedback from staff via interviews, surveys, email, and/or other methods.
- ☐ Write the After-Action Report and Corrective Action Plan.

TRANSITION

A critical aspect of the demobilization of response operations is the transition of activities back to being led by Department divisions and programs. The process of transitioning Health and Medical Area Command (HMAC) response activities must focus on building back departmental activities that emphasize staff and community well-being and highlight lessons learned from the response. Transition processes must be inclusive of and responsive to community voices highlighting the importance of continued response services and center equity impacts of transitioning or demobilizing those services. Transition processes must also sustain cross-departmental relationships and collaborations which were built during the response while minimizing administrative burdens on staff and partners. To accomplish the goals of effectively transition response services, HMAC leadership and staff may reference resources developed during the COVID-19 HMAC activation, including but not limited to *Future State Decision Briefing Template*, *Transition Principles*, *Division/Program Expansion Planning*, *Activity Transition Plan*, and *Transition Planning SBARs*.

TRANSITION OF RESPONSE STAFF

Identify the roles and responsibilities of response staff that are serving in Special Duty Assignments and Term-Limited Temporary positions and note where shifts in team staffing, i.e., sunseting of certain roles or staff returning to base positions, may introduce challenges to transitioning operations to partners or into routine services. Staff cross-training needs must be considered when transitioning staff and services to routine operations or transitioning response operations to external partners.

A set of questions to consider for decision-making around demobilization and future planning of response staff across operational areas includes the following:

- *What are the key functions of the response team?*
- *Of the identified functions, which functions plan to ramp down and which functions need to continue beyond HMAC demobilization?*
- *How is this work currently staffed (i.e., how many King County staff and contracted staff)? How do you anticipate this changing by [estimated HMAC demobilization date]?*
- *What is the anticipated staffing need beyond HMAC demobilization? What types of positions and skills may be needed? Special considerations (e.g., need for multi-lingual staff or ability to work nights and weekends, etc.)?*
- *What work is currently being contracted out?*
 - *Who with?*
 - *What is the work?*
 - *Until when?*
- *What is the funding source(s) that support response roles?*

TRANSITION OF RESPONSE OPERATIONS

Planning for a gradual scale down of response operations across multiple phases must include consideration of the unique set of challenges that different operational teams may navigate, i.e., staffing, funding, and community priorities. For instance, teams engaged in direct service to high-risk groups and groups impacted by inequities must ensure that a scale down of services does not instigate

additional disparities in access to and the quality of services that those groups are seeking. Effective demobilization of operations may require engaging in an SBAR (Situation-Background-Assessment-Recommendation) analysis to identify funding, policy, and service priorities for each operational response area. Furthermore, response teams may approach demobilization with a focus on equity while considering funding and resource realities by considering the following:

- Being responsive to the changing nature of a biological incident
- Demand for services
- Changes in funding
- Opportunities to integrate with other existing Public Health services or transition to external partners
- Whether the service is unique to Public Health and there are no other options available

PLAN MAINTENANCE

REVIEW AND REVISION

The *Biological Incident Response Annex* will be regularly updated through an iterative process and if needed, may include the addition of operational guides, processes, and/or templates. The revision process will be reflective of ongoing engagement with community advisory groups and outreach to relevant Public Health divisions and programs represented in the annex, to ensure response activities and services are documented accurately and equitably. This version of the *Biological Incident Response Annex* represents information compiled through a collaborative planning process that occurred between 2022-23 with submission in November 2023. Future revision processes for this annex will include outreach to community partners (i.e., Community Advisory Group for Public Health Emergency Preparedness, Equity Response Team, Community Navigators Team, Community Based Organizations, and Faith-based Organizations) and relevant Public Health divisions and programs represented in the annex, to ensure their response activities and services are documented accurately.

Following any activation of the plan, Public Health will seek feedback on the response from HMAC responders, Public Health divisions and programs involved in the response, community partners, and other key response partners across the county. Findings from the evaluation process will be shared with those involved in and impacted by the event. Based on this feedback as well as items outlined in the Corrective Action Plan, the *Biological Incident Response Annex* will be updated to include lessons learned and address recommended improvements.

SOCIALIZATION

Relevant portions of the updated plan will be shared with the following groups during each review process:

- Public Health divisions and programs
- Office of Equity and Community Partnerships, including but not limited to the following groups:
 - Equity Response Team
 - Community Navigators Team
 - Community Advisory Group for Public Health Emergency Preparedness
- King County Office of Emergency Management
- City of Seattle Office of Emergency Management
- Northwest Healthcare Response Network
- Relevant county departments and agencies
- Washington State Department of Health – Office of Resiliency and Health Security (ORHS)

Socialization is intended to seek feedback from as well as to inform partners of changes to the contents of this annex. Public Health divisions and programs directly involved in emergency response and key community partners will participate in the revision process, ensuring thorough engagement prior to any socialization.

TRAINING AND EXERCISES

Preparedness maintains an Integrated Preparedness Plan (IPP), which details the training and exercise priorities for Public Health response actions. Portions of the *Biological Incident Response Annex* may be integrated into the IPP to ensure key capabilities are exercised and relevant training developed.

LIST OF ACRONYMS AND ABBREVIATIONS

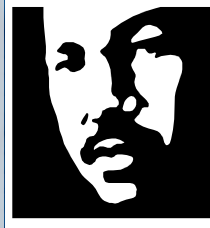
Acronym or Abbreviation	Description
AC	Area Commander
APDE/CDIP	Assessment, Policy Development & Evaluation Unit/ Chronic Disease and Injury Prevention (Public Health)
BDS	Biohazard Detection System (USPS)
CDC	US Centers for Disease Control and Prevention
CD-Imms	Communicable Disease Epidemiology and Immunization Section (Public Health)
CMS	US Centers for Medicare and Medicaid Services
COOP	Continuity of Operations Plan
DOH	Department of Health (Washington State)
EAP	Employee Assistance Program (King County)
EEI	Essential Element of Information
EH	Environmental Health Division (Public Health)
EMS	Emergency Medical Services (Public Health)
EOC	Emergency Operations Center
ERA	Equity Response Annex (Public Health)
ESF	Emergency Support Function
FBI	Federal Bureau of Investigation
FOUO	For Official Use Only
HAN	Health Alert Network (CDC)
HCHN	Healthcare for the Homeless Network (Public Health)
HHS	US Department of Health and Human Services
HMAC	Health and Medical Area Command (Public Health)
HMC	Harborview Medical Center
IAP	Incident Action Plan
ICS	Incident Command System
IMT	Incident Management Team
IQ	Isolation and Quarantine
IT	Information Technology
LHO	Local Health Officer
MAC	Multi-Agency Coordinating Group
MCM	Medical Countermeasures
MEO	Medical Examiner's Office (Public Health)
MOU	Memorandum of Understanding
NIMS	National Incident Management System
NWHRN	Northwest Healthcare Response Network
ODIR	Office of the Director (Public Health)
OECP	Office of Equity and Community Partnerships (Public Health)
OEM	Office of Emergency Management
ORHS	Office of Resiliency and Health Security (DOH)
PICC	Public Information Contact Center

Acronym or Abbreviation (continued)	Description
PIO	Public Information Officer
POD	Point of Dispensing
PPE	Personal Protective Equipment
Public Health	Public Health - Seattle & King County
RCW	Revised Code of Washington
SARS-CoV-2	Severe acute respiratory syndrome Coronavirus 2
SMC	Seattle Municipal Code
SNS	Strategic National Stockpile
SOP	Standard Operating Procedure
USPS	United States Postal Service
UW	University of Washington
VAERS	Vaccine Adverse Event Reporting System
WA SECURES	Washington Secure Electronic Communications, Urgent Response and Exchange System
WAC	Washington Administrative Code
WATrac	Washington System for Tracking Resources, Alerts, and Communication
WHO	World Health Organization

This page intentionally left blank.

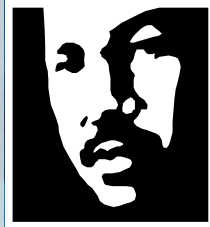
Public Health

Seattle & King County



Salud Pública

Seattle y el condado de King



PUBLIC HEALTH - SEATTLE AND
KING COUNTY

COVID-19 After Action Report



EXECUTIVE SUMMARY

The unprecedented nature of the COVID-19 pandemic presented challenges across the globe. It forced leaders in public health to sustain extended response operations while balancing planning for potential incidents and initiating active response measures. The pandemic made historical inequities, including structural ableism and racism, more apparent in both government and healthcare systems.

The disproportionate impact of COVID-19 on communities of color and individuals with disabilities has been documented across the United States. In King County, data analyses show that Hispanic/Latinx, Native Hawaiian/Pacific Islanders, Blacks, and American Indian/Alaskan Natives experienced higher rates of COVID-19 cases and hospitalizations compared to Whites.¹ Historical inequities, prejudicial practices and policies, and continued discrimination and injustices in many institutions contributed to added risk and inadequate access to services for many people. From the beginning of the pandemic, Public Health – Seattle King County (PHSKC) and community-facing task forces were concerned that COVID-19 could exacerbate health inequities and take the biggest toll on communities already disadvantaged due to a long history of structural racism, systemic oppression, discrimination, and violence. For people with disabilities in King County during this pandemic, these inequities could be truly catastrophic. The need to prioritize addressing impacts on individuals with disabilities was of primary importance due to the disproportionate impacts of COVID-19. Providing healthcare and services that were accessible to all communities was an equity and social justice issue and aligned with PHSKC's mission to serve King County's most vulnerable communities.

Despite the ongoing challenges, personnel from public health, healthcare, and government as well as first responders and community organizations demonstrated immense self-sacrifice and public service. Staff within PHSKC and their internal and external partners continue to rally around each other, supporting one another and filling needs when they arise.

This After-Action Report (AAR) was created to better understand the efforts undertaken by PHSKC during the COVID-19 pandemic and identify ways to improve future responses to public health emergencies. An AAR is a document that summarizes key information related to a disaster response to help evaluate activities and memorialize the efforts of those who responded. This report analyzed the response from January 2020 – January 2022 and the findings in the report identified strengths and areas for improvement raised by stakeholders and partners. This report is not inclusive of all work related to COVID-19 but is a sampling of activities collected from PHSKC. The end of this report includes a brief list of recommended actions for PHSKC to address, as areas for improvement. Staff within PHSKC collected a comprehensive list of these actions and recommendations, which are being tracked internally to improve PHSKC's response to future emergencies.

¹ Public Health Insider. May 1, 2020. New Analysis Shows Pronounced Racial Inequities Among Covid-19 Cases, Hospitalizations And Deaths. Accessed 5/23/22. <https://publichealthinsider.com/2020/05/01/new-analysis-shows-pronounced-racial-inequities-among-covid-19-cases-hospitalizations-and-deaths/>



THE AFTER-ACTION REPORT METHODOLOGY

The report generation process was undertaken by Constant Associates, Inc. (CONSTANT), a health security and emergency management consultancy firm. Standard incident response evaluation principles and best practices were followed in the creation of this report and it is consistent with Homeland Security Exercise and Evaluation Program (HSEEP) doctrine. A team of experts collected data through a multi-pronged process which included documentation reviews and facilitated feedback sessions with external partners. A substantial amount of feedback from department staff was collected by PHSKC. This included transcripts and summary reports of facilitated discussions, interviews, and a survey of department staff. These documents were part of the documentation review conducted by CONSTANT. After a thorough analysis of the data collected, key findings were outlined. Best practices are highlighted throughout the document to share procedures, tactics, and solutions utilized during the PHSKC COVID-19 pandemic response. Recommendations have been developed by the PHSKC response teams, community partners, and CONSTANT to support PHSKC's readiness for future emergencies. The most notable strengths and areas for improvement are highlighted below.

SIGNIFICANT STRENGTHS

- PHSKC's collaboration across departments, including the prominent leadership role it played for the nation in the pandemic response, was award-winning. Leadership steps included creating the nation's first civilian isolation and quarantine system that served over 2,300 residents by January 2022. They also set and met ambitious vaccination goals focused heavily on equity while creating strategies to support the vaccination of older adults and Black, Indigenous, and people of color (BIPOC). They also maintained the lowest death rate due to COVID-19 of the 20 largest metropolitan areas in the country.
- PHSKC's COVID-19 dashboards, such as those created by the Analytics and Informatics (A&I) Team, enabled public health decision-making supported by data. The dashboards showed cases counts, community transmission, syndromic surveillance, and vaccination uptake overlaid with demographics and geographic information. Dashboards, such as the Communities Count COVID-19 Vulnerable Communities Data Tool, also revealed very early in the pandemic the disproportionate impacts of COVID-19 on BIPOC populations and were recognized for their effectiveness and innovation by the National Association of County and City Health Officials (NACCHO). The use of these dashboards allowed PHSKC to focus its response on specific communities and provide additional services to those most impacted by the pandemic.
- Community navigators were consistently seen as a strength by PHSKC staff, partners, and stakeholders. The community navigators represented diverse populations dealing with a lack of transportation, job loss, food insecurity, and loss of housing. Imbedded in their communities, navigators served as conduits to get resources to their communities, dispel misinformation, and highlight the known fears and barriers to resources and healthcare. Additionally, community navigators provided important information and feedback to PHSKC staff to help shape and improve their response work to better serve their communities. There are numerous examples throughout this report detailing the community navigators bridging the gap between public health efforts and communities that needed it the most.



- PHSKC's Language Access Team raised the standard for language accessibility through innovation and collaboration with key partners. The team demonstrated that translating public health information into forty languages with short turnarounds is achievable and can be done in a cost effective and culturally sensitive manner. The team partnered with Washington State Coalition for Language Access (WASCLA) to develop a system of just-in-time locally certified and experienced translators allowing for same day, 24-hour, and 48-hour turnaround times. To elevate the effectiveness of the system, PHSKC opened the system to partners who were able to leverage the language capability for their roles in the public health response.

SIGNIFICANT AREAS OF IMPROVEMENT

- There remain numerous barriers to achieving equity in PHSKC's response. There were delays in leadership decisions that compromised work, including an emphasis on urgency over equity, decisions made without community input, occasional difficulties identifying how to influence work in established coordination structures, and a lack of equity training across activated staff. While proud of the organizations and communities they were able to engage, teams primarily focused on ensuring equity noted there were connections with community members left untapped and groups that were missing from the conversation. There was a noted lack of BIPOC providers in the Public Health Reserve Corps which raised concerns about the ability for those systems to serve communities disproportionately impacted by the pandemic.
- Access and Functional Needs planning was noted as a significant area for improvement throughout the response. Many of the people at highest risk of infection and death from COVID-19 were unable to access early interventions such as testing and then later vaccines until substantial communication and assistance was provided by CBOs and advocacy groups. PHSKC had an Equity Response Annex but did not have an Access and Functional Needs plan or an Americans with Disabilities Act (ADA) coordinator. This highlighted gaps in translation and interpretation services for residents with disabilities, testing and vaccine site accessibility, representation on public health dashboards, and transportation to make use of COVID-19 resources and support.
- PHSKC teams widely agreed that they were overwhelmed with workload, and response demands dramatically outpaced their resources. Many employees, particularly early in the response, worked 80–100-hour work weeks, often going months without a day off. Aside from taking time away from the job, many felt they could not reduce their workloads, take needed breaks, or address their physical, emotional, or mental health. PHSKC employees expressed they felt they were not adequately compensated for the exponential increase in responsibilities. This was compounded for some staff by the fact that they were ineligible for overtime pay and are unable to use additional compensation in the form of paid vacation due to response demands. Staff recognized and appreciated that leaders encouraged teams to work less and practice self-care, but many felt it was not feasible because the encouragement was not reflected by a reduction in workload or adequate staffing to meet needs.
- Hiring and onboarding was critical to scale up the workforce to meet the public health response needs. While recognizing the unprecedented nature of the pandemic, there were notable administrative



burdens and a significant amount of time required to fill positions. This limited scalability and contributed to staff burnout. Many staff noted that potential hires were lost as a result, and they were forced to use staffing agencies to temporarily fill gaps. The staffing agencies exacerbated inequities with PHSKC because those individuals were paid a lower rate and did not have the benefits that PHSKC employees were offered. Many of the new hires were also engaged in temporary positions making job security a constant concern. This created uncertainty and stress for both new employees and PHSKC teams to which they were assigned. Furthermore, some staff expressed worry that since new hires were in temporary positions, the added diversity they brought to the workforce would be lost at the end of their employment with the county.



TABLE OF CONTENTS

Executive Summary.....	2
The After-Action Report Methodology.....	3
Significant Strengths.....	3
Significant Areas of Improvement	4
Introduction	8
Racism as a Public Health Crisis.....	8
Overview of PHSKC.....	9
Scope of the COVID-19 After-Action Report.....	13
Methodology.....	13
PHSKC Collected Data.....	13
Facilitated Feedback Sessions With Partners (i.e., Townhalls)	14
Organization of the Report.....	16
State and Local Incident Overview	19
Health and Medical Area Command (HMAC) and Incident Management Structure	32
Expanding HMAC Structure: March 2020 - May 2020	33
Streamlining HMAC: June 2020 - December 2020.....	34
Departmental Coordination Model: December 2020 - May 2022	35
PHSKC Response Areas	37
ANALYSIS OF FINDINGS.....	49
Incident Management	49
Epidemiological Investigation and Surveillance.....	56
Equity and Community Partnerships	61
Public Information.....	71
Healthcare System Support	74
Isolation and Quarantine (I&Q)	77
Resource Management	81
Public Information Contact Center (PICC)	83
Community-Based Initiatives.....	86
Testing.....	92



Fatality Management	96
Vaccination	97
PHSKC Internal Operations	103
Responder Safety and Health	114
Recommendations	119
Relationship Building	119
Standardization of Processes	119
Hiring and Onboarding	120
Team or Staffing Capacity	120
Safety or Wellbeing Concerns	120
Equity	121
Coordination/Collaboration	121
Conclusion	123
References	124
Internal Documents	124
External/Public Source Citations	125
Acknowledgements	134
PHSKC COVID-19 AAR Online staff Survey summary	137
PHSKC COVID-19 AAR Online Survey Overview	137
Survey Respondent Characteristics	137
Staffing COVID-19 Response Roles	138
Perceptions of PHSKC Response	139
Key Strengths (From Survey)	147
Key Challenges (From Survey)	149
Recommendations (From Survey)	150
Graphics and Incident Statistics	151
PHSKC COVID-19 Dashboard Summary	151
National COVID-19 Pandemic Incident Summary	154
Local and State Timeline	165
Acronyms	174



INTRODUCTION

RACISM AS A PUBLIC HEALTH CRISIS

Racism is a public health crisis. It threatens communities across the United States by causing health inequity, depriving individuals of vital access to healthcare, and resulting in higher death rates, shorter life expectancy, higher severity of disease, and lack of access to treatment.² Structural racism is a root cause of several health disparities, manifesting through laws and policies that create barriers to equitable and high-quality care.³ In addition to individual acts of discrimination, structural racism invades systems of power, informing decision-making and furthering health inequity. These same structures exclude people with disabilities, resulting in health disparities. People with disabilities are more likely to be denied health care than people without, as inequities are fueled by discriminatory and antiquated views of disability. When understanding the impacts racism has on the health of communities, it is vital to use an intersectional lens – racism often does not occur in a vacuum, but intersects with other forms of discrimination, including discrimination on the basis of ability or socioeconomic status. Using a lens capable of recognizing this layering of discrimination is necessary especially in public health and emergency response.

The COVID-19 pandemic further drew back the curtain on the impact of structural racism in American healthcare. Racism against people of Asian descent significantly increased during the pandemic, with a documented 77% rise in hate crimes against Asian people living in the United States between March 2020 and June 2021.⁴ Additionally, health inequity in pandemic response was also documented. The CDC states that out of the 65% of COVID-19 cases in the United States where race and ethnicity data were available, Black people accounted for 14% of deaths related to COVID-19, despite making up only 13% of the total population.⁵ Hispanic people represent 24% of COVID-19 cases, despite only making up 18% of the US population. Through June 12, 2022, King County has had 2,850 deaths (0.6% of positive cases). Age-adjusted death rates of confirmed cases are highest among residents who are Native Hawaiian/Pacific Islander (749 per 100,000), American Indian/Alaska Native (452 per 100,000), Hispanic/Latinx (260 per 100,000), and Black (219 per 100,000). Rates for most communities of color are higher than among White residents (106 per 100,000). People who are incarcerated also experienced a much higher burden of the disease than non-incarcerated individuals. In 2020, 40 of the 50 widest outbreaks of COVID-19 occurred in prisons.⁶ People with disabilities experienced unique impacts due to health inequity during the COVID-19 pandemic, as a lack of appropriate data collection and accessibility barriers in information, testing, and vaccination exposed them to greater

² CDC, "Health Equity," <https://www.cdc.gov/chronicdisease/healthequity/index.htm>

³ Rugaijah Yearby, Brietta Clark, and José F. Figueroa, "Structural Racism in Historical and Modern US Health Care Policy," *Health Affairs* vol. 41:2, <https://www.healthaffairs.org/doi/10.1377/hlthaff.2021.01466February 2022>.

⁴ Mary Finding, "COVID-19 Has Driven Racism and Violence Against Asian Americans," *Health Affairs*, April 12, 2022.

⁵ CDC, "Demographic Trends of COVID-19 Cases and Deaths in the US Report," updated May 27, 2022, <https://covid.cdc.gov/covid-data-tracker/#demographics>.

⁶ Alexandria Macmadu et al., "COVID-19 and Mass Incarceration," *The Lancet* vol 5:11, October 9, 2020.



disparities in the public health response.⁷ As recovery efforts continue, historically marginalized populations continue to face greater challenges due to racism and its intersection with other forms of discrimination.

The COVID-19 pandemic centered what many professionals, advocates, and communities have known for a very long time: racism threatens the livelihoods of millions by causing health inequity and must be addressed as a public health crisis. King County, alongside three states and several other municipalities, declared racism a public health crisis in June 2020, establishing core values, measurable goals, policy priorities, and budget allocations to support its commitment to being intentionally anti-racist and accountable to Black, Brown, and Indigenous People of Color (BIPOC).⁸ As part of the Whole Community approach to all-hazard response, health inequity must be at the forefront of planning and response efforts to support resiliency in the face of public health crises.

OVERVIEW OF PHSKC

PHSKC works to protect and improve the health and well-being of all people in King County. It measures this by seeking to increase the number of healthy years that people live and eliminate health disparities. It is one of the largest metropolitan health departments in the United States with 1,400 employees, 40 sites, and a biennial budget of \$686 million. The department serves a resident population of nearly 2.2 million people in an environment of great complexity and scale, with 19 acute care hospitals and over 7,000 medical professionals. Over 100 languages are spoken in the jurisdiction, and King County is an international destination welcoming nearly 40 million visitors annually.⁹

Table 1: Washington State and King County Demographics

Race	Washington State 2019 Estimate	King County 2019 Estimate
Total population	7,614,893	2,252,782
One race	94.0%	93.7%
Two or more races	6.0%	6.3%
White	74.2%	62.1%
Black or African American	4.0%	6.7%
American Indian and Alaska Native (AIAN)	1.4%	0.7%
Asian	9.0%	18.9%

⁷ The National Institute for Health Care Management, "Disability, Health Equity, and COVID-19," updated October 14, 2021, <https://nihcm.org/publications/disability-health-equity#:~:text=Risk%20of%20Poor%20Outcomes%20from,other%20members%20of%20the%20population.>

⁸ King County, "Racism as a Public Health Crisis," June 11, 2020.

<https://kingcounty.gov/elected/executive/constantine/initiatives/racism-public-health-crisis.aspx#values>

⁹ PHSKC, "About Us," <https://kingcounty.gov/depts/health/about-us.aspx>



Race	Washington State 2019 Estimate	King County 2019 Estimate
Asian Indian	1.7%	4.3%
Chinese	2.1%	5.6%
Filipino	1.5%	2.1%
Japanese	0.5%	1.0%
Korean	0.9%	1.4%
Vietnamese	1.1%	2.3%
Other Asian	1.3%	2.3%
Native Hawaiian and Other Pacific Islander (NHOPI)	0.7%	0.7%
Native Hawaiian	0.1%	0.1%
Guamanian or Chamorro	0.2%	0.1%
Samoan	0.1%	0.3%
Other Pacific Islander	0.2%	0.3%
Other	4.8%	4.5%

PHSKC's mission is to eliminate health inequities and maximize opportunities for every person to achieve optimal health. PHSKC department functions are carried out through core prevention programs, environmental health programs, community-oriented personal health care services, emergency medical services, jail health services, public health preparedness programs, and community-based public health assessment and practices. The department operates these comprehensive set of public health services using eight divisions:

- **Cross-cutting services** includes the Assessment, Policy Development, and Evaluation (APDE) unit; Communications; Preparedness; Health Policy and Planning; and local government relations, including the King County Board of Health.
- **Prevention** serves the community by monitoring, investigating, controlling, and preventing transmission of over 60 notifiable communicable diseases. The division also includes the Medical Examiner's Office and Vital Statistics.
- **Chronic Disease and Injury Prevention** addresses some of the leading causes of chronic diseases and injuries and their social determinants through seven programs.



- **Community Health Services** provides direct services to King County's most vulnerable individuals through Parent-Child Health, Family Planning, Oral Health, Primary Care, and a variety of community partnership programs.
- **Environmental Health** focuses on prevention of disease through sanitation, safe food and water, proper disposal of wastes and toxins, and promoting safe and healthy environmental conditions throughout King County for the benefit of all residents and visitors.
- **Emergency Medical Services** operates a coordinated regional partnership providing a continuum of care for people in need of emergency medical care.
- **Jail Health Services** provides health services to detained individuals by assessing and stabilizing serious health problems with a focus on transitioning patients back to services in the community.
- **Administrative Services** includes finance, compliance, electronic health record and billing management, contracts, procurement, real estate services, and human resources.

There were many services and response efforts across the department that took place during COVID-19 and were organized by divisions. This AAR focuses on key activities largely coordinated through the incident management structure.

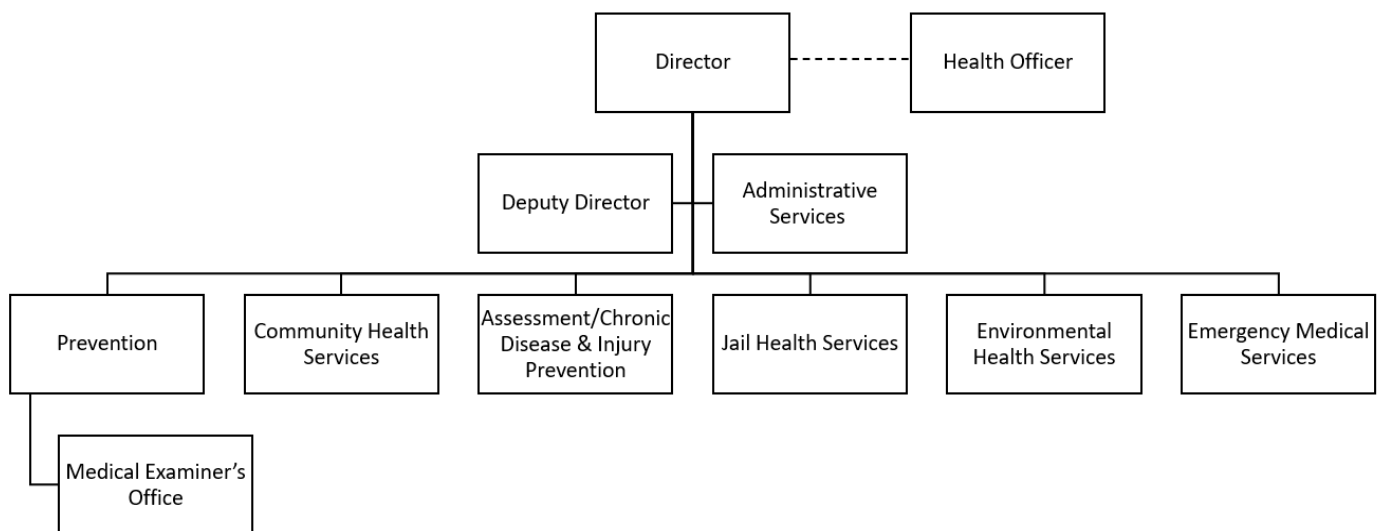


Figure 1: PHSKC Organizational Chart

PHSKC followed federal and state best practices to guide how it would respond to the COVID-19 pandemic as it grew in complexity and scope. In the federal and state systems used to organize emergency responses, Emergency Support Functions (ESFs) are used to group services and organize how they will be managed throughout a disaster. PHSKC's Health and Medical Area Command (HMAC), the department's incident management and coordination structure, was activated on January 21, 2020 to manage King County's ESF #8 (Public Health and Medical Services) using the incident command system (ICS). More details on the response



structure and the PHSKC teams and programs that supported emergency operations can be found the Health and Medical Area Command (HMAC) and Incident Management Structure section.



SCOPE OF THE COVID-19 AFTER-ACTION REPORT

This AAR focuses on the PHSKC response to the COVID-19 pandemic. The intent of this COVID-19 AAR is to comprehensively collect best practices and lessons learned from January 2020 – January 2022 to strengthen the capabilities of PHSKC. This AAR reflects the emerging practices that have benefitted the pandemic response, and which should be continued or enhanced for future pandemic responses. It is the hope of the authors of this document that this COVID-19 AAR will present recommendations for implementation to further improve future PHSKC emergency response efforts. This report is not inclusive of all work related to COVID-19 but is a sampling of activities collected from PHSKC.

METHODOLOGY

This COVID-19 AAR has been compiled using a mixed method data gathering approach. This included a comprehensive review of stakeholder interview notes and facilitated discussion summaries from PHSKC. Additionally, the data was reviewed and approved by the PHSKC AAR Project Management Team. All data was reviewed and analyzed by a third-party emergency management and public health consulting firm, Constant Associates (CONSTANT), contracted by Public Health - Seattle & King County to conduct a fair and independent review of response efforts and to develop this report. CONSTANT's team of emergency management and public health professionals aimed to conduct a transparent and honest analysis of the response and develop realistic and actionable improvement recommendations that align with HSEEP doctrine and other standard incident response evaluation principles and best practices.

PHSKC COLLECTED DATA

A variety of data was collected by PHSKC to ensure response teams, staff, and volunteers participated in the creation of the AAR. The following data types were the primary sources used to create this report.

Interviews

One hundred eleven stakeholder interviews were conducted by PHSKC to review major events that determined the critical areas for improvement and strengths related to the response efforts. Interviewees were identified by PHSKC as key stakeholders and teams during the COVID-19 response period covered by this AAR. All interviews were conducted in 2021. The first series of interviews were with PHSKC management, leadership, and select response area leads. The second set of interviews were with a broader range of response area leads. These interviews allowed participants to outline critical preparedness activities and describe self-identified response strengths, areas for improvement, and recommendations for future implementation. Transcripts of these interviews were analyzed by CONSTANT for the purpose of this AAR.

Facilitated Discussions

PHSKC staff facilitated 48 discussions with each of the response teams within the organization. These sessions are often called "hotwashes." Through these discussions, participants detailed strengths, areas for improvement, and recommendations based on their experiences during the response. The sessions allowed



teams to express their perspectives and opinions, while fostering awareness of the best practices implemented and challenges faced during different phases of the COVID-19 response. Summary reports of these meetings were compiled by PHSKC and analyzed by CONSTANT for inclusion in this report.

Surveys

Two surveys provided a forum for respondents to contribute to the AAR and enabled CONSTANT to identify key issues and themes. An electronic survey to capture PHSKC staff perspectives regardless of their response role was developed and distributed widely by PHSKC. CONSTANT conducted an analysis of the 414 responses received for the purpose of this AAR. A full summary report is included in the appendices and data from the survey informed the construction of emerging and common themes. A second survey was created by PHSKC to solicit feedback from its Public Health Reserve Corps (PHRC) volunteers. This survey was launched from May – June 2021. A summary report of the 462 responses was created by PHSKC and the data was reviewed and incorporated where appropriate by CONSTANT.

Document Review

An extensive library of documents related to the COVID-19 response was compiled and managed by PHSKC. CONSTANT reviewed the collected documentation and resources to identify supplemental information to complement interview, facilitated discussion, and survey findings. Additionally, CONSTANT researched online and publicly available references, as needed. The documents consisted of 15 reports related to lessons learned and partner AARs, 25 HMAC Incident Action Plans, Situation Reports, and messages, and 9 blogs and media articles detailing PHSKC response efforts. A list of the documents reviewed and included within this AAR can be found in the references list within the appendices.

FACILITATED FEEDBACK SESSIONS WITH PARTNERS (I.E., TOWNHALLS)

To ensure community partners were also offered an opportunity to contribute their perspectives, PHSKC and CONSTANT worked together to identify groups to invite to facilitated feedback sessions (also called “townhalls”). CONSTANT hosted four of these sessions with 31 participants attending. These discussions served as an opportunity to elicit input from community-based organizations, faith-based organizations, governmental and tribal partners, healthcare providers, and other key partners. Participants provided their perspectives on strengths, areas for improvements, and recommendations based on their experiences during the COVID-19 pandemic response. CONSTANT then incorporated the findings into the AAR. Community and Faith-Based Organizations were provided incentives for participating in sessions. The sessions were held in English with Communication Access Real-time Translation (CART) and live interpretation for multiple languages.



Table 2: PHSKC COVID-19 Townhall Participant Details

TOWNHALL PARTICIPANT DETAILS	COUNTS (n=31)
TYPE OF ORGANIZATION	
Community Based Organization	8
Other (e.g., tribal and/or healthcare coalitions, fire departments, laboratories, mobility management)	7
Other Healthcare Partner	7
Faith Based Organizations	2
Hospitals	2
Residential Facilities (Long Term Care, Skilled Nursing)	2
Philanthropic Partner	1
Public Health - Seattle & King County	1
Tribe or Tribal Organization	1
TYPE OF RESPONSE EFFORTS	
<i>*could include more than one response type per attendee</i>	
Vaccination (includes mobile and mass vaccination)	21
Testing	17
Public information sharing	16
PPE Distribution	12
Food Distribution/Care Coordination	9
Other (e.g., response planning for congregation, maintaining healthcare situational awareness, relationship building,	8
Healthcare delivery	8
Contact tracing	7
Isolation and Quarantine	5
Transportation	2



ORGANIZATION OF THE REPORT

The report is organized to include an Incident Overview, Health and Medical Area Command (HMAC) and Incident Management Structure summary, and Analysis of Key Findings related to response efforts. Given the length and breadth of the pandemic and the unprecedented scope of the response efforts for PHSKC, **this report is not meant to be comprehensive of all activities conducted in response to the pandemic.** Instead, this report is meant to focus on major strengths and areas for improvement noted by stakeholders to identify opportunities for impact on future emergency responses.

The major findings make up the core content of the report and are found in the Analysis of Findings Section. The following focus areas are intended to group the findings by similar topics and, to the extent possible, are in chronological order by when related efforts started during the pandemic.

- Incident Management
- Epidemiological Investigation and Surveillance
- Equity and Community Partnerships
- Public Information
- Healthcare System Support
- Isolation and Quarantine
- Resource Management
- Public Information Contact Center (PICC)
- Community-Based Initiatives
- Testing
- Fatality Management
- Vaccination
- PHSKC Internal Operations
- Responders Safety and Health

Each focus area links to at least one CDC Public Health Emergency Preparedness and Response (PHEP) capability which serves as a framework to evaluate the ability of public health preparedness programs to prepare for, respond to, and recover from public health emergencies such as COVID-19. Within each focus area the findings are presented as strengths or areas for improvement. However, throughout the public health



response to the pandemic, many findings were not strictly strengths or areas for improvement, but a combination of both. Findings were recorded as mixed where stakeholders shared information that was positive but also expressed there were challenges and room for growth. The duration of the response also led to the resolution of some areas of improvement as PHSKC worked to continuously improve.

To show commonalities throughout the findings, this report uses recurring themes. These themes follow survey findings conducted with PHSKC staff. Respondents were asked to identify up to three key strengths of their teams/work areas and three challenging areas their teams endured in relation to the PHSKC response and recovery efforts. Respondents overwhelmingly chose the organization's flexibility/adaptability, teamwork, equity, and coordination/collaboration as strengths.¹⁰ The key challenges noted were staff and team capacity, hiring and onboarding, and unclear processes. Some options, such as team coordination and collaboration, were identified by a notable number of respondents as both a strength and a challenge. The identified themes include:

Table 3: PHSKC COVID-19 Responder Survey Themes

STRENGTHS	AREAS FOR IMPROVEMENT
Flexibility/Adaptability	Lack of Flexibility
Teamwork	Team or Staffing Capacity
Equity	Equity Concerns
Coordination/Collaboration	Lack of Coordination/Collaboration
Communication	Lack of Communication
Relationship Building	Needed Relationship Building (<i>not an option in the survey</i>)
Standardization of Processes	Unclear Processes
Quality Assurance and Control	Quality Assurance and Control Concerns
Information Technology	Information Technology Concerns
Systems or Infrastructure	Lack of Systems or Infrastructure (<i>not an option in the survey</i>)
Safety or Wellbeing (<i>not an option in the survey</i>)	Safety or Wellbeing Concerns
	Unpredictable Funding
	Hiring and Onboarding Concerns

Where there were instances that multiple findings within a topic area were related to the same theme, an

¹⁰ COVID-19 PHSKC Staff Surveys (2022)



additional title was added to differentiate each finding. These are found with an italicized header.



STATE AND LOCAL INCIDENT OVERVIEW

The first case of novel coronavirus in Washington was identified on January 21, 2020, in Snohomish County, WA. After returning from a trip to Wuhan, China, the patient developed symptoms and sought care at a medical facility within the state. As the first confirmed case of COVID-19 in the United States, the state of Washington immediately moved into the spotlight for COVID-19 coordination efforts early in 2020.

PHSKC activated its emergency operations structure, HMAc, at Level 2 - Partial Activation on January 21, 2020. The next day, the state of Washington activated its State Emergency Operation Center (SEOC)¹¹ to conduct emergency operations and support local jurisdictions responding to COVID-19 cases. PHSKC HMAc activation was elevated to a Level 1 – Full Activation to manage emergency operations on January 24, 2020. At the state level, efforts to contain the disease in January to mid-February 2020 continued by encouraging stay-at-home orders, PPE procurement, and increasing response funding. At the local level, PHSKC began to disseminate key messages and respond to inquiries, including through its Public Health Insider blog and a dedicated COVID-19 website. The department also provided guidance to healthcare providers on diagnosis, management, and infection control measures, conducted surveillance for detection of disease, developed materials for outreach to community members and partners, and closely coordinated with the CDC, DOH, and other local health jurisdictions on suspected cases and messages.¹² In this initial phase of COVID-19 response, PHSKC worked with community leaders to address COVID-19 misinformation, stigma, and racism surrounding Chinese and broader Asian American communities, holding a press conference on February 7, 2020 and releasing outreach materials to make clear that viruses do not discriminate and neither should the King County community.¹³

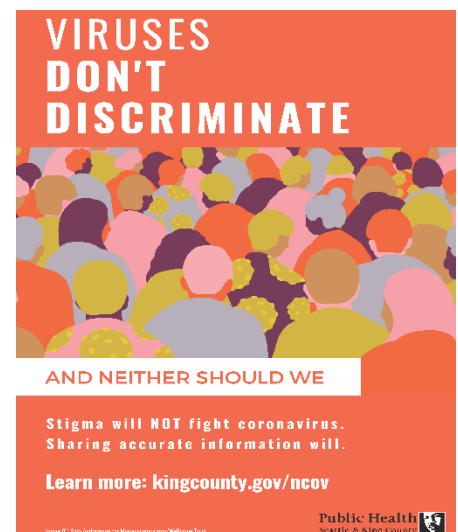
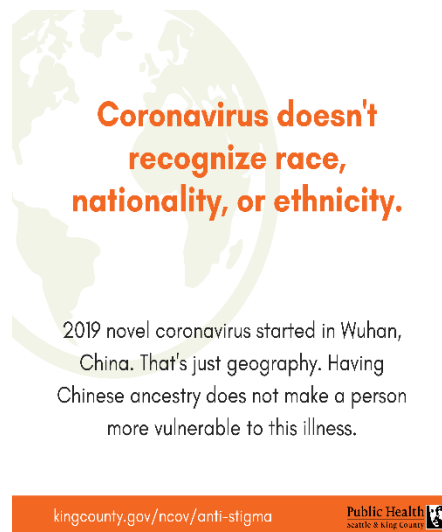
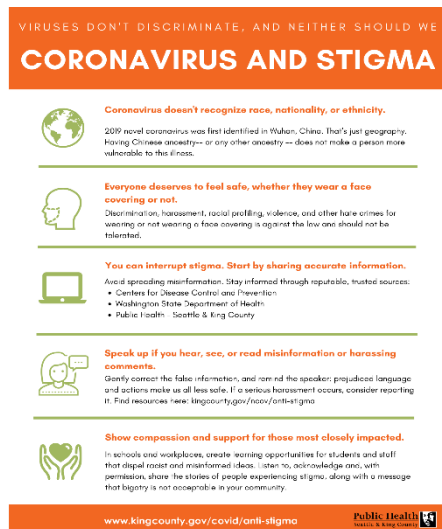


Image 2: Community outreach materials

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

¹² PHSKC. HMAc Incident Action Plan #01

¹³ PHSKC. 02.07.2020. Public Health Insider. Addressing Stigma United Response to Coronavirus. Accessed 5.31.22. <https://publichealthinsider.com/2020/02/07/addressing-stigma-united-response-to-coronavirus/>



PHSKC confirmed the first known case of COVID-19 in King County on February 27, 2020. Just one day later, on February 28, 2020, the first recognized COVID-19 death in the United States was recorded in King County, though postmortem testing would demonstrate that undercounted deaths and lack of testing contributed to delays in reporting and that the first COVID-19 death in the United States was actually in January. On February 29, 2020, the CDC reported this first COVID-19 death in the United States and described additional presumptive positive COVID-19 cases in King County with two hospitalized patients originating from a suspected outbreak in a Long-Term Care Facility (LTCF), Life Care, where more than 50 individuals associated with Life Care were ill with respiratory symptoms.¹⁴

Unable to track the source of infection, CDC officials stated that circumstances now suggested person-to-person spread in the community, including in the LTCF. Subsequently, King County activated its Emergency Operations Center (EOC), and Governor Jay Inslee issued a State of Emergency, facilitating the allowance of additional local and state resources to be utilized to respond to the outbreak. Through the end of February and into March of 2020, Life Care continued to be a focus of PHSKC and state cases due to the increased risk to residents with underlying health conditions.¹⁵ Due to the magnitude of the outbreak, collaboration with federal officials was also necessary to support an overwhelmed local infrastructure and augment clinical staffing, particularly because almost a third of Life Care staff tested positive for the virus. CDC staff were deployed to Life Care within a couple of days of the known outbreak to perform evaluations, examine response activities, and measure supply needs. A U.S. Department of Health and Human Services (HHS) strike team arrived the following week, completing COVID-19 testing for all Life Care residents. As the first known outbreak of COVID-19 in the U.S., the Life Care facility outbreak was high profile, garnering international attention, and its response greatly scrutinized. In addition to the support from the CDC and HHS, PHSKC worked with Life Care to treat ill patients while protecting those unaffected.

This LTCF outbreak was the first of many reported in the United States that led to multiple deaths in this vulnerable population.¹⁶ Thirty-nine residents of this nursing home died in a four-week span.¹⁷ During the month of March, 51% of all COVID-19 cases investigated by PHSKC were exposed within a healthcare setting, including 33% of all cases being linked to a LTCF outbreak. Through September 1, 2020, more than 90% of those who died from COVID-19 in King County were over age 60.¹⁸

On the local front, by March 1, 2020, a King County Proclamation of Emergency was signed that delineated PHSKC's role as lead agency for King County's COVID-19 response, waived procurement protocols, and authorized overtime for hourly county employees. PHSKC also began to add workers to their team in an effort

¹⁴ CDC. 2.29.20. Washington State Report First COVID-19 Death. Accessed 5.31.22.

<https://www.cdc.gov/media/releases/2020/s0229-COVID-19-first-death.html>

¹⁵ 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

¹⁶ 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>

¹⁷ 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>

¹⁸ PHSKC. 11.23.20. Summary Report on Outbreaks and Exposure Settings for COVID-19 Cases in King County, WA. Accessed 5.31.22 <https://kingcounty.gov/depts/health/covid-19/data/~media/depts/health/communicable-diseases/documents/C19/report-outbreaks-exposure-settings-covid-19.ashx>



to combat the effects of COVID-19 on the county, and soon after, on March 3, 2020, activated and staffed a contact center to provide information to the community.¹⁹ A critical focus during this initial response was also disease investigation and surveillance, which included conducting surveillance for community level transmission and monitoring the impact of disease on King County in terms of containment, community level indicators, and focused case and cluster investigation.²⁰ And while contact tracing would initially focus on priority cases for LTCFs, healthcare workers, schools, and institutions, this would expand throughout the remainder of March and into the month of April in coordination with partners. Such activities made it possible for PHSKC to collect and share surveillance data, monitor trends, and inform modifications to non-pharmaceutical interventions.

Throughout the month of March 2020, more information was also available regarding the potential impact of COVID-19 on different populations. Other populations identified by PHSKC to be at higher risk for severe illness from COVID-19 included people 60 and older, people with underlying health conditions, people who are immunocompromised, and people who are pregnant. Local health officials recommended that those vulnerable to severe illness from COVID-19 take concerted steps to reduce their risk of exposure.²¹ PHSKC created a cross-sector forum for representatives from community, business, and government sectors to contribute to helping to slow the spread of COVID-19, forming an advisory group initially called the Pandemic Community Advisory Group (PCAG). An initial meeting of the PCAG was held on March 5, 2020.²² The PCAG initially focused on how representatives could share COVID-19-related information and messages internally, within their sectors, and to the public, how organizations could join PHSKC in responding to misinformation and stigma, and how PHSKC could work with these sectors to inform each other of opportunities, successes, and barriers to implementing recommended measures. The discussions held, as well as the mission of the

¹⁹ King County. 3.01.20. Proclamation of Emergency. Accessed 5.31.22

https://kingcounty.gov/~media/operations/policies/documents/PHL104Proclamation_of_Emergency.ashx?la=en

²⁰ HMAC COVID-19 IAP #18

²¹ King County. 3.4.20. Local Health Officials Announce New Recommendations to Reduce Risk of Spread of COVID-19. Accessed 5.31.22. <https://kingcounty.gov/depts/health/news/2020/March/4-covid-recommendations.aspx>

²² King County. 3.5.20. King County Pandemic Advisory Group. Access 6.14.22. <https://kingcounty.gov/depts/health/covid-19/community-faith-organizations/~media/depts/health/communicable-diseases/documents/C19/parcag/PCAG-2020-Mar-5-minutes.ashx>



PCAG, would evolve over time, covering topics such as mental and behavioral health, COVID-19 data tools,

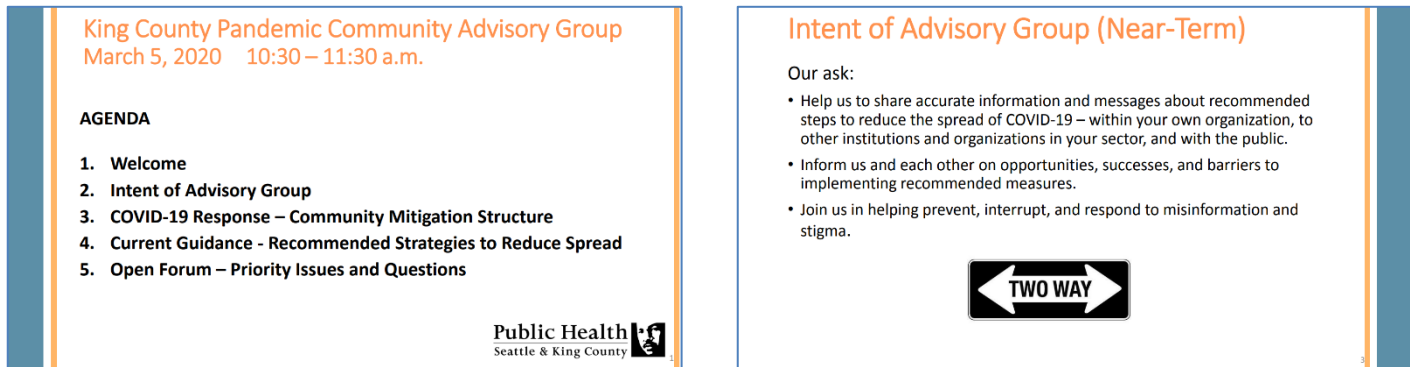


Image 3: PCAG slide examples

pro-equity strategies and equity impacts, and food security.

The initial COVID-19 outbreak was not confined to merely the Life Care facility, however. Between March 1, 2020 and March 15, 2020, when social distancing was advised in King County and bars, restaurants, events, and other gatherings were ceased for an initial two-week period, the total COVID-19 case count grew to 420 and the total number of recorded deaths was 37.²³ During this critical period in response, actions taken across the state and local levels included: area colleges moving to virtual instruction; King County opening isolation and quarantine sites; King County, United Way of King County, and Seattle opening a 'supply store' to pool together resources and funnel in and out bulk purchases; large events over 250 people being suspended; and schools closing in King County through April 24, 2020 (initially). In addition to the LTCF outbreaks, tribal communities were affected early on in this pandemic. The state of Washington is home to 29 federally recognized Indian Tribes. DOH, in coordination with a tribally driven non-profit organization, the American Indian Health Commission (AIHC), worked together early in the pandemic on behalf of these tribes to mitigate the risk to their tribal communities.²⁴ As PHSKC noted when they announced their Principles for Equitable Vaccine Delivery in April 2021, the impact was also felt in several high-risk communities because of historical inequities, government distrust, and existing barriers to access.

Other communities disproportionately impacted by COVID-19 both during the pandemic's early stages and throughout as attributable to structural racism and social and economic vulnerabilities were service workers, immigrants, BIPOC communities, communities with limited access to health services, people without housing, and people with disabilities and other access and functional needs.

Some examples of how PHSKC strove to serve communities disproportionately impacted by COVID-19 during initial response in March and April 2020, are described in the following paragraphs. Many of these efforts

²³ King County. 3.15.20. Executive Constantine and King County Health Officer Announce New Orders to Limit Spread of COVID-19. Accessed 5.31.22. <https://kingcounty.gov/elected/executive/constantine/news/release/2020/March/15-COVID-order.aspx>

²⁴ Lou Schmitz, American Indian Health Commission for Washington State, *AIHC Tribal Communicable Disease Emergency Responses Planning Project 2019-2020*, March 11, 2020



were stood up during initial response and continued to be carried out for over two years and/or are still in place at the time of writing of this report (June 2022).

- PHSKC, the broader King County government, and the State shared information and provide services to people experiencing homelessness such as convening information calls with homeless and shelter services providers, providing guidance on sanitation and infection control to homeless services sites, including through site visits, and deploying clinical strike teams.
- Public information was tailored to reach the whole community with PHSKC's Language Access Team translating COVID-19 materials and resources into 40 languages.²⁵ As of April 9, 2020, King County COVID-19 fact sheets were made available in 21 languages, and COVID-19 "Stay Home, Stay Healthy" Public Service Announcements on YouTube were available in 12 languages.²⁶
- Food and shelter needs were addressed by efforts such as deploying extra drivers and vehicles for paratransit and Community Access Transportation services to food banks, launching an Individual Food Assistance Program and a King County Regional Donations Connector, suspending WorkFirst Participation requirements for Temporary Assistance for Needy Families (TANF), and expanding eligibility for the Family Emergency Assistance Program (FEAP).
- A statewide residential eviction moratorium was enacted, and COVID-19 emergency shelter and housing response was expanded.²⁷
- Individuals who were incarcerated were provided single bunks in correctional facilities and steps were taken to safely decrease the number of adults in custody.²⁸
- PHSKC sought to promote community emotional health and resilience during both COVID-19 and the public health crisis of racism by creating a Community Well-Being Group focusing on the health and well-being of BIPOC communities and convening a task force on older adults and people with disabilities to inform COVID-19 guidelines and decisions.²⁹
- As mentioned previously, the PCAG (which would re-establish its mission in September 2020 as described below) as well as an Equity Response Team (ERT) were stood up to address the

²⁵ PHSKC. 4.10.20. How We are Monitoring COVID-19 Preliminary Data by Race, Ethnicity. Accessed 5.31.22.

<https://publichealthinsider.com/2020/04/10/how-we-are-monitoring-covid-19-preliminary-data-by-race-ethnicity/>

²⁶ PHSKC. 4.9.2020. King County Pandemic Community Advisory Group. Access 6.15.22. <https://kingcounty.gov/depts/health/covid-19/community-faith-organizations/~media/depts/health/communicable-diseases/documents/C19/parcag/PARCAG-2020-April-9-minutes.ashx>.

²⁷ King County. 3.25.20. King County and Seattle Expand COVID-19 Emergency Shelter and Housing Response. Accessed 5.31.22.

<https://kingcounty.gov/elected/executive/constantine/news/release/2020/March/25-kingcounty-seattle-covid-19-shelter.aspx>

²⁸ King County. 3.24.20. Quickly, Safely, Reducing the Jail Population so Staff can Ensure the Health of Everyone in Correctional Facilities. Accessed 5.31.22. <https://kingcounty.gov/elected/executive/constantine/news/release/2020/March/24-jail-population.aspx>

²⁹ PHSKC. May 2020. Media Release: Protecting Rights of People with Disabilities as Face-Covering Directive Goes into Effect Monday. Accessed 5.31.22. <https://publichealthinsider.com/2020/05/15/media-release-protecting-rights-of-people-with-disabilities-as-face-covering-directive-goes-into-effect-monday/>



disproportionate negative impacts of COVID-19 for the various communities considered to be at greater risk. The purpose of the ERT was for PHSKC to internally develop and provide recommendations and actionable information for PHSKC leadership to support communities most impacted by inequities, and communities experiencing hate and bias.³⁰

Despite these efforts, several concerning trends emerged within the King County region and/or the broader U.S. including:³¹

- A reawakening of anti-Chinese and anti-Asian American rhetoric resulting in racism, and at times, harassment and violence being experienced by the Asian-American communities.
- COVID-19 mitigation efforts unintentionally increasing the number of residents who were unemployed, furloughed, and/or required food, utility, housing, and health care access assistance.³²
- BIPOC communities disproportionately experiencing loss of employment, and subsequently in most cases, loss of health care coverage. This exacerbated disparities in financial and non-financial burdens that were already preventing BIPOC populations from receiving health care services prior to the pandemic.³³
- Summary data released on May 1, 2020, showing that rates of confirmed COVID-19 cases in King County for Hispanics, Native Hawaiians, and Pacific Islanders being four times that of Whites and the rate of confirmed cases for Blacks being double that of Whites. Disparities were also present in COVID-19-related hospitalizations.
- Increased death rates in 2020 compared to prior years being observed among communities of color reflected exacerbated inequities.³⁴
- Essential workers filling critical jobs being vulnerable to infection and unable to telecommute.

³⁰ COVID-19 AAR Summary_ERT

³¹ PHSKC. 5.1.21. Making Meaning of the COVID-19 Race and Ethnicity Data: A Conversation with Our Health Officer and Our Equity Director. Accessed 5.31.22. <https://publichealthinsider.com/2020/05/01/making-meaning-of-the-covid-19-race-and-ethnicity-data-a-conversation-with-our-health-officer-and-our-equity-officer/>

³² PHSKC. 7.15.20. Behavioral Health Needs and Services in King County, WA: March - May 2020. Accessed 5.31.22. <https://kingcounty.gov/depts/health/covid-19/data/~media/depts/health/communicable-diseases/documents/C19/report-behavioral-health-needs.ashx>

³³ PHSKC. 7.14.21. Health Care Access in King County, WA March 2020 – June 2021. Accessed 5.31.22. <https://kingcounty.gov/depts/health/~media/depts/health/communicable-diseases/documents/C19/health-care-access-king-county.ashx>

³⁴ PHSKC. 2.3.21. Changes in Death Rates During the COVID-19 Pandemic in King County, WA January 1 – December 31, 2020. Accessed 5.31.22. <https://kingcounty.gov/depts/health/covid-19/data/~media/depts/health/communicable-diseases/documents/C19/changes-in-death-rates-report.ashx>



- Communities of colors being less likely to have available testing and lacking access to healthcare and available resources and more likely to be living in multigenerational households where quarantine and isolation may be difficult.
- Undocumented individuals being unable to access federal programs such as stimulus checks.
- Case rates varying widely by geography, with wide swaths of South King County, areas of south Seattle, and pockets in the far north and east of King County experiencing positivity rates that are five times higher than in other areas.

From the end of March 2020 through June 2020, PHSKC and its broader partners continued to expand the response to COVID-19. This included setting up the first COVID-19 testing site in Shoreline, launching a Stand Together, Stay Apart campaign on March 25, 2020 in conjunction with the State's Stay Home, Stay Healthy Order and launching a public data dashboard. PHSKC recommended, strongly directed, and then finally issued a health directive for masks to be worn in public. Once available, PHSKC distributed COVID-19 tests locally and later made tests available to individuals who had only mild symptoms. PHSKC, along with Emergency Management, provided supplies (PPE, hand sanitizer, etc.) to both Tier 1 and Tier 2 settings in alignment with DOH's [Prioritization Guideline for Allocation of PPE](#)³⁵ and also ensured coordination of regional medical surge operations.



Image 4: Stand Together, Stay Apart campaign images



By June 5, 2020, King County was approved for a modified version of Phase 1 for the State's Safe Start Plan, allowing businesses, recreational opportunities, and social activities to gradually reopen, which would be followed by Phase 2 on June 19, 2020, prompting restaurant and retail reopening and the return of small

³⁵ DOH. 9.27.2021. Prioritization Guideline for Allocation of PPE. Accessed 6.14.22. <https://doh.wa.gov/sites/default/files/2022-02/PPEPrioritizationofAllocation.pdf>.



gatherings. As state and local officials continued to expand COVID-19 response throughout the summer of 2020 by opening additional testing sites and consistently communicating continued social distancing, PHSKC and the broader County also continued to take actions to equitably serve its community. A King County-wide declaration of racism as a public health crisis was made on June 11, 2020. By September 20, 2020, the PCAG was reestablished as the King County Pandemic and Racism Community Advisory Group (PARCAG) and PARCAG's mission was modified to "identify, inspire, and mobilize bold solutions in response to the urgent, interconnected crises of COVID-19 and systemic racism." PHSKC in partnership with King County's Office of Equity and Social Justice (OESJ) also launched several new data dashboards and tracking systems including one to delineate COVID-19 impacts on individuals experiencing homelessness, a Food Finder to encourage support of local farms, and a behavioral health dashboard to evaluate impacts on social, economic, and overall health in King County.

In addition to the activities outlined thus far, additional steps taken by PHSKC to serve its community included distributing masks to Community Based Organizations (CBOs), launching a COVID-19 Health Ambassador Program, and dedicating \$41M for rental assistance and eviction prevention.³⁶ One substantial focus of the summer of 2020 was back-to-school planning, and it was announced on July 22, 2020, that King County school districts would begin with remote learning in the fall. That same week, on July 24, 2020, PHSKC had the highest seven-day average of new COVID-19 cases since the beginning of April.³⁷ PHSKC was better positioned to perform case investigations during this surge in comparison to early response, however, with a team of approximately 61 members who were able to investigate over 500 COVID-19 cases per week. Though the rate of new daily COVID-19 infections would generally decline from this period up until early September 2020, this would be short-lived as rates of new daily COVID-19 infections then increased from early September 2020

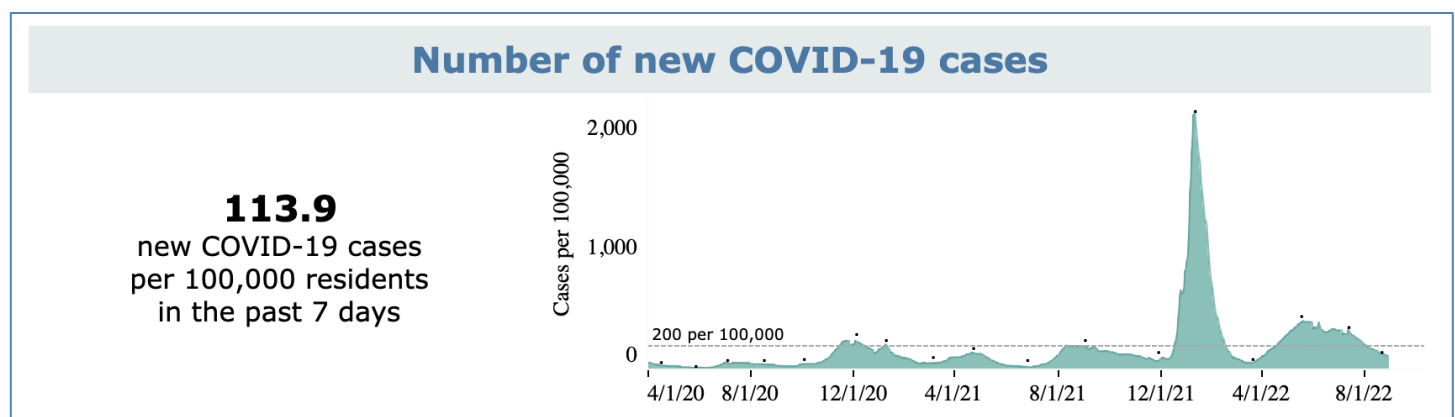


Figure 2: Number of New COVID-19 Cases in King County from 4/1/2020 – 8/1/2022. Accessed Sept. 1, 2022
<https://kingcounty.gov/depts/health/covid-19/data/community-level.aspx>

³⁶ Department of Community and Health Services. 8.5.20. Former Metro Drivers Take a New Role as King County Health Ambassadors to Slow the Spread of COVID-19. Accessed 5.31.22. <https://dchsblog.com/2020/08/05/former-metro-drivers-take-on-new-role-as-king-county-health-ambassadors-to-slow-the-spread-of-covid-19/>; King County. 8.20.20. King County Dedicates \$41 Million to COVID-19 related Rental Assistance and Eviction Prevention. Accessed 5.31.22.

<https://kingcounty.gov/elected/executive/constantine/news/release/2020/August/20-rental-assistance.aspx>

³⁷ PHSKC. 7.24.20. Video: July 24, 2020 Update on COVID-19 in King County with Dr. Jeff Duchin. Accessed 5.31.22.

<https://publichealthinsider.com/2020/07/24/video-july-24-2020-update-on-covid-19-in-king-county-with-dr-jeff-duchin/>



until mid-December 2020 for King County and the broader U.S. Impacts experienced during this time included Washington rolling back its phased reopening plan by enacting a four-week statewide set of restrictions beginning on November 16, 2020.

Despite this increase of new daily COVID-19 cases in the fall and winter of 2020, associated with holiday gatherings and colder weather, progress was being made on the vaccination front. On December 14, 2020, Washington's COVID-19 vaccination program began, following the vaccine's Emergency Use Authorization. Healthcare workers (including community health workers), first responders, people who live or work in long-term care facilities, and all other workers in health settings at high risk of exposure to COVID-19 were the first groups eligible for vaccinations. The first doses of the vaccine arrived in King County soon after, on December 16, 2020.³⁸

On January 8, 2021, King County announced that it would be allocating \$7M for the creation of high-volume community vaccination sites and mobile teams to equitably vaccinate residents, complementing vaccinations provided through the healthcare system and pharmacies.³⁹ By January 18, 2021, eligibility was expanded to include people ages 65 years of age and older as well as individuals aged 50 years of age or older who lived in a multigenerational household.⁴⁰

Extensive challenges managing the vaccination tiers and the associated distribution of the vaccine emerged in Washington and throughout the country. As demand for the vaccine exceeded supply well into the spring of 2021 and guidance from both federal and state authorities was constantly changing, county health officials had to rapidly pivot and decide whether to adopt new recommendations or pursue their original vaccination plans. Subsequently, the public expressed frustration as not only were they impacted by the changing guidance relating to vaccination tiers, but they also faced challenges registering for vaccines and getting appointments. As vaccination eligibility initially increased, PHSKC was frank about limited supply of the vaccine both nationally and locally preventing access to the COVID-19 vaccine, even to those eligible.⁴¹ By early February of 2021, however, PHSKC set up two high-volume vaccination sites, one at the acceso ShoWare Center in Kent and one at the General Services Administration Complex in Auburn, with more planned. These sites were designed to serve those who may face barriers to accessing the COVID-19 vaccine through traditional healthcare systems, including older adults (ages 75+) in south King County.⁴²

As vaccine tiers opened, King County established a goal to vaccinate a minimum of 70 percent of all eligible

³⁸ PHSKC. 12.16.20. First Doses of Vaccine Arrive in King County. Accessed 5.31.22.

<https://publichealthinsider.com/2020/12/16/first-doses-of-vaccine-arrive-in-king-county/>

³⁹ PHSKC. 1.8.21. King County Announces New Funding for Community Vaccination Efforts. Accessed 5.31.22.

<https://publichealthinsider.com/2021/01/08/king-county-announces-new-funding-for-community-vaccination-efforts/>

⁴⁰ Washington State Department of Health. February 10, 2021. COVID-19 Vaccination Coverage by Race and Ethnicity and Age in Washington State. <https://doh.wa.gov/sites/default/files/2022-03/348-791-COVID19VaccinationCoverageRaceEthnicityAgeWASate.pdf?uid=6282e74a61b25>

⁴¹ PHSKC. 1.18.21. Expanding Vaccination To Older Adults In King County. Accessed 5.31.22.

<https://publichealthinsider.com/2021/01/18/expanding-vaccination-to-older-adults-in-king-county/>

⁴² PHSKC. 1.29.21. King County Opens Covid-19 Vaccination Sites In Kent And Auburn To Provide Access For Vulnerable Older Adults And Their Caretakers. Accessed 5.31.22. <https://publichealthinsider.com/2021/01/29/king-county-opens-covid-19-vaccination-sites-in-kent-and-auburn-to-provide-access-for-vulnerable-older-adults-and-their-caretakers/>



adults equitably, efficiently, and quickly across all racial and ethnic groups and regions of the county by June 30, 2021.⁴³ This included creating and publishing the [King County Unified Regional Strategy: COVID-19 Vaccine Delivery](#) and the [Principles for Equitable Vaccine Delivery](#) in April 2021.

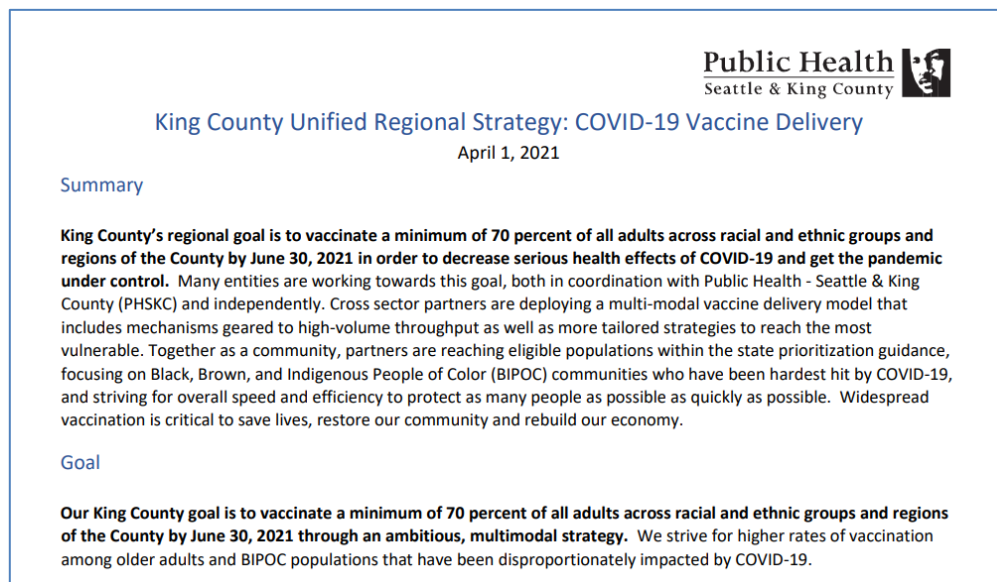


Image 5: King County Unified Regional Strategy

Starting April 15, 2021, all people in Washington ages 16 and older became eligible for the COVID-19 vaccine. Grounding principles to adopt an intentional equity driven COVID-19 vaccination strategy included removing barriers to deter access, creating an inclusive process, and being intentionally anti-racist and accountable to BIPOC communities, something that PHSKC intended to apply across a multi-modal vaccine delivery approach that included hosting a series of community vaccination events with non-profit organizations with strong community ties. PHSKC and transit partners also prioritized transportation options to facilitate access to vaccination sites including Metro, Via to Transit, Access paratransit, and more.⁴⁴

On April 19, 2021, PHSKC announced the launch of a new vaccination program for homebound populations, where mobile teams would deliver vaccines to residents at their homes.⁴⁵ By April 29, 2021, PHSKC developed a county vaccination partnership with multiple health care institutions and was advertising COVID-19 walk-in vaccinations at sites in Kent, Auburn, Seattle, Renton, Redmond, and Shoreline, speaking to the ease of COVID-19 vaccine supply issues where demand no longer exceeded supply.⁴⁶ The Pfizer vaccine then became available for children ages 12-15 on May 13, 2021. By June 15, 2021, 70% of King County's residents ages 16+

⁴³ PHSKC Principles for Equitable Vaccine Delivery.

⁴⁴ PHSKC. 2.23.21. Take Transit To Take Your Shot: Here Are Ways To Get To Your Vaccination Appointment. Accessed 5.31.22. <https://publichealthinsider.com/2021/02/24/take-transit-to-take-your-shot-here-are-ways-to-get-to-your-vaccination-appointment/>

⁴⁵ PHSKC. 4.19.21. Public Health's In-Home Vaccination Launches Across The county. Accessed 5.31.22. <https://publichealthinsider.com/2021/04/19/public-healths-in-home-vaccination-launches-across-the-county/>

⁴⁶ PHSKC. 4.29.21. Getting Vaccinated Just Got Easier (At Last!). Accessed 5.31.22. <https://publichealthinsider.com/2021/04/29/getting-vaccinated-just-got-easier-at-last/>



had completed their vaccine series, prompting an end to PHSKC's mask directive two weeks later alongside lifting of restrictions for the broader State and indicating that the goal outlined in the King County Unified Regional Strategy for COVID-19 Vaccine Delivery was met.

Approximately 81.8% of Washington's population 5 years of age and older has received at least one dose of the COVID-19 vaccine and 74.4% are fully vaccinated as of May 9, 2022. In King County approximately 93.5% of the population 5 years of age and older has initiated the primary series of the vaccine and 85.8% had completed the primary series. For those who provided information on their race and ethnicity, the percentage of individuals who have initiated their primary series of the vaccine by population group include:⁴⁷

Table 4: Vaccination Data from PHSKC Dashboard as of May 9, 2022

Race	% Completed Primary Vaccine Series	Percent of King County Population (One Race)
AIAN	>95%	.7%
NHOPI	>95%	.7%
Asian	>95%	18.9%
Hispanic	76.4%	9.9%
Black	80.9%	6.7%
White	80.8%	62.1%

As vaccination rates increased throughout the spring and into the summer of 2021, new daily COVID-19 cases generally declined until the Delta variant emerged toward the end of July, at which point daily COVID-19 cases generally increased through January 2022 with a few exceptions. The CDC recommended mask wearing in public indoor settings, even for vaccinated individuals. The State of Washington then enacted an indoor mask mandate on August 23, 2021, one that would continue until March 11, 2022. State and local officials continued to enact mitigative actions including vaccination mandates for education personnel and vaccination verification orders for large indoor and outdoor events. King County additionally enacted a vaccine verification policy for other indoor recreational establishments such as restaurants, gyms, and bars.

Declining rates of efficacy for the COVID-19 vaccine in the fall of 2021 drove booster eligibility. By October 22, 2021, individuals statewide at severe risk of COVID-19 illness and/or high risk of exposure were eligible for a booster, followed by the expansion of eligibility statewide to those ages 18+ on November 20, 2021. At the

⁴⁷ Washington State Department of Health. *COVID-19 Data Dashboard*. Accessed May 17, 2022.
<https://www.doh.wa.gov/Emergencies/COVID19/DataDashboard>



time of the writing of this report (June 2022) 53% of King County residents 5+ years of age have received a booster of the COVID-19 vaccine.

Table 5: Vaccination Data from PHSKC Dashboard as of May 9, 2022

Race	% Completed Primary Series + Booster
AIAN	62.4%
NHOPI	54.5%
Asian	66.1%
Hispanic	34.2%
Black	35.4%
White	55.4%

The Omicron Variant then emerged in December 2021, substantially driving an increase in daily COVID-19 cases and hospitalizations (including a 700% increase from the month prior) in January 2022. King County hospitals and healthcare partners urged the public to continue to take COVID-19 seriously by getting vaccinated and/or boosted, upgrading masks, avoiding crowded spaces, and saving hospital emergency departments for emergencies.⁴⁸ The impact of the Omicron variant cannot be underscored, particularly in the context of responder safety and support for mental and physical well-being as exhausted responders faced their toughest challenge yet as the highest recorded new daily COVID-19 case count was recorded on January 4, 2022. PHSKC had to conduct and coordinate community testing in response to increased demand and reconvene preparations for and later response to the surge. Though this report is intended to merely cover an operational period concluding on January 31, 2022, COVID-19 response continued throughout the early months of 2022, with new daily COVID-19 cases declining significantly from that early January of 2022 peak.

⁴⁸ UW Medicine. 1.22.22. King County Hospitals Issue Urgent Call To Action. Accessed 5.31.22.
<https://newsroom.uw.edu/news/king-county-hospitals-issue-urgent-call-action>

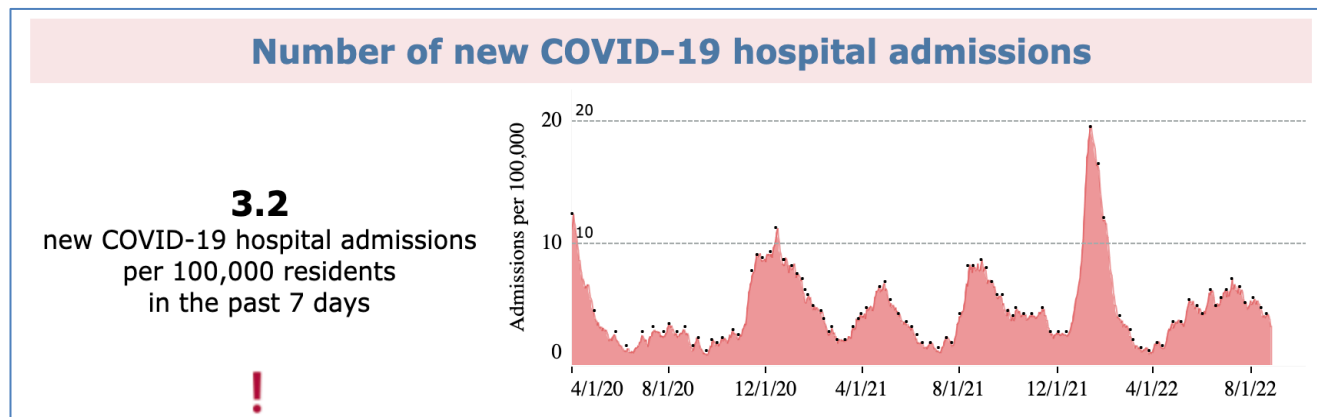


Figure 3: Number of Hospital Admissions in King County from 4/1/2020 – 8/1/2022. Accessed Sept. 1, 2022 <https://kingcounty.gov/depts/health/covid-19/data/community-level.aspx>

In closing, PHSKC worked tirelessly throughout the over two-year period of January 21, 2020 to January 31, 2022 being addressed in this report to execute its mission of protecting the health and well-being of all people in King County. PHSKC's activities in response to COVID-19 spanned contact tracing, disease investigation, information management, testing, vaccination, PPE distribution, public information, community engagement, and much more. The State and Local Timeline in the appendices includes more information about the timeline and progression of PHSKC's activities in the context of other federal and state actions. At the time of writing of this report (May 2022), PHSKC is demobilizing its incident management structure, with its last operational period being May 11 through May 25, 2022. However, PHSKC has ongoing COVID-19 response and recovery activities and will continue to ensure continuity of support for these through its divisions and programs.



HEALTH AND MEDICAL AREA COMMAND (HMAC) AND INCIDENT MANAGEMENT STRUCTURE

On January 21, 2020, PHSKC activated Level 2 HMAC to coordinate and manage the public health response as cases were identified in Washington State. Three days later, HMAC was elevated to Level 1. The purpose of HMAC is to coordinate and, in some cases, manage public health and associated medical operations during an emergency. Activities include messaging and communications, deployment and management of personnel and resources, and maintaining situational awareness. HMAC is activated when an incident is unable to be managed through existing infrastructure or routine operations, public information and partner coordination needs are high, and the situation is dynamic. The mission of HMAC for the COVID-19 response was to provide an incident management and coordination structure to support rapidly evolving public health-led activities or novel strategies to minimize disease transmission.

Compared to later iterations, the size and structure of the HMAC started small with the first known case and evolved throughout the response to meet the ever-increasing demands. Included in the initial organization structure was an Area Commander and Command Staff, Local Health Officer (no direct reports), Operations Section with five branches, Logistics Section with one branch, Planning Section with three units, and the Finance & Administration Section.⁴⁹

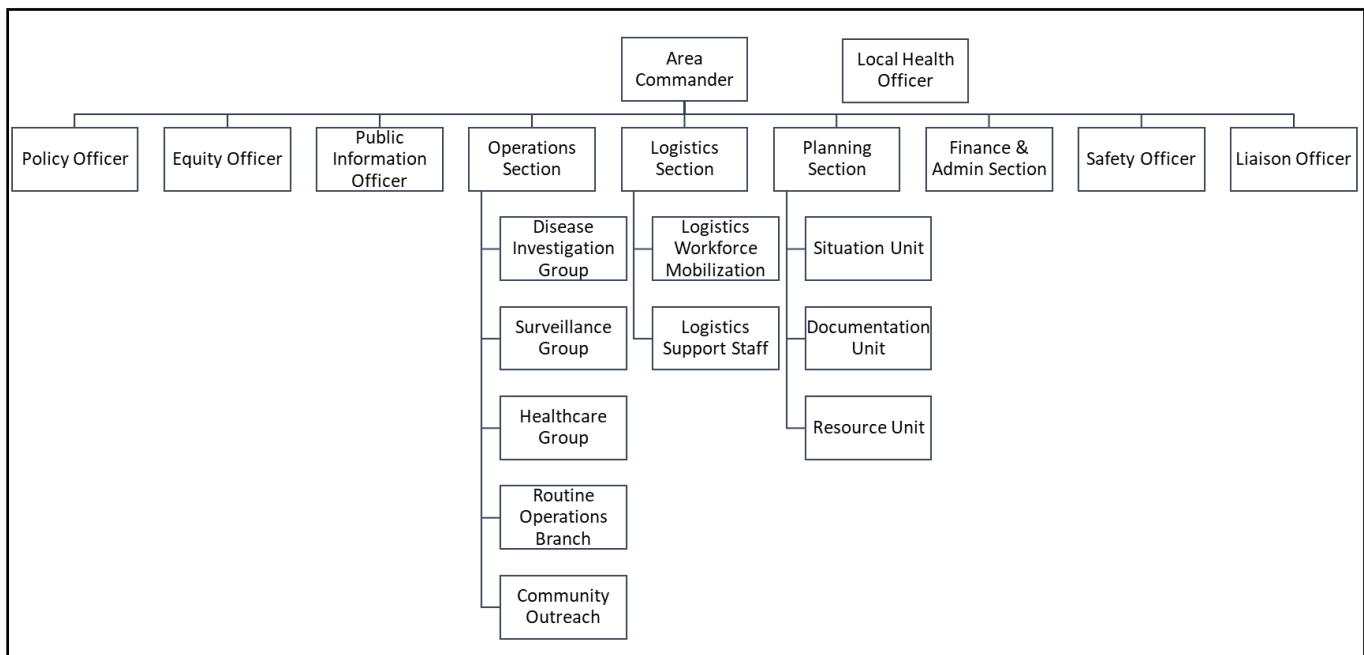


Figure 4: ICS 207 HMAC IAP #1

⁴⁹ ICS 207, HMAC IAP #1



EXPANDING HMAC STRUCTURE: MARCH 2020 - MAY 2020

By May 2020 the HMAC structure expanded to consist of over 500 responders directly assigned in a large stand-alone incident command structure. The responders were King County employees, agency staff, consultants, and contractors from partner organizations. Included in the organization structure was an Area Commander and Command Staff, Local Health Officer (no direct reports), Operations Section with five branches and sixteen groups, Logistics Section with one branch, Planning Section with four units, and the Finance & Administration Section with three units.⁵⁰ Of note, the below graphics are from IAP #78 and do not include the full extent of the operations section. The operations section ultimately included over 65 Task Forces, Strike Teams, Advisor Teams, and other Coordinating Teams.

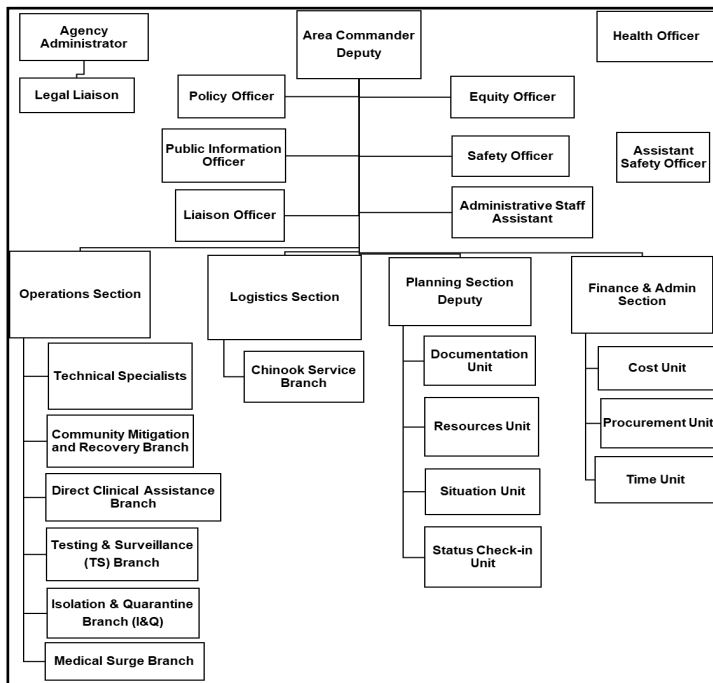


Figure 1: ICS 207 HMAC IAP #78

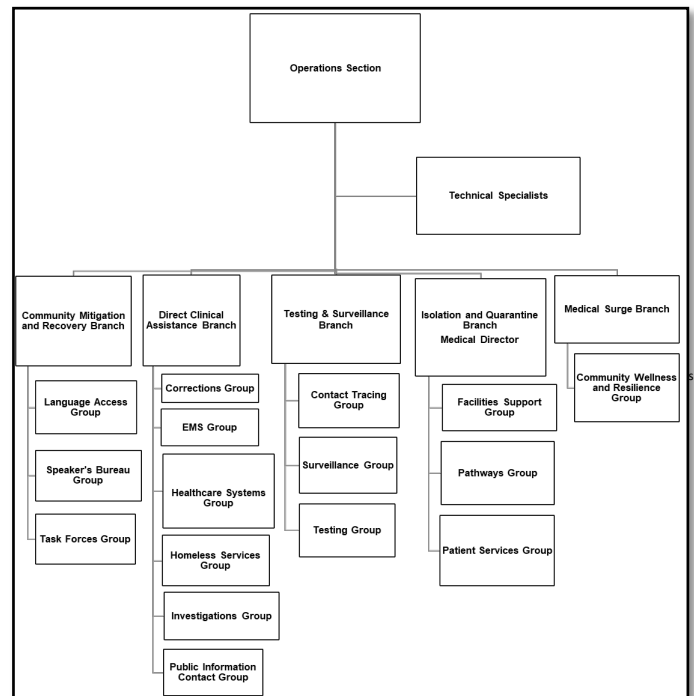


Figure 6: ICS 207A HMAC IAP #78

⁵⁰ ICS 207, HMAC Org Chart_Ops Period 78



STREAMLINING HMAC: JUNE 2020 - DECEMBER 2020

In May 2020 PHSKC evaluated HMAC operations to recommend response activities that may no longer need to be managed in the response structure. Although there were not considerable changes to the scope of responsibility, purpose, or mission, the mission now included three parameters: Decision-Making and Policy Role, Current PHSKC Major Response Operations and Planning Focus, and Organizational Management Structure. The parameters also included several subtasks within each. Response activities that became relatively predictable and stable or were expected to continue for an extended period were considered for alternate management structures.

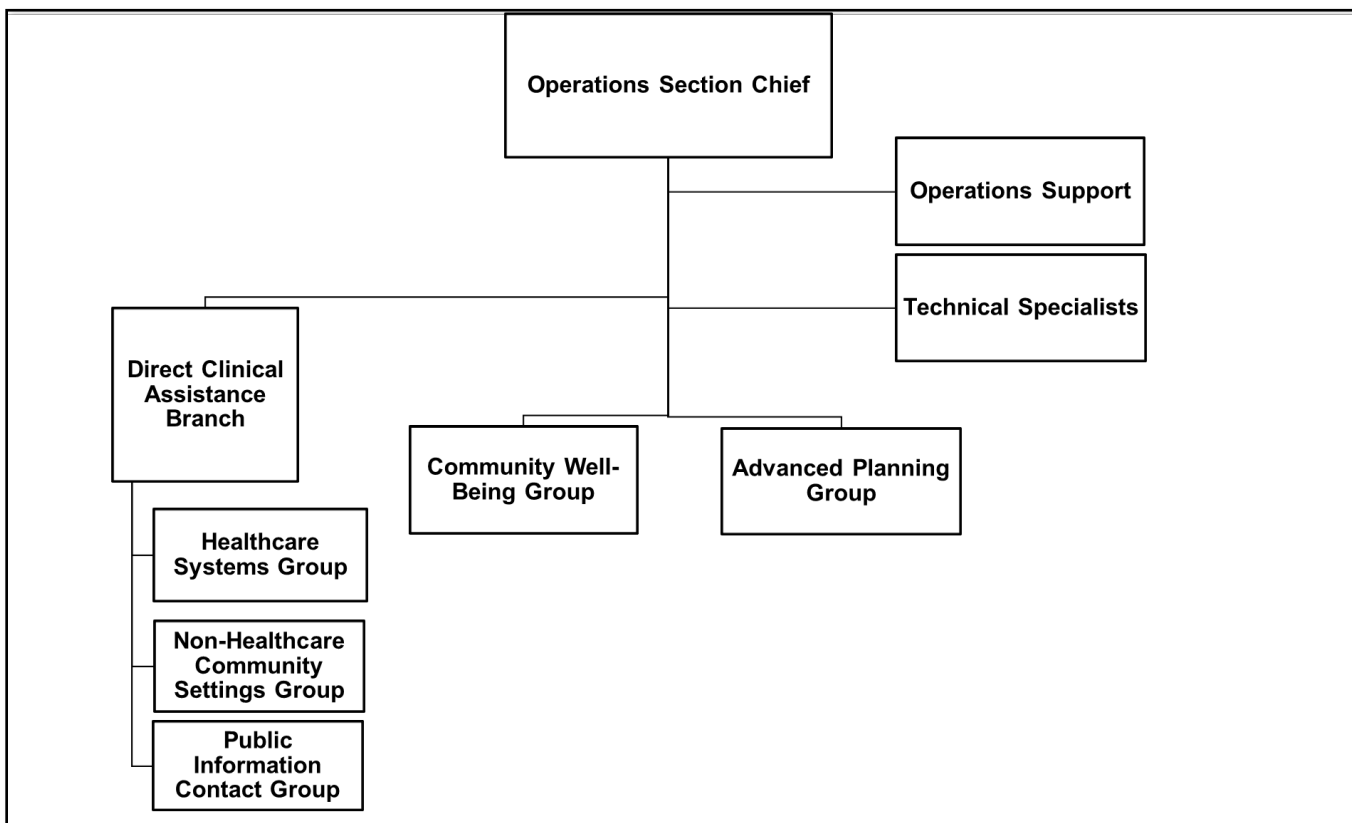


Figure 7: ICS 207 HMAC IAP #112



DEPARTMENTAL COORDINATION MODEL: DECEMBER 2020 - MAY 2022

In October 2020, PHSKC began planning additional changes to HMAC that would become operational in December 2020. The new incident management structure relied on a standard departmental structure where response activities were embedded in regular divisions. The new HMAC structure incorporated PHSKC's departmental leads to ensure continuity of key incident management roles beginning December 9, 2020. HMAC continued to use NIMS principles for command and coordination, and all major elements of the response continued to be supported to ensure the capacity necessary for effective operations.

Departmental Approach for Response Coordination:

- Use incident management functions and principles for ongoing departmental response coordination and accountability. This will ensure alignment with national practices and compliance with federal requirements.
- Realign HMAC roles with departmental leads for each incident management function. Current incident management staff will be incorporated to support corresponding functions, as appropriate.
- Provide consistent coordination and support for all major response activities across the department. The majority of operational response activities are now occurring within, and under the direction of, departmental divisions. The departmental response structure will serve as a central coordination and support entity.
- Streamline current response meetings to maximize efficient decision-making and coordination. Redundant meetings will be sunset, and a common set of core meetings will be used to facilitate response activity coordination and collaboration across the department.
- Utilize consistent information sharing processes and expectations for all incident management and response activity roles. Ensuring processes for efficiently sharing and using essential information will facilitate increased visibility of activities, cross-cutting coordination, and ability to address challenges.

The new structure consisted of an Area Commander with direct reports of Liaison Officer, Policy Officer, Public Information Officer, Operational Coordination Chief, Information Management Chief, Equity & Community Partnerships Officer, Safety Officer, Financial Management Chief, and Resources Management Chief.⁵¹ The Operational Coordination Section now included eleven Groups, Administrative Support, and Technical Specialists. The Local Health Officer remained part of HMAC but outside of the command structure. Although there was additional streamlining, the structure has remained largely in place through 2021 and into 2022. The additional changes were in response to dynamic levels of activity where coordination shifted with testing, vaccines, surge responses, and isolation and quarantine.

⁵¹ HMAC IAP 113

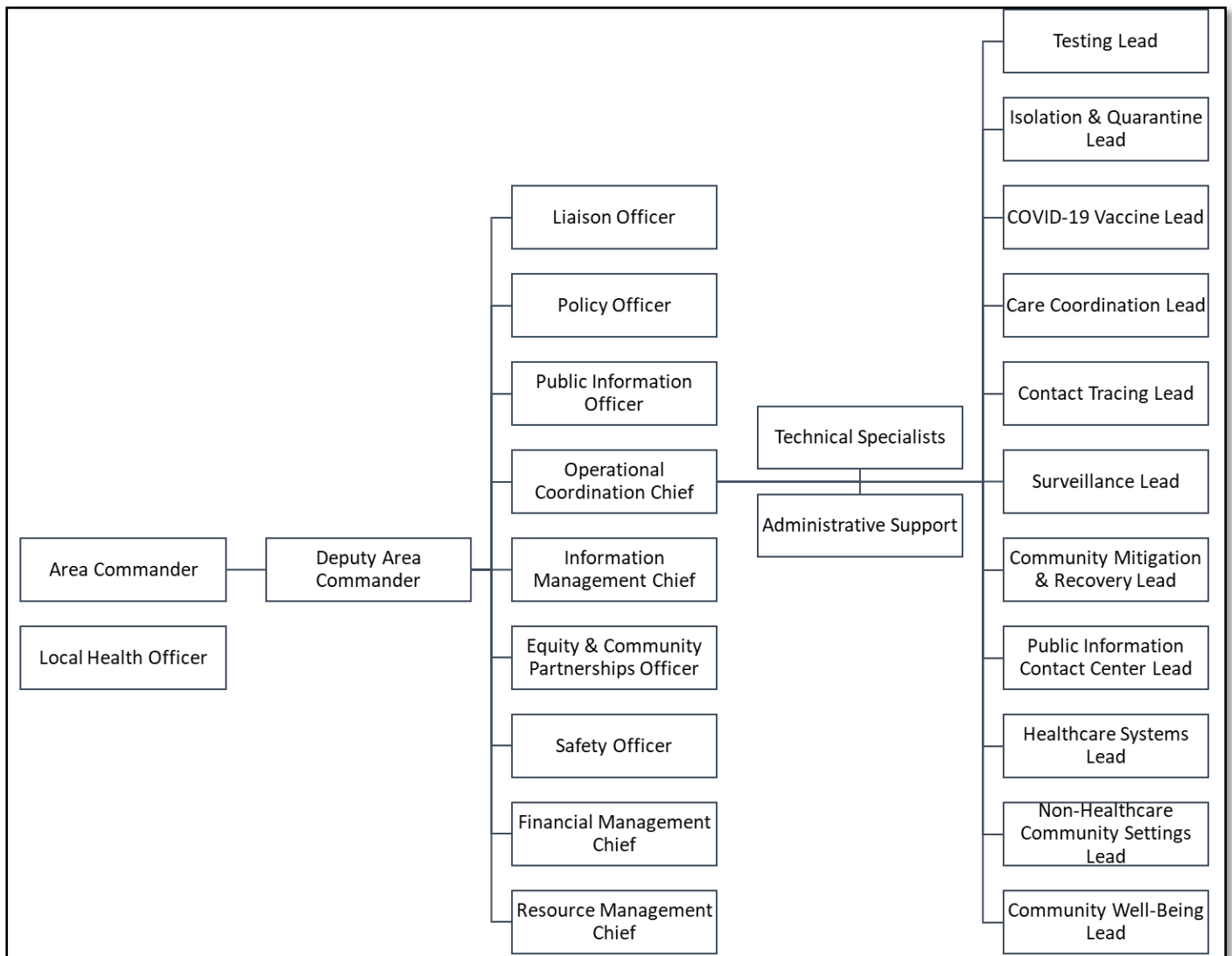


Figure 8: ICS 207 HMAC IAP #113



PHSKC RESPONSE AREAS

The following table outlines the key response areas and teams for PHSKC. This table is not inclusive of all PHSKC response activities related to COVID-19 and additional groups within the department may have been engaged in activities not reflected below.

Table 6: PHSKC Key Response Areas and Teams

COVID-19 Response Team	Team Objectives	Team's Activities Description
Analytics and Informatics; Epidemiological Investigation and Surveillance	Provide a dedicated staff with data system tools (Tableau/REDCap) to analyze data for senior level decision-making.	
	Conduct epidemiological and statistical analysis using local, state, and federal databases to support disease investigations and determine trends, incidence and prevalence of communicable disease and immunization topics.	Comprehensive analysis of data with already available data system tools throughout the pandemic. A&I were applied to programmatic decisions and the public facing COVID-19 dashboards.
	Respond to data requests by creating custom queries, reports, and surveillance summaries using a combination of data visualizations and narratives.	Analyzes syndromic surveillance data from emergency departments, hospitalizations, and school absenteeism
	Support data systems management and analysis activities, and ensure data quality	Summarizes data in written reports and dashboards; prepare data and report to DOH and external partners, directly and via HMAc.
	Provide population and community data to inform community response that also addressed the social determinants of health	Manage analysis and interpretation of illness reported within facilities such as long-term care, acute care, and homeless shelters; review deaths from the MEO
Care Coordination	King County's Care Coordination services support people isolating and quarantining by providing and arranging immediate supports and linking them to longer term supports.	<p>Immediate Support: Grocery delivery; Mailing PPE kits; Assisting with bills through the Household Assistance Request (HAR) program</p> <p>Longer Term Support: Food assistance; Utilities assistance; Housing; Healthcare; Unemployment supports</p>



COVID-19 Response Team	Team Objectives	Team's Activities Description
Community Mitigation and Recovery (Now known as Equity and Community Partnerships)	<p>Help limit and prevent exposure to COVID-19.</p> <p>Lessen the negative social and economic consequences of COVID-19 mitigation measures.</p>	Center principles of equity: prioritize racial, ethnic, cultural, linguistic, and economic groups at higher risk, and promote community-guided solutions.
Community Wellbeing Initiative	Promote emotional health in our communities centering BIPOC children, youth, families, and communities who are most impacted by the intersection of racism and the pandemic.	<p>Build community capacity to share information, resources, and provide culturally relevant supports for emotional health and well-being.</p> <p>Reduce stigma associated with mental health.</p> <p>Reinforce compassion, connection, and care in our communities.</p>
Contact Tracing	<p>Conduct case investigations (collecting key demographic and outbreak indicators) and contact tracing for King County COVID-19 cases</p> <p>Provide information about COVID-19 disease, what to do after testing positive, and vaccination options to COVID-19 cases and their contacts</p> <p>Provide access to support services for cases and their contacts to enable them to adhere to the full period recommended for isolation and quarantine</p>	<p>Interview, educate and provide clinical guidance to contacts of confirmed cases</p> <p>Conduct data entry and ensure completeness and quality of data</p> <p>Assess households' needs for wrap-around services to support I&Q and, if needed, refer to I&Q Care Coordinator or for a medical consult.</p>
Disease Investigations	<p>Ensure the timeliness and quality of communicable disease investigations and response activities related to COVID-19 across King County.</p> <p>Engage community partners to improve access</p>	<p>Oversee COVID-19 surveillance, contact tracing, outbreak investigations and response, and prevention activities in healthcare, non-healthcare congregate, youth, and community settings across King County:</p> <p>Improve access to testing and vaccines for racial and ethnic minority populations, especially Black, Indigenous, People of Color, people experiencing</p>



COVID-19 Response Team	Team Objectives	Team's Activities Description
	<p>to testing, vaccines, and other health-related services for communities disproportionately affected by COVID-19</p> <p>Generate data and evidence to inform best practices</p>	<p>homelessness, and people living in congregate settings, such as long-term facilities, transitional housing, jails, encampments, and shelters.</p> <p>Coordinate with internal and external stakeholders to enhance partners' capability to respond to COVID-19 by improving service delivery (improving ventilation systems in facilities, performing ICARs, offering on-site testing and vaccination, providing PPEs, etc.)</p>
Emergency Medical Services – Regional Coordination Team	Meet regularly for updates in the various sectors (hospitals, pre-hospital, DOH) and raise any issues for discussion and potential resolution.	<p>Ensured PH and EMS understood the capabilities and responsibilities of each other to enable effective collaboration.</p> <p>Hosted regular meetings conducive to problem solving, representative of stakeholders, and coordination of response strategies.</p>
Equity Response Team	<p>Provide recommendations and actionable information to support communities most impacted by inequities, and communities experiencing hate and bias.</p> <p>Assure that equity considerations are included in public health policy-level decisions, resource allocation, communications, and response priorities related to the HMAc's crisis response.</p> <p>Support responder understanding and practice of ESJ principles through workshops or other informal dialogues.</p>	<p>ERT regularly conducted equity reviews of proposed policies and provided recommendations that made policies more equitable.</p> <p>ERT staff cultivated a positive, accepting, and respectful culture, which set the team up for success when discussing sensitive or challenging topics.</p> <p>ERT had excellent diversity and its members brought a wealth of knowledge, backgrounds, education, and experience to the team. Strong leadership enabled great dialogue and facilitated the collaboration with multiple partners to reach those facing inequity.</p>
Finance	<p>Oversee financial aspects of the incident, including estimating and reporting on incident costs.</p> <p>Ensuring expenses are recorded accurately and documented appropriately. Communicated expense tracking to responders, including time</p>	<p>Finance supported HMAc organization structure (HMAc F&A Section) with response programs in HMAc (Beginning of response - Fall 2020)</p> <p>Finance supported the Departmental Coordination organizational structure with response programs back in their home divisions (Fall 2020 - onward)</p>



COVID-19 Response Team	Team Objectives	Team's Activities Description
	& effort documentation.	
	Coordinated the establishment of contracts	
Food Security Assistance Program	Distribute \$2,150,000 worth of food vouchers, in partnership with CBOs, to people deemed food insecure via a standardized screening tool.	Provided food vouchers to individuals through FBOs/CBOs and partnership with Safeway.
	Award \$2,600,000 to organizations to purchase culturally appropriate foods from ethnic markets and local farms, as well as cover the operational costs of distributing food (such as staff time, supplies, and equipment).	Allowed resourcing culturally appropriate foods and supported local grocers when possible.
		Resourced an Impactful need to underserved communities during prolonged COVID-19 crisis mitigating potential future public health problems
Human Resources and Workforce Mobilization	Recruit, process, and train HMAC personnel	Updated old and built new processes, procedures, and systems on how to mobilize responders as described in the Workforce Mobilization Annex
	Mobilize responders to achieve operational activities	Coordinated with King County departments including PH, DHR, KCOEM, and DCHS around response staffing needs and redeployment
	Provide policy expertise in HR related areas like labor management, COVID-19 related leave, and the use of contract workers	Worked with trusted partners, volunteer groups, and staffing agencies to staff high-need areas
Information Management (also known as the ICS Planning Section)	Responsible for managing all information relevant to the COVID-19 HMAC Response	
	Collect, evaluate, process, and disseminate information for use in the COVID-19 response through Incident Action Plans, Operational Response Summaries, Situation Reports, All-Hands briefings, and other response meetings	Massive information sharing and reporting with IAPs and SitReps utilizing ICS structure for role and task management.
Isolation and Quarantine (I&Q)	Provide isolation and quarantine services for KC residents who either cannot I&Q at home or who do not have a home	Provide medical and behavioral health eligibility screening of referred guests; coordination of transportation to and from I&Q sites; and provision of limited scope behavioral health and medical services with the goal of supporting I&Q



COVID-19 Response Team	Team Objectives	Team's Activities Description
		<p>period completion and preventing life threatening complications from COVID-19 illness.</p> <p>Operate and maintain the physical I&Q sites, including supply and inventory management; logistical support for delivery of 24/7 clinical care and operations; and hiring, training and maintenance of appropriate staffing to including nursing, behavioral health, site operations, and security.</p>
Jail Health Services COVID-19 Programs	<p>Manage COVID-19 prevention, case and outbreak investigation, testing, and infection control activities for individuals within the King County correctional facilities</p> <p>Provide release planning services to COVID+ patients releasing from King County correctional facilities</p>	<p>Provide intake testing, surveillance testing, diagnostic testing, testing for close contacts, and testing upon releases as needed.</p> <p>Perform additional infection prevention and control activities such as patient vaccinations, contact tracing, and COVID+ patient monitoring.</p> <p>Collaborate with Public Health CD-Epi to provide guidance to DAJD regarding infection prevention and control activities such as quarantine, droplet precaution, and COVID+ housing determinations.</p> <p>Coordinate with I&Q team with direct referral and release into an isolation facility if an incarcerated individual is being released and is COVID+.</p> <p>Provide education and resources to COVID+ patients releasing to a non-I&Q facility or location.</p>
Liaison	Serve as a conduit of information and assistance between Public Health and other agencies supporting or cooperating with PHSKC's COVID-19 response (other governmental depts/organizations; jurisdictions; private sector partners; etc.)	Monitor response operations to identify current or potential coordination activities and resource needs between response agencies.
Logistics	Provide for all internal logistical support needs for the incident, such as ordering resources, providing supplies, facilities, transportation, equipment maintenance, security, and food	<p>Developed standardized forms used across modalities to make ordering and delivery processes consistent.</p> <p>Integrated WebEOC into the resource tracking process</p>



COVID-19 Response Team	Team Objectives	Team's Activities Description
	<p>service for incident personnel, and support staff for these activities and coordinate with other King County departments and divisions</p> <p>Create, order and manage contracts, provide facilities management support, order, store, and distribute supplies and resources for community partners across King County, including other government entities, hospitals, health centers, long-term care facilities, emergency medical services, childcare agencies, restaurants, and other groups from key sectors</p>	<p>Developed an automated process and algorithm to match inventory, manage PPE requests, and allocate PPE to help improve efficiency and create a more data-driven, objective system for allocating resources</p> <p>Developed and created cross-team coordination and partner relationships</p> <p>Expanded warehousing, distribution capacity, contracting, procurement, fleet services, and facilities management to support internal and external operations.</p> <p>Implemented non-standard processes for incident personnel to allow for take home vehicles, that included more than 72 vehicles.</p>
Mobile Assessment Teams / Homeless Health Emergency Action & Response Teams (HEART)	<p>Support response efforts for homeless service providers, provide clinical assistance, and liaison to Guidance and Public Information</p> <p>Coordinate testing opportunities for high-risk populations and priority groups who otherwise lack access to testing</p>	<p>Ensure coordination and availability of testing (MAT or community partner) to identified sites, such as long-term care facilities and homeless service sites</p> <p>Coordinate the resources and logistics necessary to respond appropriately, work closely with I&Q and EMS to coordinate additional support</p> <p>Update homeless response strategy based on lessons learned and availability of resources</p> <p>Provide shelter assessment, clinical assistance, education, infection prevention & environmental health guidance, and behavioral health support</p>
Medical Examiner's Office	<p>Contribute to accurate surveillance and death numbers due to COVID-19 related illness by testing decedents coming into the office, as well as testing decedents at funeral homes who have circumstances indicating that COVID-19 may have been a factor in their deaths and analyses of any possible vaccine related deaths</p>	<p>Train HMAC response personnel in proper methodologies for sample collection of bio-infectious specimens and protocols for safe handling, transport, and transition of chain of custody for COVID-19 samples for laboratory testing.</p> <p>Post-mortem specimen collection and coordinating specimen transport to the WA State Public Health Lab</p> <p>Collect and enter test results and vaccine data, coordinate test results with</p>



COVID-19 Response Team	Team Objectives	Team's Activities Description
	Coordinate and develop strategies for increased fatality capacity planning across departments and partners	medical history and autopsy findings, discuss test results with health care providers and family members, and analyze the data
Nursing and Professional Services, including Pharmacy, Infection Prevention and Occupational Health	Bring clinical subject matter experts into the planning stage of response work to ensure safe practices	<p>Provide technical assistance and support for clinical operations across the response, including for PICC, AC/RC & I&Q, COVID-19 testing, and COVID-19 Vaccination</p> <p>Lead planning and fulfillment of clinical staffing needs across the response by working with leadership to develop staffing models, working with HR & HR Division Liaisons on recruitment & onboarding of new hires, and working with the Public Health Reserve Corps on volunteer staffing</p> <p>Supervise of credentialing and privileging teams</p> <p>Support internal Continuity of Operations work</p> <p>Onsite leadership for PICC and mas vax operations</p>
Operations Coordination and PPE	<p>Implement strategies and develop tactics to carry out the incident objectives</p> <p>Develop, manage, and refine a data-driven process to allocate PPE in King County based on state Department of Health guidelines and equity principles</p>	<p>Coordinated with team leads from response activities and supported collaboration among different teams and cross-cutting sections</p> <p>Developed the Operational Summary to share activities both internally and to external partners</p> <p>Developed processes for efficiently and equitably allocating and shipping PPE to facilities and partners in need. Collaborated with Logistics and other stakeholders to distribute PPE based on community needs and available resources.</p>
PIO and Communications	Provide culturally appropriate, in-language information to a variety of audiences including the general public, media, elected officials, and staff	<p>Organized by teams, including Content, Media, Community Media, Digital and Social Media and External.</p> <p>Develop messages, materials and guidance related to Public Health Orders and NPIs and other COVID-19 topics in English and for translation.</p>



COVID-19 Response Team	Team Objectives	Team's Activities Description
		<p>Track, assess, and respond to inquiries, comments, and information requests generated through media, social media and through other requests from PICC, Navigators, other units in the response, the general public, elected officials, partners, and others.</p> <p>Craft and develop culturally responsive content, based on key public health messages, to be shared over a wide range of communications channels and platforms, including social media, web, media, community and business partner networks, staff messages, and through large public information campaigns.</p> <p>Develop and execute social media strategies, and build, continually update and monitor COVID-19 website in partnership with KCIT web developer.</p> <p>Manage media requests, inbox, and messaging and conduct routine press conferences, and place speakers on multilingual, community, and mainstream media outlets.</p> <p>Assist residents in scheduling vaccination and testing appointments.</p>
Public Information Contact Center (PICC)	Provide Public Health support, education, guidance, linkage to services, and respond to COVID-19 emerging issues through call and contact center	<p>Answer and triage calls from the community regarding COVID-19 and providing callers with guidance and resources. This includes individuals who do not speak English and community members who do have access to care, do not have health benefits, and may not have access to the information needed to obtain medical assistance.</p> <p>Screen calls to determine if testing is needed; escalate to CD/EPI for decision. Provide guidance for testing sites and timing for testing if exposed. The PICC also provides assistance for individuals who have been tested but cannot access their results.</p> <p>Develop and implement screening tools and scripts for contact center operations.</p>



COVID-19 Response Team	Team Objectives	Team's Activities Description
		<p>Coordinate with PIO & Communication teams for updated messaging, scripts, and referral processes. Ongoing coordination with Communications to get the most recent information to provide callers and for help with developing scripts as new information has been made available.</p> <p>Coordinate with other response teams to clarify guidance, provide clinical assessments, and provide resources as well as assist/support teams with other tasks needed</p> <p>Receive calls for Isolation and Quarantine requests for individuals who cannot safely I&Q in their place of residence and/or are living homeless.</p> <p>Create and/or facilitate the creation of content that was community, language, and culturally appropriate.</p>
Policy	<p>Responsible for developing policy that guides HMAC operations</p> <p>Liaise with Public Health and other King County agencies to create aligned, harmonized, and equitable policies</p>	<p>Helped lead production of key policy and strategy documents (e.g., The King County Principles for Equitable Vaccine Delivery) that guided key operational elements of the overall response.</p> <p>Assisted with bringing the right staff to the decision-making table and making documents public.</p>
Safe Start for Taverns and Restaurants (SSTAR)	<p>Provide community education and outreach to increase community awareness of COVID-19 prevention measures</p> <p>Distribute resources to increase food establishment compliance with the Safe Start reopening requirements</p>	<p>Provide technical assistance to food establishment operators on COVID-19 prevention requirements for food facility operations during the COVID-19 Pandemic and periods during the Safe Start WA and WA Road Map to Recovery phases</p> <p>Conduct compliance enforcement for egregious violations of the Governor's safe start reopening requirements for food facility operations</p> <p>Administer financial assistance for small business food establishments that have incurred additional operating costs to comply with the Safe Start Reopening Requirements</p>
Safety and	Monitor and assess incident-related hazardous	Develop measures to ensure the safety and health of incident personnel



COVID-19 Response Team	Team Objectives	Team's Activities Description
Employee Health	situations and identify actions to mitigate risks and hazards with the greatest potential for serious accident or injury	<p>Develop and share resources to promote the well-being of incident personnel</p> <p>Notify and support incident personnel during workplace exposures, providing N95 fit testing when possible</p>
Testing	<p>Provide COVID-19 19 testing to the most vulnerable populations in King County with compassion and dignity to those that are served during the pandemic</p> <p>Use a data-driven approach merged with community feedback embedded in operations and partnership with A&I to ensure resources were brought across the county to those in need, including determining priority testing site locations and appropriate site type</p>	<p>Build partnerships and coordinate with local elected officials, municipalities, community organizations, health care institutions, research organizations, labs, and other agencies to quickly set up testing sites and find resources available across the county.</p> <p>Develop strategies, blueprints, protocols, and processes to guide operations.</p> <p>Support and coordinate matters related to testing, including acquisition and distribution of OTC test kits, supplies, strategy, results interpretation, data and metrics, new technologies and reimbursement</p> <p>Perform testing at critical setting sites (DTPH clinic, LTCF and homeless service sites) and coordinate testing opportunities for high-risk populations and priority groups</p>
Vaccination Delivery: Community Events, High Volume Sites, Mobile and Public Health Clinics, Place-Based Strategy and Regional Partnerships	<p>Equitably promote and provide COVID-19 vaccination access and vaccinations to Public Health patients and KC residents with a focus on serving vulnerable populations</p> <p>Work with trusted leaders and places to host temporary, small- to medium-sized clinics planned in partnership with community and focused on addressing the priorities and needs of the focus population</p> <p>Offer vaccinations to King County residents (e.g., S King County,)), including critical workers,</p>	<p>Provide community vaccine events that enabled maximum vaccine distribution to citizens of the county by pairing providers with empowered CBOs and other partners.</p> <p>Provide vaccination access and vaccinations in culturally sensitive and inclusive manner (e.g., language access, disability access, partnering with CBOs, etc.)</p> <p>Provide mobile vaccination to reach high-risk individuals who cannot leave their homes or facilities or face other barriers to accessing vaccination (COVID, Hep, Flu)</p> <p>Provide high quality, safe, efficient, and cost sensitive care. Support and coordinate COVID-19 vaccine clinics with King County's 19 school districts and</p>



COVID-19 Response Team	Team Objectives	Team's Activities Description
	underserved medical communities, homebound individuals, and those most at risk to get COVID-19 and most at risk for poor outcomes, working in collaboration with teams across the response and partnerships	<p>many local institutes of higher education.</p> <p>Partner with regional health care institutions to ensure equitable delivery of vaccines and access throughout King County</p> <p>Provide vaccinations at PHSKC-run mass vax and fixed clinic sites in areas of high need (e.g., south King County) and ensure equitable access to the appointment registration system for at risk populations</p> <p>Partner with DOH and FEMA to add additional vaccine opportunities in South King County.</p>
		<p>Collaborate with A&I to ensure decisions were data-driven and allocation decisions were grounded in equity principles</p> <p>Conduct outreach to providers and pharmacies enrolling in the vaccine program to help identify partners</p>
Vaccination Strategy: Planning, Coordination & Readiness	<p>Analysis of COVID-19 vaccinations, disease prevalence, vaccine provider distribution and capabilities</p> <p>Create access points in an equity centric way and address community needs head-on</p> <p>Advocate for changes within DOH, PHSKC, and regional health systems to address the needs of King County residents</p>	<p>Build connections and relationships with the community and collaborate with the Long-Term Care Sector</p> <p>Offer COVID-19 vaccination promotion, education, clinical services, and support to youth serving systems from childcare through K-12 and higher education</p> <p>Established a clear, community-centered model in which the community partners (CBOs/FBOs) led discussions, planning, and decision-making processes for events.</p> <p>Developed an Equity Tool (based on existing County equity impact review tools) and an Equity Review Process that was used for planning and prioritization both internally and with regional partners.</p> <p>Work with communities, CBOs and other organizations to determine location of vaccine services for each modality (mass vaccination, community events, etc.)</p>



COVID-19 Response Team	Team Objectives	Team's Activities Description
		<p><i>Vaccine Verification Program:</i> Conduct in-person educational site visits to non-compliant businesses</p>
Ventilation and Indoor Air Quality Program	Provide technical assistance to businesses, schools, childcares, and faith-based and community-based organizations to improve indoor air quality in facilities open to the public in order to reduce COVID-19 transmission risks	<p>Distribute HEPA filtration units to facilities to improve indoor air quality where other means of improving indoor air quality in order to reduce COVID-19 transmission risk are not available</p> <p>Provide community education and outreach regarding the importance of indoor air quality and strategies that can be employed to reduce COVID-19 transmission risks in indoor environments</p>



ANALYSIS OF FINDINGS

INCIDENT MANAGEMENT

PHSKC activated its incident management and coordination structure, Health and Medical Area Command (HMAC) on January 21, 2020 in response to the first case of novel coronavirus in Washington State. By May 2020 the HMAC structure expanded to consist of over 500 responders directly assigned in a large stand-alone incident command structure. Throughout its COVID-19 response, PHSKC incorporated key incident management functions and principles from the National Incident Management System, emphasizing both standardization and flexibility. PHSKC Incident management response closely aligns with CDC PHEP capability 3 - *Emergency Operations Coordination* and incorporates several aspects of other PHEP capabilities such as 1 - *Community Preparedness*, 2 - *Community Recovery*, and 6 - *Information Sharing*. In addition to response structures and preparedness activities, this section includes leadership, policy and decision-making, collaboration with response partners, and equity considerations related to overall incident management and coordination.

Strengths

Standardization of Processes

HMAC Information Management/Planning Section observed that teams across the response and the HMAC structure as a whole were able to deploy and leverage several key concepts and tools from the National Incident Management System (NIMS). When implemented effectively, responders noted that the HMAC structure and Incident Command System (ICS) processes provided a foundation for effective cross-team coordination and information sharing.⁵² Organizational structure was clearly communicated through Incident Action Plans (IAP) and the protocols of ICS helped some teams avoid scope creep to focus on their core mission.⁵³ The Planning Section also noted that the use of the “Planning P” and related operational tempo helped establish a consistent flow of information which was key to situational awareness early in the response.⁵⁴ Finally, the best practices of utilizing standard operating guides, job action sheets, and standardized processes was key for onboarding new staff and growing the response operation.⁵⁵

In early 2020, Wiland Associates (a company specializing in developing incident management capabilities) deployed incident management teams who in total spent two months with PHSKC’s incident management team. In June 2020, Wiland produced an AAR that identified opportunities to enhance HMAC functions and leadership expectations.⁵⁶ Although only covering the operational periods from March 27 to May 23, 2020, the report highlighted numerous strengths and challenges Wiland Associates observed in the incident management structure and HMAC. The report also included recommendations in a proposed improvement

⁵² Marx, C. (2021); PHSKC COVID-19 Intra Action Quad Chart_SSTAR

⁵³ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁵⁴ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁵⁵ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁵⁶ AAR Wiland Associates



plan. The recommendations were taken by PHSKC, and many are currently being addressed. Some activities that are in the process of being addressed include:

- Clarity on HMAC Function and Leadership Expectations
- Command Titles
- HMAC Decision-Making Model
- Single Command versus Unified Command
- Diffusion of Staff
- Incident Command Sustainability
- On-boarding Interface with HMAC Resource Management Process
- Emergency Planning

Coordination/Collaboration

King County was recognized as the early epicenter for the COVID-19 pandemic and turned into an example for the country with multiple departments coming together to respond to the COVID-19 pandemic and pursuing equity, diversity, and inclusion to support the health and wellbeing of the community. For example, PHSKC led innovative isolation and quarantine programs and used those programs to also benefit people experiencing homelessness and other vulnerable populations. There was a total of \$800 million in funds distributed in efforts to reduce the COVID-19 impact.⁵⁷ These efforts were recognized by American City & County, a magazine serving city, county, and state officials selecting King County as the winner of the 2021 Crown Communities Award.

In the HMAC Policy & Government affairs hotwash, participants noted that as the response progressed, they developed better coordination with the City of Seattle, business partners, and cross-division collaborations.⁵⁸ The City, County, and PHSKC came together to advance science-based policy. This was accomplished by working with elected officials and externally collaborating with community partners. The team attributed the development of key documents as a strength by bringing the right people to the decision-making table. These documents, which were made public, included a King County Unified Strategy for Vaccine Delivery and Principles for Equitable Vaccine Delivery. These documents guided key operational elements of the overall

⁵⁷ Havich, Michelle M., "2021 Crown Communities Award winner: King County's enterprise-wide COVID-19 response." American City and County, <https://www.americancityandcounty.com/2022/01/28/2021-crown-communities-award-winner-king-countys-enterprise-wide-covid-19-response/>. 30 March 2022.

⁵⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



response. Another element that enabled coordination was the activation of a policy officer, which PHSKC had not done before COVID-19.

Innovation/Success: King County's Enterprise Response to COVID-19

King County's enterprise-wide response to COVID-19 was selected as the winner of the American City and County's 2021 Crown Communities Award for its collaboration across departments, including the prominent leadership role that PHSKC played in the pandemic response. Overall, seven isolation and quarantine (I&Q) facilities were established along with comprehensive procedures. Together, these efforts comprised the nation's first civilian I&Q system. By January 28, 2022, this system served 2,300 residents, a large percentage of which were persons experiencing homelessness. When vaccinations became available, the county set ambitious vaccination goals and focused heavily on equity, creating strategies to support the vaccination of older adults and BIPOC individuals. King County went on to recognize the inequities magnified by the public health pandemic and declared racism a public health crisis. Overall, due to the collaborative and dedicated efforts of the county, as of January 2022, it had maintained the lowest COVID-19 death rate of the 20th largest metropolitan areas in the country. *

* Havich, Michelle. "2021 Crown Community Award Winner: King County's Enterprise-Wide Response to COVID-19." American City and County. <https://www.americancityandcounty.com/2022/01/28/2021-crown-communities-award-winner-king-countys-enterprise-wide-covid-19-response/>. 28 January 2022.



Image 2: Magazine Featuring PHSKC Response to COVID-19



Areas for Improvement

Equity

Although strides were made providing an equitable public health response, there remained barriers to achieving equity across different areas of PHSKC's response. Some of the barriers may have stemmed from limitations of the PHSKC Equity Response Annex or a lack of existing systems in place for building equity into a disaster response. For instance, the Annex did not have an Access and Functional Needs plan and PHSKC did not have an Americans with Disabilities Act (ADA) coordinator.⁵⁹ Such a plan or having someone in that role could have outlined an equitable and consistent process on practices to improve the delivery of emergency information to the public in addition to informing the response and recovery strategy.

An issue that emerged during the course of the response was that PHSKC experienced a delay from when information was shared with the public and when the accessible version of that same information would be available for public dissemination. Another example was that ADA compliance was not extended to contracts and partnerships with community groups or third-party providers working on behalf of King County resulting in a widening disparity in accessible products produced by the vendor in alignment with their contractual duties and responsibilities.

Members of some teams also noted delays in leadership decisions that compromised work, to include emphasizing urgency over equity, decisions made without community input, occasional difficulty identifying how to influence work in established coordination structures, and a lack of equity training across activated staff.⁶⁰ Additionally, equity not being centered in some PHSKC processes such as procurement was an opportunity for further growth.⁶¹ A particular challenge was prioritizing requests from the wide array of departments and programs given limited resources.⁶² Finally, without established processes for soliciting follow-up from response teams and established channels for communicating with equity teams from partner agencies and organizations, equity teams felt that there were missed opportunities for collaboration.⁶³ And while proud of the organizations and communities they were able to engage, all teams primarily focused on ensuring equity noted that there were connections with community members left untapped and groups that were missing at the table.⁶⁴

⁵⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁶⁰ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁶¹ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁶² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁶³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁶⁴ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Unclear Processes

Leadership Direction

Although overall responders expressed the belief that leaders largely did an incredible job “steering the ship” and managing incident structures, teams noted multiple issues related to prioritization across the response.⁶⁵ Staff indicated there was often not enough leadership direction or an effective process to prioritize response activities.⁶⁶ Without clearly established priorities, response teams felt like there were unrealistic expectations put upon their operations and in turn sacrificed responder wellbeing trying to meet expectations.⁶⁷ Additionally, frequently shifting leadership among section chiefs with different expectations, backgrounds, and skillsets made establishing consistent priorities difficult.⁶⁸

An example of where decision-making processes impacted operations was in relation to contact tracing and disease investigation teams. These teams noted a lack of a clear strategic vision from HMAC and PHSKC leadership regarding this operational area, difficulty in prioritizing work from the response, and a lack of role clarity between related teams which compromised team efficacy. Several teams indicated their roles were malleable or unclear, and at times required unrealistic pivots, which reduced efficiency among the larger effort and created duplicative work.⁶⁹ Without a clear strategic vision, leaders of these teams found it difficult to effectively establish priorities as teams became overloaded and work was often reactionary opposed to proactive.⁷⁰ At times, these contact tracing and surveillance teams felt a disconnect from leadership-level decision-makers in terms of both leaders’ awareness of operational activities and the team’s ability to negotiate scope of work.⁷¹ Despite these challenges, it is important to note that team leads and staff still conducted successful contact tracing and surveillance programs in a pandemic of unprecedented scale.

Preparedness and Training

Despite decreases in staff and funding over the last decade, PHSKC developed a multitude of response plans and conducted extensive trainings during that time to prepare teams to conduct a large-scale disaster response operation.⁷² While these efforts undoubtedly bolstered the county’s response, feedback from responders indicated significant ongoing preparedness work is still needed. Trainings on the HMAC structure and Incident Command System (ICS) have been offered by PHSKC but were optional trainings for most individuals.⁷³ This meant a great deal of those activated for COVID-19 had little-to-no understanding of the systems and structures utilized in disaster response.⁷⁴ This led to confusion about who to report to, what teams were responsible for specific tasks, agency roles and jurisdictional authority, and a lack of

⁶⁵ Marx, C. (2021)

⁶⁶ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁶⁷ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁶⁸ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁶⁹ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁷⁰ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

⁷¹ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁷² Marx, C. (2021)

⁷³ Marx, C. (2021);

⁷⁴ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)



understanding regarding disaster response norms and practices.⁷⁵ Respondents (36%) to the COVID-19 AAR survey conducted by PHSKC noted unclear processes as an area for improvement. Additionally, 30%+ of respondents were either neutral or disagreed to some extent that they had adequate training for their response role. Multiple survey participants indicated in open ended responses that HMAC and incident command processes could be clearer, better organized, and staff would benefit from more training.⁷⁶

While the department had a roster of plans to support the response, they were not universally helpful to teams implementing those plans. A key challenge was awareness; many of the individuals responsible for implementing activities had no knowledge of existing plans, processes, and procedures. When this occurred, teams often wasted time recreating established procedures which delayed work and complicated response activities.⁷⁷ Another challenge was that for some staff being shifted into emergency response roles, familiarity with emergency management terms were limited, making plans difficult to understand because of the terminology.

Aside from broader awareness training on established plans and expanded incident onboarding training, a clear suggestion from responders was the need for succinct operational guides that distill down key tasks for implementation.⁷⁸ As noted by one responder, “during an incident, staff don’t have time to read dense, 20-40 page plans.”⁷⁹ Brief guides could also address the potential challenge of staff unfamiliar with emergency response efforts.

Utilization of ICS structure at the field team level also appeared to be inadequate or not apparent to field team members.⁸⁰ The ICS structure identifies roles and responsibilities, even at lower levels, which could have been used at the field team level. This would have reduced confusion about job tasks and unclear reporting structures.

Shared Understanding

Although collaboration across county departments was generally successful, a shared understanding of response structures, roles, cultural norms, and expectations was difficult to maintain at times. Different response structures between departments complicated decision-making and created confusion amongst teams. This confusion was amplified by a lack of single unified response structure across the departments which sometimes led to miscommunication and duplication of efforts.⁸¹ Responders noted frustration, stress, additional work, and confusion from differences in the organizational cultures and expectations. For example, despite being largely successful in mobilizing the county’s workforce, staffing teams noted difficulty in maintaining visibility across the agencies involved and, at times, inconsistent coordination from departments

⁷⁵ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁷⁶ COVID-19 PHSKC Staff Surveys (2022)

⁷⁷ Marx, C. (2021)

⁷⁸ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁷⁹ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁸⁰ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁸¹ Marx, C. (2021)



with different response structures, expectations, and norms.⁸² Additionally, both finance and operational teams noted confusion around role clarity, decision-making authority, budget considerations, and process surrounding hiring, contracting, and purchasing.⁸³

While required to meet the needs of the response, changes in organization response structure produced additional challenges and uncertainty for teams. In the summer of 2020, several operations shifted into divisions and programs and in the fall of 2020, HMAC moved from an ICS structure to an incident management structure. As structures changed and processes adapted, some teams had trouble maintaining awareness of the changes and felt they lost established supports in the transition.⁸⁴

Mixed Findings

Systems or Infrastructure

According to results from the PHSKC COVID-19 After Action Report survey, most respondents agreed or strongly agreed that they understood their role in Public Health's overall COVID-19 response. Even when evaluating the first three months of the response, 79% of people agreed to some extent. When rating the last three months (January - March 2022), 87% of respondents felt they understood their roles. Additionally, respondents indicated they knew who to contact if they had any issues as part of Public Health's COVID-19 response.

However, this was not completely reflected in the discussions with staff. Some team members had difficulty understanding role clarity due to lack of experience with the Incident Command System (ICS), others struggled due to a lack of clearly defined roles between different operational groups and partner agencies.⁸⁵ A lack of clarity around decision-making authority, role division between response teams and departments, coordination roles with elected officials and governmental partners, and responsibilities shared or split between jurisdictions were also commonly noted challenges.⁸⁶ Understanding of roles and how teams coordinated may have improved over time. The survey responses showed that perceived coordination between teams improved from the first three months (43% agreed or strongly agreed) to the last three months (54% agreed or strongly agreed).

⁸² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁸³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁸⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁸⁵ Marx, C. (2021); PHSKC COVID-19 Intra Action Quad Chart_SSTAR

⁸⁶ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



EPIDEMIOLOGICAL INVESTIGATION AND SURVEILLANCE

A critical focus throughout stages of PHSKC's response were disease investigation and surveillance activities, including during the December 2021 disease surge, when daily case counts reported to PHSKC reached a new high of 2,973 new cases. Activities in this focus area include the work of A&I to analyze and interpret data, including development of new databases and dashboards to support transparency and decision-making. Disease investigation activities focused on preventing and responding to community outbreaks. For example, in January 2022, PHSKC outbreak investigators were supporting 467 active outbreaks and had closed 407 facility investigations in the prior two weeks. PHSKC conducted case investigation and contact tracing activities, including providing clinical guidance to contact of confirmed cases, as well as assessing needs and making linkages for isolation and quarantine support services. PHSKC's execution of epidemiological investigation and surveillance closely matches the doctrinal CDC PHEP capabilities of 13 - Public Health Surveillance and Epidemiological Investigation, 6 - Information Sharing, and 12 -Public Health Laboratory Testing. This section outlines their implementation of this critical component of disease emergency response

Strengths

Systems or Infrastructure

Despite experiencing significant challenges in establishing, scaling, and transitioning both IT and data systems, contact tracing and investigation teams rose to the challenge to create systems and processes able to support operations at an unprecedented scale. Specifically, the Analytics and Informatics (A&I) Team being in place prior to the pandemic with established bodies of work and system tools made the scale up easier.⁸⁷ The team had experience with a recent measles outbreak and the surveillance tools used in the response to that event served as a model for COVID-19 initial response allowing teams to jump start their operations.⁸⁸ Additionally, proactive monitoring of the pandemic in early 2020 allowed the A&I team to begin to establish systems, dedicate staff to distinct bodies of work, and begin to scale operations.⁸⁹ This created a higher level of awareness and allowed them to automate their processes early.

PHSKC's COVID-19 Dashboards, created by the A&I Team, were invaluable in enabling public health decision-making supported by data. The dashboards showed cases counts, community transmission, syndromic surveillance, and vaccination uptake. Combining this information with demographics and geographic information, allowed PHSKC to focus its response to specific communities and provide additional services. These dashboards revealed very early in the pandemic that Blacks, Hispanic/Latinx, Native Hawaiian/Pacific Islanders, and American Indian/Alaskan Natives had notably higher rates of COVID-19 cases, hospitalizations, and rate of death per 100,000 as compared to Whites. Reflective of the effectiveness and innovation, National Association of County and City Health Officials (NACCHO) recognized the APDE Unit for the development of the economic, social, and overall health impacts data dashboard (image 7).

⁸⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁸⁸ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

⁸⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



The A&I Team also went a step beyond the public facing dashboards to provide additional detail and analysis via daily reports disseminated for much of the response. The report detailed key surveillance and outbreak information for many responders across many teams to establish critical epidemiological situational awareness. They presented key information from these data at the start of regular Epidemiological Briefings, which were typically attended by approximately 150 staff, including many in department leadership and numerous teams leads.

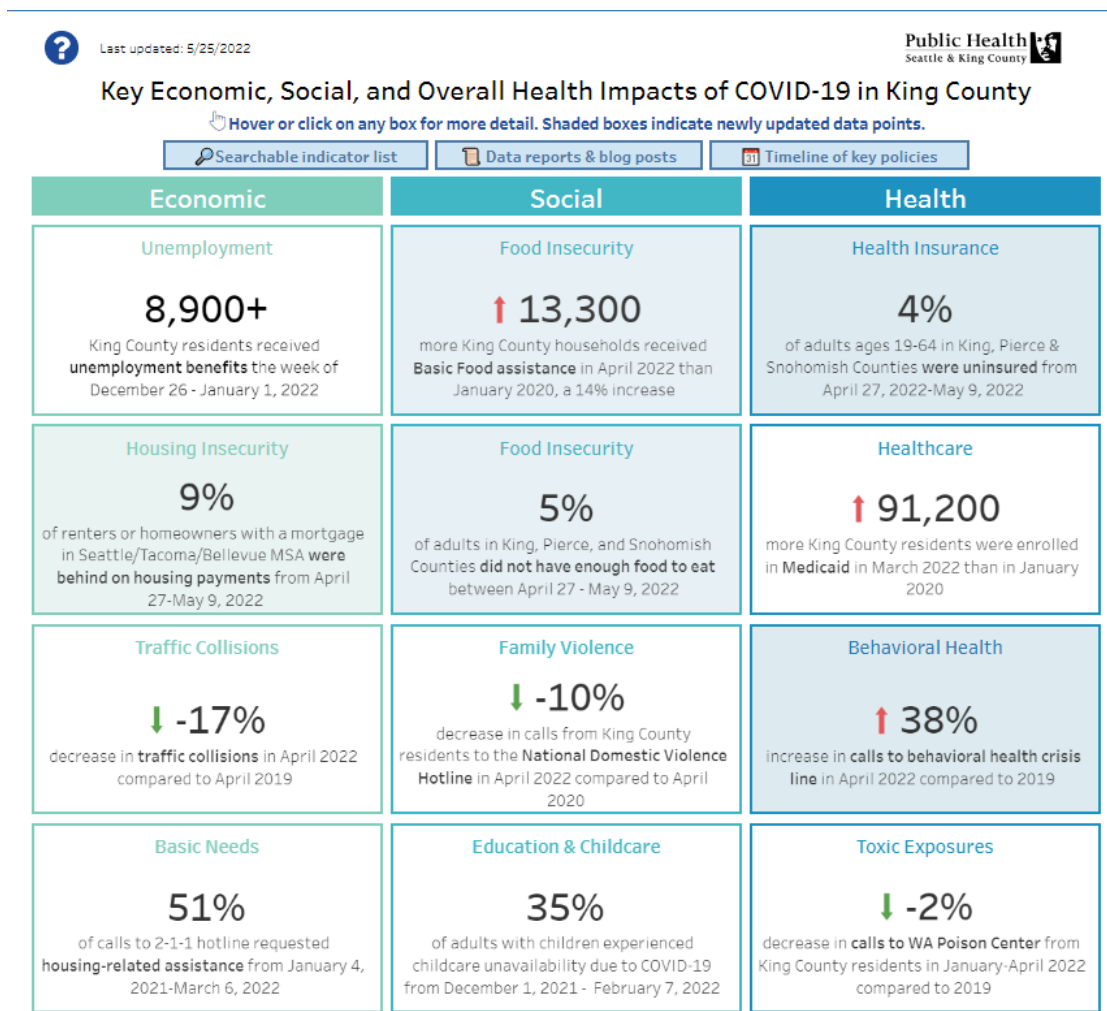


Image 3: Snapshot of PHSKC Economic, Social, and Overall Health Impacts Dashboard (<https://kingcounty.gov/depts/health/covid-19/data/impacts.aspx>)



Autonomy and flexibility in how data systems were established gave the team a sense of ownership and investment as they created internal infrastructure to support the response. The importance of flexibility in these systems was emphasized by the Contact Tracing Program as well which noted having a flexible, modifiable system (REDCap) allowed them to adapt to the changing needs of the incident and the response.⁹⁰ To increase their ability to provide contact tracing at scale while protecting personal information, these teams integrated the InContact system to improve outreach in addition to identifying and securing HIPAA HIPAA-compliant phone systems.⁹¹

Innovation/Success: Impacts Dashboard

PHSKC's Assessment, Policy Development, and Evaluation (APDE) Unit was recognized by the National Association of County and City Health Officials (NACCHO) for the development of the economic, social, and overall health impacts data dashboard. This dashboard helped track the impacts of public health measures implemented to slow the spread of COVID-19 throughout the county. The data dashboard revealed key insights of the pandemic and guided data-based decision-making. For instance, the dashboard helped PHSKC determine that 18% of households with school-aged children lacked Internet access for educational purposes. *

*"Public Health Receives National Recognition for Innovation in Pandemic Response." Public Health Insider, Public Health- Seattle & King County, <https://publichealthinsider.com/2021/06/09/public-health-receives-national-recognition-for-innovation-in-pandemic-response/>. 9 June 2021.

Teamwork

A&I teams noted several strengths regarding prioritization, effective management, and teamwork within the groups. Established and reliable communication channels, such as morning and evening check-ins/debriefs, were extremely beneficial for maintaining shared situational awareness across the teams.⁹² Other routine meetings like the weekly leads meeting and epidemiology huddles were also noted as important for team success. Cross-training of staff, redundancy and work-sharing, robust process and guidance documents, and a team culture of flexibility allowed these teams to adapt and grow with the response.⁹³ These teams also noted effective leadership by their leads who were effective at case prioritization, supportive, consistent with communication, and prioritized responder wellbeing by managing individual caseloads.⁹⁴ All of these factors led to success within these operational teams.

The Contact Tracing Team noted that their team was unified in quality improvement and building the program.⁹⁵ This reflected their service first approach that was well received by community members. They

⁹⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁹¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁹² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁹³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁹⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

⁹⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



often received comments about their professionalism and helpfulness. The team leads consistently reported that members felt the team was supportive and built a strong community of contact tracers with a culture of listening and responding. Members of the investigation teams noted similar teamwork features with their teams.⁹⁶ These teams noted additional levels of support from their team leadership by providing self-care, fun spaces away from COVID-19 work, checking in on team members, and listening to concerns about their personal boundaries.

Flexibility/Adaptability

Contact tracing and disease surveillance was conducted throughout the county. To meet the staffing needs for these operations, 61 people were added to contact tracing efforts. The PHSKC team interviewed 90% of named contacts in the community and conducted approximately 500 investigations per week. Many contacts were already in their seven-day “infectious window” despite the aim to reach them the same day PHSKC received their names. The contact tracing outreach team made the most of the opportunity to speak directly to community members and provide advice on economic, financial, and medical assistance as needed.⁹⁷

Jail Health Services (JHS) also took a proactive approach to tracking and monitoring potential outbreaks among people who were incarcerated and staff working in the jails. JHS maintained low COVID-19 positivity numbers through the early and middle phases of the pandemic when compared to similar sized facilities.⁹⁸ Initially, JHS anticipated outbreaks solely in congregate jail settings but began to find it was actually the inmate worker population where COVID-19 infections were being found. JHS used a “COVID-19 Positive Unit” and a “Precaution Unit” when individuals had flu-like symptoms. They started COVID-19 screening early, transitioned to rapid testing as soon as it was available, and used targeted surveillance testing for higher risk. Some JHS staff interviewed for this report stated there was a concern about testing disparities within the inmate population. As a result, staff began interviewing inmates and making intentional efforts to promote testing and provide education. This adjustment and pivoting in approach was not something that had been done before and was an effort to reduce any potential disparities among inmates.

JHS also showed adaptability when they began to run into issues with receiving rapid antigen tests which were key to maintaining low positivity rates and testing at intake.⁹⁹ The jail had established its procedures based on a specific rapid antigen test, and, as supplies became limited, they pivoted and retrained a large number of staff on a new test.

⁹⁶ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

⁹⁷ “King County’s COVID-19 Contact Tracing Efforts Gain Strength.” Public Health Insider, Public Health- Seattle & King County, <https://publichealthinsider.com/2020/09/16/covid-19-contact-tracing-efforts/>. 5 April 2022.

⁹⁸ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021), COVID-19 PHSKC Key Informant Interviews. (2020-2021)

⁹⁹ COVID-19 PHSKC Key Informant Interviews. (2020-2021)



Areas for Improvement

Information Technology Concerns

Access to Data

Although teams were able to find success and scalability over time in data and IT systems, there were significant hurdles for surveillance and contact tracing teams throughout the response. In addition to routine IT challenges, contact tracing teams noted a lack of interoperability in how data was structured between the county and state.¹⁰⁰ Getting privileges to new databases was also a challenge especially with new hires and temporary staff.¹⁰¹ This was further complicated by frequent and difficult transitions between different data systems such as the Washington Disease Reporting System (WDRS) and REDCap.¹⁰² Finally, like many teams, these groups noted challenges in locating, organizing, and updating resources through SharePoint and Microsoft Teams.¹⁰³

Accuracy of Data

Multiple databases and systems used in contact tracing depended on accurate data.¹⁰⁴ Early in the response, the A&I Team noted access to and integration with the King County and Washington DOH information systems was a challenge.¹⁰⁵ As the emergency unfolded and CDC staff were brought in, it was difficult to maintain the integrity of data, its storage, and incorporation of other data sources. DOH hosted the data but their infrastructure was unable to process the high number of laboratories involved and began crashing.

With multiple teams and organizations creating records for cases in different systems and limited communication between systems often resulted in cases getting multiple calls in a day from different teams. Initially there was also no care coordination, just notification and contact tracing. Ultimately, the Communicable Disease Outbreak Response Team was given backend access to the DOH system and DOH improved the infrastructure. However, the team noted they still do not have full access to the system and utilize secondary systems and then update the DOH system, WDRS.

Coordination/Collaboration

Contact Tracing and Disease Investigation related teams noted significant challenges related to internal and external coordination during the response. Internally, teams reported feeling siloed, noted there was a lack of a cohesive vision or strategy, and felt there was reactive opposed to proactive collaborations. There were also challenges working across teams due to a lack of a shared common operating picture, unclear and changing process flows, no formalized decision-making process across teams, an unfamiliarity with ICS, and ineffective

¹⁰⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁰¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁰² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁰³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁰⁴ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

¹⁰⁵ COVID-19 PHSKC Key Informant Interviews. (2020-2021)



integration into HMAC structures.¹⁰⁶ Contact tracing teams also noted the need for expanded collaboration with public messaging teams to ensure messages are clear and effective.¹⁰⁷

Externally, effective communication and collaboration with Washington State Department of Health was a challenge across the contact tracing and surveillance related teams. There was a lack of clarity around roles regarding specific cases and test results, especially regarding referrals to care coordination. Changing and contradictory information or a lack of community around specific settings also led to difficulties collaborating.¹⁰⁸ From the perspective of JHS, communicable disease – epidemiology teams did not understand the capacity of the jail and missed key elements including a lack of documenting interfacility transmission. JHS felt they could have been more involved in information sharing and the development of best practices that would have helped others. JHS noted there may be a stigma to working with the jail and that the relationship between teams could, at times, feel condescending.

Although these challenges were present, successful collaborations were routinely found throughout the response. Successful partnerships existed with school taskforces, Environmental Health, and the Adult Family Home Council. Strong relationships were built with both facilities and service providers among many others.¹⁰⁹

EQUITY AND COMMUNITY PARTNERSHIPS

PHSKC prioritized collaboration with community partners to mitigate and address the disproportionate impacts of the pandemic, as well as to combat stigma, discrimination and racism that further compounded inequities. PHSKC's Equity Officer and the Equity Response Team (ERT), comprised of PHSKC staff and community partners, provided internal guidance on equity and social justice concepts, culturally relevant resources, recommendations on planned response activities and elevation of COVID-19 equity concerns reported to the agency. Pursuing great equity in the COVID-19 response with community partners allowed PHSKC to increase CDC PHEP capabilities 1 - *Community Preparedness* and 2 - *Community Recovery*. PHSKC also created several collaborative groups, such as the Pandemic and Racism Community Advisory Group (PARCAG), along with the Community Mitigation and Recovery team and community navigators, to work on equity and fairness throughout the response. The Community Well-being Initiative promoted emotional health by building community capacity to share resources and provided support centered on BIPOC children, youth, families, and communities who are most impacted by the intersection of racism and the pandemic. Additionally, PHSKC supported the community by leveraging existing and new funding streams to support community outreach and education. Some organizations were able to redirect resources to meet emerging needs on their own (e.g., Best Starts for Kids). PHSKC was also able to provide resources from the CDC, Patient-Centered Outcomes Research Institute, and Gates Ventures to partner agencies to fund COVID-19 work. PHSKC integrated the incident management liaison function through government affairs and policy staff who promoted information sharing and collaboration with government and non-government partners to create aligned and equitable policies.

¹⁰⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁰⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁰⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁰⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Strengths

Relationship Building

Intergovernmental partnerships were a key component of successful COVID-19 operations for PHSKC. Governmental Affairs teams were able to establish a regular cadence of meetings and standardized processes to build and maintain positive relationships with elected officials and key stakeholders such as Sound Cities Association, the King County Executive, King County Council, the Seattle Mayor's Office, and Seattle City Council.¹¹⁰ These relationships empowered and informed response activities allowing them to understand community needs while getting a head start in adapting programs and services as required.¹¹¹ Coordination with federal partners was also an important component and these efforts helped mobilize activities like the deployment of approximately 50 CDC staff to assist with the first outbreak in the country in a long-term care facility.¹¹²

Community partners reflected that PHSKC also did an excellent job distributing resources to Community-Based Organizations (CBOs) and Faith-Based Organizations (FBOs).¹¹³ Similar reflections were heard about information sharing, PHSKC was noted as a tremendous partner in both bringing people to the table, creating advisory groups, and going to community partners to share information. The CBOs/FBOs noted they had more than enough PPE from PHSKC, and they received public health information almost immediately when it became available. In one townhall, community partners noted they were surprised at how PHSKC was always able to answer their phone calls and emails, or they received a response within 48-hours.

Early in the response, PHSKC was able to rapidly put together contracts with community partners. This was aided by pre-existing relationships with first responder agencies that were staffing and standing up vaccine and testing sites.¹¹⁴ First response agency partners believed testing sites were rapidly set up and felt seamless. Similarly, many community partners appreciated that PHSKC connected partner organizations with private entities to assist them in providing COVID-19 resources to the communities they served.

Coordination/Collaboration

Effective community engagement amplified the internal equity focus within response activities and decisions. Both the Community Well-being Initiative and Community Mitigation and Recovery Teams noted community partnerships as being a key driver for response success.¹¹⁵ Established relationships and mechanisms for feedback and input allowed the response to provide a more holistic and community centered approach over time in both communications and operations. By engaging community groups through initiatives such as the PARCAG and utilization of community navigators, response teams were able to get timely qualitative feedback

¹¹⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹¹¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹¹² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹¹³ COVID-19 PHSKC External Partner Townhalls (2022)

¹¹⁴ COVID-19 PHSKC External Partner Townhalls (2022)

¹¹⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



from the communities they were serving.¹¹⁶ This allowed the teams to adapt the response as needed. For example, PHSKC provided information in multiple languages, expanded testing to underserved communities, improved guest comfort at isolation and quarantine facilities, and created equitable vaccine distribution strategies.¹¹⁷ These initiatives allowed PHSKC to collect information in near real time and build partnerships that will extend past the response.

PARCAG

By September 20, 2020, the PCAG was reestablished as the King County Pandemic and Racism Community Advisory Group (PARCAG) and PARCAG's mission was modified to "identify, inspire, and mobilize bold solutions in response to the urgent, interconnected crises of COVID-19 and systemic racism."

Equity:

Community Involvement

PHSKC ERT and community navigators developed specific plans for engaging different communities within the county for public health information dissemination.¹¹⁸ These community specific plans identified key leaders and points of contacts to engage. For example, the Marshallese community plan identified four women leaders to consult regarding vaccines and PPE who could provide a culturally competent perspective and understanding of the community to inform tailored messaging and promote community-centered strategies for communications to support overall positive health outcomes.

Additionally, community navigators were an important component to success in several operational areas. This team of approximately 30 people filled in gaps that had not been previously identified and were made apparent due to the scale of the pandemic.¹¹⁹ The community navigators represented a diverse population that was dealing with a lack of transportation, job loss, food insecurity and loss of housing. Imbedded in their communities, navigators served as conduits to get resources to their communities, dispel misinformation and highlight the known fears and barriers to resources and healthcare.¹²⁰

They were critical to successful community outreach and sustained communication throughout the pandemic. Community navigators provided valuable immediate or weekly feedback to PHSKC on the issues that their communities were facing.¹²¹ They assisted community members in accessing public health information in their native language, helped individuals fill out required forms for testing, vaccination or other available resources, and provided assistance reaching the right testing or vaccination locations.¹²² Many PHSKC staff noted the that

¹¹⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹¹⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021); PHSKC COVID-19 Intra Action Quad Chart_SSTAR

¹¹⁸ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

¹¹⁹ COVID-19 PHSKC External Partner Townhalls (2022)

¹²⁰ COVID-19 PHSKC External Partner Townhalls (2022)

¹²¹ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

¹²² COVID-19 PHSKC External Partner Townhalls (2022)



community navigators were an important part of the PHSKC response and should continue to be funded.¹²³ Community organizations also spoke highly of the speed that PHSKC established the program and for its wide reach.¹²⁴

As a Key Focus

As a leader in equity-driven response, PHSKC established expectations that equity would be a key focus and built an internal structure to support those efforts.¹²⁵ Rather than leaving equity related issues to be addressed by individuals to identify and navigate, the HMAC established an Equity Officer to serve as part of the leadership team, formed an ERT responsible for tracking and raising equity related issues and concerns, and centered equity as a focus in every meeting where decisions were made.¹²⁶ The Emergency Response Bill of Rights put forth the principles of equity, anti-racism, and social justice to ground policy decisions, resource allocation, and response priorities during crisis response.¹²⁷ The ERT regularly conducted equity reviews of proposed policies and provided recommendations to leadership and operational teams. Teams across the response, such as the Community Well-Being Initiative, modeled equity and trauma-informed practices such as meeting groundings and land acknowledgements to create an inclusive and resilient culture.¹²⁸

¹²³ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

¹²⁴ COVID-19 PHSKC External Partner Townhalls (2022)

¹²⁵ Marx, C. (2021)

¹²⁶ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹²⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021); COVID-19 AAR Key Documents Summary Matrix

¹²⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

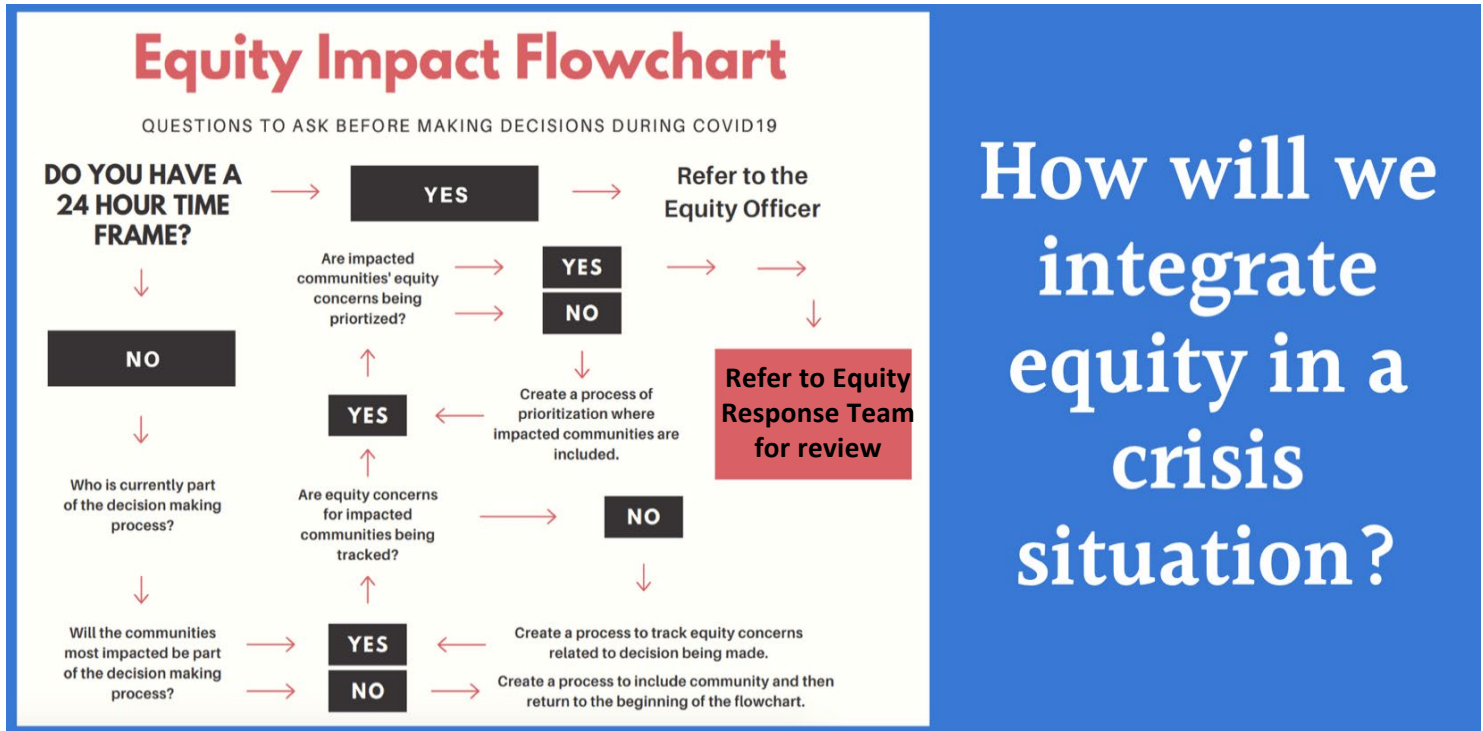


Image 4: Equity Impact Flowchart

Flexibility/Adaptability

An assessment of the PHSKC disaster behavioral health response during COVID-19 was conducted and a report was generated itemizing strengths and recommendations. It provided a particular focus on the inclusion and integration of behavioral health into response activities and supplemented the 2021 Disaster Behavior Health Annex. PHSKC conducted 16 interviews across departments, a literature review, and ongoing meetings to gather details relevant to disaster behavioral health. The assessment found that “COVID-19 had a widespread and often disproportionate impact on King County residents. These inequities were influenced, and often predisposed, by many factors including barriers to accessing healthcare and mental health services, inequitable distribution or foundations of education supports, food insecurities, an overburdened workforce, overworked and maxed out hospitals with limited capacity, shortages of personal protective equipment, inpatient psychiatric units that were overflowing with patients yet had a dearth of beds, and other structural elements.”¹²⁹

To address the needs of the community, behavioral health competencies were woven into aspects of the county’s response. Disaster behavioral health teams were integrated within congregate and non-congregate isolation and quarantine facilities. They provided trainings, coordinated volunteers, and collaborated with partner agencies to fill growing gaps in emotional wellness care in the community. They also tended to the behavioral health needs of clinical providers and responders. However, the assessment found there was a lack

¹²⁹ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)



of preparedness specific to disaster behavioral health and a need to build the infrastructure to better tend to the emotional wellbeing of impacted individuals and communities in future disasters.¹³⁰

Innovation/Success: Post Card Project

As of August 2021, volunteers from organizations like Valley Cities, Cities Rise, and ReOpp as well as PHSKC staff and PHRC volunteers wrote over 2,900 wellness messages to youth on postcards that included links to CWI resources. Seattle Children's Hospital, Learning Center North, King County Opportunity Youth Programs, Federal Way Black Collective, YMCA of Greater Seattle, and Kent School District distributed them. Volunteers writing on the cards reported "it gave them space to think positively" and felt it was a form of self-care. Youth were grateful for the postcards and visits to the wellbeing website increased.*

* PHSKC. August 11, 2021. Post-Card Project Report



Image 9: Youth Post Card Project Examples

Areas for improvement

Needed Relationship Building

Larger private organizations often benefited from public health decisions and could contribute to accomplishing shared goals. However, there was a noted cultural barrier to PHSKC working with these types of organizations. Additionally, there were concerns by PHSKC staff that external partnerships formed during the response, such as those made with CBOs, FBOs, community navigators, etc., may not be maintained beyond the pandemic.¹³¹ Some staff suggested a need to create a public health role focused on outreach and establishing external partnerships with private sector agencies.¹³²

This concern about maintaining relationships after the pandemic response ended was raised by other stakeholders as well. Many community partners expressed concern that progress that was made in building

¹³⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹³¹ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

¹³² COVID-19 PHSKC Key Informant Interviews. (2020-2021)



relationships could be lost once response efforts ended. They saw a strong need to sustain and build upon partnerships and to use them during other public health emergencies or disasters.¹³³

Equity Concerns

Addressing Access and Functional Needs

Tremendous efforts were made translating information in various languages to serve the diverse community, however, translation services were not sufficient for many residents with disabilities. The distribution of information through internet technology was one limitation and some CBOs felt that pictorial or video versions of information might reach a larger audience including those with functional needs.¹³⁴ Additionally, some CBOs noted that creating resources with a focus on "plain talk" would make it more accessible while simultaneously making it easier to translate.

PHSKC captured demographic data on their residents to guide decision-making on where to prioritize scarce resources and serve the public. People with disabilities did not appear to be represented as frequently on dashboards and this lack of representation may have contributed to the feeling that testing and vaccinating these residents was not as important.¹³⁵ Tracking the vaccination and testing rates of people with disabilities would help PHSKC understand this important part of the community more fully. One townhall representative noted that 25% of the King County population are people with disabilities and they span every demographic.¹³⁶ These respondents felt PHSKC did not have the required conversations to deal with this complex access problem and although there is a significant expense associated with accessibility, that should not be a reason for a lack of inclusion.¹³⁷

Community members expressed that transportation was another an area where accessibility could have been improved for both testing and vaccine distribution.¹³⁸ Initially, mass testing sites were only available for those with vehicles. Community organizations noted the PHSKC did not give enough attention to transportation needs and planning. This disproportionately affected people with disabilities and senior citizens who had a greater need for transportation. They could not be picked up and dropped off at vehicle only sites and could not wait in line if there were mobility issues.¹³⁹ As a result, community partners invited PHSKC to a coordination group focused on transportation equity.

PHSKC's efforts in promoting the organization's resources and participating in the meetings greatly improved collaboration and trust between the two groups. Attending the meetings allowed the transportation group to be heard and understood. PHSKC listened to this community input and modified their transportation practices with certain sites.¹⁴⁰ This community group advocated for improving the accessibility of vaccine and testing

¹³³ COVID-19 PHSKC External Partner Townhalls (2022)

¹³⁴ COVID-19 PHSKC External Partner Townhalls (2022)

¹³⁵ COVID-19 PHSKC External Partner Townhalls (2022)

¹³⁶ COVID-19 PHSKC External Partner Townhalls (2022)

¹³⁷ COVID-19 PHSKC External Partner Townhalls (2022)

¹³⁸ COVID-19 PHSKC External Partner Townhalls (2022)

¹³⁹ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁴⁰ COVID-19 PHSKC External Partner Townhalls (2022)



sites and filled the information gap by connecting transportation resources with those in need through a contact center and website. The group felt that because they were providing a critical resource funding would have helped. The group was often paying for transportation or had received ride credits from private partners. The community group has since sunset and the group noted it is now unclear who to contact about transportation resources.

Emergency Managers in King County expressed similar concerns about transportation planning for older populations, populations in South King County and Seattle, and school districts.¹⁴¹ They felt that these limited transportation populations were not fully accounted for within the equity planning. Similarly, the decisions about vaccine allocations did not account for those same transportation needs.

PHSKC Representation

Some team members expressed that the available resources and PHSKC itself did not meet the equity considerations for people of color and minorities. There was a noted lack of BIPOC providers in the Public Health Reserve Corps which raised concerns about the ability for those systems to serve communities disproportionately impacted.¹⁴² It was also expressed that county leadership should recognize the disproportionate experiences of BIPOC in the workplace and the challenges that emerged throughout the response.¹⁴³ While it was recognized PHSKC took initiative around pro-equity and anti-racist values, some indicated that the communication was insufficient and not all employees saw equity as “their job”.¹⁴⁴

Lack of Coordination/Collaboration

While many community partners noted their ability to reach staff was a strength, they also note there were challenges when staff transitioned out of their response positions.¹⁴⁵ This was made difficult because there was not an organizational chart that listed a position and phone number for partners to contact. The community had an established connection with a single person filling a role but, when they left, the organization found it difficult to connect with the new person filling the position. Some partners also noted there was a lack of clarity around the roles or responsibilities of PHSKC teams. For instance, when staff attended partner meetings, it was unclear what their response role was and when there were questions about public health guidance, there were times when staff were unsure who within their agency could provide the answer.¹⁴⁶ This same sentiment was reflected by King County Emergency Management staff, which said an organizational chart would have been valuable to outline the roles people were filling and to know who to contact.¹⁴⁷

¹⁴¹ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

¹⁴² COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

¹⁴³ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

¹⁴⁴ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

¹⁴⁵ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁴⁶ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁴⁷ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)



Emergency Managers in King County also noted that timeliness especially on guidance related to schools was a challenge.¹⁴⁸ They believed they did not have enough time to process the guidance into procedures with education partners. There was a disconnect between what the guidance was saying and how it would be operationalized in schools. Emergency Management partners also stated that many of their information requests related to how to operationalize the guidance went unfulfilled.

Needed Relationship Building: Sovereign Tribal Nations

During the townhalls, community partners noted there was not a direct connection between tribal governments and PHSKC.¹⁴⁹ The tribal governments, as sovereign entities, were not able to establish a government-to-government relationship with PHSKC until later in the response. A pre-existing tribal liaison within PHSKC, especially between Public Health and the Seattle Indian Health Board was needed. A specific example given was when tribal health services was providing support to homeless populations within their community early in the response but were having trouble getting their patients resources. Since there was no direct connection with PHSKC, the tribal government did not receive assistance or know what resources were available. Later in the response, there was a meeting between tribal health services and PHSKC which resulted in direct mobile teams to assist tribal communities.

Lack of Coordination/Collaboration

Many community partners noted that while PHSKC was great at sharing information and brought them to the table, they could improve their follow-through and follow-up with community partners.¹⁵⁰ The community organizations did not feel PHSKC had to implement all of their ideas, but they should explain why their ideas were not implemented or if the proposal was going to be addressed differently. This extended to submission for funding requests and support from PHSKC. In one example, a community organization noted that after submitting a grant proposal to PHSKC, they never heard back as to why it was not funded.¹⁵¹ Closing the loop, even when news was bad, was noted as an important step to building trust between organizations and communities.

Mixed Findings

Communication

Frequently changing guidance, messaging, and strategies produced significant hurdles. Government Affairs teams noted that national and state guidance would change constantly and at times without warning. This made it extremely challenging to understand the scope of changes, gather questions from staff and partners, and provide adequate answers to advance planning and operations.¹⁵² This extended to public information as well where national and state public messaging strategies changed frequently and with little to no notice.¹⁵³

¹⁴⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁴⁹ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁵⁰ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁵¹ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁵² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁵³ Marx, C. (2021)



This caused confusion amongst the public regarding conflicting messaging and policy teams had to scramble to synchronize with recent changes.¹⁵⁴

However, even with the frequently changing guidance, PHSKC was seen by partner agencies as the best source of truth that aligned with the science. They were available to answer questions quickly and were often the conduit for community partner groups to receive accurate information around COVID-19 intervention and prevention measures. For partner agencies with healthcare memberships, they disseminated information to (e.g., long term care, adult family homes, clinics), PHSKC messaging was often copied or pushed out to constituents.¹⁵⁵ A few healthcare partners specifically acknowledged the use of the data on PHSKC dashboards as a critical source of Information for their decision-making.¹⁵⁶

Equity Concerns

Community members from historically marginalized communities were reported by townhall participants to have not used I&Q services due to distrust of government and the lack of accounting for cultural differences.¹⁵⁷ Many community members perceived that I&Q was only for people experiencing homelessness or heard rumors that scared them from utilizing the resource.¹⁵⁸ Some members of the community also viewed these services as trauma inducing and as increasing stigmas about their own communities. In addition, because some cultures are organized around large multigenerational families, they would not use I&Q housing as it could cause cascading impacts to their families and isolate them from support systems.¹⁵⁹ Many community partners had to teach the communities they served how to safely isolate at home because they would refuse to leave. Community stakeholders also reported that community members had a similar reaction to the proposed or perceived use of the National Guard at mass testing sites.

Prior to the pandemic, PHSKC had been working to build relationships in the community and overcome negative perceptions around their agency. Community partners noted that once the pandemic happened, there was no longer time to slowly overcome the long-standing memories and negative perceptions.¹⁶⁰ Therefore PHSKC needed to make a concerted effort to earn the trust of the community and leverage trusted messengers to break down barriers right away. Partners noted that PHSKC staff worked hard to address power dynamics and approach community outreach in a humble way by recognizing the influence and expertise that partner agencies had to reach the community.¹⁶¹ Several partners and stakeholders expressed concern that relationships made during COVID-19 would diminish or not be continued. They feared all that was gained by identifying relationships and partnerships would be lost. The result would be needing to start over at the beginning during the next emergency and a missed opportunity to improve services in steady state.

¹⁵⁴ Marx, C. (2021)

¹⁵⁵ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁵⁶ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁵⁷ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁵⁸ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁵⁹ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁶⁰ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁶¹ COVID-19 PHSKC External Partner Townhalls (2022)



PUBLIC INFORMATION

Throughout the response, PHSKC's robust communications activities provided information to a variety of audiences including the general public, media, elected officials, and staff. This included networked approaches with teams leading equity and community partnerships areas to guide the development of culturally responsive messages related to public health guidance and other COVID-19 topics. They produced messages in English and for translation in several other languages. In 2020 alone, PHSKC's Language Access team completed 375 jobs, totaling 4,200 documents with 88 translators in 33 languages. These and other critical public health messages were shared through a variety of communications channels and platforms, such as social media, press conferences, community and business partner networks, and large public information campaigns. The PHSKC Public Information campaign engaged all actionable functions within the CDC PHEP capability of 4 - *Emergency Public Information and Warning* and contributed to 1 - *Community Preparedness* and 2 - *Community Recovery*. PHSKC's communications activities worked closely with other areas of its COVID-19 response, including responding to inquiries received through social media, community navigators, PICC, email and other communications platforms.

Strengths

Teamwork

Like the PICC, the Public Information Officer (PIO) team noted a focus on teamwork and creation of a collaborative safe space as key to their success. Managers and staff came together quickly to solve problems and team members treated one another with respect and kindness. Staff leveraged existing relationships from prior work as a foundation for trust and collaboration.¹⁶² Staff were onboarded effectively and, over time, the public information team was able to develop a flexible roster of staff with a variety of skills and interests to meet needs as they arose.¹⁶³

Relationship Building

Achieving the mission of public information, especially in a way that reaches all communities, required extensive resources and partnerships. The PIO team leaned heavily into partnerships to achieve success within their operational areas of content, media, community media, social media, and external communications. The City of Seattle noted in their AAR that there was strong collaboration between PHSKC and City departments and multiple messaging strategies to distribute information and cited the collaboration as a success.¹⁶⁴

The COVID-19 Language Access Team initially ran into challenges with the traditional process of translating public health information into the required forty languages because of the frequency of changes, turnaround time from translation agencies, and cost.¹⁶⁵ In response, the Language Access Team and Washington State Coalition for Language Access (WASCLA) developed a listserv of just-in-time translators. These were locally

¹⁶² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁶³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁶⁴ Seattle COVID-19 AAR

¹⁶⁵ COVID-19 PHSKC Key Informant Interviews. (2020-2021), COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021), Marx, C. (2021)



certified and experienced translators. The listserv allowed same day, 24-hour, and 48-hour turnaround times whereas the traditional method was taking the team up to 12 days. In addition, the new group of translators was more cost-effective and more culturally responsive as new information became available. PHSKC staff who filled the roles of PIO noted that there were substantial gains made in language accessibility that need to be sustained to address pre-COVID-19 equity gaps.¹⁶⁶ During the townhalls and Emergency Manager feedback sessions, community partners commended the language access program for their ability to rapidly translate documents into so many languages and for sharing accessible materials with community organizations involved in response.¹⁶⁷ There was consistent agreement across stakeholder groups that the language access program was a best practice.

Equity

The strong focus on equity allowed PHSKC to break down barriers of public perceptions around public health as a government agency. Maintaining a consistent focus on inclusion was noted by community partners to be a major strength in PHSKC's approach. With this focus, PHSKC made sure that information reached the people who needed it in the places that made sense. Trusted messengers were engaged to create and share culturally appropriate and accurately translated messaging. This included outreach to urban, rural, native, indigenous populations using trusted community members, spiritual leaders, and community organizations.¹⁶⁸ Establishment of dedicated community/multilingual media partners for external communications was also essential to promoting equity. Internally, identifying SMEs who were go-tos on topics like disease transmission streamlined and assured consistency in information.

There was a focused effort to ensure that plain language and common terminology was used to make translation easier and the messages more understandable. To ensure that the information shared with the community was applicable, PHSKC liaisons worked with community partners to determine the information that was needed and empowered trusted messengers, such as community navigators, with the information so that they could share it with their communities. There was also grant funding made available to CBOs translating and creating public health messaging to support work that was already being done by community partners.¹⁶⁹

Community partners also noted that PHSKC shared public information in a way that was non-judgmental and personal. Representatives from PHSKC attending public meetings listened first and provided information and explanations after understanding where questions and concerns came from. This created an environment where stigma was reduced and mistrust could be addressed openly.¹⁷⁰

While equity was an area of success for Public Information, accessible communications remains an area for growth. Dedication of more resources to health literacy needs, website organization and access, and creation of materials in visual and other alternate formats would have further improved information accessibility and

¹⁶⁶ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

¹⁶⁷ COVID-19 PHSKC External Partner Townhalls (2022), COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁶⁸ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁶⁹ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁷⁰ COVID-19 PHSKC External Partner Townhalls (2022)



understanding.

Areas for Improvement

Coordination/Collaboration

Changing guidance or rule changes from both federal and state partners were confusing and made it difficult to maintain up to date messaging.¹⁷¹ Producing consistent and clear messaging for partners and the public required continual effort and resources. Operational updates from response teams, relied on by the PIO team to update partners and the public on response activities, were occasionally slow to arrive or inconsistent. When this occurred, the PIO team sometimes had an incomplete or inaccurate picture of current response activities.¹⁷² The PICC sometimes received misdirected calls from the public or were referred calls by partners which could have been answered directly by DOH and other information lines.¹⁷³

In the City of Seattle's AAR, it was noted that communications incident management structures worked well for coordination, but a formalized process should be in place prior to the next disaster and practiced in exercises. The report recommended that the Joint Information System (JIS) which evolved during the pandemic be formalized through liaisons between major governmental information centers.¹⁷⁴

Systems or Infrastructure

The pace and scope of public Information needs challenged the team's ability to edit, refine and simplify materials. The volume, length and complexity of PIO resources created secondary challenges for both staff and the public. Designating a strong deputy content lead is valuable to help the team better prioritize and edit information products. Additionally, backlogs and delays in department administrative services such as human resources, procurement and contracting hindered the PIO's ability to keep pace with the rapidly evolving incident.

Lack of Flexibility

In the Seattle COVID-19 AAR, it was noted that the role of PHSKC should be informed by broader public health considerations.¹⁷⁵ The report indicated that public health's reluctance to provide guidance without scientific certainty created challenges implementing strategies in a timely manner. It stated, "this reticence, and the compounding fact that many public health directives were issued and later retracted or refined, certainly made it difficult for leaders who had committed to following the lead set by public health agencies." A similar sentiment was raised by a community stakeholder. Although they appreciated PHSKC's commitment to

¹⁷¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁷² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁷³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁷⁴ Seattle COVID-19 AAR

¹⁷⁵ Seattle COVID-19 AAR



following the science, there were times that things were delayed because the science was unclear and PHSKC was slow in releasing information or guidance.¹⁷⁶

Mixed Findings

Information Technology Concerns

Similar to other groups, the PIO team saw both strengths and opportunities in the use of IT to support PIO activity. Innovations such as the creation of a media inbox, and use of Trello and slack to manage information will become an ongoing part of Communications team operations. At the same time, PIO staff experienced difficulty using established county resources such as SharePoint, OneNote, and Microsoft Teams.¹⁷⁷ System dependability, bugs and data loss, and limited training time while in an active response were common challenges identified. Externally, Public information teams experienced challenges accessing information from DOH's databases, hindering work during the response.¹⁷⁸

HEALTHCARE SYSTEM SUPPORT

PHSKC's established and leveraged various existing partnerships to enhance coordination with healthcare system partners. Building on the rapid provision of clinical and technical assistance to LTCFs early in the response, PHSKC maintained regular presence at meetings with healthcare partners and direct communication with partners to share public health guidance and answer questions. PHSKC's Emergency Medical Services division also convened and facilitated a Regional Coordination Team that brought together representatives of healthcare system sectors (hospitals, pre-hospital, DOH) for updates, discussion, problem solving, and to coordinate response strategies. PHSKC collaborated closely with healthcare and other partners to monitor healthcare system capacity and implement or inform medical surge strategies when needed. This coordination and collaboration allowed for appropriate implementation of CDC PHEP capabilities *10 - Medical Surge*, and aspects *13 - Public Health Surveillance and Epidemiological Investigation*.

Strengths

Coordination/Collaboration

The EMS Division convened a Regional Coordination Team as an effective framework to coordinate between hospitals, medical program directors, and pre-hospital partners. Participants felt the meeting size, group makeup, and format allowed them to share ideas and problem solve openly.¹⁷⁹ The participants' expertise and flexibility allowed the group to pivot as needed to meet the changing needs of partners throughout the

¹⁷⁶ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁷⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁷⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁷⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



pandemic. With newly developed data dashboards and effective use of meeting minutes, the group was able to keep partners engaged and informed despite ongoing response demands and conflicts.¹⁸⁰

Several healthcare partners felt that PHSKC's leadership as an agency throughout the pandemic was instrumental in their success at vaccinating large numbers and mitigating potentially higher death rates. They were impressed during the initial stages of the pandemic at the public health response to the first outbreak at a LTCF. The accessibility, leadership, resources, and expertise that the department brought forward made an incredible difference during incredibly challenging situations.¹⁸¹ The group further commented that they felt very fortunate to have the leaders of PHSKC, with their experience, leading the county and the state in COVID-19 response measures.¹⁸² Partners noted that PHSKC seemed to continue to refine their services and accessibility over time and their expertise and efforts to write the guidance made them a leader among peers.¹⁸³

"The [PHSKC] team was very responsive, communicative and did a nice job steering our healthcare community in being collaborative in our response." – Townhall Participant

PHSKC was also described by healthcare partners as being proactive and vested in ensuring healthcare providers received the supplies and support, they needed. It made a concerted effort before other Washington jurisdictions to reach at-home care providers (e.g., adult family homes, long term care homes) through outreach efforts with local fire departments. Teams from PHSKC also leaned in to anticipate future needs such as the impacts of a concurrent flu season and continued COVID-19 surge and looked beyond a traditional public health perspective to advocate for health needs in their community. One healthcare partner provided the example of PHSKC supporting interventions to address the long-term impacts of the pandemic on children's mental health and developmental needs.¹⁸⁴

Relationship Building

Townhall participants representing healthcare membership organizations, such as Healthier Here, Adult Family Home Council, Northwest Healthcare Response Network, also noted that liaisons from PHSKC were beneficial. PHSKC liaisons were able to understand the needs of healthcare member organizations and provided a consistent contact to PHSKC more fully. The liaisons attended membership meetings, as well as community facing meetings, to share public health guidance and answer questions. While they served as subject matter experts, they spoke to meeting attendees as their neighbors.¹⁸⁵ They created a personable environment that encouraged members to feel comfortable asking questions and following up with the liaisons to build direct relationships and seek guidance when needed. Some partners noted that although their membership spread

¹⁸⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁸¹ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁸² COVID-19 PHSKC External Partner Townhalls (2022)

¹⁸³ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁸⁴ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁸⁵ COVID-19 PHSKC External Partner Townhalls (2022)



across multiple jurisdictions, PHSKC was one of the only public health departments to consistently attend meetings and provide support to the organizations and their members.¹⁸⁶

Standardization of Processes

King County had one of the first major outbreaks in a LTCF reported in the United States and responded in a proactive and timely manner. The PHSKC investigative team combined with experts from the CDC identified which policies, procedures and lack of equipment were most responsible for the outbreak within the LTCF.¹⁸⁷ These findings were widely published by the Centers for Disease Control (CDC) in mid-March, potentially improving preventative care at numerous long term care facilities throughout the county, state, and country and saving lives.

While findings were limited based on knowledge of COVID-19 at the time, five different factors that were problematic and six proposed actions to slow the spread of the outbreak within a long-term care facility setting were proposed. The areas identified as problematic were a combination of unintentional spread by staff members, lack of PPE and training to increase early identification of COVID-19 symptoms. King County implemented the identified findings of screening staff and visitors, introducing policies which actively monitored symptoms in residents, restricted group activities, trained staff, and ensured PPE availability by coordinating with supply chains at the county and state levels.¹⁸⁸

PHSKC identified every facility with COVID-19 cases and prioritized those facilities for emergency testing, assessment, training, and support. The rapid response of PHSKC to identify specific populations that were highly vulnerable to the disease and implementing an effective strategy to mitigate that threat demonstrated a timely and comprehensive response in initiating the appropriate public health interventions and medical countermeasures.

Mixed Findings

Lack of Coordination/Collaboration

Public Health, healthcare, and governmental partners collaborated to monitor the capacity of the healthcare system and implement medical surge strategies when needed. Public Health provided subject matter expertise and worked to issue local health officer directives when appropriate. Examples of actions taken by healthcare in coordination with PHSKC were collecting and analyzing data on the shared WAHealth platform, following a consistent visitor policy, interpreting state and national guidance and advocating for policy changes, expanding and contracting capacity, accepting patients from other areas of the state, modifying discharge procedures, developing consistent procedures for vaccine roll out to priority populations, and sharing information through regular calls and other forums. The most severe healthcare system impacts

¹⁸⁶ COVID-19 PHSKC External Partner Townhalls (2022)

¹⁸⁷ McMichael TM, Clark S, Pogojans S, et al. COVID-19 in a Long-Term Care Facility — King County, Washington, February 27–March 9, 2020. MMWR Morb Mortal Wkly Rep 2020;69:339-342.

¹⁸⁸ McMichael TM, Clark S, Pogojans S, et al. COVID-19 in a Long-Term Care Facility — King County, Washington, February 27–March 9, 2020. MMWR Morb Mortal Wkly Rep 2020;69:339-342.



experienced in other areas of the country were avoided in King County by strong collaboration and swift decisive action.

The EMS Division team noted that public health and emergency preparedness staff often did not understand EMS operations within King County and vice versa being true as well.¹⁸⁹ This made it difficult to rapidly develop strategies without first spending time establishing a common foundation of knowledge. Adequate representation of hospital interests was also a challenge due to Harborview Medical Center being the sole representative of hospitals on the group. Although this hospital's leadership was expected since it was the Disaster Medical Coordination Center, representation from more hospitals would have allowed them to have a stronger voice within the coordination team to ensure their interests were represented.¹⁹⁰ Finally, the EMS Regional infectious Disease Plan was noted as being out of date by not reflecting "current hazards and the concept of operations" used in the pandemic.¹⁹¹ While each challenge is unique in its own right, all share a common cause of a long delay between activation of the Regional Coordination Team. As noted by the team, "relationships needed to be refreshed and procedures socialized again to maximize the team's productivity."

Multiple starts and stops over the years for regional medical surge planning, competing stakeholder visions, evolving best practices at the national level, healthcare system consolidation and turnover meant that King County started the Covid-19 pandemic response without a county-specific detailed regional healthcare surge plan. A healthcare surge framework for Western Washington existed but did not provide the necessary specificity or speak to King County's unique resources and needs. One notable exception is crisis standards of care where King County had done extensive planning and long been a lead for the nation.

Detailed, regional pre-planning on alternate care systems incorporating needs such as federal and state resources like Federal Medical Stations, Disaster Medical Assistance Teams, resource prioritization, expansion of the workforce would have reduced some of the complexity and time necessary for working out these issues during the response.

ISOLATION AND QUARANTINE (I&Q)

PHSKC clinical and frontline staff, and in coordination with other King County departments, led critical isolation and quarantine (I&Q) services for King County residents who either cannot I&Q at home or who do not have a home. Early in the pandemic, these services included arranging quarantine for travelers at hotels. They later grew to conducting medical and behavioral health screening of referred guests and provision of services on site, operating multiple I&Q facilities that served both adults and families, and coordinating transportation to and from I&Q sites. In January 2021, King County I&Q served its 2,000th guest and in January 2022, occupancy at PHSKC's primary I&Q facility averaged 90 guests per night and was still rising. PHSKC's care coordination services supported people isolating and quarantining by providing and arranging immediate supports (e.g., grocery deliver, PPE kits, bill assistance) and linking them to longer term supports (e.g., food and utility assistance,

¹⁸⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁹⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁹¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



housing, healthcare, unemployment supports). PHSKC's exemplary efforts in isolation and quarantine directly reflect appropriate implementation of CDC PHEP capability 11 - *Nonpharmaceutical Interventions* and the application of capability 7 - *Mass Care*.

Strengths

Teamwork

By utilizing diverse subject matter expertise and a culture of teamwork, I&Q teams were able to rapidly build and implement a capability beyond the scope envisioned by previous planning and response efforts. Having departmental leadership support to pivot early and often, staff felt empowered to act and meet needs in innovative ways.¹⁹² Bringing together team members from public health, emergency management, medical, and behavioral health backgrounds, these teams established a culture of unity, collaboration, and flexibility that allowed them to navigate challenges throughout the response.¹⁹³ Effectively coordinated communication channels, daily huddles and progress tracking, a centralized scheduling system, and an expanded leadership structure including charge nurses to meet supervision needs were noted as key functional elements of the teams' success.¹⁹⁴

Quality Assurance and Control

I&Q sites operated by PHSKC and Department of Community and Human Service (DCHS) teams were seen as a major success and community members who stayed in them gave mostly positive feedback.¹⁹⁵ Aside from providing typical services to support guest comfort during isolation and quarantine, a highly successful strategy was the integration of care across behavioral health, medical care, and harm reduction approaches. Collaboration between behavioral health and public health staff improved overall care, increased patient advocacy, and facilitated better clinical decision-making.¹⁹⁶ In addition to behavioral health staff and registered nurses working as a team during assessments, staff were able to maintain a continuity of care by following up with patients in emergency rooms and care coordination systems.¹⁹⁷ These features combined with a harm reduction approach made I&Q facilities more accessible and allowed the program to serve target populations more effectively.¹⁹⁸

Areas for Improvement

Team or Staffing Capacity

While I&Q operations were successful overall, involved teams noted consistent challenges around staffing, logistics, IT, and a need for 24/7 support for their operations. Although nearly every response team struggled with staffing challenges, I&Q teams faced unique hurdles. One interview noted that PHSKC was aware from

¹⁹² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁹³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁹⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁹⁵ Marx, C. (2021)

¹⁹⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁹⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

¹⁹⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



previous disease outbreaks that they had insufficient resources for I&Q operations.¹⁹⁹ Identified information gaps included knowing ahead of time where to shelter individuals with no access to housing and identifying behavioral health resources to ensure quarantine was preserved.²⁰⁰

As the complexity of the pandemic increased, it became incredibly difficult for these teams to forecast staffing requirements due to uncertainty surrounding patient surge and acuity. It was difficult to ensure facilities were staffed with individuals possessing strong clinical skills required to meet clients' needs and there was a need to develop a sustainable staffing model given the qualifications required for staff.²⁰¹ It is important to note that while this was initially a challenge, lessons learned over time were used for ongoing I&Q process improvements.²⁰²

Lack of Systems or Infrastructure

Adequate logistical and IT support produced difficulty for these teams as well. Onsite there was insufficient storage space and it was sometimes difficult to access materials from storage.²⁰³ Existing I&Q protocols also did not include establishing a communication infrastructure onsite which delayed these systems. For example, it took roughly a month for a mailstop to be established for these teams.²⁰⁴ It was also noted that facilities often lacked proper equipment such as wheelchairs that could fit into rooms, sufficient PPE, and food to meet dietary requirements of guests.²⁰⁵ Furthermore, challenges regarding specialized technology for client care and broad departmental IT systems were common across the teams. Participants noted these systems were at times cumbersome, not user friendly, and individuals experienced difficulty and delays in getting access to systems.²⁰⁶ Given I&Q operations occurred 24/7, it was a unified finding that these teams required 24/7 support to be able to operate.²⁰⁷ Changes in process, protocols, and site locations over time amplified these ongoing challenges significantly.²⁰⁸

Lack of Coordination/Collaboration

Screening and clinical services teams expressed significant challenges around partner coordination and referrals for I&Q sites. Specifically, teams found it difficult to communicate with hospitals and other external partners due to HIPPA limitations and a lack of clarity around boundaries of care that PHSKC facilities could provide.²⁰⁹ This led to hospitals often sending individuals back to I&Q that were too ill or required higher levels of care. Referrals were also a noted challenge as sites had no way to contact individuals coming from jails in advance, referrals often came in late at night due to 24/7 operations, and some people making the referrals

¹⁹⁹ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

²⁰⁰ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

²⁰¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁰² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁰³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁰⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁰⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁰⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁰⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁰⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁰⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



were not with the individuals they were referring.²¹⁰ These challenges dramatically complicated intake and coordination processes for I&Q teams.

I&Q teams also noted there were no plans for guests with care needs that were beyond the scope of PHSKC facilities but also below acuity thresholds for inpatient care.²¹¹ This left some groups of patients unserved by existing systems. Harm reduction approaches were also challenging to implement due to staff's limited experience with harm reduction and differing personal opinions and approached about the topic.²¹²

Mixed Finding

Standardization of Processes

PHSKC's Care Coordination Program provided innovative assistance to individuals and families allowing them to follow I&Q guidelines by providing resources and service coordination. This program encountered both successes and challenges in its development and implementation. One strength was the deliberate focus on addressing needs of impacted populations opposed to undertaking more formal and slow planning processes.²¹³ With an equity focus, the Care Coordination Program developed diverse teams to meet community needs and responded to feedback about a lack of race/ethnicity data by improving demographic data collection.²¹⁴ Effective team practices provided a foundation for operations through strategies such as an open chat to resolve questions in real time, staff training on mental health first aid and motivational interviewing, and a buddy system to balance workload and staff coverage. County-funded programs provided more certainty that applicants would receive aid and programs such as Stipend for Workers in Isolation and Quarantine (SWIQ) and Household Assistance Request (HAR) helped fill gaps in existing resources.

Although largely successful, this program ran into multiple challenges during stand-up and operation. While the rapid mobilization of the program was successful, building it from the ground-up required significant time and coordination.²¹⁵ Program requirements related to paperwork, application and verification timelines, and household composition requirements all produced barriers in meeting needs. Issues regarding payment delays and errors also hindered assistance while insufficient assistance amounts and inconsistent funding meant needs were left unmet.²¹⁶ Finally, inconsistent program requirements from the state, differing processes between DOH and PHSKC contact tracing programs, and delays in PPE/food kits from DOH presented challenges for effective program implementation.²¹⁷

²¹⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²¹¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²¹² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²¹³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²¹⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²¹⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²¹⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²¹⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



RESOURCE MANAGEMENT

PHSKC conducted a number of logistical and resource management activities in support of the COVID-19 pandemic response. PHSKC teams provided or coordinated internal logistical support needs for Public Health's COVID-19 operational response activities. This included the capable execution of CDC PHEP capabilities such as *3 - Emergency Operations Coordination* and *9 - Medical Materiel Management and Distribution* in areas such as resource ordering, facilities, transportation, equipment maintenance, security, food service, fleet services, and supply distribution. PHSKC logistical teams also supported resources for community partners involved in the Public Health response, such as healthcare facilities, childcare agencies, local governments. A key logistical and resource management focus area for PHSKC, in coordination with and with support from several other King County departments (e.g., OEM, FMD, FBOD), was procuring, warehousing, allocating, and distributing personal protective equipment (PPE). As of February 2022, PHSKC distributed over 1.4 million N95s, 3.7 million surgical masks, 20 million gloves, and 1.6 million gowns to long term care facilities, health clinics, EMS, congregate settings, community-based organizations, and other critical care agencies.

Strengths

Standardization of Processes

The COVID-19 pandemic created incredible demands on existing and emergency response resource management systems across the world. Rising to meet this significant challenge, HMAC Logistics and Supply Management teams were able to establish effective internal and external communication channels, improve situational awareness through a use of a single point of contact for each supply team, and develop close partnerships with HMAC Operations and external partners.²¹⁸ By developing standardized ordering processes, forms, and job actions sheets, logistics was further able to provide structure and clarity to an otherwise complex and opaque function.²¹⁹ This structure was supported by the use of shared inboxes to centralize communication and WebEOC to conduct resource tracking. A unified core mission and a culture of adaptability allowed the team to “bend without breaking” despite demanding and uncertain operational conditions.²²⁰

In response to scarce PPE resources, logistics and supply management teams developed a PPE algorithm to manage requests, improve overall efficiency, and create a data-driven system for allocating resources.²²¹ Although the algorithm’s priorities and role were not clear for internal and external partners initially, this system allowed logistics teams to automate many portions of the allocation process and equitably prioritize limited PPE resources.²²²

²¹⁸ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²¹⁹ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²²⁰ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²²¹ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²²² COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)



Teamwork

The Logistics Section noted in their hotwash that their teamwork was a strength.²²³ They cited that the core mission brought the team together to navigate the demanding and uncertain situation. The team also demonstrated high levels of adaptability and flexibility as processes changed. The team felt there was strong internal support and support from other King County departments. The team also cited a specific relationship with FMD through a direct liaison as a best practice. The support allowed them to communicate across groups early on and work with appropriate sections as needed.

Areas for Improvement

Unclear Processes

Despite generally strong coordination with other teams, logistics staff indicated difficulty maintaining awareness of the various response teams' responsibilities and experienced a lack of role clarity between other groups and organizations.²²⁴ Warehousing functions also had several noted issues including non-centralized resources leading to multiple systems across warehouses and consistent uncertainty regarding the longevity of warehouse operations.²²⁵ Without an integrated, efficient inventory management system across logistics and supply management activities, these teams routinely had difficulty maintaining situational awareness of resources and effectively coordinating supply requests.

There was also confusion and administrative burdens created by the purchasing processes for Logistics and Supply Management teams. Understanding who was eligible to order what, who could approve purchases, who was responsible for tracking supply deliveries, a lack of proper paperwork for requests, and limited available staff with purchasing authority were routine challenges for these teams.²²⁶ Additionally, as contracting became a major body of work, PHSKC was unable to scale contracting operations to match response teams' needs.²²⁷ It is important to note that, despite these process challenges, staff were able to establish strong collaboration between PHSKC staff and external institutions to expedite contract development as the response progressed.²²⁸

Systems or Infrastructure

Among teams utilizing PPE, such as isolation and quarantine and testing teams, there were significant difficulties in securing sufficient PPE to conduct safe operations during the response in the early response phases. Old and expired equipment, supply chain disruptions, limited supply relative to demand, and inadequate preparedness stockpiles were noted as contributing factors.²²⁹ Determining which staff required the limited resource of fit testing was also a challenge, particularly for nursing and professional service

²²³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²²⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²²⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²²⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²²⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²²⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²²⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



teams.²³⁰ These challenges combined with a high volume of resource requests presented significant logistical hurdles and impacted operations.

Flexibility/Adaptability

Some health providers that were eligible for supplies were initially unable to access them. PHSKC offered hygiene and PPE, but providers were required to go to the warehouse to pick them up. It was not possible for some providers due to the logistics of leaving the people they care for unattended and concerns about potential exposure. Once PHSKC was made aware of these limitations, distribution was adapted and became more accessible. Teams distributing resources were credited with learning from challenges early on and making changes.²³¹

PUBLIC INFORMATION CONTACT CENTER (PICC)

PHSKC launched a dedicated Public Information Contact Center (PICC) on March 3, 2020. During much of the response, it was staffed at least eleven hours per day to assist callers seeking COVID-related medical information. In addition to triaging calls from the community and providing education and guidance regarding COVID-19, the PICC supported other response operations and provided community with linkages to services, such as testing, vaccinations, and isolation and quarantine. The PICC was an additional demonstration of the CDC PHEP capability 4 - *Emergency Public Information and Warning* beyond what was already accomplished with their efforts in the Public Information focus area presented earlier in this report. The PICC served callers in many languages and with disability accommodation needs. In December 2020 alone, the PICC received over 30,000 calls. In early 2021, the PICC was averaging 700-1,000 calls per day, with calls per day trending upward until the PICC reached a new single-day call record on January 3, 2022 with 1,600 calls answered.

Strengths

Teamwork

The PICC noted a focus on teamwork and a collaborative environment as key to its success. Managers and staff came together quickly to solve problems and team members treated one another with respect and kindness. Teams recognized response as a continual learning process.²³² Although understaffed early in the response, the PICC received robust staffing support through engaging registered and student nurses, the National Peace Corps, and the Public Health Reserve Corps.²³³ PICC operators were onboarded using developed trainings, desk aids, and workflows created by PICC administrative support. To ensure effective internal coordination, the PICC hosted a weekly leads meeting which featured guest speakers presenting on

²³⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²³¹ COVID-19 PHSKC External Partner Townhalls (2022)

²³² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²³³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021); Marx, C. (2021)



issues impacting the teams' work,²³⁴ as well as weekly operations meetings with HMAC staff. Staff reported working in the PICC a meaningful experience and would work in the PICC again.

Quality Assurance and Control

It proved critical to have a clinical provider on staff each shift at the PICC to manage calls related to medical concerns, assess eligibility for I&Q services, and refer callers for additional medical services. Different ratios of clinical and non-clinical call takers were experimented with during the response and having the majority of call takers non-clinical seemed to best meet caller needs and manage costs. Future conversations are needed about the balance of clinical and non-clinical call takers and will depend on decisions about the future scope and direction of the PICC.

Relationship Building

Achieving the mission of public information in a way that reached all communities required extensive resources and partnerships. The PICC used partnerships to achieve success within its operational areas. By collaborating with Seattle-Customer Service Bureau (CSB), the PICC was able to redirect nonmedical calls to their center reducing the call volume for the team and allowing them to focus on medical calls.²³⁵ Within the response, the PICC coordinated closely with both HMAC operations and King County Information Technology (KCIT) to ensure they maintained situational awareness of response activities and received the technical and other support required to conduct their work.²³⁶ Successful collaboration and redirection of calls between the PICC, King County business line, and collaboration with the City of Seattle CSB, helped lower caller wait times and enhance the detail and timeliness of information provided to callers. These relationships and systems were built over time. A preexisting roster of community partners like the City of Seattle CSB, Crisis Clinic, or King County customer care line that can immediately assist with contact center operations would have helped the PICC expand more rapidly to accommodate increasing call volume.

Equity

Strong support exists for maintaining the PICC as an ongoing community resource. Trust in Public Health and trust for nurses as a profession uniquely positions the department to provide support, education, guidance, and linkage to services. Sustainment of the PICC could uplift all in our community especially groups that experience health inequities and access issues.

"They showed up and listened first asking 'What kinds of questions are you getting from community members you're serving?' and then provided information." - Townhall Participant

²³⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²³⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²³⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Areas for improvement

Lack of Communication

The PICC noted that, at times, “...the scope of work and overall purpose was not clearly defined, and stakeholders had different visions about the purpose of the PICC...”²³⁷ This made it difficult for PICC management to navigate roles, priorities, and strategies amongst the uncertainty.²³⁸ Consequentially, significant work was required to produce consistent messages with clear information for partners and the public. Unexpected and changing guidance also produced significant challenges. Guidance and rules from federal and state partners were confusing and sometimes contradictory. The PICC and public Information teams did not always receive Information at the same time.²³⁹

Partner coordination around referrals also presented a challenge. The PICC coordinated with an extensive list of outside partners such as labs, businesses, and shelters to resolve caller concerns. There was some overlap between various Information lines available to the public.

Communications

Receiving what needed to be nearly real time updates from Communications will always be a challenge for a PICC. The PICC often learned of new updates from the public before they were shared by Communications. In the vast majority of situations, the PIO team skillfully provided updated content and current, approved advice. PICC managers and Public Health programs sometimes had competing visions for the PICC and PICC management felt their recommendations did not always receive sufficient weight or their voice was not always heard. PICC management sometimes lacked a clear understanding of their priorities. Response operations overall lacked clarity in defining which public calls should be answered by the PICC and which should be referred to other PH programs.

Information Technology Concerns

Public Information Contact Center staff experienced challenges throughout the pandemic navigating and coordinating with technology resources. Both the PICC and PIO groups noted difficulty using established county resources such as SharePoint, OneNote, and Microsoft Teams.²⁴⁰ A lack of dependability, issues with bugs and data loss, and limited time to learn systems while in an active response were common challenges identified. Some technology did not meet the PICC's operational needs such as Skype for Business lacking quality control tools and InContact being unable to meet the performance requirements of call agents.²⁴¹

²³⁷ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²³⁸ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²³⁹ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²⁴⁰ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²⁴¹ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)



System access issues, KCIT response times, and information management further impacted operations, even with a part-time KCIT liaison assigned. Development of a chatbot could have decreased calls to live operators.

Systems or Infrastructure

Even with PHSKC's prior experience operating contact centers for H1N1 Influenza and Zika to draw on, systems and infrastructure were not without its challenges. Lack of integration of PICC staff into forums where Incident Information and resources needs were discussed, the short time commitment of PICC staff like nursing students, and the brutal work required to staff 7-day, 15-hour operations created a constant need for training and onboarding, gaps in coverage, varying levels of proficiency among call takers, and burnout among staff. Limited access but high expectation to interact with information in a DOH database for vaccination records was also difficult. High quality system and process documentation supported staff onboarding and smooth operations but was time intensive to produce and maintain.

COMMUNITY-BASED INITIATIVES

PHSKC launched a number of community-based initiatives designed to provide technical assistance and resources to the community as needed public health guidance and policies evolved, such as vaccine verification requirements. In its first month (July 3 - Aug 3, 2020), PHSKC's Safe Starts for Taverns and Restaurants (SSTAR) provided community education and completed 423 inspections of food establishments to support compliance with Safe Start WA reopening requirements. PHSKC's Ventilation and Indoor Air Quality program worked with businesses, schools, childcares, faith-based and community-based organizations to improve indoor air quality in facilities open to the public to reduce transmission of COVID-19. PHSKC's Food Security Assistance Program worked with community partners to provide people deemed food insecure with food vouchers and supports to purchase local, culturally appropriate food. These initiatives also provided tangible resources to businesses and nonprofits, including HEPA filters/air cleaner units, grocery vouchers, and economic assistance. This important work with partners fulfilled several CDC PHEP capabilities such as *1 - Community Preparedness*, *2 - Community Recovery*, *7 - Mass Care*, and *8 - Medical Countermeasure Dispensing and Administration*. Partnerships with funders to support community outreach and education, including redirecting existing resources to meet community needs resulting from COVID, were incredibly valuable. Together these programs outreached to diverse communities and built relationships to support community members and establishments as the county navigated COVID-19 public health policies and guidance.

Strengths

Relationship Building

COVID-19 brought significant challenges and additional requirements for businesses to operate safely. The Vax Verify, EHS Safe Start, EHS Ventilation & Indoor Air Quality Program, and Government Affairs teams engaged the business sector through strategic partnerships that made their efforts successful. At a high level, HMA Policy & Government Affairs teams established coordination with stakeholders through a regular cadence of



meetings and a model designed to facilitate collaboration between businesses and operational areas.²⁴² These partnerships were then operationalized by both the EHS and Vax Verify teams. Both programs represent a rapid development of new services that required extensive cross-divisional collaboration to be successful. By collaborating closely with the business and non-profit communities, these services were able to successfully build trust and support highly impacted sectors.²⁴³

EHS teams noted that collaborating with organizations to understand their challenges helped ease tension and improve cooperation, proper signage increased legitimacy, and many businesses appreciated the information being provided.²⁴⁴ Instead of only issuing guidance and requirements, these programs provided tangible support to organizations through technical assistance, supplies, and cost reimbursement support.²⁴⁵ Data from other portions of the response, such as syndromic surveillance data and weekly situational reports, helped inform effective decision-making around program efforts.²⁴⁶ Additionally, while being able to leverage public health authorities to undertake regulatory efforts through emergency rule making was helpful, these teams found great success with cooperative compliance via education and technical assistance as well.²⁴⁷ Furthermore, by engaging with community-based organizations to support outreach and providing information across multiple languages, these teams were able to engage diverse communities that may have otherwise been missed.²⁴⁸ EHS teams noted that clear programmatic structure and roles, effective internal communication practices, and team onboarding programs significantly contributed to the success of these efforts.²⁴⁹

²⁴² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁴³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁴⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁴⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁴⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁴⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁴⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁴⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Innovation/Success: Safe Start for Taverns and Restaurants (SSTAR) Team

A Bronze Innovation Practice Award was awarded to PHSKC's SSTAR Team by the National Association of County and City Health Officials (NACCHO). The SSTAR Team was developed in the summer of 2020 to mitigate the Impact of COVID-19 on businesses and the local economy. This team helped food businesses comply with COVID-19 regulations to protect the health and safety of customers and staff and served as a resource to owners and managers to limit the likelihood of business Interruptions. The SSTAR Team provided guidance to 3,400 food businesses on how to Implement public health guidance and \$400,000 In financial assistance to small food companies to help limit the financial Impact of Implementing COVID-19 regulations. A recipient of the SSTAR financial assistance noted that they "felt like they [the SSTAR Team] went above and beyond in helping people."*

*"Public Health Receives National Recognition for Innovation in Pandemic Response." Public Health Insider, Public Health- Seattle & King County, <https://publichealthinsider.com/2021/06/09/public-health-receives-national-recognition-for-innovation-in-pandemic-response/>. 9 June 2021.



Image 10: Mask requirement signs in different languages.

Equity

The Food Security Assistance Program was established to rapidly distribute \$2,150,000 worth of food vouchers for people deemed food insecure and awarded \$2,600,000 to organizations to purchase culturally appropriate foods. Recognizing this is a significant task that requires community partnerships, the team partnered with trusted community-based organizations and local grocers, restaurants, and farms to reach communities in need.²⁵⁰ These partnering efforts resulted in successfully reaching communities most impacted by food insecurity, allowed the program to provide culturally appropriate foods, and supported community grocers.²⁵¹

By partnering with Safeway, the company was able to design, print, and distribute 21,500 \$100 vouchers to community-based organizations at no charge. These vouchers were also valuable because they gave individuals autonomy in their food choices.²⁵² The initiative of awarding 2.6 million in funds for food distribution and covering the operational cost of distributing food allowed King County to meet a known gap of providing culturally appropriate foods.²⁵³ This initiative also allowed the county and community organizations to support local grocers, restaurants, and farms which needed the economic support during the pandemic. Empowered CBOs also developed new distribution points which expanded the reach of food assistance.²⁵⁴

²⁵⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁵¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁵² After Action Report, 2020 Food Security Assistance Program, March 2021

²⁵³ After Action Report, 2020 Food Security Assistance Program, March 2021

²⁵⁴ After Action Report, 2020 Food Security Assistance Program, March 2021



Innovation/Success: Safeway Vouchers

Between October 1 and December 31, 2020, 95% (or 20,398) of Safeway vouchers distributed were redeemed totaling \$2,025,645.09. Transaction details showed that 90% of the food vouchers redeemed were used in areas of South Seattle and South King County, communities that were disproportionately impacted by COVID-19 and experienced food insecurity at higher rates. *

* After Action Report, 2020 Food Security Assistance Program, March 2021

The Food Security Assistance Program was not without challenges, but the discovery and acknowledgement of these difficulties was captured due to the diligence of the King County AAR team. King County completed a thorough analysis of this effort and published those results in March 2021.²⁵⁵ Despite these challenges, the Food Security Assistance Program was able to successfully implement an innovative and community-centered approach to meeting food security needs during the pandemic.

Areas for Improvement

Quality Assurance and Control Concerns

While experiencing many successes in partnering with organizations, both Vax Verify and EHS programs encountered a multitude of challenges related to organizational non-compliance. These challenges stemmed from a lack of trust and fear resulting in animosity directed towards PHSKC teams working with business owners and their customers. Engagement teams noted that some businesses were not aware of the mask or vaccine mandates, some halted enforcement due to concerns around loss of business or aggressive responses from patrons, and others were hostile to public health engagement.²⁵⁶ These barriers were amplified by navigators entering areas they were not familiar with, inconsistent communication and follow-up, and conflicting messaging and coordination around pandemic restrictions.²⁵⁷ Broad public discourse regarding the pandemic, effectiveness of mitigation measures, role of public health, in addition to the "rumor mill" at times made it difficult to secure compliance from organizations. Rapid changes in guidance at state and national levels made it even more difficult for EHS teams and the organizations they were supporting.²⁵⁸ The teams noted ongoing community engagement, outside of response activities, and engagement of the community as emergency rules/programs are being developed would significantly mitigate these challenges.²⁵⁹

Equity Concerns

Although largely successful, the food security program experienced challenges meeting demand which dramatically outpaced supply, encountered challenges with restricted funding, suffered impacts from supply

²⁵⁵ After Action Report, 2020 Food Security Assistance Program, March 2021

²⁵⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁵⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁵⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁵⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



chain disruptions, and noted significant administrative burden placed on partnering community-based organizations. The voucher program was unable to provide a sufficient amount of culturally appropriate foods and King County was unable to support the 32 organizations administratively which limited some of the distribution of funds.²⁶⁰ Transportation was a barrier at times for both the CBOs and their populations. This was especially true for those experiencing homelessness and with limited mobility. The effort to purchase foods from smaller ethnic grocery stores was hampered by the ability to meet the capacity required by CBOs for this initiative or to offer gift cards.²⁶¹ Supply chain Issues also complicated this effort as there were manufacturing and transportation issues that impacted the availability of goods. Longer funding periods and greater flexibility in purchasing from ethnic restaurants as well would allow grocers to work through some of the stocking and supply issues.²⁶² The capacity of the county to manage the contracts with all CBOs assisting with the food security program could be better executed by hiring more staff to manage this effort or outsourcing this contract management.²⁶³ The transportation barrier for the distribution of vouchers could be mitigated with centralized distribution point, mailing system and partnering with an organizations like Public Health Women, Infants, and Children (WIC).²⁶⁴

²⁶⁰ After Action Report, 2020 Food Security Assistance Program, March 2021

²⁶¹ After Action Report, 2020 Food Security Assistance Program, March 2021

²⁶² After Action Report, 2020 Food Security Assistance Program, March 2021

²⁶³ After Action Report, 2020 Food Security Assistance Program, March 2021

²⁶⁴ After Action Report, 2020 Food Security Assistance Program, March 2021



TESTING

PHSKC conducted a range of testing activities across a range of programs, including high volume sites, testing at County operated public health centers and correctional facilities, and through distribution of rapid antigen over the counter tests to community organizations. Testing services were at first limited to healthcare workers, first responders, and individuals in high-risk groups, but expanded rapidly as more supplies were available from the federal government and vendors. King County testing sites conducted over 200,000 tests in 2020, and by March 2021, testing sites had conducted 1 million PCR tests. PHSKC testing efforts closely align with CDC PHEP capabilities 12 - *Public Health Laboratory Testing* and 13 - *Public Health Surveillance and Epidemiological Investigation*, but as in many areas they fulfilled this capability in an extraordinary way over a long period of time. In January 2022, an average of over 11,000 tests were being performed daily at testing sites. King County employed a data-driven approach to its testing strategy, which was informed by community feedback and focused on providing testing to populations at highest risk of serious illness or death from COVID-19.

Strengths

Coordination/Collaboration

Externally, testing teams collaborated with local elected officials and research organizations to quickly set up sites with different models to adapt to the needs of that individual site.²⁶⁵ Teams were successful in establishing partnerships across various agencies, jurisdictions, and labs to meet the operational needs of testing sites.²⁶⁶ They worked with partners and internal PHSKC teams to identify areas of highest need for COVID-19 testing and worked extensively with municipalities, businesses, etc. to set up and run PHSKC testing sites in the community. To ensure they were meeting community needs, the Testing Strategy Team coordinated with key stakeholders by participating in routine meetings such as the South Sound Regional Testing Meeting.²⁶⁷

Through coordination with community partners, appropriate sites were located, and contract leasing of the locations was established for PHSKC run testing sites. The PHSKC team organized staffing and ensured labs received and processed tests. For department run sites, the team also adapted and configured the testing registration system and worked with community groups to ensure equitable access to testing.

Outside of larger routine meeting groups, specific collaborations to meet the needs of partner facilities were also successful, such as a partnership with long-term care facilities to develop and implement policies to increase testing.²⁶⁸ Collaboration with the Department of Adult & Juvenile Detention (DAJD) also enabled the JHS team to establish effective surveillance testing schedules, testing processes, and contact tracing processes keeping positive rates extremely low compared to similar settings.²⁶⁹ A culture of collaboration and willingness

²⁶⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁶⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁶⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁶⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁶⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



to “drop what we were doing to address urgent issues/needs” was identified as a key to success between the teams.²⁷⁰

CDC staff integration and assistance for testing was also noted as a valuable partnership in the early stages of large-scale testing.²⁷¹ CDC staff were able to reduce the steep learning curve for PHSKC staff and volunteers by providing information about testing supplies, standards, and PPE. This also included PPE procedures associated with testing. The CDC arrived with some protocols and others in draft for COVID-19 testing. These protocols were combined with guidance to create a protocol and training plan for the mobile testing team. The CDC staff assisted in training Public Health Reserve Corps members and staff that would support mobile testing operations.

Teamwork

In the early stages of the response, PHSKC was able to leverage multidisciplinary teams within their department to make decisions on testing supplies and priorities. Internal expertise about various testing modalities helped navigate early information on emerging testing modalities to identify PCR tests as a target option. PHSKC staff with strong connections to the community were able to target high-impact locations for testing sites.²⁷² Combining the two components allowed for data driven decision-making around high throughput testing sites that would benefit the community most.²⁷³

Among other components for success, these teams noted leadership support and timely decision-making, multi-disciplinary makeup of teams, diversification of vendors and labs, operational autonomy and flexibility among the teams and staff, and data-driven decision-making as being particularly important.²⁷⁴

Equity

PHSKC’s equity efforts around testing represent best practices for other public health agencies.²⁷⁵ Specifically, notable efforts included focusing testing efforts in South King County due to COVID-19’s prevalence in that area. Testing sites were placed in locations with high throughput because of data driven analysis.²⁷⁶ In addition, the testing website provided information in 13 languages through downloadable PDFs. The testing website also provided information on steps that lower barriers to testing such as testing availability regardless of citizenship/immigration status, no ID requirement, and no cost testing/no insurance requirements.

On June 14-15, 2020, Ms. Tina Knowles-Lawson #IDidMyPart campaign and Beyoncé’s BeyGood Initiative partnered with King County and local health organizations to help provide free drive-through COVID-19 testing. This testing was available for anyone who had COVID-19 symptoms or who believed they had been

²⁷⁰ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²⁷¹ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

²⁷² COVID-19 PHSKC Key Informant Interviews. (2020-2021)

²⁷³ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

²⁷⁴ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021); PHSKC COVID-19 Feedback from Zone 1,3,5 EMs

²⁷⁵ Bay Area Regional Health Inequities Initiative (BARHII) and the Public Health Alliance ff Southern California (The Alliance), Embedding Equity into Emergency Operations: Strategies for Local Health Departments During COVID-19 & Beyond. July 2020.

²⁷⁶ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)



exposed to the virus. The Somali Health Board led the outreach effort alongside King County, with over 30 community organizations supporting.²⁷⁷ The outcome of this unique event was reaching a large portion of the community who were people of color, immigrants, refugees, and essential workers. Over the two days, King County administered 1,205 COVID-19 tests and provided face coverings and care packages to over 3,500 individuals and families.²⁷⁸ King County also provided onsite interpretation services in over 25+ languages and written material with up-to-date public health information.²⁷⁹ Additional outreach such as playing cultural music, having a greeter, and providing mental health resources added to this remarkable event. The testing was provided by King County Seattle - Public Health and testing was conducted by SeaMar Community Health Center, HealthPoint Health Center, and Harborview Medical Center. This event was indicative of the outreach demonstrated by King County to reach populations disproportionately effected by COVID-19 and historically distrustful of the healthcare system.

Systems or Infrastructure

Selecting multiple labs to support testing sites was valuable in preventing a single point of failure, if a lab was unable to process testing samples.²⁸⁰ For example, in the early part of the pandemic, there were often limited laboratories that could process COVID-19 test samples, leading to delays in receiving results. Having multiple labs selected increased scalability as more testing sites came online, since testing sites were not sending their samples to the same laboratory for processing. This supported continuity, scalability, and reducing wait times for results which allowed for timely notification to help prevent the spread of the virus.

Areas for Improvement

Unclear Processes

While testing teams were able to find success over time, there were significant challenges noted across the testing teams in establishing and maintaining operations early in the response. Many team members were unfamiliar with ICS and there were not existing detailed plans for setting up testing facilities at the scale required.²⁸¹ Communication clarity was another noted issue with confusion as to which testing group or partner had specific communication responsibilities.²⁸² Testing teams indicated there was a similar lack of clarity early in the response related to available materials, approvals and process changes, conflicting

²⁷⁷ Mohamed, Hamdi and Senayet Negusse, #IDIDMYPART King County Drive Through Testing Report, King County Office of Equity and Social Justice. Date unknown.

²⁷⁸ Mohamed, Hamdi and Senayet Negusse, #IDIDMYPART King County Drive Through Testing Report, King County Office of Equity and Social Justice, date needed.

²⁷⁹ Mohamed, Hamdi and Senayet Negusse, #IDIDMYPART King County Drive Through Testing Report, King County Office of Equity and Social Justice, date needed.

²⁸⁰ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

²⁸¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁸² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



guidance, and funding.²⁸³ In terms of resources, testing teams initially struggled getting access to required IT systems, and experienced significant difficulty in forecasting and receiving both PPE and testing supplies.²⁸⁴

Lack of Systems or Infrastructure

As the pandemic unfolded, significant demands were placed on laboratory systems across the country to adapt to new testing protocols and provide results at scale. Coordination and communication across the laboratory system was a noted issue at several points of the response. Between Washington DOH, PHSKC, and various lab partners statewide, communication and coordination were inconsistent.²⁸⁵ At times, the PHSKC testing team had difficulty maintaining adequate awareness and visibility over labs within the area. Additionally, challenges arose around understanding and implementing Clinical Laboratory Improvement Amendment (CLIA) waivers and the ability of PHSKC to reimburse early testing providers.

The PHSKC testing team was also challenged by long test result turnaround times from the CDC early in the pandemic.²⁸⁶ When testing supplies were scarce, agencies such as FEMA only offered PHSKC supplies if it agreed to adhere to the entirety of federal directions and guidance, which included shipping specimens to labs on the east coast with federal contracts. PHSKC ultimately refused to comply with these requirements and began working with local labs to process completed tests in order to return results quicker.

Needed Relationship Building

Although community partnerships were an overall success for PHSKC, having to quickly establish partnerships that did not exist prior to the pandemic put a significant burden on communities and testing teams.²⁸⁷ Additionally, one interviewee pointed out that PHSKC would have benefitted from pre-existing relationships with public and private sector partners and emergency contracts with testing and laboratory services to reduce wait time in receiving testing resources. These capabilities would make it easier to respond to outbreak data and stand-up testing capabilities at high-priority sites.²⁸⁸ Recommendations by staff also included having templates and blueprints for the creation of testing sites to enhance the ability to respond quicker and avoid needing to redo contracts and find partners.²⁸⁹

²⁸³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁸⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁸⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁸⁶ Robert Klemko. Seattle area used early social distancing, testing, to help begin flattening the coronavirus curve, Washington Post. April 9, 2020.

²⁸⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁸⁸ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

²⁸⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



FATALITY MANAGEMENT

During the period covered by this report, the King County Medical Examiner's Office (MEO), which is housed within PHSKC, contributed to accurate surveillance and death numbers due to COVID-19 related illness. The MEO tested decedents coming into the office, as well as tested decedents at funeral homes who have circumstances indicating that COVID-19 may have been a factor in their deaths. The MEO also developed strategies for increased fatality capacity planning across departments and partners. PHSKC accurately implemented the CDC PHEP capability 5 - *Fatality Management* in a way that supported their public health agency and mental health of survivors.

Strengths

Systems or Infrastructure

Prior to the pandemic, there were previous planning efforts conducted by PHSKC focused on mass fatality incidents. Relationships developed during those planning periods provided a strong foundation for the Medical Examiner's Office's (MEO) response. Systems like morgue racking and response strategies such as the use of CONEX containers came out of those planning efforts and allowed the MEO to jumpstart their response.²⁹⁰ By leveraging these established relationships, medical examiners and coroners across the state were able to quickly convene, plan, and share resources. Newly established partnerships and those strengthened during the COVID-19 response have also supported planning efforts for other disasters.²⁹¹

Standardization of Processes

Like many other parts of the public health and medical system, the MEO needed to modify operations in response to the significant increase in cases being assigned. In collaboration with partners, the MEO staff developed guidelines for when to perform autopsies and temporarily reduced the types of cases being assigned while focusing limited resources where they would be most impactful.²⁹² To support these guidelines, algorithms and workflows were additionally created to guide the testing of decedents for COVID-19.²⁹³ By creating these resources and standards, the team provided an effective unified approach to addressing surge created by the pandemic.

Areas for Improvement

Unclear Processes

The role of the MEO was not consistently known or understood by internal staff and external stakeholders, including when the MEO had jurisdictional authority.²⁹⁴ This caused confusion, delays, and a need to manage expectations resulting in increased workload. This challenge was compounded by competing priorities from

²⁹⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁹¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁹² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁹³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁹⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



within PHSKC such as frequently changing requests for data.²⁹⁵ Changes in priorities and requests for data reporting outside of regular channels made it difficult to complete steady-state work, conduct planning for anticipated response needs, and made establishing standards for data collection methods challenging.²⁹⁶

VACCINATION

PHSKC used a multi-modal vaccine delivery approach that provided vaccinations through high volume mass vaccination and fixed clinic sites in areas of high need, culturally sensitive community vaccination events in partnership with empowered CBOs and other partners, mobile vaccination for high-risk individuals, vaccine clinics with King County's 19 school districts, as well as supporting additional regional and healthcare institution partnerships. PHSKC used an intentional equity driven COVID-19 vaccination strategy while creating strategies to support the vaccination of older adults and BIPOC communities. CDC PHEP capabilities 8 - Medical Countermeasure Dispensing and Administration and 9 - Medical Materiel Management and Distribution are clearly demonstrated through PHSKC exceptional efforts in vaccine distribution. The success of this challenging work was demonstrated in their results. PHSKC met ambitious vaccination goals to vaccinate a minimum of 70% of all eligible adults equitably, efficiently, and quickly across all identified racial and ethnic groups and regions of the county, with over 3 million vaccine doses administered and 77% of eligible King County residents vaccinated as of September 1, 2021.

Strengths

Coordination/Collaboration

Multiple vaccine-focused teams noted that a community-centered approach was critical to success of their operations and collaborative relationships built should continue into preparedness activities.²⁹⁷ Healthcare facility and mobile vaccination teams also developed strong partnerships with EMS agencies, long-term care facilities, hospitals, pharmacies, and providers that developed into "...symbiotic relationship[s] that built on each other's strengths...".²⁹⁸ PHRC volunteers were critical in staffing testing sites, mobile testing, and vaccine clinics.²⁹⁹ These partnerships across a multitude of sectors and communities played a major role in the success of PHSKC's vaccination efforts.

An example of successful vaccination efforts included outreach to long term care facilities and adult family homes. Collaboration with pharmacies and regional partners enabled PHSKC to distribute vaccines to locations where people at high risk lived rather than forcing them to travel to a vaccination site. Additionally, PHSKC was the only county in Washington to track vaccination rates in adult family homes to ensure equitable opportunities for individuals living and working within these homes to receive vaccines.³⁰⁰

²⁹⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁹⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁹⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁹⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

²⁹⁹ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³⁰⁰ COVID-19 PHSKC External Partner Townhalls (2022)



Relationship Building

A consistent finding across the teams involved in vaccination efforts was the importance and success of partnering with organizations and engaging communities. Collaboration with school districts and their leadership was very beneficial for youth vaccine efforts and the contact list provided by the Higher Education Task Force was very helpful in reaching these partners.³⁰¹ Partnerships were formed with the University of Washington Schools of Nursing, Pharmacy and Medicine and Bellevue College's Nursing program. The students became vaccinators and assisted covering short notice staffing gaps. Emergency Managers in King County noted it was a strength that PHSKC embraced the PHRC and as a result the PHRC grew rapidly.³⁰² They cited the PHRC's involvement in contact tracing and vaccine efforts specifically as a strength that enable those responses. Although management of these partnerships was, at times, difficult to track and coordinate between teams, resources such as outreach lists and strategies such as partner compensation were particularly helpful.³⁰³

Information Technology

Although there were challenges initially setting up a vaccination registration system, PHSKC worked closely with King County Department of Information Technology (KCIT) to address the issues. Together the departments created a vaccination registration selection committee to quickly and successfully choose a new registration system. It was then rapidly installed to enable more efficient and accessible COVID-19 vaccine registration by community members. Over the course of the pandemic, PHSKC and KCIT have worked closely together to successfully maintain and upgrade the registration system. This has included enhancing the system to increase language access, an especially important improvement for community members in South King County

³⁰¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁰² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁰³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Innovation/Success: Community Partnerships Promote Vaccination

PHSKC worked closely with numerous partners to promote vaccination across the county. Partner organizations promoted equity in vaccine efforts as they served as trusted agents to historically marginalized and underrepresented communities as well as other populations with diverse needs. For instance, community organizations worked to connect vaccines to individuals who lacked internet access, had limited English proficiency, and/or had past experiences with racism in the medical system. The actions of PHSKC and all the community organizations who provided support to the vaccine effort helped limit the disproportional impacts of COVID-19 on immigrants, refugees, African American and Black communities, Latinx communities, Indigenous people and Native Americans, Pacific Islanders, and People of Color.*

*"One Million Shots and Counting: A Tribute to the Community Partners Who Helped us get Here." Public Health Insider, Public Health- Seattle & King County, <https://publichealthinsider.com/2021/04/07/one-million-shots-and-counting/>. 04.07.21

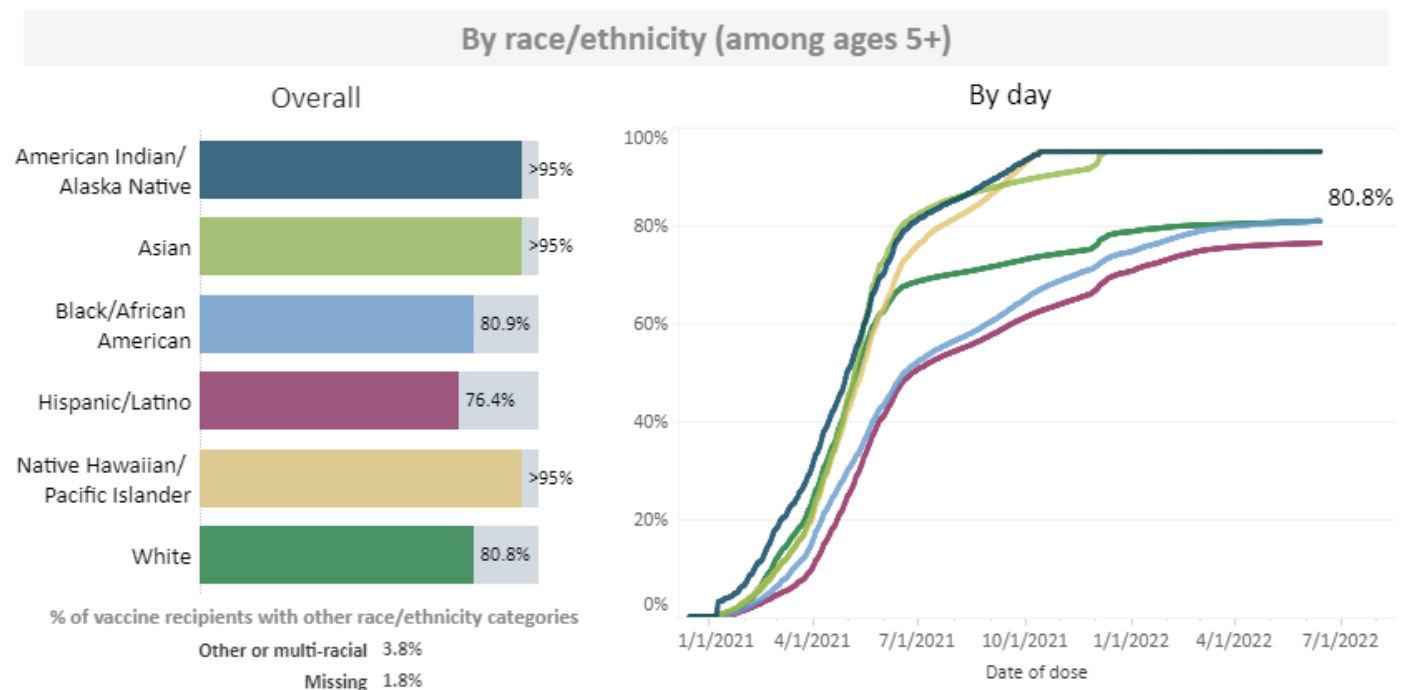


Figure 2: Primary series of vaccines completed by race/ethnicity (<https://kingcounty.gov/depts/health/covid-19/data/vaccination.aspx>)



Areas for Improvement

Unclear Processes

Teams conducting vaccine operations consistently noted a lack of clarity regarding their team's specific mission and scope. They indicated the target populations were not always clearly defined and lines of responsibilities between vaccine teams were often blurred during the response.³⁰⁴ For departmental supervisors, a lack of clarity regarding response policies such as leaves of absence to support the mission of vaccine teams was experienced within the internal organizational structure. Additionally, a lack of clarity on environmental and patient safety policies as well as ever-changing federal and state guidance updates resulting in evolving policy and command staff decisions further reduced clarity for vaccine teams.³⁰⁵ These factors produced significant challenges for response leaders and vaccine teams attempting to navigate complex partnerships and operational environments.

Information Technology

Vaccine teams routinely experienced challenges with data and IT systems which reduced their operational effectiveness. While the teams made use of information produced by the Analytics and Informatics team, vaccine groups noted there were gaps in data making it difficult to identify equity-related needs.³⁰⁶ Since data was initially not available in a timely manner, some vaccine teams were unable to make timely decisions related to equity issues and found it difficult to rely on data or measure progress at times during the response.³⁰⁷ Although the departments involved eventually transitioned to more effective systems which increased ease and use of data, these initial shortcomings impeded early vaccine efforts and produced additional response operation costs as teams had to transition their documentation, training, and processes to the new systems.³⁰⁸

Mixed Findings

Equity

Vaccine related teams communicated a mixture of equity and inclusion successes and areas for improvement. A resounding finding was that the broad response and vaccine efforts centered equity in decision-making and operations.³⁰⁹ The King County Unified Regional Strategy: COVID-19 Vaccine Delivery (April, 1, 2021) outlined the goal of King County to not only vaccinate a minimum of 70% of adults but to strive for higher rates of

³⁰⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁰⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁰⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁰⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁰⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁰⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Additionally, teams noted the Equity Tool and Equity Review Process was fundamental for effective prioritization and decision-making related to vaccine operations. Community organizations involved in addressing homelessness and housing noted that the Equity Tool was valuable for the mobile team's vaccine distribution.³¹² The same providers noted that the mobile teams were instrumental in providing testing and vaccines to people experiencing homelessness.

Although there was a focus on equity in portions of the response, vaccine teams noticed challenges implementing inclusion and equity objectives in some of their operations. Language access of materials was a significant barrier for several of these teams in terms of both available translations and accessibility standards (formatting, font size, etc.).³¹³ Another major hurdle for onsite vaccine teams was ADA accessibility of their services and a lack of resources to adequately plan for site locations to be ADA accessible.³¹⁴ Community organizations noted that there were not enough mobile teams to meet the needs of people experiencing homelessness or housing challenges.

Two special vaccination clinics were held for people with access and functional needs which had mixed results. The first event successfully vaccinated 175 people with disabilities and the second event, co-sponsored by the Seattle Fire Department only vaccinated 75 people.³¹⁵ The lower numbers at the second event appeared to prompt the cancellation of the next event co-sponsored by the Seattle Fire Department for this very important population. People with disabilities did not understand why this event that they pre-registered for was cancelled and received the news of cancellation with a very negative perception of their place in the community.

Coordination/Collaboration

Vaccine-related teams expressed a combination of strengths and areas for improvement related to internal response and cross-team coordination. Multiple teams noted strong collaboration and communication between vaccine teams, robust information sharing with the PICC, and effective partnerships with operational coordination and policy teams.³¹⁶ Within the teams themselves, some noted effective internal communication, clarity of vision and strategy, consistent workflows, a positive team culture, staff flexibility, and open communication as foundational pieces of their success.³¹⁷ Most PHSKC COVID-19 AAR survey respondents generally agreed they had the information necessary to perform in their COVID-19 response roles. They also agreed or strongly agreed the information was shared in a timely manner and with enough frequency.

³¹² COVID-19 PHSKC External Partner Townhalls (2022)

³¹³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³¹⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³¹⁵ COVID-19 PHSKC External Partner Townhalls (2022)

³¹⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³¹⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Alternatively, some individuals noted a lack of internal communication, transparency, and integration across the vaccine programs. Specifically, the Government Affairs Team was recognized as needing to be integrated into vaccine planning and operations earlier to support engagement of elected officials. There was also a noted lack of clarity about responsibilities between the vaccine teams which led to inefficiencies in operations. A lack of consistent messaging across the response regarding vaccination activities confused partners and the public and lines of communication between operational teams and departments were unclear.³¹⁸

An additional group that was seen as important to involve early in the vaccination campaign development was pediatric healthcare partners. Pediatric providers have a high level of experience providing vaccines and could have provided that expertise early in the planning for COVID-19 vaccination efforts.³¹⁹ A broader approach to distributing vaccines throughout healthcare entities was also seen by health partners as a missed opportunity. Much of the allocation of vaccines went to hospitals in large quantities and could have instead been distributed to an array of healthcare providers who could have disseminated them more quickly.³²⁰

PHSKC INTERNAL OPERATIONS

Key infrastructure and administrative functions, such as finance, contracting, human resources, and workforce mobilization, were critical to the full range of PHSKC response operations. These included estimating incident cost, ensuring accurate expense documentation, communicating time and effort reporting to responders, as well as executing and managing a range of new contracts. Internal Operations of PHSKC includes activities that most closely align with CDC PHEP capabilities 3 – Emergency Operations Coordination and 15- Volunteer Management. The appropriate execution of these two capabilities was critical to the success of the response. Human resource and workforce mobilization tasks included using existing and new processes to recruit, hire, mobilize, and train responders to achieve operational activities. The appropriate management of personnel and financial resources ensured that operations continued efficiently and effectively despite the length of the response.

Strengths

Teamwork

Despite the incredible demands created by the pandemic and the disruption of routine working environments, cooperation between different divisions within PHSKC facilitated information sharing and strengthened the COVID-19 response.³²¹ The broad perspective expressed in feedback was that teams and departments typically worked well together and strengthened relationships throughout response activities.³²² The PHSKC survey results also showed that 65% of the 414 respondents felt flexibility and teamwork was a strength of the

³¹⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³¹⁹ COVID-19 PHSKC External Partner Townhalls (2022)

³²⁰ COVID-19 PHSKC External Partner Townhalls (2022)

³²¹ Marx, C. (2021), COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³²² Marx, C. (2021)



response. Collaboration and coordination were also mentioned by at least 35% of that survey population as a strength.³²³ It was noted in particular that support was provided through staff activations, coordination of some aspects of the response, and information sharing.³²⁴ Regular huddles of response teams with other departments, such as Human Resources, to provide updates was a key strategy for staying ahead of response needs and challenges.³²⁵

The benefit of teams coming together from across PHSKC was the creation of multidisciplinary teams. For example, vaccination and testing initiatives for people experiencing homelessness and the creation of facility ventilation guidance were two situations where multidisciplinary teams were assembled with successful results.³²⁶ For the response efforts to support people experiencing homelessness, PHSKC incorporated a toxicologist, public health nursing, behavioral and mental health, health environmental investigator epidemiologists, community health workers, and a staff physician. Each of the disciplines brought their own experience, guides, and checklists to help the team.³²⁷ This effort merged Field Assessment Support and Technical Assistance (FAST) and Strike teams to form the Homeless HEART.³²⁸ For the ventilation guidance, crafted before other similar guidance was available, the team included clinical, epidemiological, and health environmental investigator review. The team recognized it was indoor transmission of COVID-19, not just droplets. This allowed them to focus on airborne virus mitigation through ventilation.

Teams primarily focused on ensuring equity specifically noted that leadership support, team composition, culture, and norms were all critical to their success.³²⁹ Teams were often noted as diverse in terms of background and knowledge. Additionally, teams' culture was positive and respectful, and group agreements helped guide behavior and norms.³³⁰

³²³ COVID-19 PHSKC Staff Surveys (2022)

³²⁴ Marx, C. (2021)

³²⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³²⁶ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³²⁷ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³²⁸ PHSKC. Summary of King County COVID-19 Homeless Response Health Care for the Homeless Network (HCHN) Governance Council Meeting. June 15, 2020. <https://kingcounty.gov/depts/health/locations/homeless-health/healthcare-for-the-homeless/~media/depts/health/homeless-health/healthcare-for-the-homeless/documents/2020-june/covid-19-homeless-response.ashx>

³²⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³³⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Innovation/Success: Multidisciplinary Teams Address the Needs of Homeless Shelters

PHSKC established a national standard for response to cluster outbreaks in homeless shelters which was recognized by the Centers for Disease Control and Prevention (CDC) as a best practice to limit the impacts of disease on shelter clients and staff. PHSKC deployed rapid multidisciplinary response teams to homeless shelters with a suspected case or cases of COVID-19. The team assessed the extent of the impact of COVID-19 and connected the organization with resources and support services such as environmental assessments, COVID-19 education, COVID-19 screening and testing services, personal protective equipment, and referrals to I&Q facilities.*

*"Rapid Response In Homeless Shelters can Help Prevent Spread of COVID-19; How to Protect Older Adults at Home; Latest on Antibody Testing." Public Health Insider, Public Health- Seattle & King County, <https://publichealthinsider.com/2020/04/22/rapid-response-in-homeless-shelters-can-help-prevent-spread-of-covid-19-how-to-protect-older-adults-at-home-latest-on-antibody-testing/>.

Systems or Infrastructure

An incident response requires extensive management of financial and administrative components for long-term success and cost-recovery. To meet this challenge, the HMAC Finance and Administration Section and later teams within PHSKC departments established structures, processes, and communication channels as a foundation for successful collaboration. Early in the response, the HMAC Finance and Administration Section conducted daily huddles to track to-dos and maintain situational awareness across the team.³³¹ This was supported by having dedicated communication channels to push information out to responders, such as the IAP Special Message section, and a centralized place to receive inquiries such as the shared Finance inbox.³³²

A key task of the Finance and Administration team was interpreting federal and other guidance about the use of coronavirus funding. The team went to great lengths to maintain compliance, educate program managers, and keep meticulous records for future audits and reimbursement. A number of revenue streams supported COVID-19 activities, each with their own timeline, processes and restrictions and Finance managers advised department leadership and response team leads on the use of each. To provide structure to the enormous task of tracking expenditures and documentation, HMAC Finance & Administration developed a single spreadsheet to map out budgeting for each response program, utilized an extensive document management system in place prior to COVID-19, and relied on their experience with LEAN worksheets to document response procedures to standardize processes. These foundational processes, along with the team's ICS trainings, helped form the foundation and guide the team's work through the pandemic.³³³

The Facilities Management Division as well as the Contracts, Real Estate, and Procurement Section were also noted as extremely important and successful teams within the PHSKC COVID-19 response. In one interview, it

³³¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³³² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³³³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



was noted that the teams were “working miracles” to secure PPE for staff.³³⁴ They also helped secure other scarce resources such as swabs and tubes when mass testing was being established.

Standardization of Processes

One area uniquely captured by the PHSKC COVID-19 AAR Survey was that most of the over 400 respondents felt they understood their roles and had the skills and training to complete their work. Many respondents acknowledged a stressful learning phase as the county adapted to the rapid pace required for the response, but they felt the team supported each other to solve problems.³³⁵ Approximately 90% of respondents felt they understood their roles and had the skills required in the last three months which is a laudable accomplishment with a high level of reported staff turnover during this two year period.³³⁶ This internal statistic demonstrated the county's commitment to defining roles and ensuring their teams had the skills or training required to serve the residents of the county. Continuous training was also supported by some divisions (e.g., Community Health Services) which implemented specific training strategies to help with teambuilding, competencies, safety, etc.

Areas for Improvement

Team or Staffing Capacity

The COVID-19 pandemic overwhelmed public health, medical, and response systems across the world. As such, it is not surprising that workload and staff capacity was a consistent topic across most feedback received for this report.³³⁷ A widely held sentiment across team-level facilitated discussions was that staff were overwhelmed with the workload and the response demands dramatically outpaced teams' resources.³³⁸ This issue was most pronounced at the start of the response as PHSKC Human Resource processes were adapting to the pace and style of response-focused recruiting. The PHSKC survey also supported this finding, when asked about staffing, more than 50% of respondents were neutral, disagreed or strongly disagreed that they had the necessary staffing. This was an area of continuous improvement for PHSKC. Some respondents expressed they all were “working beyond capacity” and people could not be hired fast enough.³³⁹

Many employees, particularly earlier in the response, worked 80–100-hour work weeks often going months without a day off. Aside from taking time away from work, many felt they could not reduce their workload, take needed breaks, or address their physical, emotional, or mental health. Workers across classifications expressed they felt they were not adequately compensated for the exponential increase in work.³⁴⁰ This challenge was compounded for some staff by the fact that many were ineligible for overtime pay and were unable to use additional compensation in the form of paid vacation time due to response demands. Staff recognized and appreciated that leaders often encouraged teams to work less and practice self-care, but many

³³⁴ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³³⁵ PHSKC Internal COVID-19 AAR Survey, March 2022.

³³⁶ PHSKC Internal COVID-19 AAR Survey, March 2022.

³³⁷ Marx, C. (2021)

³³⁸ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

³³⁹ COVID-19 PHSKC Staff Surveys (2022)

³⁴⁰ Marx, C. (2021)



felt it was simply not feasible due to no reduction in workloads or adequate staffing to meet the need. Many staff noted that structural changes to reduce workload, cross-training to allow for better coverage, and incorporating rotating off of HMAC work more frequently would have been more beneficial for their physical and mental health than individual self-care.

Teams also experienced challenges managing work in their home departments and varied expectations around “split work.” While many employees were activated to support the COVID-19 response, teams in their home departments often had to shoulder additional workloads in their absence.³⁴¹ Employees outside of the response noted it was difficult to meet the additional workload, especially as people activated in the response may take weeks to reply to inquiries, if they replied at all.³⁴² Resistance to deployment of staff rose in some departments which created the need to recruit for positions that may have been able to be filled through staff activation.³⁴³ Some employees, trying to meet these needs and support their home teams, attempted to juggle both their “day to day” and response positions. This understaffing reduced capacity in routine public health services and increased stress among both response and departmental teams.³⁴⁴

“there's a core group of people who, who have great knowledge and expertise, then they get overwhelmed and, by the time you try to bring help on it may be later than ideal.”

-Leadership/Management Interviewee

Hiring and Onboarding Concerns

Onboarding Processes

Part of the reason for limited staffing capacity was that many teams noted initial recruiting, hiring, and onboarding processes were unable to operate at the speed and flexibility required to scale operations for the response.³⁴⁵ While significant efforts were made to rapidly hire and onboard new employees, response teams noted they often did not have adequate time or resources to properly train and engage new employees.³⁴⁶ Some new team members did not know who their supervisor was after onboarding.³⁴⁷ When asked in the PHSKC COVID-19 AAR Survey about key challenges during the response, the top three areas were staff capacity, onboarding, and unclear processes.³⁴⁸ Onboarding was one area mentioned several times in the

³⁴¹ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

³⁴² Marx, C. (2021)

³⁴³ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

³⁴⁴ Marx, C. (2021)

³⁴⁵ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

³⁴⁶ Marx, C. (2021)

³⁴⁷ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

³⁴⁸ COVID-19 PHSKC Staff Surveys (2022)



survey comments. Respondents felt it could have been more organized and was often neglected at the team level as well because their attention was required by the response.³⁴⁹

Onboarding is an essential part of bringing new staff into Public Health. Things like obtaining an ID badge, gaining computer access, and learning about standard Public Health benefits and processes continue to need to be standardized and easier to access (for both supervisors and newly onboarded team members). When staffing is stretched thin, training and onboarding of new staff members also burdens the supervisory staff, who work heroically to ensure that their team is well trained.

- Survey Respondent

Teams that were overwhelmed with urgent response activities were often unable to find time to adequately train new members. New team members often had to adapt to a chaotic response environment with limited onboarding and training support. Since many of the new hires were engaged in temporary positions, job security was a constant concern. This created uncertainty and stress for both the new employees and the teams they were assigned to support making it difficult to plan and forecast.³⁵⁰ Furthermore, some staff expressed concern that since new hires were in temporary positions, the added diversity they brought to the workforce would be lost at the end of their employment with the county.

Volunteers

Volunteers filled a variety of needs during the COVID-19 response. The volunteer pool expanded and contracted depending on outside factors like volunteer policies of area employers or the availability of vaccine. Some volunteers such as PHRC and volunteers lent by philanthropic or academic organizations, were not seen as effectively integrated into the response.³⁵¹ Factors included supervisors' lack of time to train and supervise volunteers, the suitability of sensitive/complex roles for volunteers, responder safety, and challenges integrating volunteers who rotate daily depending on their availability. Programs who more successfully integrated volunteers designed roles without significant safety risks, able to be staffed by different people each day, which did not require in-depth expertise, and featured a well-planned onboarding process and supervision.

Early in the pandemic, badging and credentialing were an issue. Credentialing systems were backed up as medical license status and similar credentials were being queried all across the country. A national shortage of badging materials prevented HMAAC from issuing badges to volunteers at the start of an assignment.³⁵² This hindered easy identification of responders and prevented them from accessing buildings and spaces such as

³⁴⁹ COVID-19 PHSKC Staff Surveys (2022)

³⁵⁰ Marx, C. (2021)

³⁵² COVID-19 PHSKC Key Informant Interviews. (2020-2021)



the EOC. The situation resolved later in the response as individuals became more familiar with the badging process, the massive number of credential checks diminished, and supply chain challenges eased.

Some volunteer assignments proved difficult to tailor to volunteer needs and preferences. Certain roles required medical credentials, a continued commitment by a single person, or proficiency working with populations Public Health serves such as people living unhoused. Volunteers demonstrated tremendous motivation and commitment in their assignments with Public Health, but still felt the department could have done more to enhance the volunteer experience. Specific concerns raised by volunteers included requiring an ongoing commitment to certain roles; minimal advanced notice provided for some assignments; some programs' preference to limit assignments to PHSKC employees only, and insufficient training.

PHRC volunteers who responded to a survey on their experiences shared mixed opinions on their experiences, while also crediting with PHSKC with making space for and supporting volunteers as it coordinated the regional COVID-19 response.

Equity

Although there was a noted success of increased workforce diversity through new hires during the response, several operational and equity related teams raised concerns regarding workforce representation. First, staff expressed concern that since new hires were in temporary positions, the added diversity they brought to the team could be lost at the end of their employment with the county.³⁵³ Secondly, while it was widely noted that outside support was appreciated, some felt groups that were engaged did not reflect the broader PHSKC community.

Workforce members recruited via staffing agencies were less diverse than those hired by PHSKC according to several teams.³⁵⁴ Additionally, teams felt the contracted incident management teams (IMT) comprised of public safety staff established a "...a command structure out of touch with Public Health's values, equity goals, and cultural norms."³⁵⁵ A consistent message was that PHSKC's workforce should "reflect the communities served" and that equity in hiring practices should be formally adopted.³⁵⁶

"[g]iven public health's focus on racism as a public health crisis, it's especially important to retain contact tracing's diverse staff as part of PHSKC's workforce." – Hotwash Participant

PHRC and other volunteer groups were also noted as being less diverse than PHSKC employee teams. Although incorporating volunteers into the public health response was important to alleviate staffing issues and build capacity for various response functions, PHRC did not fully represent the communities it served. According to the PHRC Engagement Survey, the PHRC's largest demographic was straight white women over

³⁵³ Marx, C. (2021)

³⁵⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁵⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁵⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



65 years of age, many of whom have graduate education and/or clinical licensure.³⁵⁷ New volunteers who joined during 2020 and 2021 to respond to COVID-19 tended to be younger and of more diverse backgrounds. However, even this group of new volunteers was not reflective of communities in Seattle and King County.

Table 7: King County Compared to PHRC Self-Reported Demographics

Race/Ethnicity	King County	PHRC (survey respondents)
American Indian or Alaskan Native	1.0%	0.6%
Asian	19.7%	14.5%
Black or African American	7.0%	2.6%
Hispanic or Latino/Latina/Latinx	9.9%	3.7%
Native Hawaiian/Pacific Islander	0.8%	0.4%
North African Middle Eastern	No Data	0.4%
White (Not Hispanic or Latino)	58.1%	78%
Two or more races	5.2%	1.0%-2.8%

Unpredictable Funding

Disaster response funding is frequently uncertain in both its amount and duration; this has been especially true during the COVID-19 pandemic. This uncertainty presents a spectrum of challenges including difficulty in forecasting operational timelines, available staffing, time to scale up/down, and clarity over duration of mission. This uncertainty also impacted responder well-being. Since funding sources were uncertain, it was difficult for finance teams to establish the appropriate level of granularity for response expenditures. One example was for COVID-19 vaccination, hiring and procuring resources was hampered in the summer of 2020 due to funding uncertainty. Additionally, FEMA funding occurs at a transactional level which is incompatible with how PHSKC typically approaches funding and creates additional review work for already overloaded finance team.

Environmental health teams also noted challenges around funding for their activities in addition to unique considerations for resourcing EHS operations. The EHS Safe Start team noted that SSTAR funding was too cumbersome for both the EHS team and those seeking assistance due to documentation requirements.³⁵⁸ Internal funding was also a challenge as the team noted that cost recovery requirements under BOH 2.06.008 and BOH Resolution 08-07 limited the ability for EHS to rapidly mobilize teams and that an emergency fund for staff engagement may be required for future incidents.³⁵⁹ In regard to resources, the EHS Ventilation & Indoor

³⁵⁷ PHRC Engagement Survey

³⁵⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁵⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Air Quality Program noted that due to cost recovery requirements, EHS was unable to procure monitoring equipment outside of established programs, and obtaining specialized environmental staff required was extremely challenging due to funding only being able to be used for short-term and temporary hires.³⁶⁰ These limitations without funding alternatives produced delays and inefficiencies in response efforts.

Information Technology

While support from King County Information Technology (KCIT) colleagues was noted and appreciated, challenges around information technology (IT) support and interoperability arose during the response. As teams onboarded members to PHSKC, they often experienced delays in accessing core systems, such as email and payroll, that created bottlenecks to engaging new staff.³⁶¹ This was particularly a challenge for response teams with clinical hires, such as Nursing Professional Services, that required credentialing and privileging work.³⁶² At times, work had to be halted for extended periods due to difficulty in getting support for IT issues.³⁶³ Furthermore, many of the recruiting and onboarding systems did not easily interface with other groups making it difficult to coordinate hiring and onboarding for staff.³⁶⁴ In regards to contracting, teams that utilized technology related vendors noted there was a lack of a comprehensive vendor selection process and that some compliance contracts were resolved after the fact causing delays in work.³⁶⁵

Massive department and IT resources were also dedicated to building and launching Microsoft's Vaccine Management System (MVM) within two weeks. However, once it was established, existing systems could not scale to match this new system.

Mixed Findings

Hiring and Onboarding Concerns

To meet the staffing needs created by the COVID-19 response, hiring into PHSKC positions had to dramatically scale up in both speed and capacity. Early in the incident, this function was unable to meet the needs of response teams. PHSKC staff noted that the workforce hiring process was cumbersome and took too long.³⁶⁶ In addition to being overwhelmed, the Human Resources system was not built to hire as large of cohorts as the pandemic needed.³⁶⁷ It often took 2-3 months from a job being posted to an employee starting in that position. In some cases, the applicant would have found another position before the process could be finished. HR noted that it would take approximately six weeks for the recruitment process to be done efficiently.³⁶⁸ In their observation, some of the delay was on the individual being recruited. The proportion of

³⁶⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁶¹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁶² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁶³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁶⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁶⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁶⁶ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³⁶⁷ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³⁶⁸ COVID-19 PHSKC Key Informant Interviews. (2020-2021)



the qualified workforce already working in COVID-19 related roles and candidates' desire to provide longer notice to current employers impacted the speed with which candidates accepted and onboarded.

Recruiting for response roles, particularly nurses, became more difficult as the pandemic wore on. Many potential applicants were already employed, the labor market was tightening, people were burned out, and PHSKC was often limited to offering less-attractive short-term positions for many roles. The complexities of COVID-19 funding necessitated the department creating most new positions as Term Limited Temporary (TLTs) of varying length. Overall, hiring supervisors noted short-term roles received fewer applicants. Positions which could not be hired for were sometimes filled with contract workers from staffing agencies.

There was a belief that if HR had significantly increased their capacity by adding staff and implementing procedural changes earlier, the hiring process could have been improved. Greater emphasis on communication with managers and supervisors about employment types, optimum scenarios for each employment type, and how to initiate a recruitment would have eased some pain points. Many in COVID-19 management roles were not previously managers or supervisors with King County and awareness of HR process and policies varied. Midway through the response, Command Staff implemented a process to more formally assign priority levels to open recruitments, helping assure the most critical roles were filled first. Strategies like using a single job posting to hire multiple similar positions also helped.

Existing department and county human resource policies were not developed with anticipation of a massive surge in demand for HR services. Although HR was overall successful in flexibly adapting policies in a rapidly changing environment, challenges with specificity, Interpretation, and awareness still existed. One PHSKC staff member felt they did not have enough HR policies to reference when making decisions about staffing and noted they received push back from HR about decisions they made without knowing the procedure.³⁶⁹ Example policies cited as challenges were employee classifications and performance evaluations, discipline, and the credentialing and demobilization processes. Additionally, the creation of generic job descriptions for roles like Public Health Nurse, Investigator, and Program Manager that could be updated annually were identified as a way to reducing time spent creating job postings.³⁷⁰ HR had templates available but non-HR staff hiring for their sections spent extra time updating and reviewing the job descriptions. The job descriptions could then be turned into a job posting.

Temporary staffing agencies were used however there were concerns voiced related to equity. Contract workers did not have access to many of the responder support services offered to KC employees, like Balanced You or career placement services. The wages of contract workers were not consistent with those paid by the county for the same body of work - some higher, some lower. For example, nurses hired by King County to work in the contact center were paid below the market competitive rate and the PICC struggled to hire nurses. The contact center eventually had to turn to nursing agencies to fill staffing gaps. Temporary staffing agencies also had fewer workers available as the response wore on.

³⁶⁹ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³⁷⁰ COVID-19 PHSKC Key Informant Interviews. (2020-2021)



Over time, the ability to meet the staffing challenge became a strength as “new employees were brought on faster and in greater numbers than had ever been done before.”³⁷¹ The speed and scale at which new employees were brought on went from a major issue to something that was celebrated as a success by many PHSKC teams and provided critical aid to understaffed teams.³⁷² Labor unions were valued partners as systems adapted to a rapidly changing workforce. Key strategies that improved staffing included a higher degree of flexibility in hiring, expanded agreements with schools around use of students, mobilization of the PHRC, engaging contractors to meet surge staffing needs, cross divisional mobilization of PHSKC staff, and integration of Human Resources team members into staff forecasting conversations.³⁷³ Eventually tools that assisted managers and supervisors were created and shared, such as guidance on how to successfully engage staffing agencies to assist with recruitment and onboarding.³⁷⁴ Onboarding processes were streamlined through changes and standardized processes, such as shifted Public Health’s New Employee Orientation to a virtual self-paced training.

PHSKC staff also noted their overall workforce diversified during the COVID-19 response due to a combination of intentional hiring practices and the sheer number of recruitments required. Participants felt the workforce now was more varied in terms of race and ethnicity, along with professional and educational backgrounds.³⁷⁵

Unclear Processes: Workforce Mobilization

The Workforce Mobilization Plan to recruit, deploy, support, and demobilize responders during an emergency was outdated and not necessarily helpful. Response plans are drafted as guiding frameworks designed to be adapted to the specifics of a particular emergency response. For example, much of the prior documentation around workforce mobilization did not detail how to mobilize staff.³⁷⁶ A PHSKC staff member noted that the plan provided a structure to start with, but the scale and complexity of the event forced the plan to evolve.³⁷⁷ A staff member who filled an HR role noted that the plan would describe what should be done but provided little guidance as to how it would be accomplished.³⁷⁸ Plan attachments referenced outdated systems no longer in use and there were not templates available for standard tasks. Two specific areas that needed building out were onboarding and credentialing.

Early on, some workforce mobilization was decentralized with teams managing some of their own recruiting and onboarding processes, but soon everything was centralized into the Workforce Mobilization unit. Mobilization initially relied upon manual, slow processes to deploy employees. Basic systems did not exist, such as a way for HMA Finance & Administration to view staffing needs and personnel costs of for budget and cost tracking purposes. The workforce team underwent a laborious process to create an excel-based real-time list of responders available for deployment (along with start and end dates, classifications, credentials,

³⁷¹ Marx, C. (2021)

³⁷² Marx, C. (2021), COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

³⁷³ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

³⁷⁴ COVID-19 PHSKC Facilitated Discussions/ Team ‘Hotwashes’. (2020-2021)

³⁷⁵ Marx, C. (2021); COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³⁷⁶ Marx, C. (2021)

³⁷⁷ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³⁷⁸ COVID-19 PHSKC Key Informant Interviews. (2020-2021)



and prior training.).³⁷⁹ Additionally, several policy and administrative concerns had to be resolved which amplified backlogs for the team. Job classification requirements, equity and parity issues across newly created positions, FEMA reimbursement requirements, and appropriate exceptions to Human Resource policies are examples of issues PHSKC had to address to mobilize the workforce.³⁸⁰ The impact of an emergency declaration on personnel management was for the most part undefined at the onset of the response. The response would have also benefitted from more and earlier coordination with DCHS and DHR around HR practices.

However, as the response progressed, many of the initial challenges were resolved. Systems used in the pandemic and provided an opportunity to be formalized into processes, systems, and plans for future preparedness. Less successful systems create learnings for future improvements. PHSKC created new processes to mobilize staff.³⁸¹ Also, later in the response, teams began implementing technological tools and systems that supported the deployment of PHSKC staff to response operations.

RESPONDER SAFETY AND HEALTH

PHSKC conducted a range of activities in support of physical health and mental wellbeing of its staff and volunteer responders, largely led by the Safety Officer and Employee Health teams. PHSKC, with support from King County's Employee Assistance Program and Balanced You programs, implemented several initiatives to monitor responder well-being and provide support, and encouraged response teams to focus on individual well-being in the face of the high stress environment of the pandemic. PHSKC efforts throughout the duration of the response met CDC PHEP capability 14 - Responder Safety and Health in challenging conditions. PHSKC's safety leads also supported physical health of employees at PHSKC COVID-19 field sites by conducting general safety hazard checks, offering safety trainings, providing consultation on safety issues, and responding to concerns that arose during concurrent events such as demonstrations and inclement weather.

³⁷⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁸⁰ Marx, C. (2021)

³⁸¹ Marx, C. (2021)



Strengths

Safety and Wellbeing

Emotional and Psychological Wellness

In the face of significant professional and personal challenges created by the pandemic, PHSKC staff were buoyed by both responder wellbeing initiatives and peer support. Across the response, a nearly unilateral feeling was expressed that the staffs' "...biggest source of support during the response was their peers and coworkers."³⁸² Teams achieved this through different ways depending on their team structure and assignments. Some utilized regular check-ins, mindfulness practices, and virtual social engagements to bolster their teams.³⁸³ For others, it was a profound willingness to be flexible and support one another through challenging assignments and environments.³⁸⁴

Innovation/Success: PHSKC Recognizes Staff, Partners, and Volunteers

To recognize the important work of PHSKC and its partners, a photo gallery was created to memorialize and honor the work of individuals who supported the COVID-19 response. PHSKC thanked all those who responded stating, "Whether you worked long hours behind the scenes or braved the front lines at testing sites and in the community, your perseverance, compassion and efforts to protect and improve the health and well-being of all people in King County did not go unnoticed. This tribute is for you."*

"One Year of the Pandemic: Recognizing our Staff Partners and Volunteers." Public Health Insider, Public Health- Seattle & King County, <https://publichealthinsider.com/2021/01/26/one-year-of-the-pandemic-recognizing-our-staff-partners-and-volunteers/>. 26 January 2021.

In addition to peer support, responder wellbeing initiatives were appreciated by many of the groups involved in the response. Incident safety teams maintained a strong focus on responder wellbeing throughout the response and developed partnerships, such as Employee Assistance Program and Community Wellbeing, to provide resources to responders.³⁸⁵ Aside from providing information and routine check-ins, these programs involved on-site counseling services, meals and therapy dog visits when staff were onsite, online support meetings, wellbeing surveys, and other services as teams transitioned to remote working environments.³⁸⁶ While not entirely mitigating the challenges presented by the pandemic, teams noted that resources focused on coping with stress and burnout were helpful to their teams.³⁸⁷ Effective teamwork, coordination, and team composition

³⁸² Marx, C. (2021)

³⁸³ Marx, C. (2021)

³⁸⁴ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁸⁵ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁸⁶ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁸⁷ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



of the incident safety team were noted as key components that facilitated success of safety and wellbeing initiatives.³⁸⁸



Image 6: Photos of PHSKC response efforts.

Physical Safety

There was an increase in security efforts to protect PHSKC staff since PICC and field staff regularly faced verbal abuse and threatening situations during the response. The safety team built a strong presence at field sites to conduct general safety hazard checks, offer safety trainings, and provide consultation on safety issues. PHSKC also responded to concerns that arose during concurrent events such as demonstrations and inclement weather. Alerts were issued and daily virtual huddles were held to have field operational leads check in and receive updates on any potential safety concerns. At the main PHSKC offices, FMD security escorts, onsite parking, badged building access was provided to offer protection to staff. There was also a focus on training staff on de-escalation strategies to manage threatening situations.

³⁸⁸ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



Areas for Improvement

Lack of Standard Processes

The HMAC safety team experienced challenges completing their mission. For instance, with an overly broad initial scope of work, Safety Officers had to juggle responsibilities from non-response roles and had limited administrative support, which made it difficult to accomplish their mission.³⁸⁹ The team also experienced challenges maintaining situational awareness of other response teams' roles and operations because they were not included in the planning stages for sites and operations.³⁹⁰ Occasionally the Safety Officer identified was consulted too late in planning to implement safer practices before the activity began; this was the case with I&Q.³⁹¹

A lack of a standardized orientation to HMAC Safety for new responders may have contributed to limited engagement and made it challenging for the safety team to integrate across response teams. With limited bandwidth and an incredible number of response operations happening simultaneously, the HMAC Safety team was unable to conduct safety checks across many of the sites where response operations were occurring.³⁹²

Additionally, the safety team lacked key resources to conduct their work including a consistent responder tracking system and a centralized file management approach for safety documents. Yet in spite of all this, the team was still able to build effective cross-team communication and collaboration during the response, becoming a trusted source for guidance among response teams.³⁹³

Safety or Wellbeing Concerns

While PHSKC implemented a wide array of responder wellbeing initiatives and teams practiced extensive peer support, the severe mental and physical health impacts of the pandemic response on PHSKC staff were found across nearly all teams. Insufficient resources to achieve assignments and an inability to take time for self-care was a consistent concern.³⁹⁴ Teams and individuals felt unable to take advantage of wellbeing resources or to get "space" from the pandemic due to the incredible workloads facing them.³⁹⁵ Most teams noted this impacted their physical and mental health and personal relationships. Staff also noted navigating difficult decisions, public criticism at local and national levels, angry or frustrated clients, challenges of facing long-term structural inequities, personal impacts from the pandemic, and the challenging nature of disaster response work as significantly detrimental to their wellbeing.³⁹⁶ Many PHSKC staff members stated that a focus on making structural changes, such as establishing response priorities, cross-training staff members so people were able to cover for others going on break, hiring staff more quickly, and allowing responders to

³⁸⁹ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁹⁰ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁹¹ COVID-19 PHSKC Key Informant Interviews. (2020-2021)

³⁹² COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁹³ COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁹⁴ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁹⁵ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)

³⁹⁶ Marx, C. (2021); COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021)



rotate out of the response more frequently, would have been more helpful than a focus on individual self-care.



RECOMMENDATIONS

Synthesis and analysis of the data collected through the after-action process resulted in 43 high level recommendations grouped across seven cross-cutting themes. These were identified to help prepare PHSKC for future emergencies by building on learnings from successes and challenges experienced through the COVID-19 pandemic response. Efforts to address these items are highly encouraged and are aligned with a culture of quality improvement but require significant time and resources to accomplish fully. Competing priorities, including emerging incidents, and limited staffing and resources may necessitate prioritization and recalibration of these recommendations.

RELATIONSHIP BUILDING

- Capitalize on the collaboration and relationships built with community partners during the COVID-19 response and continue to convene regularly with these organizations to foster a deeper partnership with Public Health - Seattle & King County (PHSKC) and sustain built relationships.
- Develop process to link philanthropic organizations and businesses with community-based organizations (CBOs), faith-based organizations (FBOs), healthcare, and other partners. When funding is made available that community partners could use for disaster response activities, take steps to share the information and link partners with funding opportunities.
- Formalize relationships forged during COVID-19. Embrace these relationships and develop a program to ensure the valued partnerships are maintained and strengthened. Consider:
 - Establishing a formal process where stakeholders and partners are officially recognized
 - Inviting stakeholders and partners to become involved in emergency planning meetings
 - Encouraging the participation of these groups in training and exercises
 - Seeking their counsel in areas where they possess a unique knowledge of the issue, problem, or question.
 - Continuing to pay community members, stakeholders, and partners for their work with PHSKC.
 - When appropriate, formalizing relationships with agreements, charters, or memorandums of understanding (MOUs).

STANDARDIZATION OF PROCESSES

- Evaluate innovations that worked during COVID-19 to determine if/how they could be documented for use in the future, including during an infectious disease response. Incorporate revised standard operating procedures into relevant response plans for programmatic areas (e.g., vaccination, testing, contact tracing, public information), as well as departmental coordination of incident management functions (e.g., centralized financial systems).
- Establish dedicated Logistics Unit to cover inventory tracking, shipping, and handling needs, and establish clear process prior to initiating distribution.
- Clearly define decision-making capacity for each role and who needs to sign off on various types of decisions and document in relevant standard operating procedures (SOPs), job descriptions, and staffing plans.
- Develop and document a policy that outlines clear expectations around existing PHSKC staff participating in emergency responses to Division leadership.



- Formalize incident command system (ICS) refresher training and just-in-time training for all personnel participating in response operations or who may be called upon to contribute.
- Explore using systems other than WebEOC to capture resource requests from non-traditional emergency management partners.

HIRING AND ONBOARDING

- Develop and document standardized classifications in advance by selecting basic bodies of response work and documenting potential appropriate classifications.
- Develop job responsibilities and roles needed for human resources (HR) as part of the workforce mobilization team. This may include identifying a trigger for assigning HR staff or outlining necessary subject matter expertise needed around employment types.
- During responses, continue to offer HR a platform to reinforce the expectation that response teams should involve HR in their staffing conversations early and often. Ensure that HR is included in the agenda and standard attendees for relevant meetings.
- Document the protocol and lessons learned from working with staffing agencies during the response.
- Prioritize activities targeted at improving the ability of Public Health Reserve Corps (PHRC) to attract and retain diverse volunteers. Efforts should strive to significantly improve the diversity of newly recruited PHRC members and active participation of Black, Indigenous, People of Color (BIPOC) volunteers.
- Update or create policies which address maintaining or increasing diversity of PHSKC staff. Develop deliberate policies engaging diversity and equity issues from the lessons learned in the response. For example, prioritize activities targeted at improving the ability of PHSKC to attract and retain diverse applicants and hires.

TEAM OR STAFFING CAPACITY

- Develop and document a staffing model including number of staff needed during surges.
- Hire and cross-train additional program staff to enable the use of vacation without fearing their absence will create more workload and stress for colleagues on their team.
- Identify reliable funding for public health to effectively respond to public health emergencies.
- Identify bridge funding between infusions of federal and state emergency response money to avoid disruptions in response activities and prevent staff layoffs and rehires.
- During steady state, maintain open continuous recruitments for rosters of surge staff on standby until deployment during an emergency.

SAFETY OR WELLBEING CONCERNS

- Consult with Employee Assistance Program (EAP), Balanced You, Safety Officer, and other relevant groups to develop and document plans to ensure targeted access to culturally competent mental health/well-being resources for responders.
- Develop and document plans to allocate time and space for training and professional development so that staff feel supported in their role and can maintain a balanced workload between ongoing and response duties during longer responses.



- Create plans that focus on making structural changes, such as establishing response priorities, cross-training staff members so people are able to cover for others going on break, hiring staff more quickly, and allowing responders to rotate out of the response more frequently, in order to allow staff to take advantage of individual self-care needs.
- Explore making safety and wellbeing resources available to all responders, not just those who are King County employees.

EQUITY

- Work with emergency response leadership to hold more conversations about white supremacy and white dominance in the workplace.
- Continue collaborative work on disability equity/accessibility. Integrate and institutionalize successful practices from COVID-19 response into public health services and future emergency responses.
- Consult with leadership from the Equity and Community Partnerships team to designate one group (e.g., Equity Response Team) of internal staff as the official body for conducting initial equity reviews of proposed policies and programs.
- Develop and document a clear, consistent process for conducting initial equity reviews of proposed policies and programs. Delineate the procedures for doing an initial, internal-only equity review vs. a secondary review that involves feedback from external stakeholders.
- Hire more career service equity positions and build equity work into job descriptions. Add accountability for racial justice and equity goals into job descriptions and performance evaluations.
- Advocate for the adoption of common service delivery and accessibility standards across PHSKC programs to accommodate diverse communities. The standards should be met day-to-day as well as during disasters. This may include training for staff to review accessibility and health literacy standards of written materials (plain language, considerations for images, etc.), maintaining documented Americans with Disabilities Act (ADA) accessibility best practices for programs/services, or creating protocols and training for incorporating ADA standards into operations.
- Ensure all plans for continued work with CBOs, community navigators, and other community leaders include compensation.
- Invest time for each public health program to better align with the values established by the declaration of Racism as a Public Health Crisis. The declaration identifies a shared vision for equity to strengthen engagement of all staff in the department's equity and anti-racist agenda, unify efforts, and better center community needs.
- Address pay disparities between Special Duty Assignments and incoming higher negotiated amounts for Temporary Limited Term which created structural inequity among new hires.

COORDINATION/COLLABORATION

- Review structures to promote greater internal, cross-team coordination to help various response teams stay aligned with changing guidance and awareness of activities being led by other teams. Identify ways to support common operating picture to increase collaboration in efforts. Continue broad information sharing between internal teams by disseminating relevant materials and developing plans on a knowledge management driven shared portal.



- Perform an in-depth equity analysis of the burden and administrative barriers county business processes present to critical (small) partners like navigators, translators, and presenters. Work with Equity Response Team to review analysis and prioritize barriers for removal.
- Establish a quarterly or annual meeting to bring equity teams from key partner organizations together to connect and share best practices.
- Establish and maintain regular systems to continue relationships and planning in advance of an emergency with partners (e.g., municipalities and state agencies, businesses, healthcare systems and laboratories) that supported and/or would have a key role in collaborating during future response operations, such as testing, vaccination, or emergency medical services. This could include regular communications, meetings, contributions to emergency planning, and opportunities to train or practice response plans together.
- Recommend teams such as CBOs task force, FBOs task force should have a consistent seat at the table early on in response planning. Ensure avenues of participation for community partners who may not have the capacity to engage via comment periods, sharing of meeting content, and accessibility to meetings via means other than in-person.
- Seek ways to include direct community participation in ICS structures for smaller, less complex, or shorter duration events, to center community voices and empower the community to allocate response resources. Document these enhancements in the Emergency Services Function (ESF) #8 plan.
- Consider adopting a formal shadowing/mentoring process for departments seeking to launch community-led projects in the future to learn from PHSKC divisions that successfully engaged the community during COVID-19. For example, community-driven models for decision-making and ways to engage the community in programmatic design and implementation.
- Model with community members our willingness to engage in uncomfortable conversations. While being aware of our “county hat” and our shared humanity, make space to talk about barriers impacting our communities. This could include training or guidance for staff on active listening, conflict mediation, or receiving critical feedback during community meetings.
- Continue to support and further incorporate language access capabilities facilitating broader coordination and collaboration.
- Support purchasing and support of auxiliary devices for people accessing county services. Auxiliary devices are often labeled as supports for people with disabilities such as people who are deaf or hard of hearing but are useful to many community members.



CONCLUSION

The COVID-19 pandemic is an unprecedented public health emergency, testing health systems at all levels of government. To add to the already complex nature of the COVID-19 response, local governments across the country simultaneously responded to civil unrest, extreme weather, and catastrophic fires throughout 2020, further straining the already overwhelmed response infrastructure and complicating the COVID-19 response. With this complex disaster landscape, PHSKC acknowledged the importance of critically evaluating their disaster response to date and identified corrective actions to improve response efforts going forward, continuing this process as the COVID-19 response endures.

This AAR details the strengths and areas for improvement exhibited during PHSKC's response to COVID-19 in the operational period of assessment from January 2020 – January 2022. All recommendations identified during the creation of this report are synthesized into a COVID-19 Improvement Plan, which provides a roadmap for PHSKC to guide efforts to improve their response to future communicable disease outbreaks and other public health emergencies.



APPENDICES

REFERENCES

INTERNAL DOCUMENTS

AAR Wiland Associates

After Action Report, 2020 Food Security Assistance Program, March 2021

COVID-19 AAR Key Documents Summary Matrix

COVID-19 PHSKC Facilitated Discussions/ Team 'Hotwashes'. (2020-2021). Total of 48 individual summaries.

COVID-19 PHSKC Key Informant Interviews. (2020-2021). Total of 111 summaries and/or transcripts.

HMAC IAP 113

ICS 207, HMAC IAP #1

ICS 207, HMAC Org Chart Operational Period 78

JHS Lessons Learned_COVID-19 Testing

JHS Lessons Learned ICS 7.21.21

Marx Capstone Final

PHRC Engagement Survey

PHSKC COVID-19 Feedback from Zone 1,3,5 EMs

PHSKC COVID-19 Intra Action Quad Chart AirVent

PHSKC COVID-19 Intra Action Quad Chart_SSTAR

PHSKC Internal COVID-19 AAR Survey, March 2022.

PHSKC Principles for Equitable Vaccine Delivery

PHSKC. HMAC COVID-19 IAP #18

PHSKC. HMAC Incident Action Plan #01



Seattle COVID-19 AAR

TESTING_HIGH VOLUME_COVID-19 AAR Summary

EXTERNAL/PUBLIC SOURCE CITATIONS

AARP. 01.27.21. How to Navigate the Confusing COVID-19 Vaccine Rollout.

<https://www.aarp.org/health/conditions-treatments/info-2021/vaccine-distribution.html>

Administration for Community Living. 04.01.22. COVID-19 Response. Accessed 06.16.22.

https://acl.gov/sites/default/files/COVID19/ACL_Research_ImpactC19-PWD.pdf

Alexandria Macmadu et al. 10.09.20. COVID-19 and Mass Incarceration, The Lancet vol 5:11.

American College of Cardiology. 04.06.20. Racial Disparities in Hypertension Prevalence and Management: A Crisis Control? Accessed 06.16.22. <https://www.acc.org/latest-in-cardiology/articles/2020/04/06/08/53/racial-disparities-in-hypertension-prevalence-and-management>

American Indian Health Commission for Washington State. 03.11.20. AIHC Tribal Communicable Disease Emergency Responses Planning Project 2019-2020.

American Journal of Public Health. 02.23.22. Racial/Ethnic Segregation and Access to COVID-19 Testing: Spatial Distribution of COVID-19 Testing Sites in the Four Largest Segregated Cities in the United States. Accessed 06.16.22. <https://ajph.aphapublications.org/doi/10.2105/AJPH.2021.306558>

Andscape. New Poll Shows Black Americans Put Far Less Trust in Doctors and Hospitals Than White People. Accessed 06.16.22. <https://andscape.com/features/new-poll-shows-black-americans-put-far-less-trust-in-doctors-and-hospitals-than-white-people/>

Bay Area Regional Health Inequities Initiative (BARHII) and the Public Health Alliance of Southern California (The Alliance), Embedding Equity into Emergency Operations: Strategies for Local Health Departments During COVID-19 & Beyond. 07.01.20.

Brookings. 10.28.21. 2020 Census: Big Cities Grew and Became More Diverse. Accessed 06.16.22.

<https://www.brookings.edu/research/2020-census-big-cities-grew-and-became-more-diverse-especially-among-their-youth/>

CDC Newsroom. 02.29.20. Washington State Report First COVID-19 Death Media Statement.

<https://www.cdc.gov/media/releases/2020/s0229-COVID-19-first-death.html>

CDC. 02.29.20. Washington State Report First COVID-19 Death. Accessed 05.31.22.

<https://www.cdc.gov/media/releases/2020/s0229-COVID-19-first-death.html>



CDC. 10.21.21. CDC Expands Eligibility for COVID-19 Booster Shots.

<https://www.cdc.gov/media/releases/2021/p1021-covid-booster.html>

CDC. 12.10.20. Increased Risk Factors for Exposure. Accessed 06.15.22.

<https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/racial-ethnic-disparities/increased-risk-exposure.html>

CDC. COVID-19 Data Tracker. Accessed 06.15.22. <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>

CDC. Demographic Trends of COVID-19 Cases and Deaths in the US Report, updated 05.27.22,

<https://covid.cdc.gov/covid-data-tracker/#demographics>

CDC. Health Equity. <https://www.cdc.gov/chronicdisease/healthequity/index.htm>

CDC. Obesity Disproportionately Impacts Some Racial and Ethnic Minority Groups. Accessed 06.16.22.

<https://www.cdc.gov/obesity/data/adult.html>

CDC. Risk for COVID-19 Infection, Hospitalization, and Death By Race/Ethnicity. Accessed 06.15.22.

<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html>

CDC. The Advisory Committee on Immunization Practices' Updated Interim Recommendation for Allocation of COVID-19 Vaccine – United States 2020. <https://www.cdc.gov/mmwr/volumes/69/wr/mm695152e2.htm>

CDC. The Tuskegee Timeline. Accessed 06.16.22. <https://www.cdc.gov/tuskegee/timeline.htm>

CDC. 02.28.20. CDC Announces Additional COVID-19 Presumptive Positive Cases. Accessed 06.15.22.

<https://www.cdc.gov/media/releases/2020/s0228-additional-COVID-19-cases.html>

CDC. How to Protect Yourself and Others. Accessed 08.07.21. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention-H.pdf>

CNN. 07.27.21. CDC Changes Mask Guidance in Response to Threat of Delta Variant of COVID-19.

<https://www.cnn.com/2021/07/27/politics/cdc-mask-guidance/index.html>

Department of Community and Health Services. 08.05.20. Former Metro Drivers Take a New Role as King County Health Ambassadors to Slow the Spread of COVID-19. Accessed 05.31.22.

<https://dchsblog.com/2020/08/05/former-metro-drivers-take-on-new-role-as-king-county-health-ambassadors-to-slow-the-spread-of-covid-19/4>

DOH. 09.27.2021. Prioritization Guideline for Allocation of PPE. Accessed 06.14.22.

<https://doh.wa.gov/sites/default/files/2022-02/PPEPrioritizationofAllocation.pdf>



Federal Register. 02.07.20. Determination of Public Health Emergency. Accessed 06.15.22.

<https://www.federalregister.gov/documents/2020/02/07/2020-02496/determination-of-public-health-emergency>

Havich, Michelle M. 03.30.21. 2021 Crown Communities Award winner: King County's enterprise-wide COVID-19 response. American City and County, <https://www.americancityandcounty.com/2022/01/28/2021-crown-communities-award-winner-king-countys-enterprise-wide-covid-19-response/>.

Health Affairs. 03.10.22. Pandemic-Driven Health Policies To Address Social Needs and Health Equity. Accessed 06.16.22. <https://www.healthaffairs.org/doi/10.1377/hpb20220210.360906/>

HHS. 02.23.22. New HHS Report Highlights 40 Percent Decline in Uninsured Rate Among Black Americans Since Implementation of the Affordable Care Act. Accessed 06.15.22.

<https://www.hhs.gov/about/news/2022/02/23/new-hhs-report-highlights-40-percent-decline-in-uninsured-rate-among-black-americans-since-implementation-affordable-care-act.html>

History.com. First confirmed case of COVID-19 found in U.S. Accessed 05.05.21. <https://www.history.com/this-day-in-history/first-confirmed-case-of-coronavirus-found-in-us-washington-state>

Jama Network. 01.22.21. Racial and Ethnic Health Disparities Related to COVID-19. Accessed 06.16.22. <https://jamanetwork.com/journals/jama/fullarticle/2775687>

KFF. 03.16.21. What's In the American Rescue Plan for COVID-19 Vaccine and Other Public Health Efforts. Accessed 06.16.22. <https://www.kff.org/policy-watch/whats-in-the-american-rescue-plan-for-covid-19-vaccine-and-other-public-health-efforts/>

KFF. 04.07.22. Latest Data on COVID-19 Vaccinations By Race/Ethnicity. Accessed 06.16.22.

<https://www.kff.org/coronavirus-covid-19/issue-brief/latest-data-on-covid-19-vaccinations-by-race-ethnicity/>

KFF. 05.11.21. Disparities in Health and Health Care: 5 Key Questions and Answers. Accessed 06.16.22.

<https://www.kff.org/racial-equity-and-health-policy/issue-brief/disparities-in-health-and-health-care-5-key-question-and-answers/>

King County. 03.15.20. Executive Constantine and King County Health Officer Announce New Orders to Limit Spread of COVID-19. Accessed 05.31.22.

<https://kingcounty.gov/elected/executive/constantine/news/release/2020/March/15-COVID-order.aspx>

King County. 03.24.20. Quickly, Safely, Reducing the Jail Population so Staff can Ensure the Health of Everyone in Correctional Facilities. Accessed 05.31.22.

<https://kingcounty.gov/elected/executive/constantine/news/release/2020/March/24-jail-population.aspx>

King County. 03.25.20. King County and Seattle Expand COVID-19 Emergency Shelter and Housing Response.

Accessed 05.31.22. <https://kingcounty.gov/elected/executive/constantine/news/release/2020/March/25-kingcounty-seattle-covid-19-shelter.aspx>



King County. 03.04.20. Local Health Officials Announce New Recommendations to Reduce Risk of Spread of COVID-19. Accessed 05.31.22. <https://kingcounty.gov/depts/health/news/2020/March/4-covid-recommendations.aspx>

King County. 03.05.20. King County Pandemic Advisory Group. Accessed 06.14.22. <https://kingcounty.gov/depts/health/covid-19/community-faith-organizations/~media/depts/health/communicable-diseases/documents/C19/parcag/PARCAG-2020-Mar-5-minutes.ashx>

King County. 06.11.20. Racism as a Public Health Crisis. <https://kingcounty.gov/elected/executive/constantine/initiatives/racism-public-health-crisis.aspx#values>

King County. 08.20.20. King County Dedicates \$41 Million to COVID-19 related Rental Assistance and Eviction Prevention. Accessed 05.31.22. <https://kingcounty.gov/elected/executive/constantine/news/release/2020/August/20-rental-assistance.aspx>

Mary Finding. COVID-19 Has Driven Racism and Violence Against Asian Americans, Health Affairs, 04.12.22.

McMichael TM, Clark S, Pogosjans S, et al. COVID-19 in a Long-Term Care Facility — King County, Washington, February 27–March 9, 2020. MMWR Morb Mortal Wkly Rep 2020;69:339-342.

Medical News Today. 11.13.21. How did we develop a COVID-19 vaccine so quickly?. Accessed June 17, 2021. <https://www.medicalnewstoday.com/articles/how-did-we-develop-a-covid-19-vaccine-so-quickly>

Modern Healthcare. 05.11.20. COVID-19 Testing Problems Started Early, U.S. Still Playing from Behind. Accessed 06.15.22. <https://www.modernhealthcare.com/technology/covid-19-testing-problems-started-early-us-still-playing-behind>

Moderna. 11.16.20. Moderna's COVID-19 Vaccine Candidate Meets its Primary Efficacy Endpoint in the First Interim Analysis of the Phase 3 Cove Study. <https://investors.modernatx.com/news/news-details/2020/Modernas-COVID-19-Vaccine-Candidate-Meets-its-Primary-Efficacy-Endpoint-in-the-First-Interim-Analysis-of-the-Phase-3-COVE-Study-11-16-2020/default.aspx/>

Mohamed, Hamdi and Senayet Negusse, #IDIDMYPART King County Drive Through Testing Report, King County Office of Equity and Social Justice, June 2020.

National Academy of Social Insurance. 07.01.20. The Impact of the COVID-19 Pandemic on Access to Health Care. Accessed 06.16.22. <https://www.nasi.org/research/medicare-health-policy/the-impact-of-the-covid-19-pandemic-on-access-to-health-care/>

National Library of Medicine. 2017. Racial and Ethnic Disparities in Prevalence and Care of Patients with Type 2 Diabetes. Accessed 06.16.22. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5241767/>



New York Times. 03.04.20. Why Washington State? How Did It Start? Questions Answered on the U.S. Coronavirus Outbreak.

NIH. Ending Structural Racism. Accessed 06.16.22. <https://www.nih.gov/ending-structural-racism/unite>

Pew Research. 04.05.18. A Record of 64 Million Americans Live in Multigenerational Households. Accessed 06.16.22. <https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/>

Pfizer. Pfizer and BioNTech Conclude Phase 3 Study of COVID-19 Vaccine Candidate, Meeting All Primary Efficacy Endpoints. <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-conclude-phase-3-study-covid-19-vaccine>

PHSKC. 01.18.21. Expanding Vaccination To Older Adults In King County. Accessed 05.31.22. <https://publichealthinsider.com/2021/01/18/expanding-vaccination-to-older-adults-in-king-county/>

PHSKC. 01.29.21. King County Opens Covid-19 Vaccination Sites In Kent And Auburn To Provide Access For Vulnerable Older Adults And Their Caretakers. Accessed 05.31.22. <https://publichealthinsider.com/2021/01/29/king-county-opens-covid-19-vaccination-sites-in-kent-and-auburn-to-provide-access-for-vulnerable-older-adults-and-their-caretakers/>

PHSKC. 01.08.21. King County Announces New Funding for Community Vaccination Efforts. Accessed 05.31.22. <https://publichealthinsider.com/2021/01/08/king-county-announces-new-funding-for-community-vaccination-efforts/>

PHSKC. 02.03.21. Changes in Death Rates During the COVID-19 Pandemic in King County, WA January 1 – December 31, 2020. Accessed 05.31.22. <https://kingcounty.gov/depts/health/covid-19/data/~media/depts/health/communicable-diseases/documents/C19/changes-in-death-rates-report.ashx>

PHSKC. 02.07.2020. Public Health Insider. Addressing Stigma United Response to Coronavirus. Accessed 05.31.22. <https://publichealthinsider.com/2020/02/07/addressing-stigma-united-response-to-coronavirus/>

PHSKC. 02.23.21. Take Transit To Take Your Shot: Here Are Ways To Get To Your Vaccination Appointment. Accessed 05.31.22. <https://publichealthinsider.com/2021/02/24/take-transit-to-take-your-shot-here-are-ways-to-get-to-your-vaccination-appointment/>

PHSKC. 04.01.21. King County Unified Regional Strategy: COVID-19 Vaccine Delivery. Accessed 05.23.22. <https://kingcounty.gov/~media/depts/health/communicable-diseases/documents/C19/king-county-strategy-for-vaccine-delivery.ashx?la=en>

PHSKC. 04.05.22. King County's COVID-19 Contact Tracing Efforts Gain Strength. <https://publichealthinsider.com/2020/09/16/covid-19-contact-tracing-efforts/>.



PHSKC. 04.09.20. King County Pandemic Community Advisory Group. Accessed 06.15.22.

<https://kingcounty.gov/depts/health/covid-19/community-faith-organizations/~media/depts/health/communicable-diseases/documents/C19/parcag/PARCAG-2020-April-9-minutes.ashx>.

PHSKC. 04.10.20. How We are Monitoring COVID-19 Preliminary Data by Race, Ethnicity. Accessed 05.31.22.

<https://publichealthinsider.com/2020/04/10/how-we-are-monitoring-covid-19-preliminary-data-by-race-ethnicity/>

PHSKC. 04.19.21. Public Health's In-Home Vaccination Launches Across The County. Accessed 05.31.22.

<https://publichealthinsider.com/2021/04/19/public-healths-in-home-vaccination-launches-across-the-county/>

PHSKC. 04.29.21. Getting Vaccinated Just Got Easier (At Last!). Accessed 05.31.22.

<https://publichealthinsider.com/2021/04/29/getting-vaccinated-just-got-easier-at-last/>

PHSKC. 05.01.20. Media Release: Protecting Rights of People with Disabilities as Face-Covering Directive Goes into Effect Monday. Accessed 05.31.22. <https://publichealthinsider.com/2020/05/15/media-release-protecting-rights-of-people-with-disabilities-as-face-covering-directive-goes-into-effect-monday/>

PHSKC. 05.01.21. Making Meaning of the COVID-19 Race and Ethnicity Data: A Conversation with Our Health Officer and Our Equity Director. Accessed 05.31.22. <https://publichealthinsider.com/2020/05/01/making-meaning-of-the-covid-19-race-and-ethnicity-data-a-conversation-with-our-health-officer-and-our-equity-officer/>

PHSKC. 06.15.20. Summary of King County COVID-19 Homeless Response Health Care for the Homeless Network (HCHN) Governance Council Meeting. <https://kingcounty.gov/depts/health/locations/homeless-health/healthcare-for-the-homeless/~media/depts/health/homeless-health/healthcare-for-the-homeless/documents/2020-june/covid-19-homeless-response.ashx>

PHSKC. 06.29.2021. Disaster Behavioral Health COVID-19 Response Assessment.

PHSKC. 07.14.21. Health Care Access in King County, WA March 2020 – June 2021. Accessed 05.31.22.

<https://kingcounty.gov/depts/health/~media/depts/health/communicable-diseases/documents/C19/health-care-access-king-county.ashx>

PHSKC. 07.15.20. Behavioral Health Needs and Services in King County, WA: March - May 2020. Accessed 05.31.22.

<https://kingcounty.gov/depts/health/covid-19/data/~media/depts/health/communicable-diseases/documents/C19/report-behavioral-health-needs.ashx>

PHSKC. 07.24.20. Video: July 24, 2020 Update on COVID-19 in King County with Dr. Jeff Duchin. Accessed 05.31.22.

<https://publichealthinsider.com/2020/07/24/video-july-24-2020-update-on-covid-19-in-king-county-with-dr-jeff-duchin/>



PHSKC. 11.23.20. Summary Report on Outbreaks and Exposure Settings for COVID-19 Cases in King County, WA. Accessed 5.31.22 <https://kingcounty.gov/depts/health/covid-19/data/~media/depts/health/communicable-diseases/documents/C19/report-outbreaks-exposure-settings-covid-19.ashx>

PHSKC. 12.16.20. First Doses of Vaccine Arrive in King County. Accessed 05.31.22. <https://publichealthinsider.com/2020/12/16/first-doses-of-vaccine-arrive-in-king-county/>

PHSKC. About Us. <https://kingcounty.gov/depts/health/about-us.aspx>

PHSKC. COVID-19 Summary Dashboard. Accessed 05.27.22. <https://kingcounty.gov/depts/health/covid-19/data/summary-dashboard.aspx>

PKSKC. 04.26.21. Principles for Equitable Vaccination. Accessed 05.23.22. <https://kingcounty.gov/~media/depts/health/communicable-diseases/documents/C19/king-county-principles-vaccine-delivery.ashx?la=en>

Poor People's Campaign. 04.01.22. A Poor People's Pandemic Report: Mapping the Intersections of Poverty, Race, and COVID-19. Accessed 06.16.22. https://www.poorpeoplescampaign.org/wp-content/uploads/2022/04/ExecutiveSummary_7.pdf

Public Health Insider. 05.01.20. New Analysis Shows Pronounced Racial Inequities Among Covid-19 Cases, Hospitalizations And Deaths. Accessed 05.23.22. <https://publichealthinsider.com/2020/05/01/new-analysis-shows-pronounced-racial-inequities-among-covid-19-cases-hospitalizations-and-deaths/>

Robert Klemko. 04.09.20. Seattle area used early social distancing, testing, to help begin flattening the coronavirus curve, Washington Post.

Rugaijah Yearby, Brietta Clark, and José F. Figueroa. 02.02.22. Structural Racism in Historical and Modern US Health Care Policy, Health Affairs vol. 41:2, <https://www.healthaffairs.org/doi/10.1377/hlthaff.2021.01466>.

Seattle Times. 04.01.21. Why Washington's Rollout of COVID-19 Vaccine Eligibility Has Been Slower Than in Some Other States. <https://www.seattletimes.com/seattle-news/health/why-washingtons-rollout-of-covid-vaccine-eligibility-has-been-slower-than-other-states/>

Stanford Medicine. 09.02.21. How Misinformation, Medical Mistrust Fuel Vaccine Hesitancy. Accessed 06.16.21. <https://med.stanford.edu/news/all-news/2021/09/infodemic-covid-19.html>

State Emergency Operations Center. 11.05.20. Situation Report. https://lewiscountywa.gov/media/documents/SEOC_COVID19_SitRep_110520-181.pdf

The Lancet. 04.10.21. Triple Jeopardy: Disabled People and the COVID-19 Pandemic. Accessed 06.16.22. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)00625-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00625-5/fulltext)



The National Institute for Health Care Management. Disability, Health Equity, and COVID-19. Updated 10.14.21, <https://nihcm.org/publications/disability-health-equity>

The Washington Post. 12.14.20. First Coronavirus Vaccine Shots Given Outside Trial in U.S. <https://www.washingtonpost.com/nation/2020/12/14/first-covid-vaccines-new-york>

The White House. 01.21.21. Executive Order on Ensuring an Equitable Pandemic Response and Recovery. Accessed 06.16.22. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/21/executive-order-ensuring-an-equitable-pandemic-response-and-recovery/>

The White House. 02.24.22. Administration Announces New Actions to Address the Needs of People with Disabilities and Older Adults in Response to and Recovery from COVID-19. Accessed 06.16.22. <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/24/fact-sheet-administration-announces-new-actions-to-address-the-needs-of-people-with-disabilities-and-older-adults-in-response-to-and-recovery-from-covid-19/>

U.S. Food and Drug Administration. 05.10.21. FDA Authorizes Pfizer-BioNTech COVID-19 Vaccine for Emergency Use in Adolescents in Another Important Action in Fight Against Pandemic. <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-pfizer-biontech-covid-19-vaccine-emergency-use>

U.S. Food and Drug Administration. 08.12.21. FDA Authorizes Additional Doses for Certain Immunocompromised Individuals. <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-additional-vaccine-dose-certain-immunocompromised>

U.S. Food and Drug Administration. 10.29.21. FDA Authorizes Pfizer-BioNTech COVID-19 Vaccine for Emergency Use in Children 5 Through 11 Years of Age. <https://www.fda.gov/news-events/press-announcements/fda-authorizes-pfizer-biontech-covid-19-vaccine-emergency-use-children-5-through-11-years-age>

U.S. Food and Drug Administration. COVID-19 Vaccines. <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines>

U.S. Food and Drug Administration. FDA Takes Key Action in Fight Against COVID-19 By Issuing Emergency Use Authorization for First COVID-19 Vaccine. <https://www.fda.gov/news-events/press-announcements/fda-takes-key-action-fight-against-covid-19-issuing-emergency-use-authorization-first-covid-19>

UW Medicine. 01.22.22. King County Hospitals Issue Urgent Call To Action. Accessed 05.31.22. <https://newsroom.uw.edu/news/king-county-hospitals-issue-urgent-call-action>

Washington State Department of Health. 02.10.21. COVID-19 Vaccination Coverage by Race and Ethnicity and Age in Washington State. <https://doh.wa.gov/sites/default/files/2022-03/348-791-COVID19VaccinationCoverageRaceEthnicityAgeWASate.pdf?uid=6282e74a61b25>



Washington State Department of Health. COVID-19 Data Dashboard. 05.17.22.
<https://www.doh.wa.gov/Emergencies/COVID19/DataDashboard>

WebMD. 06.16.21. Delta Variant from India a “Variant of Concern.”
https://www.webmd.com/lung/news/20210616/delta-variant-of-concern_

White House. 03.16.20. 15 Days to Slow the Spread. Accessed 06.15.22.
<https://trumpwhitehouse.archives.gov/articles/15-days-slow-spread/>



ACKNOWLEDGEMENTS

We are grateful to the many individuals, organizations, and our community that responded to the COVID-19 pandemic - their time, expertise, and tireless efforts were instrumental to PHSKC's whole of community emergency response.

The list below is reflective of the agencies who participated in an after-action review interview, facilitated discussion/hotwash, or a town hall event. Many thanks to the incredible PHSKC staff, King County departments, volunteers, community organizations, trusted leaders, healthcare organizations, and public and private sector response partners that provided insights and feedback into the after-action review process. We are grateful for all that you have done to support PHSKC's COVID-19 response and for sharing your reflections and expertise.

PHSKC COVID-19 AAR Participants

PHSKC PLANNING TEAM MEMBERS

Resham Patel (Project Manager)

Alison Levy

Carina Elsenboss

Mariel Torres Mehdipour

Nick Solari

Rosheen Birdie

GOVERNMENT PARTNERS

King County Departments

Local Emergency Management Agencies throughout King County

Washington State Department of Health

NON-GOVERNMENTAL PARTNER AGENCIES

Adult Family Home Council

Allegro

Altius

American Indian Health Commission for Washington State

Amigos de Seattle

Atlas Genomics

Center for Multicultural Health

Central Area Senior Center

Church of Mary Magdalene at Mary's Place



Evangelical Lutheran Church in America

EvergreenHealth

Fred Hutchinson Cancer Research Center

HealthierHere

HealthPoint

Hopelink

India Association of Western Washington

International Community Health Services

Kaiser Permanente

King County Promotores Network

Latino Community Health Advocates team

Neighborcare Health

Northwest Healthcare Response Network

Public Health Reserve Corps

Puget Sound Regional Fire Authority

Seattle/King County Coalition Homelessness

Shoreline Fire

Sound Generations - Ballard, Shoreline, and Lake City/Northgate locations

The Alliance of People with disAbilities

University of Washington

CONSTANT ASSOCIATES TEAM

Susie Schmitz, Project Manager

Casey Moes, Deputy Project Manager

Kristen Baird, Project Sponsor

Trevor Covington, Townhall Facilitators, AAR Writer

Bill Pepler, Townhall and AAM Facilitator

Amanda Ozaki-Laughon, Project Support

Derek Morrison, Project Support

Dylan Yates, Project Support

Hieu Vo, Project Support

Nicole Christensen, Project Support



This page left intentionally blank



PHSKC COVID-19 AAR ONLINE STAFF SURVEY SUMMARY

PHSKC COVID-19 AAR ONLINE SURVEY OVERVIEW

A total of 414 respondents completed the Public Health Seattle - King County (PHSKC) COVID-19 After-Action Report Survey that collected data regarding the response between January 2020 - March 2022. The respondents were PHSKC personnel from an array of teams with a variety of response roles. With the range of respondent experiences, and the numerous questions asked about PHSKC COVID-19 response, there were many valuable takeaways.

SURVEY RESPONDENT CHARACTERISTICS

All respondents (N=414) completed at least the first four questions of the survey providing their general characteristics and overall perception of PHSKC's response efforts. The following bar chart shows the distribution of respondents based on the work area with which they were primarily affiliated. The most common primary work areas were Public Information Contact Center (PICC), Community Health Services (not otherwise listed), Disease Investigations, and Contact Tracing. Those who chose "other" as their primary work area listed roles that included Child Care Taskforce, Public Health Clinics, EPIC, etc.

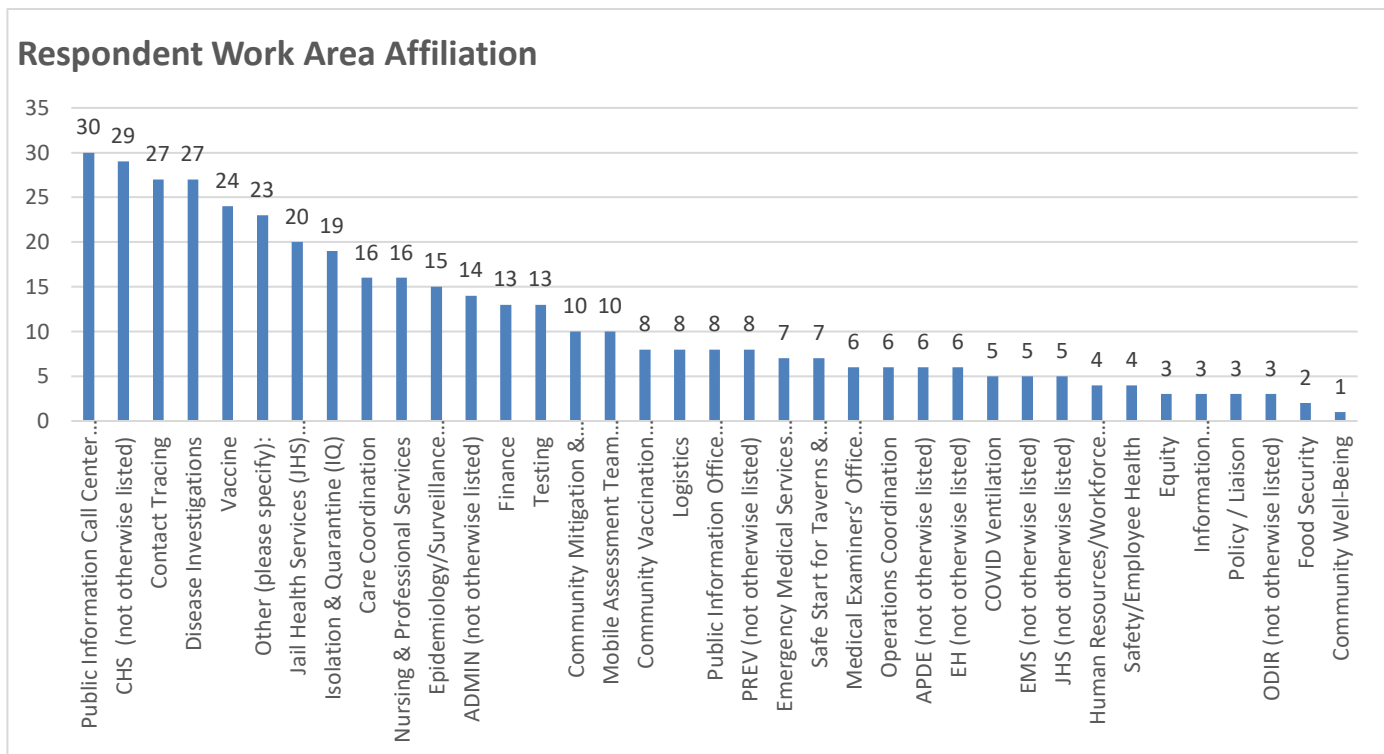


Chart 1: Respondent Work Area Affiliation



Out of the 414 respondents, the majority of those were a team member (71%) and not directly in charge of any specific work area. Those who indicated they held a leadership position included team leads (14%), division leads (5%) and department leadership (3%). There was a significant amount (7%) that did not identify with any of those roles. Some of the personnel that answered “other” for their role in the COVID-19 response felt they filled multiple roles or were leads but not in a supervisory capacity.

STAFFING COVID-19 RESPONSE ROLES

There were several comments throughout the survey as to staffing levels, rates of hiring, and overall turnover. Respondents were asked to list the first day of the month and year that they started in their COVID-19 team/work areas. The chart below depicts the number of personnel dedicated to reducing the effects of COVID-19, by their start date. Very early in the pandemic, many survey respondents joined PHSKC’s response efforts. By February 2020, at least 55 of the staff responding to the survey were working in their COVID-19 teams/work areas and 88 survey respondents joined these efforts in the month of March 2020 alone. The number of PHSKC staff respondents starting their roles tapers off after April and May 2020. However, there is a steady number noting they joined the effort throughout 2020 and 2021. Some respondents even began their PHSKC COVID-19 role as late as March 2022.

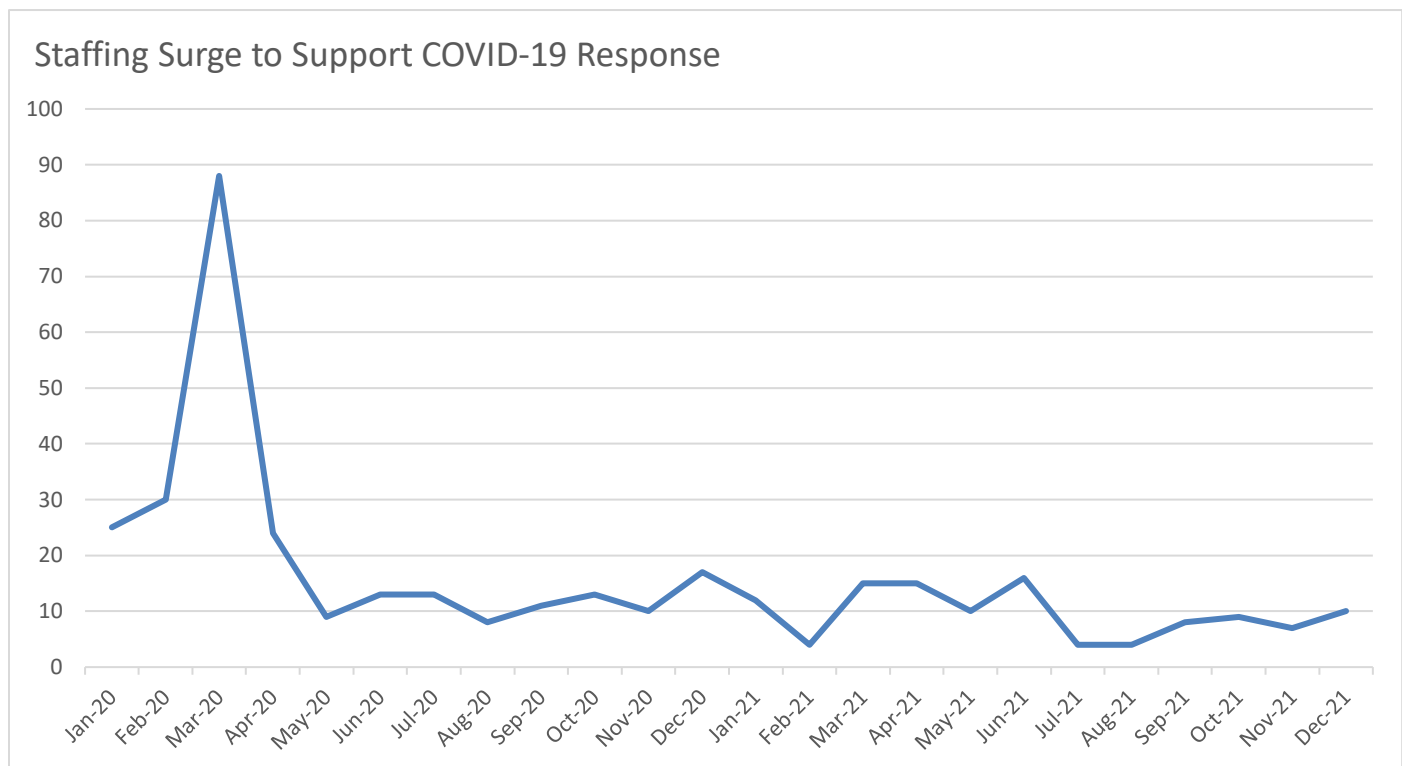


Chart 2: Start Date to Support COVID-19 Response



PERCEPTIONS OF PHSKC RESPONSE

Overall Rating

Respondents overwhelmingly approved of PHSKC's response to COVID-19 with 78% rating the response good or excellent. There were few respondents that believed the response was poor or fair (10%). Of the respondents who were members of leadership or led their team/area, 84% felt the PHSKC response overall was good or excellent. Only 5% of leadership perceived the response as poor or fair. For those who contributed to a team, 77% rated the response as good or excellent while 12% scored PHSKC as poor or fair. Overall, most respondents indicated that they approved of the PHSKC response.

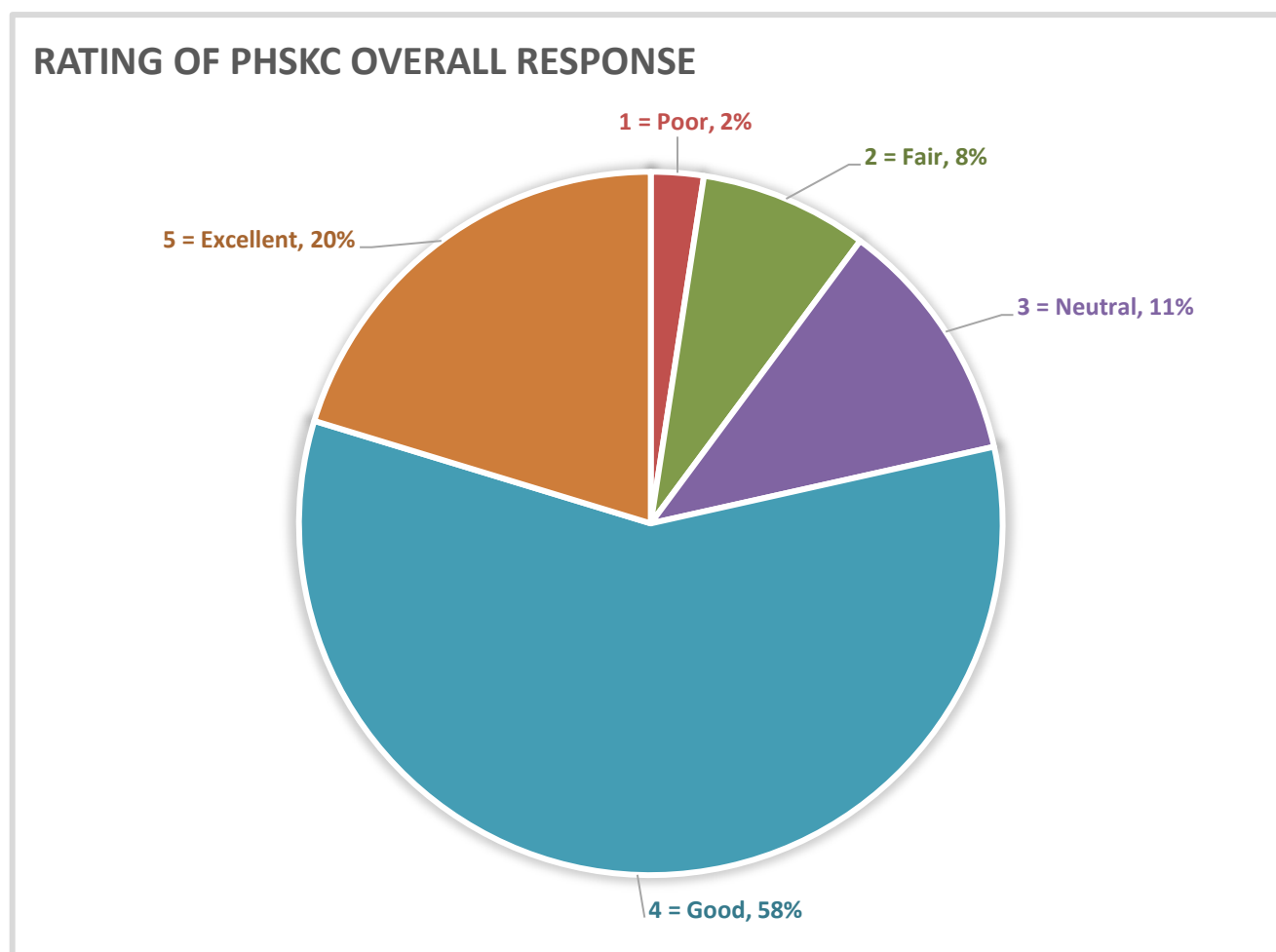


Chart 3: Rating of PHSKC COVID-19 Response Overall



First Three Months and the Last Three Months of Response Operations

The next series of charts graphically depicts a comparison of PHSKC team thoughts on major stress areas of responding to the pandemic. All respondents were asked to think through their roles, skills, training, staffing, resources, information, and coordination capabilities during the first three months of the response. They were then asked to examine those same areas in the last three months to see if there were noticeable changes. The graphs demonstrate with transparency if/to what extent the perspectives of staff towards programs and processes changed over time.

Staff Roles, Skills, and Training

Many of the staff survey respondents felt confident about understanding their primary response roles even early in the pandemic and believed they had the appropriate skills and training to complete their work. In the first three months, 78% of respondents agreed or strongly agreed that they understood their role. One respondent expressed an escalation of stress and responsibility in their role as local cases evolved but took their concerns to leadership and found support and productive solutions.³⁹⁷ Other respondents agreed that PHSKC went through a "learning phase" but felt the team supported each other to solve problems.³⁹⁸ Many spoke of the first three months as overwhelming until more personnel were hired and processes evolved. When rating the last three months of the period of time the survey was evaluating (January - March 2022), 87% of respondents understood their roles. Overall, this demonstrated that there was clarity around what response roles entailed and the responsibilities people were expected to fill.

³⁹⁷ PHSKC COVID-19 AAR Survey Respondent Question 5

³⁹⁸ PHSKC COVID-19 AAR Survey Respondent Question 5

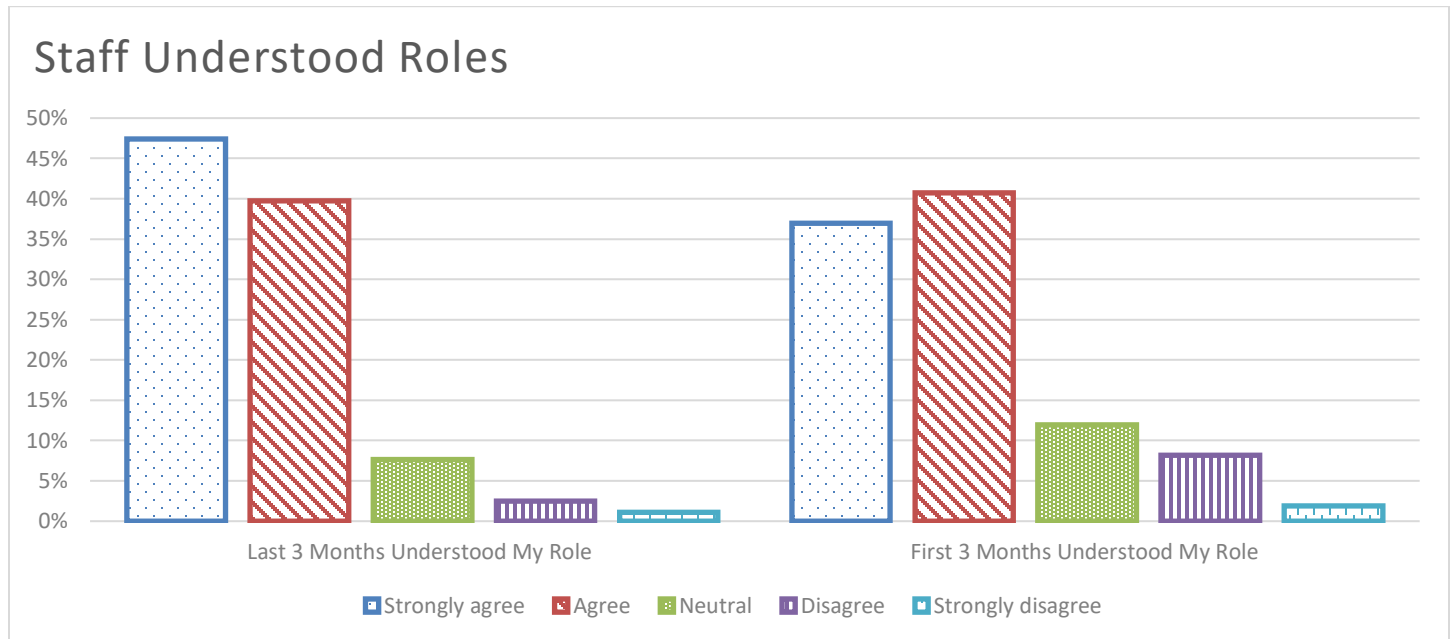


Chart 4: Staff Understood Roles

*"I felt lacking in understanding or training related to my role, and this feeling seemed shared by most in the response. Fortunately, there was an almost unanimous comradery and solidarity to support each other, cross-train, explain processes and response-related ways of doing things, give grace and understanding, and be committed to creatively finding a way to accomplish the work. Where we were lacking in formal training and structure, we more than made up in smart, savvy staff."*³⁹⁹

Thinking back to the first three months of the response, 86% of respondents felt they had the necessary skills which did not change substantially compared to the last three months. However, having adequate training scored lower in the first three months with only 56% agreeing or strongly agreeing. Some respondents noted they were hired to fill one role but it was quickly rebranded to another or they created the training for others as they learned their job duties.⁴⁰⁰ There was a marked improvement in the last three months around training with 67% of respondents agreeing or strongly agreeing that they had the training required to complete their work. Continued improvement in understanding of roles and acquisition of skills is a laudable accomplishment with a high level of reported staff turnover during this two year period. However, with 30%+ of respondents regardless of timeframe either neutral or disagreeing they had adequate training for their response role there are still opportunities to improve in this area going forward.

³⁹⁹ PHSKC COVID-19 AAR Survey Respondent Question 5

⁴⁰⁰ PHSKC COVID-19 AAR Survey Respondent Question 5

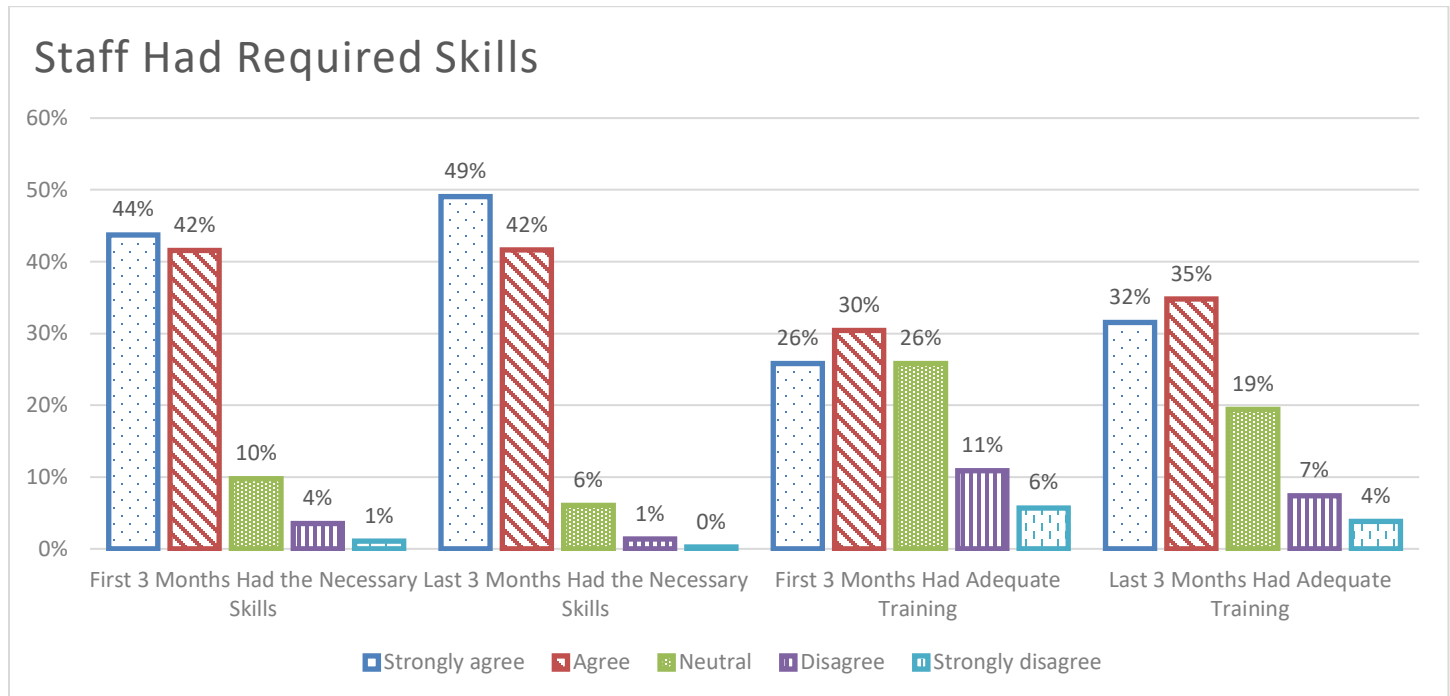


Chart 5: Staff Had Required Skills and Training

Staffing and Resources

Over half of respondents were neutral, disagreed, or strongly disagreed that they had adequate staffing during the pandemic. Compared to the others statements being evaluated by respondents, “I feel my team/work area was adequately staffed to perform our function in Public Health’s COVID-19 response” was the only one to have more than 50% of respondents neutral or disagreeing with it.

Although agreement on adequate staffing increased in the last three months to 48%, this was only a slight improvement (3% increase). Some respondents expressed they all were “working beyond capacity” and people could not be hired fast enough.⁴⁰¹ There were consistent remarks by survey respondents regarding some response areas being underresourced as far as personnel and some salaried employees filling with long hours or work weeks to meet the needs of the response.⁴⁰²

⁴⁰¹ PHSKC COVID-19 AAR Survey Respondent Question 6

⁴⁰² PHSKC COVID-19 AAR Survey Respondent Question 6

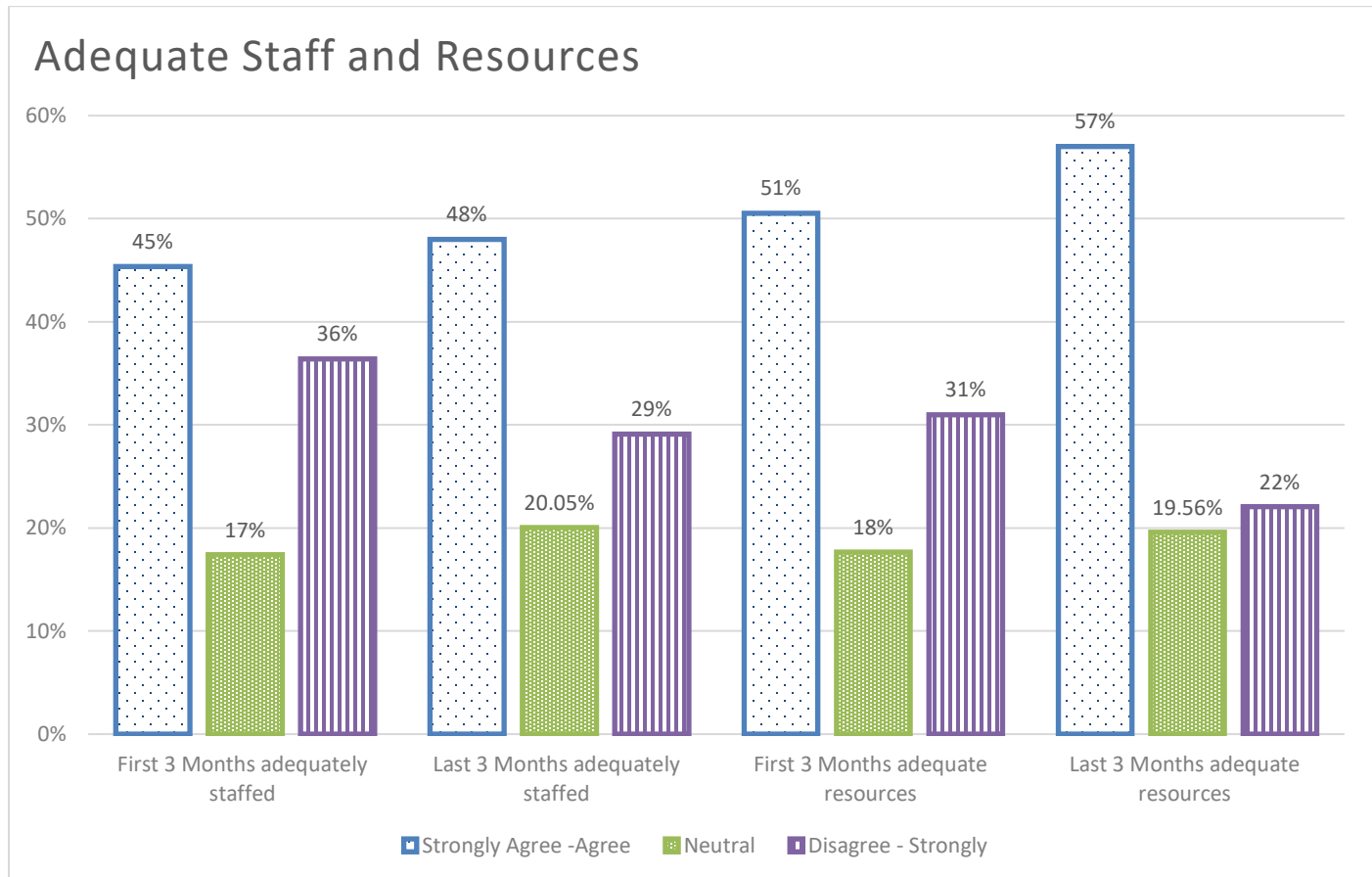


Chart 6: Adequate Staff and Resources

Slightly more than half of respondents (51%) felt there were adequate resources in the first three months. This improved slightly for the last three months, with the total number of staff that agreed to some extent or were neutral over adequate resources increasing. However, it is still notable that 42% of respondents were neutral or disagreed to some extent that they had enough resources to perform their function in the response.

When asked what resources, trainings, or information would have helped the respondent and/or their team/work area, over 200 people provided open-ended feedback. There were a range of suggestions including additional staffing, more training on response roles, improved communication and coordination between teams in the field as well as those between departments, administrative and human resources support, etc. Some of the most frequent types of suggestions are listed below along with examples from open ended responses.

- COVID-19 Safety: Staying self-informed of CDC guidance; sharing medical and non-medical knowledge
- Communication: Better communication and coordination among teams; need for continuous liaison
- Emergency Prep/Management: Frequent emergency preparedness training; staff accountability



- Information Management: Improved centralized data systems, information sharing, public reporting
- Onboarding: Uniform training for all new hires; gap in knowledge among early hires in the pandemic
- Resource availability: Inequities in PPE and testing kit supply and distribution; training on risk reduction
- Staff Care: Implement rotations and breaks; combat burnout; encourage self-care
- Staffing: Increase staffing to manage surge; recruited diverse backgrounds; inadequate HR resources

Internal Information

There was not a drastic change in respondents thoughts on having relevant information available and the frequency in which it was shared. Most respondents generally agreed they had the information necessary to perform in their COVID-19 response roles. They also agreed or strongly agreed the information was shared in a timely manner and with enough frequency. Some respondents felt the information mangement could have been more organized in first three months of their assigned role as they had challenges knowing where to go for information.⁴⁰³ The location of information, who to contact for certain data, and an Information Library were suggestions for areas of improvement by respondents.⁴⁰⁴

⁴⁰³ PHSKC COVID-19 AAR Survey Respondent Question 5

⁴⁰⁴ PHSKC COVID-19 AAR Survey Respondent Question 7

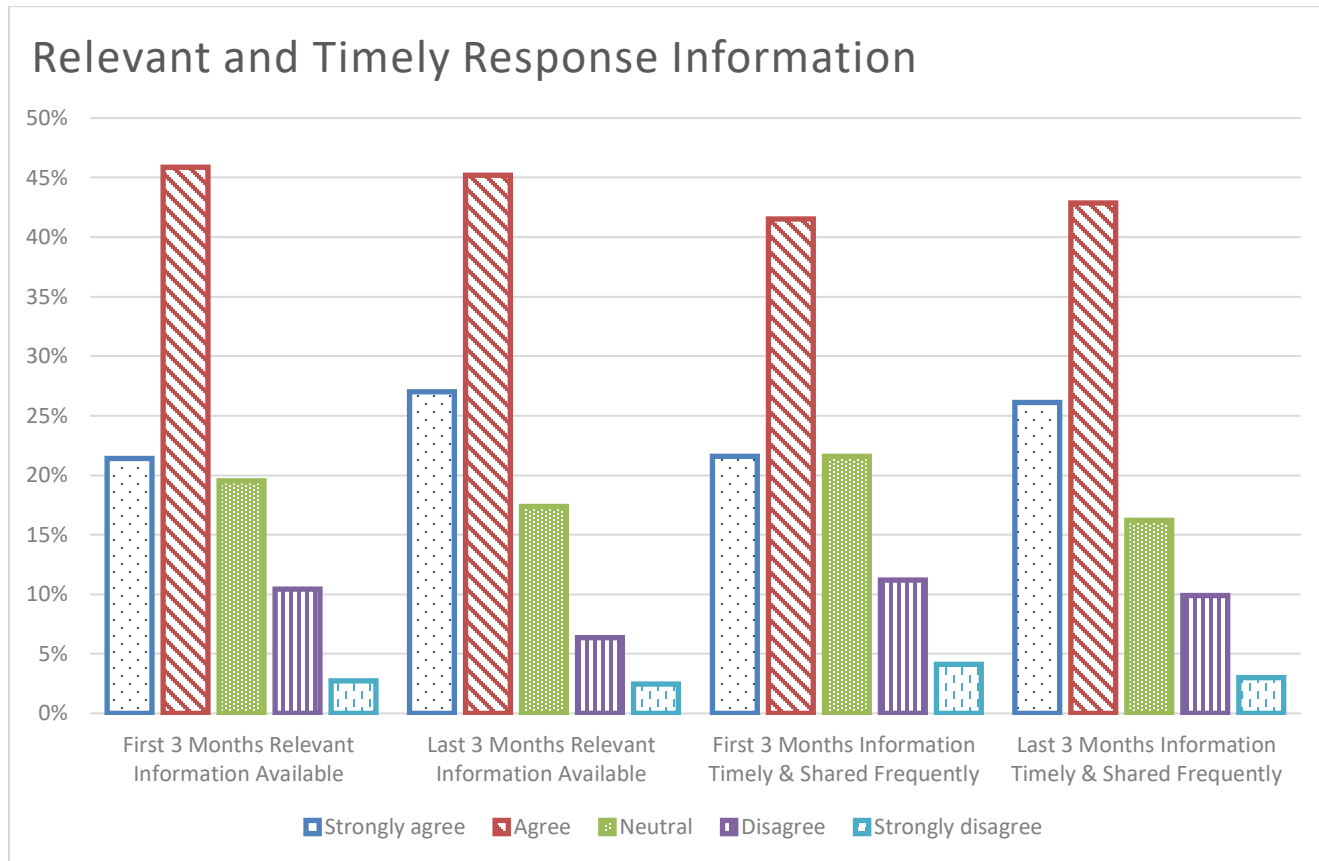


Chart 7: Relevant & Timely COVID-19 Response Information

Coordination and Known Points of Contact

The improvement in coordination and knowing who to contact on specific issues within PHSKC is depicted in the charts below. Perceived coordination between teams improved from the first three months (43% agreed or strongly agreed) to the last three months (54% agreed or strongly agreed). Although this was a slight increase, it showed improvements in coordination between other teams and work areas in Public Health's COVID-19 response. Similarly, there was an increase in the amount of people who indicated they knew who to contact if they had any issues as part of Public Health's COVID-19 response. It went from 64% agreeing in the first three months to 74% agreeing to some extent in the last three months.

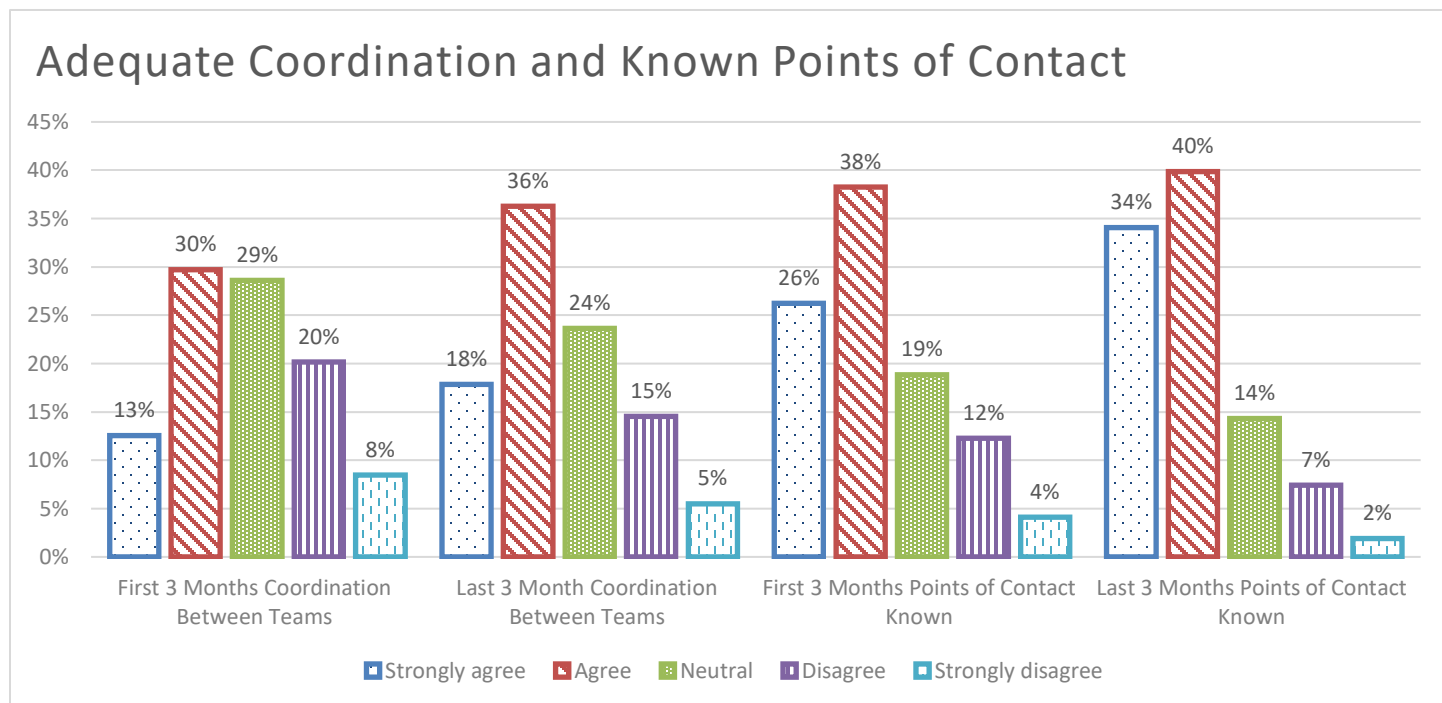


Chart 8: Adequate Coordination and Known Points of Contact

*"The coordination between teams has greatly improved and I have been able to learn different resources and people to connect me to resources now."*⁴⁰⁵

⁴⁰⁵ PHSKC COVID-19 AAR Survey Respondent Question 6



KEY STRENGTHS (FROM SURVEY)

Respondents were asked to identify up to three key strengths of their teams and work areas in relation to the PHSKC response and recovery efforts from a list of options. Please note that since each respondent could choose up to three options totals will be more than 100%. Respondents overwhelmingly chose the organization's flexibility/adaptability and teamwork with approximately 65% of respondents choosing those two areas. Equity considerations and collaboration also scored highly with 36% and 35% respectively. These strengths were echoed in the comments provided by many as to the pride they felt in the overall PHSKC response to COVID-19 and its commitment to the communities they serve.⁴⁰⁶

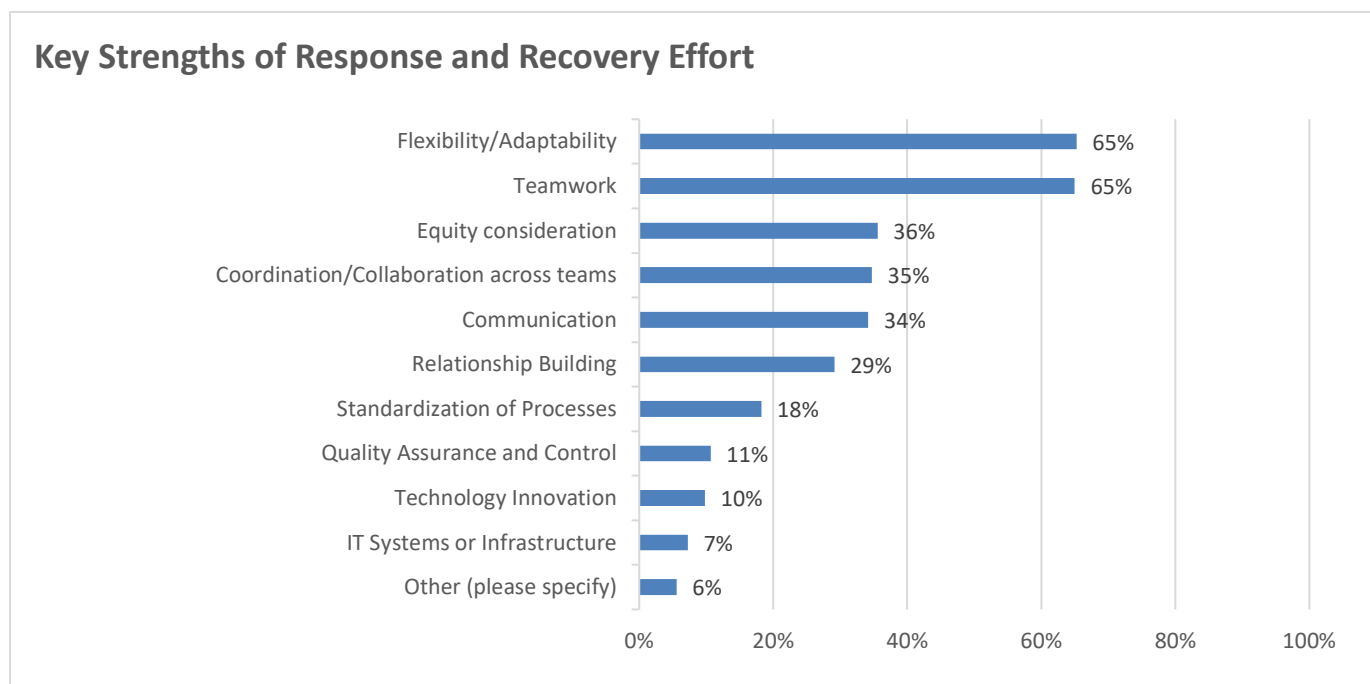


Chart 9: Key Strengths of Response and Recovery Effort

*"This was truly an unprecedented experience and considering the circumstances, I felt public health did an amazing job. Despite many challenges and frustrating aspects, I was blown away by the brilliance and perseverance of my team members and others working on the response. It has been an honor supporting this work at public health."*⁴⁰⁷

⁴⁰⁶ PHSKC COVID-19 AAR Survey Respondent Question 13

⁴⁰⁷ PHSKC COVID-19 AAR Survey Respondent Question 13



Respondents also offered through open-ended questions best practices, protocols, or systems that their team has in place to build long-term resilience and/or use in a future response. Regular communication with teams and trainings created during the pandemic were frequent topics. The following are some of the common types of best practices along with examples related to the types of information.

- Community Outreach and Coordination: Including community members; relationships that have been built; Community Mitigation and Recovery; Teamwork
- Equity: Equity Response Team's flowchart; language access team; care coordination team; community navigators
- PICC: Nurses in PICC; expand the PICC to cover general public health concerns; phone line provides public health information
- Resources: Expenditure back up repository; automating information retrieval
- Training: Cross training; standardizing training; training check lists; mentorship relationships
- Team and Self Care: Had grace with each other; leads were willing to help; daily opportunities to connect and relax as a team
- Work Schedule Flexibility: Flexible hours; Telecommuting



KEY CHALLENGES (FROM SURVEY)

Respondents were asked to identify up to three challenging areas that their teams endured in relation to the PHSKC response and recovery efforts from a list of options. Please note that since each respondent could choose up to three options totals will be more than 100%. The key areas noted were staff and team capacity (57%), hiring and onboarding (36%), and unclear processes (36%). Although team coordination and collaboration was a strength, it was also noted as an area for improvement as 29% of respondents chose this area as a challenge. Staffing and onboarding was mentioned numerous times in the open-ended comments as an area for improvement with an understanding that their HR department was hiring as quickly as possible.⁴⁰⁸ Onboarding was an area that several survey respondents felt could have been more organized and was neglected in the effort to put time and attention into the response.⁴⁰⁹

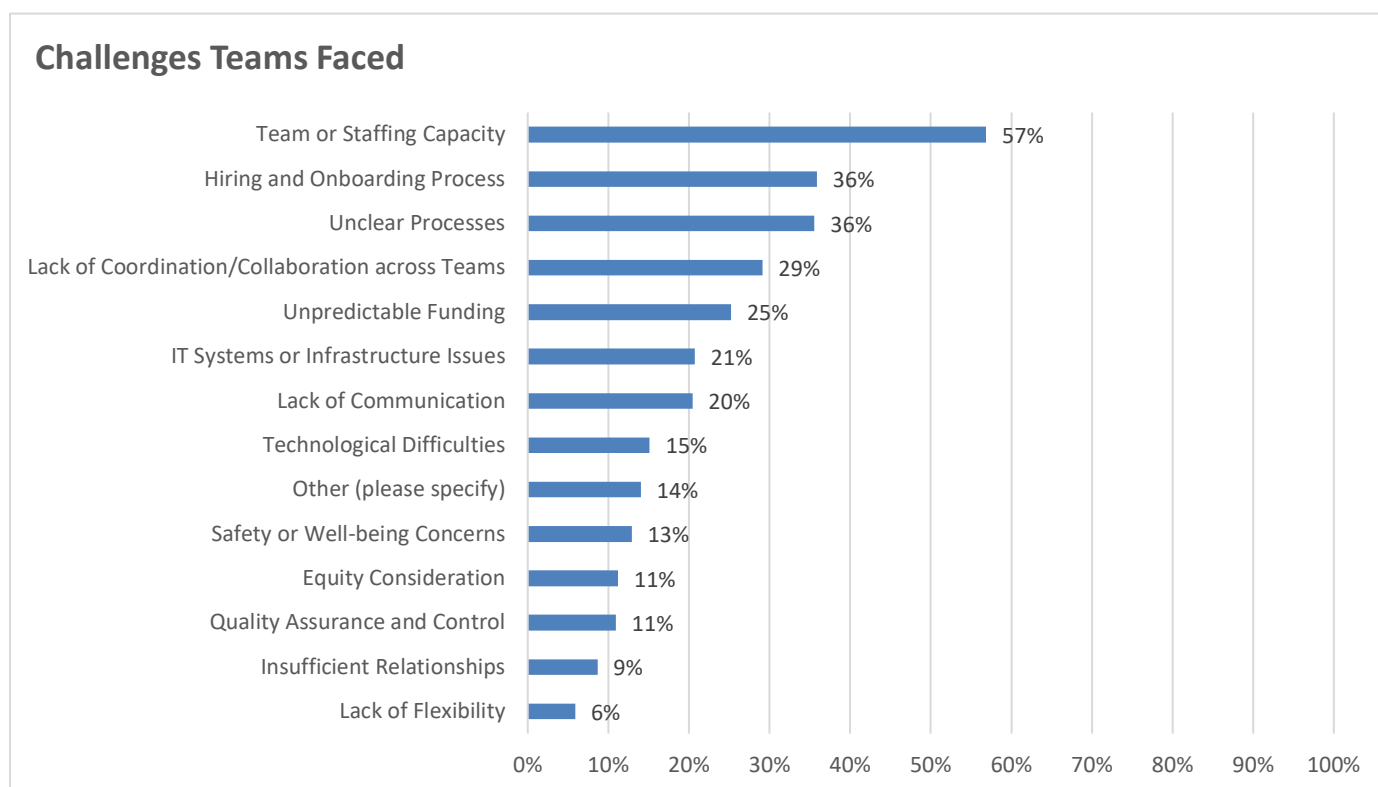


Chart 10: Challenges Teams Faced

⁴⁰⁸ PHSKC COVID-19 AAR Survey Respondent Question 7

⁴⁰⁹ PHSKC COVID-19 AAR Survey Respondent Question 7



RECOMMENDATIONS (FROM SURVEY)

Survey respondents were provided a space to provide their recommendations for future actions to address areas for improvement. Over 200 respondents offered their opinions. Answers were related to topics ranging from improving internal communication and collaboration, supporting staff onboarding, improving employee wellness, maintaining equity and fairness, and continuing partnerships with community organizations. Open ended suggestions included the following, organized by similar types of recommendations.

- Collaboration: Compensate trusted community partners; Keep talking to our community partners
- Communication: Clarify the infection control/prevention needs; put out information while acknowledging it's the "best we know for now"; consistent messaging
- Disaster Planning: Preparedness plans that proactively address equity; systemic review of response focused on equitable access and distribution of resources
- Equity: Clear processes; plan to reach the most marginalized populations with an abundance of resources
- HMAC and Incident Response: Clearly identify roles and responsibilities across sections; stable funding of key roles and improvements to the HMAC system
- Hiring Staff: Career service positions; streamlining the interview processes; adding emergency staff to the recall pool
- Staff Retention: Adding paid time off for those working on the response; financial compensation; flexible schedules; health insurance for all staff
- Training: Emergency response training in every employee's onboarding; Regular trainings to increase comfort; training on ICS



GRAPHICS AND INCIDENT STATISTICS

PHSKC COVID-19 DASHBOARD SUMMARY

As COVID-19 tracking data was collected for King County, it was stored and reported on the Dashboard. This summary report was displayed on the Public Health - Seattle & King County website (<https://kingcounty.gov/depts/health/covid-19/data/summary-dashboard.aspx>). The following screenshots provide cumulative case information, hospital admissions, inpatient rates, and vaccination rates as of May 27, 2022.⁴¹⁰

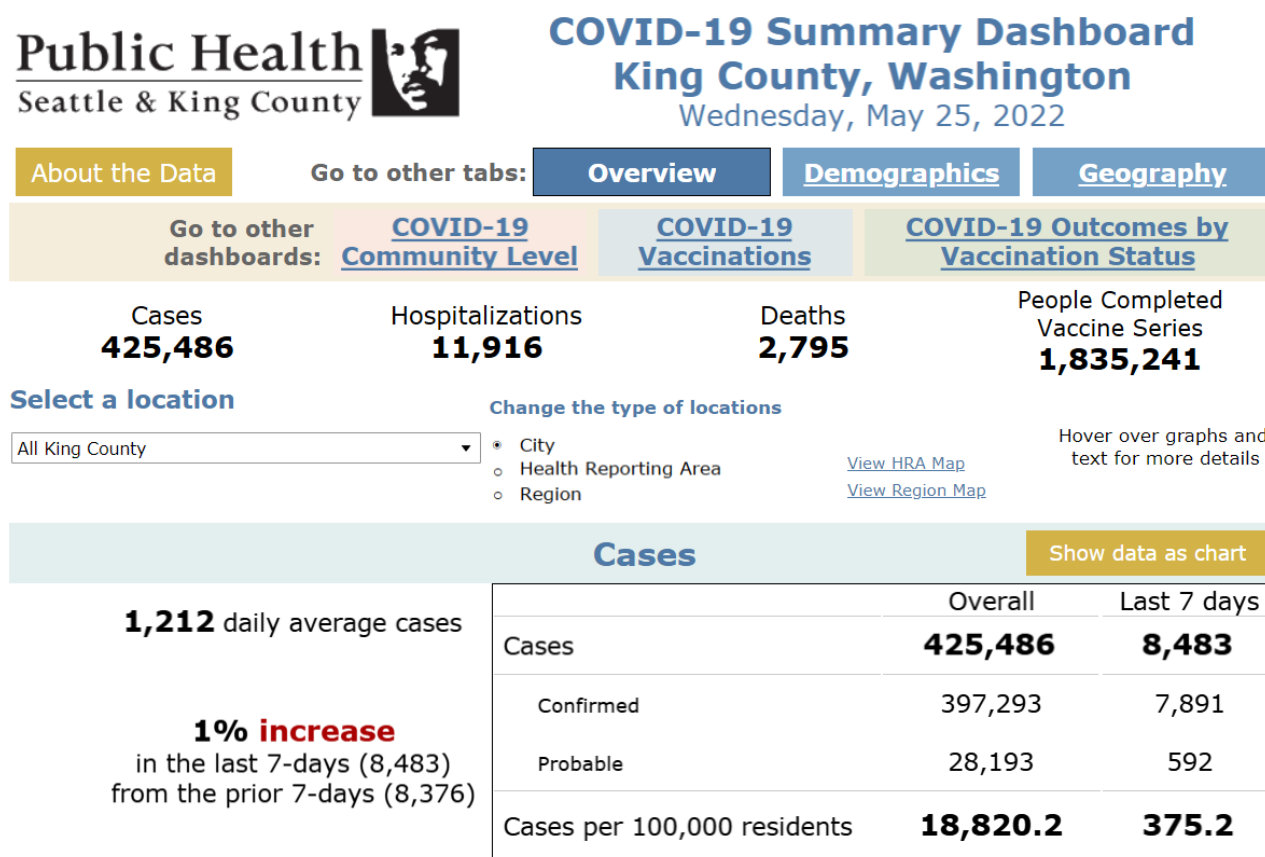


Image 7: King County COVID-19 Activity and Cases

⁴¹⁰ Public Health Seattle & King County. COVID-19 Summary Dashboard. Accessed May 27, 2022.
<https://kingcounty.gov/depts/health/covid-19/data/summary-dashboard.aspx>



Number of new COVID-19 hospital admissions

4.5
new COVID-19 hospital admissions
per 100,000 residents
in the past 7 days

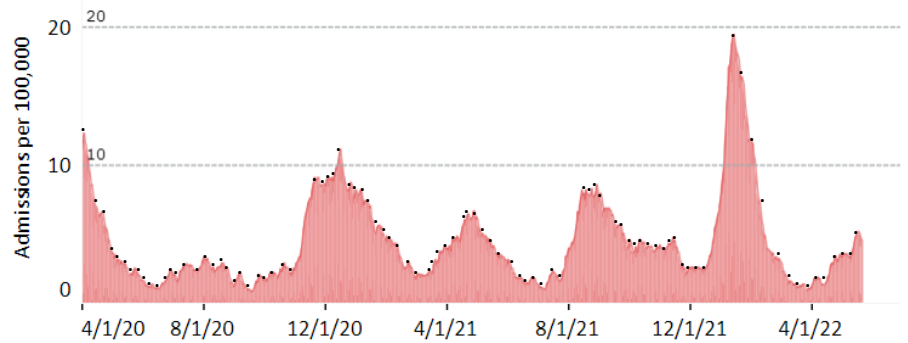


Image 9: Seattle & King County COVID-19 Hospitalization Rates

Percent of hospital adult inpatient beds occupied by COVID-19 patients

6.9%
of staffed inpatient beds
occupied by COVID-19 patients
(7-day average)

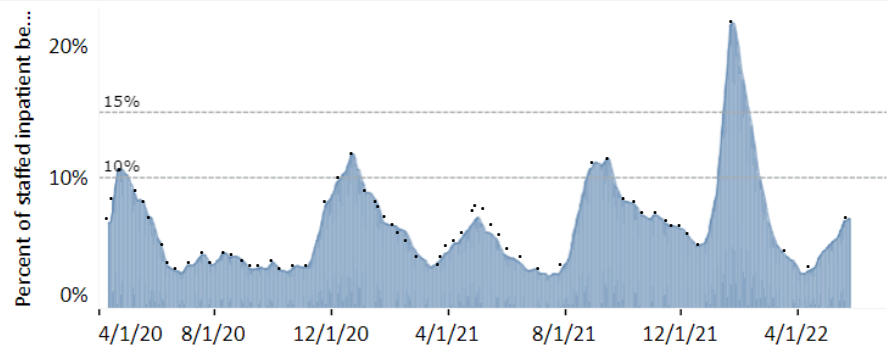


Image 8: Seattle & King County COVID-19 Inpatient bed Usage



How many King County residents are currently vaccinated?

This page gives an overall summary of COVID-19 vaccination of King County residents. **Primary series** refers to someone's first vaccinations, which can be 2 doses of Moderna/Pfizer or a single J&J dose. **Booster** refers to any additional dose given after a primary series. The booster data includes doses given to people with moderate to severe immune compromise, who may require an extra primary dose and a booster.

For more definitions, data sources, and data limitations, click on "**More about the data**".

For current eligibility and timing information, click here: <https://kingcounty.gov/covid/vaccine>

[More about the data](#)

Select a group to view:

☐ Total pop. (all ages)

☒ Pop. eligible for vaccines (5+)

Started primary series

93.6%

1,999,688 people

Completed primary series

85.9%

1,835,197 people

Primary series + booster

52.3%

1,116,461 people

Up to date

55.8%

1,191,336 people

Trends in people vaccinated over time

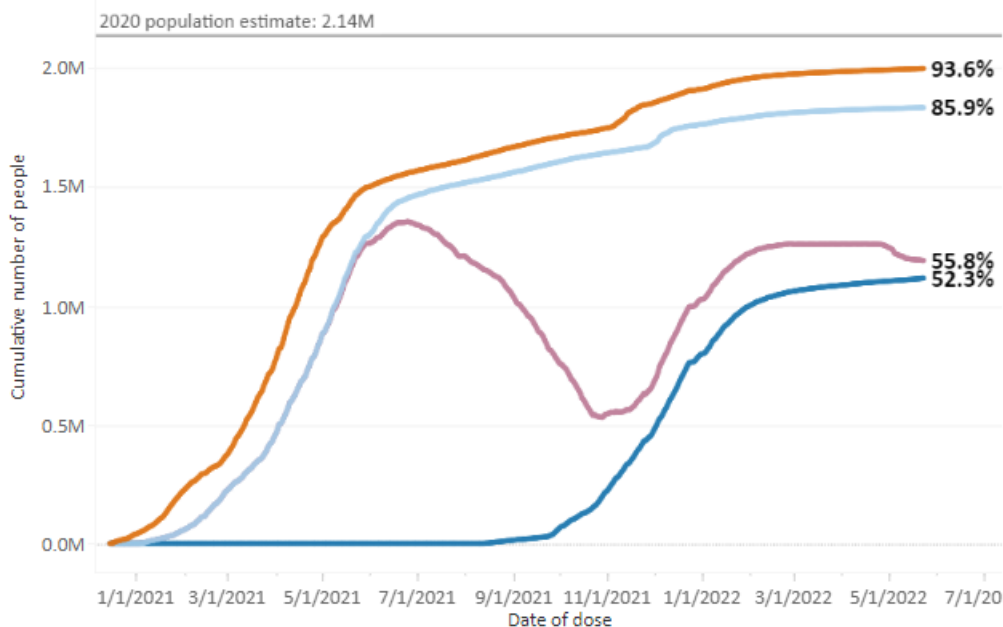


Image 10: Seattle & King County COVID-19 Vaccination Rates



NATIONAL COVID-19 PANDEMIC INCIDENT SUMMARY

Overview

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.⁴¹¹ 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 which 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 (**C**oronav**i**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 January 30, 2020, the WHO declared a Public Health Emergency of International Concern. Countries implemented travel restrictions, stay-at-home orders, and controlled screenings for the virus. By February 4, 2020, the U.S. would also declare a Public Health Emergency.⁴¹² And, by March 11, 2020, the WHO would declare COVID-19 a pandemic; this would be preceded by the U.S. declaring COVID-19 a national emergency on March 13, 2020.

As of January 31, 2022, which is the considered the end of the operational period being recorded in this report, there were 394,108,167 confirmed cases of COVID-19 worldwide, with the highest numbers of confirmed cases in the United States, India, and Brazil.⁴¹³ 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 initial spread of the disease. By the fall of 2020, U.S. pharmaceutical companies and medical researchers were conducting clinical trials for potential COVID-19 vaccines. In December 2020, the U.S. Food and Drug Administration issued emergency use authorization for two COVID-19 vaccines (Pfizer-BioNTech and Moderna).⁴¹⁴

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.

⁴¹¹ World Health Organization. *Timeline of WHO's Response to COVID-19*. Accessed July 30 2020. <https://www.who.int/news-room/detail/29-06-2020-covidtimeline>

⁴¹² Federal Register. *Determination of Public Health Emergency*. Accessed June 15 2022.

<https://www.federalregister.gov/documents/2020/02/07/2020-02496/determination-of-public-health-emergency>

⁴¹³ World Health Organization. *WHO Coronavirus (COVID-19) Dashboard*. Accessed June 15 2022. <https://covid19.who.int/>

⁴¹⁴ U.S. Food and Drug Administration. *COVID-19 Vaccines*. <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines>



Initial Challenges in the United States

As of January 31, 2022, there were a total of 75,921,493 confirmed cases of COVID-19 in the United States. Of those cases, 900,931 deaths have occurred.⁴¹⁵ While at the time of writing (May 2022), transmission rates have decreased, the number of vaccinated and/or boosted adults continues to rise, and public health officials are generally beginning to consolidate COVID-19 response and recovery operations within steady-state operations to account for a new normal, there were many initial challenges when responding to COVID-19.

Initial challenges to responding to COVID-19 in the U.S. as a whole were synonymous with the initial challenges to responding to COVID-19 in Washington and PHSKC. As indicated in the State and Local Overview section of the report, the first U.S. COVID-19 case was confirmed in Washington on January 21, 2020 and the outbreak in the Life Care LTCF marked what was one of the first possible instances of U.S. community spread on February 28, 2020.⁴¹⁶

Physical distancing was identified as 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. Research points to the virus spreading primarily through respiratory droplets when an infected person coughs, sneezes, or talks. These droplets can reach up to 6 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.⁴¹⁷ The White House initially introduced an effort to stop the spread in 15 days through a nationwide recommendation to implement social distancing.⁴¹⁸

The nationwide recommendation of social distancing was not equivalent to mandatory public lockdowns or curfews, however. As such, many states, including Washington, as well as local jurisdictions implemented stricter stay-at-home orders focused on educating the public on physical distancing to reduce both the overall number of infections and the number of cases occurring at once. This concept, known as “flattening the epidemic curve,” helped prevent hospitals from becoming overwhelmed.

Hospitals and healthcare facilities continue to serve on the frontlines of this global pandemic. Their employees work 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 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 healthcare system, first responders, and the general public, caused a worldwide shortage of supplies during initial response to COVID-19. This impact was especially felt in the United States. The PPE supplies in the Strategic National Stockpile

⁴¹⁵ World Health Organization. *WHO Coronavirus (COVID-19) Dashboard*. Accessed June 15 2022. <https://covid19.who.int/>

⁴¹⁶ Centers for Disease Control. *CDC Announces Additional COVID-19 Presumptive Positive Cases*. Accessed June 15 2022. <https://www.cdc.gov/media/releases/2020/s0228-additional-COVID-19-cases.html>

⁴¹⁷ Centers for Disease Control. *How to Protect Yourself and Others*. Accessed August 7 2021. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention-H.pdf>

⁴¹⁸ White House. *15 Days to Slow the Spread*. Accessed June 15 2022. <https://trumpwhitehouse.archives.gov/articles/15-days-slow-spread/>



were approximately 90% depleted by April 2020, after distributing equipment to state and local governments.⁴¹⁹ The United States experienced a shortage of ventilators in hospitals hardest hit by the disease in the early months of response. FEMA led 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 also pivoted from their regular activities to manufacture critically needed resources including face shields and ventilators.⁴²⁰

State and local health departments also expanded efforts to increase contact tracing of COVID-19 cases. Contact tracing, a public health strategy to identify and isolate people exposed to an infection, is used to contain the spread of infectious disease. Internationally, countries such as China and South Korea were among the first to be impacted by the virus and benefitted from ramping up contact tracing efforts to contain its spread. In the United States, state governments dedicated significant amounts of staff and resources toward expanding contact tracing efforts, including partnerships with university centers and local health departments.

The United States also experienced challenges when expanding testing for COVID-19. 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 availability for COVID-19 test kits and the reagents needed for those kits to work. Through May of 2020, demand for COVID-19 tests would still far outpace the supply due to shortages of reagents, swabs, and various collection devices impacting test manufacturers and the U.S. getting a 'slow start' to COVID-19 testing due to only diagnostic test makers being initially allowed to develop COVID-19 tests (a policy that would later expand).⁴²¹ This lapse in testing early on in the pandemic enabled exponential growth of cases.

Many states experienced a resurgence of COVID-19 cases in the early summer months of 2020. While some states were able to make significant progress to bring down their case numbers from the summer surge, others continued to see high numbers of daily new cases into the fall of 2020. This presented an ongoing dilemma for economic relief initiatives. Public leaders were tasked with finding balance between economic recovery efforts and the social distancing strategies that reduce the risk of increasing COVID-19 spread. As the fall of 2020 continued, public health officials braced for the arrival of the COVID-19 vaccine, which would mark a pivotal shift in COVID-19 response and recovery activities.

Continued Response in the United States - Vaccination

Prior to the outbreak of the global pandemic, there was already ongoing research conducted on other coronaviruses, which allowed scientists all over the world to work together and develop a vaccine within the

⁴¹⁹ 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>

⁴²⁰ 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>

⁴²¹ Modern Healthcare. *COVID-19 Testing Problems Started Early, U.S. Still Playing from Behind*. Accessed June 15, 2022. <https://www.modernhealthcare.com/technology/covid-19-testing-problems-started-early-us-still-playing-behind>



span of a year.⁴²² To reach the point at which vaccinations could be safely distributed in the U.S., the vaccines needed to undergo three phases of clinical trials that followed rigorous guidelines set by the Food and Drug Administration (FDA). The vaccine studies were rapidly completed due to many individuals volunteering to participate as well as the partnerships between Operation Warp Speed (OWS) and other organizations, such as the CDC.

One of the most significant cornerstones in the United States' response to COVID-19 was the development, authorization, and deployment of COVID-19 vaccines. The clinical trial data released in November of 2020 showed that Pfizer's and Moderna's COVID-19 vaccines were 95% and 94.5% effective at preventing COVID-19 disease, respectively.⁴²³ Following the release of the clinical trial data in November of 2020, the Advisory Committee on Immunization Practices (ACIP) issued interim recommendations in early December to federal, state, and local jurisdictions advising them that demand would exceed COVID-19 vaccine supply during the initial vaccination rollout, and therefore healthcare personnel and residents of long-term care facilities should be offered the vaccine in the initial Phase 1a of vaccination.⁴²⁴ While not binding, most states generally followed this guidance for the recommendations that they provided relating to Phase 1a of vaccination.

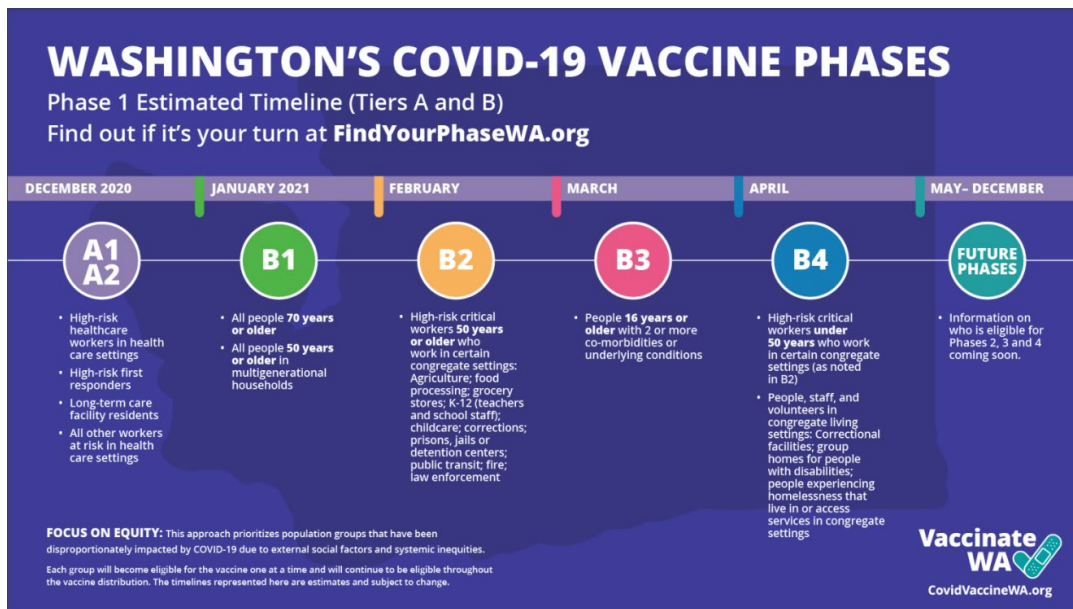


Image 11: Washington's COVID-19 Phases

(<https://doh.wa.gov/sites/default/files/legacy/Documents/1600/coronavirus/VaccinationPhasesInfographic.pdf>)

⁴²² Medical News Today. *How did we develop a COVID-19 vaccine so quickly?*. Accessed June 17, 2021.

<https://www.medicalnewstoday.com/articles/how-did-we-develop-a-covid-19-vaccine-so-quickly>

⁴²³ Pfizer, *Pfizer and BioNTech Conclude Phase 3 Study of COVID-19 Vaccine Candidate, Meeting All Primary Efficacy Endpoints*.

<https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-conclude-phase-3-study-covid-19-vaccine>.

⁴²⁴ Moderna, *Moderna's COVID-19 Vaccine Candidate Meets its Primary Efficacy Endpoint in the First Interim Analysis of the Phase 3 Cove Study*. <https://investors.modernatx.com/news/news-details/2020/Modernas-COVID-19-Vaccine-Candidate-Meets-its-Primary-Efficacy-Endpoint-in-the-First-Interim-Analysis-of-the-Phase-3-COVE-Study-11-16-2020/default.aspx/>.



The FDA issued an Emergency Use Authorization (EUA) for the Pfizer vaccine on December 11, 2020, the Moderna vaccine on December 18, 2020, and the Janssen vaccine on February 27, 2021.⁴²⁵ By December 14, 2020, shortly after Pfizer's EUA, the first American outside of a clinical trial had received a COVID-19 vaccine.⁴²⁶ Subsequently, on December 22, 2020,⁴²⁷ additional phases of vaccination outlined by the ACIP including Phase 1b for frontline essential workers and individuals 75 years or older, and Phase 1c for individuals 65 to 74 years or older or those 16 to 64 years with high-risk conditions, and essential workers not in Phase 1b. States and counties across the country, however, took different approaches to vaccination based on the vaccination plans that they had developed.

Extensive challenges managing the vaccination tiers and the associated distribution of the vaccine emerged in Washington and throughout the country. As demand for the vaccine exceeded supply well into the spring of 2021 and guidance from both federal and state authorities was constantly changing, county health officials had to rapidly pivot and decide whether to adopt new recommendations or pursue their original vaccination plans. Subsequently, the public expressed frustration as not only were they also impacted by the changing guidance relating to vaccination tiers, but they also faced challenges registering for vaccines and getting appointments.⁴²⁸ Washington specifically took a measured approach to expanding vaccine eligibility as the state sought to ensure that risk and equity remained at the forefront of its rollout and leaders publicly disagreed on the balance between equitable distribution and expanding eligibility.⁴²⁹

Amidst continued struggles with vaccination, individuals across the country continued to be infected with COVID-19. Though both daily case counts and hospitalizations generally declined from February 2021 to mid-July of 2021, health officials continued to balance testing operations, contact tracing, updating guidance relating to isolation, quarantine, and masking, communicating with healthcare facilities, schools, community-based organizations, and other partners, and vaccination. Vaccination efforts included both the actual act of coordinating and administering vaccinations as well as developing public messaging to communicate the importance of being vaccinated against COVID-19. Developing communications strategies and addressing access and hesitancy barriers to vaccination became a larger challenge once supply of the vaccine exceeded the demand for it in late April and early May of 2021. The EUA of the Pfizer vaccine that allowed it to be

⁴²⁵ Food and Drug Administration, *FDA Takes Key Action in Fight Against COVID-19 By Issuing Emergency Use Authorization for First COVID-19 Vaccine*. <https://www.fda.gov/news-events/press-announcements/fda-takes-key-action-fight-against-covid-19-issuing-emergency-use-authorization-first-covid-19>.

⁴²⁶ The Washington Post, *First Coronavirus Vaccine Shots Given Outside Trial in U.S.* <https://www.washingtonpost.com/nation/2020/12/14/first-covid-vaccines-new-york/>.

⁴²⁷ Centers for Disease Control and Prevention, *The Advisory Committee on Immunization Practices' Updated Interim Recommendation for Allocation of COVID-19 Vaccine – United States 2020*. <https://www.cdc.gov/mmwr/volumes/69/wr/mm695152e2.htm>.

⁴²⁸ AARP, *How to Navigate the Confusing COVID-19 Vaccine Rollout*. <https://www.aarp.org/health/conditions-treatments/info-2021/vaccine-distribution.html>

⁴²⁹ Seattle Times. *Why Washington's Rollout of COVID-19 Vaccine Eligibility Has Been Slower Than in Some Other States*. <https://www.seattletimes.com/seattle-news/health/why-washingtons-rollout-of-covid-vaccine-eligibility-has-been-slower-than-other-states/>



administered for adolescents who are between 12 and 15 years old on May 10, 2021 did provide an additional boost and demand, and also contributed to rising vaccination rates across the United States.⁴³⁰

Though the development of vaccines and declining case counts, hospitalizations, and fatalities gave hope to a “return to normal,” the Delta variant was declared a variant of concern by the CDC on June 16, 2021.⁴³¹ By August 3, 2021, it was estimated to account for approximately 93% of cases in the United States during the last two weeks of July.⁴³² The Delta variant brought challenges to healthcare and public health officials across the United States as it is highly transmissible and led to an overwhelming increase in hospitalizations in many states, particularly those with a high percentage of unvaccinated individuals. In response, the CDC updated its masking guidance, including for fully vaccinated individuals, on July 27, 2021 as breakthrough infections were emerging.⁴³³ And though data at the time suggested that two doses of the COVID-19 vaccines were generally effective in preventing the Delta variant, the CDC authorized an additional COVID-19 vaccine dose for immunocompromised individuals on August 12, 2021.⁴³⁴ As a result of expanding eligibility and studies finding a declining efficacy in vaccinations six months post-second dose, there continued to be changes to vaccination guidance with booster shots for those 65 years and older or those 18 years and older who have underlying medical conditions or are frontline workers then being authorized on October 21, 2021.⁴³⁵

The FDA also authorized the Pfizer vaccine for children between 5 and 11 years old on October 29, 2021 and later expanded booster eligibility to all individuals 18 years and older on in November 2021.⁴³⁶ Additionally, in November 2021, pediatric COVID-19 vaccines, specifically the Pfizer vaccine, were recommended for children ages 5 to 11 years old. An increase in COVID-19 cases during the fourth wave of infection in the United States was fueled by the Delta variant and generally peaked in mid-September of 2021.

After declining daily COVID-19 case counts following the Delta variant's peak, public health officials would then be impacted by its greatest challenge yet, the Omicron variant. The Omicron variant, which was designated as a variant of concern by the World Health Organization (WHO) on November 26, 2021, brought unprecedented case numbers, hospitalizations, and deaths across the United States, particularly between December and February 2022. The Omicron variant multiplies around 70 times faster than the Delta variant

⁴³⁰ Food and Drug Administration, *FDA Authorizes Pfizer-BioNTech COVID-19 Vaccine for Emergency Use in Adolescents in Another Important Action in Fight Against Pandemic*, <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-pfizer-biontech-covid-19-vaccine-emergency-use>.

⁴³¹ WebMD, *Delta Variant from India a “Variant of Concern.”* <https://www.webmd.com/lung/news/20210616/delta-variant-of-concern>

⁴³² Centers for Disease Control and Prevention, *COVID-19 Data Tracker*. <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>

⁴³³ CNN, *CDC Changes Mask Guidance in Response to Threat of Delta Variant of COVID-19*. <https://www.cnn.com/2021/07/27/politics/cdc-mask-guidance/index.html>.

⁴³⁴ Food and Drug Administration, *FDA Authorizes Additional Doses for Certain Immunocompromised Individuals*. <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-additional-vaccine-dose-certain-immunocompromised>.

⁴³⁵ Centers for Disease Control, *CDC Expands Eligibility for COVID-19 Booster Shots*. <https://www.cdc.gov/media/releases/2021/p1021-covid-booster.html>.

⁴³⁶ Food and Drug Administration, *FDA Authorizes Pfizer-BioNTech COVID-19 Vaccine for Emergency Use in Children 5 Through 11 Years of Age*. <https://www.fda.gov/news-events/press-announcements/fda-authorizes-pfizer-biontech-covid-19-vaccine-emergency-use-children-5-through-11-years-age>.



but has been found to be less severe in terms of symptoms. A peak of 807,897 new daily COVID-19 cases in the U.S. was recorded on January 22, 2022. The emergence of the Omicron variant caused public health officials to encounter many of the challenges they experienced during initial COVID-19 response in early 2020 as well as some experienced during the Delta variant, including COVID-19 testing demand that exceeded supply and an influx of hospitalizations. These challenges were only exacerbated by an exhausted public health workforce as well as a public that was resistant to ongoing restrictions. At time of writing (May 2022), the 7-day moving average of daily new cases was 84,778 and nearly 100% of the lineages of cases continue to be Omicron or its sub lineages (B.1.1.529, BA.1, BA.2, BA.3, BA.4, and BA.5), though new daily COVID-19 case counts have stabilized at a level far lower than the peak in mid-January.

Inequity in the Context of national COVID-19 response

The COVID-19 pandemic spotlighted and exacerbated health inequities that were already present in the U.S. As described throughout the report, PHSKC, its partners, and the broader State of Washington took steps to mitigate the impacts of COVID-19 on individuals and communities disproportionately impacted by COVID-19, as attributable to structural racism and social and economic vulnerabilities, to varying levels of success. On a broader scale, however, the COVID-19 response as well as COVID-19 outcomes paint a harsh picture of how health inequity contributed to significant racial and ethnic disparities in COVID-19 cases, hospitalizations, and deaths across the U.S.

Though this report covers an operational period ending January 31, 2022, data available at time of writing (June 2022) from the CDC⁴³⁷ emphasizes stark differences between risks of COVID-19 infection, hospitalization, and death by race/ethnicity in the U.S. These trends have been evident since public health officials have been able to classify COVID-19 surveillance, hospitalization, and mortality data on race and ethnicity in spring 2020. Particularly, the American Indian or Alaska Native, Black, and Hispanic communities in the U.S. have experienced a disproportionate burden of COVID-19 cases, hospitalizations, and deaths as compared to White and Asian people. Data outlined in the table below has been adjusted for age to account for age distribution differing by racial or ethnic group.

⁴³⁷ CDC. *Risk for COVID-19 Infection, Hospitalization, and Death By Race/Ethnicity*. Access June 15, 2022.

<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html>



Table 8: COVID-19 Rate Ratios by Ethnicity

COVID-19 Rate Ratios Compared to People who are White, Non-Hispanic	American Indian or Alaska Native	Asian	Black	Hispanic
Cases	1.6X	0.7X	1.1X	1.5X
Hospitalization	3.0X	0.8X	2.3X	2.2X
Death	2.1X	0.8X	1.7X	1.8X

While these numbers show quantifiable outcomes in terms of cases, hospitalization, and death across racial and ethnic groups, public health officials across the U.S. have identified both quantitative and qualitative factors that have contributed to this disparity. Social determinants of health and the impacts on these due to historical and institutionalized discrimination have all contributed to people of color being disproportionately impacted by COVID-19. For instance:

- Chronic Medical Conditions: Factors contributing to inadequate access to or unequal medical care for racial and ethnic minorities can be linked to these populations facing higher numbers of chronic medical comorbidities⁴³⁸ which have been associated with poorer outcomes among those infected with COVID-19.
- Workplace factors: Racial and ethnic minorities disproportionately work in settings that are considered essential, such as factories, grocery stores, public transportation, and healthcare facilities. Particularly during initial COVID-19 response, this contributed to disproportions in exposure to the public as an 'essential worker.' For example, 16,233 workers in meat and poultry processing in the U.S. were infected with COVID-19 from April to May 2020, and 87% of the infected workers were racial and ethnic minorities.⁴³⁹
- Location and Residence: Racial and ethnic minorities have been found to be more likely to live in multi-generational homes⁴⁴⁰ as well as in crowded cities.⁴⁴¹ Facing more crowded living conditions impacts COVID-19 prevention strategies such as isolation and quarantine and increases the chance of exposure particularly when living with an essential worker or frequently utilizing public transportation.

⁴³⁸ American College of Cardiology. *Racial Disparities in Hypertension Prevalence and Management: A Crisis Control?* Accessed June 16, 2022. <https://www.acc.org/latest-in-cardiology/articles/2020/04/06/08/53/racial-disparities-in-hypertension-prevalence-and-management>

⁴³⁹ CDC. *Increased Risk Factors for Exposure.* Accessed June 15, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/racial-ethnic-disparities/increased-risk-exposure.html>

⁴⁴⁰ Pew Research. *A Record of 64 Million Americans Live in Multigenerational Households.* Accessed June 16, 2022. <https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/>.

⁴⁴¹ Brookings. *2020 Census: Big Cities Grew and Became More Diverse.* Accessed June 16, 2022. <https://www.brookings.edu/research/2020-census-big-cities-grew-and-became-more-diverse-especially-among-their-youth/>.



- Incarceration: People living in incarceration experienced higher likelihoods of being exposed to COVID-19, lack of access to testing, vaccinations, and healthcare. Congregate living spaces and lack of quality care contributed to higher COVID-19 case rates and outbreaks of disease.
- Access to healthcare: Despite some progress being made from previous years, a February 2022 report by HHS demonstrates that disparities in the uninsured rate and the affordability of healthcare between Black and White Americans persists.⁴⁴² A June 2020 report also showed higher unemployment rates for Black and Latino individuals than White and Asian individuals, a troubling trend considering that approximately half of the U.S. population receives employment-based health insurance.⁴⁴³ The combination of these factors contributed to a scenario where racial and ethnic minority populations were more likely to initiate care later in the course of COVID-19 illness, correlating with poorer outcomes.⁴⁴⁴
- Barriers to Testing: In some of the largest segregated cities in the U.S. such as Chicago, New York City, Houston, and Los Angeles, neighborhoods that house a greater percentage of racial and ethnic minorities were found to have fewer COVID-19 testing sites.⁴⁴⁵
- Distrust of Healthcare Systems and Government: There is a long history of racism and mistreatment by medical professionals toward minorities that has manifested in both known instances such as the Tuskegee Syphilis Study⁴⁴⁶ as well sentiment through polls that suggest inequitable health care treatment from health care providers.⁴⁴⁷ This distrust initially fueled vaccine hesitancy⁴⁴⁸ but disparities between vaccination rates or Black, Hispanic, and White people have since narrowed.⁴⁴⁹

The pandemic also spotlighted and exacerbated social and economic inequities that were already present in the U.S. A report from the Poor People's Campaign showed that people residing in poorer counties died from COVID-19 at a rate twice that of people living in richer counties, and that during the deadliest phases of the

⁴⁴² HHS. *New HHS Report Highlights 40 Percent Decline in Uninsured Rate Among Black Americans Since Implementation of the Affordable Care Act*. Accessed June 15, 2022. <https://www.hhs.gov/about/news/2022/02/23/new-hhs-report-highlights-40-percent-decline-in-uninsured-rate-among-black-americans-since-implementation-affordable-care-act.html>

⁴⁴³ National Academy of Social Insurance. *The Impact of the COVID-19 Pandemic on Access to Health Care*. Accessed June 16, 2022. <https://www.nasi.org/research/medicare-health-policy/the-impact-of-the-covid-19-pandemic-on-access-to-health-care/>

⁴⁴⁴ Jama Network. *Racial and Ethnic Health Disparities Related to COVID-19*. Accessed June 16, 2022. <https://jamanetwork.com/journals/jama/fullarticle/2775687>

⁴⁴⁵ American Journal of Public Health. *Racial/Ethnic Segregation and Access to COVID-19 Testing: Spatial Distribution of COVID-19 Testing Sites in the Four Largest Segregated Cities in the United States*. Accessed June 16, 2022. <https://ajph.aphapublications.org/doi/10.2105/AJPH.2021.306558>

⁴⁴⁶ CDC. *The Tuskegee Timeline*. Accessed June 16, 2022. <https://www.cdc.gov/tuskegee/timeline.htm>

⁴⁴⁷ Andscape. *New Poll Shows Black Americans Put Far Less Trust in Doctors and Hospitals Than White People*. Accessed June 16, 2022. <https://andscape.com/features/new-poll-shows-black-americans-put-far-less-trust-in-doctors-and-hospitals-than-white-people/>

⁴⁴⁸ Stanford Medicine. *How Misinformation, Medical Mistrust Fuel Vaccine Hesitancy*. Accessed June 16, 2020. <https://med.stanford.edu/news/all-news/2021/09/infodemic-covid-19.html>

⁴⁴⁹ KFF. *Latest Data on COVID-19 Vaccinations By Race/Ethnicity*. Accessed June 16, 2022. <https://www.kff.org/coronavirus-covid-19/issue-brief/latest-data-on-covid-19-vaccinations-by-race-ethnicity/>



pandemic, this disparity in death rate widened even more.⁴⁵⁰ Speaking to the intersectionality between racial identity and class, the report acknowledges that "if poverty were experienced equally by each racial group, it would be expected that poorest counties [that experienced disparities in COVID-19 death rates compared to wealthier counties] would be made up of approximately 10% of each racial group. However, these poorest counties are home to nearly 27% of all Indigenous people in the US, and 15% of all Black people, 13% of all Hispanic people, 9% of all white people, and 2% of all Asian people."

Another community disproportionately impacted by COVID-19 includes people with disabilities. Some challenges that people with disabilities have faced include lack of access to food deliveries, COVID-19 testing, and the internet, lack of accessible messaging (i.e., guidance in American Sign Language), postponement and cancellation of medical treatment and rehabilitation, unsafe conditions in health facilities and congregate living, closures of in-person learning limiting access to learning, etc.⁴⁵¹ Results of such challenges include but are not limited to adults with physical disabilities being overrepresented in terms of COVID-19-related hospitalizations, adults with existing mental health disorders experiencing substantial pandemic-related changes in eating and sleeping, loss of community mobility and participation for adults with autism spectrum disorder, and individuals who are deaf, hard of hearing, or Deaf-blind experiencing communications barriers, particularly if working remotely.⁴⁵² The impacts of COVID-19 on people with disabilities cannot be underscored, and the Biden Administration announced steps being undertaken to address the needs of individuals with disabilities in the face of COVID-19 impacts in February 2022.⁴⁵³

It is undeniable that the COVID-19 pandemic has highlighted health inequities across the U.S., amongst different racial and ethnic minorities, income levels, and abilities. And while the outcomes described above serve as a display of how these inequities can glaringly manifest in the context of a global pandemic, they have forced policy makers, health care officials, and public health officials across the U.S. to confront what have been longstanding disparities that are ultimately rooted in racism and discrimination. As such, we acknowledge a few steps that have been taken on a nationwide basis in an attempt to address health disparities:

- In April 2021, CDC recognized racism as a threat to the public's health and "noted it would lead in efforts to confront systems and policies that have resulted in the generational injustice that has given rise to racial and ethnic health inequities."⁴⁵⁴

⁴⁵⁰ A Poor People's Campaign. *A Poor People's Pandemic Report: Mapping the Intersections of Poverty, Race, and COVID-19*. Accessed June 16, 2022. https://www.poorpeoplescampaign.org/wp-content/uploads/2022/04/ExecutiveSummary_7.pdf

⁴⁵¹ The Lancet. *Triple Jeopardy: Disabled People and the COVID-19 Pandemic*. Accessed June 16, 2022.

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)00625-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00625-5/fulltext)

⁴⁵² Administration for Community Living. *COVID-19 Response*. Accessed June 16, 2022.

https://acl.gov/sites/default/files/COVID19/ACL_Research_ImpactC19-PWD.pdf

⁴⁵³ The White House. *Administration Announces New Actions to Address the Needs of People with Disabilities and Older Adults in Response to and Recovery from COVID-19*. Accessed June 16, 2022. <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/24/fact-sheet-administration-announces-new-actions-to-address-the-needs-of-people-with-disabilities-and-older-adults-in-response-to-and-recovery-from-covid-19/>

⁴⁵⁴ KFF. *Disparities in Health and Health Care: 5 Key Questions and Answers*. Accessed May 11, 2021. <https://www.kff.org/racial-equity-and-health-policy/issue-brief/disparities-in-health-and-health-care-5-key-question-and-answers/>



- In March 2021, the National Institute of Health (NIH) launched an effort called UNITE in order to address structural racism in biomedical research.⁴⁵⁵
- An Executive Order was issued in January 2021 to convene a COVID-19 Health Equity Task Force within HHS.⁴⁵⁶
- The American Rescue Plan Act reserved \$10 billion in funds to trickle down to SLTT public health departments for the establishment of community vaccination centers and mobile vaccination units for populations hardest-hit and highest-risk for COVID-19.⁴⁵⁷ This included investing in Community Health Centers specifically to expand COVID-19 testing, vaccination, and treatment access.

In addition to actions taken at the federal level, some state, local, tribal, and territorial public health programs have found success working in partnerships with community-based organizations, private organizations, and health care providers to address inequities that have manifested during COVID-19 response and recovery. Actions taken have included steps such as using CARES Act funds to provide transportation, home-delivered food, medications, COVID-19 supplies, and financial relief, training community health workers, launching campaigns to address inequities through culturally appropriate exposure notifications and increased testing capacity, engaging historically marginalized communities in building vaccination plans, convening task forces on equity to support ongoing COVID-19 response, and more.⁴⁵⁸ With equity not bearing a significant public role in federal COVID-19 response until January 2021, multiple state and local agencies can be applauded for developing innovative policies to address emerging needs and trends.

In sum, COVID-19 brings substantial lessons learned for health policy makers at multiple levels of government on how social determinants of health can profoundly contribute to inequities in infectious disease-related morbidity and mortality.

⁴⁵⁵ NIH. *Ending Structural Racism*. Accessed June 16, 2022. <https://www.nih.gov/ending-structural-racism/unite>

⁴⁵⁶ The White House. *Executive Order on Ensuring an Equitable Pandemic Response and Recovery*. Accessed June 16, 2022. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/21/executive-order-ensuring-an-equitable-pandemic-response-and-recovery/>

⁴⁵⁷ KFF. *What's In the American Rescue Plan for COVID-19 Vaccine and Other Public Health Efforts*. Accessed June 16, 2022. <https://www.kff.org/policy-watch/whats-in-the-american-rescue-plan-for-covid-19-vaccine-and-other-public-health-efforts/>

⁴⁵⁸ Health Affairs. *Pandemic-Driven Health Policies To Address Social Needs and Health Equity*. Accessed June 16, 2022. <https://www.healthaffairs.org/doi/10.1377/hpb20220210.360906/>



LOCAL AND STATE TIMELINE

Table 9: Local and State Timeline

JURISDICTIONAL LEVEL	DATE	MILESTONES
International and Federal	Dec. 2019 – Jan. 2020	CDC issues an official Health Advisory to state and local health departments and providers regarding international 'viral pneumonia' with first cases noted in Wuhan, People's Republic of China. First epidemiological alert issued on novel coronavirus with recommendations covering international travelers, infection prevention and control measures and laboratory testing.
Federal	1/21/20	CDC confirms first US COVID-19 case in the state of Washington.
Local	1/21/20	PHSKC activates the HMAC at Level 2 - Enhanced Operations (Partial HMAC Activation).
State	1/22/20	The State of Washington activates its SEOC.
Local	1/24/20	PHSKC elevates its HMAC to Level 1 - Full HMAC Activation.
Local	1/31/20	CDC funnels flights from China to select US airports including SeaTac and for enhanced screening of traveler's potential quarantine by local public health jurisdictions including PHSKC
State	1/26/20	CDC has the only lab in the country that can test samples and is overwhelmed. WA State PH lab develops capability and begins testing COVID-19 samples
Local	2/7/20	PHSKC launches new resources to help address stigma and discrimination that can be exacerbated during global outbreaks.
Local	2/27/20	First positive case of COVID-19 recorded in King County
Local	2/28/20	First COVID-19 case identified at Lifecare, Long Term Care Facility
Local	2/29/20	King County Emergency Operations Center (EOC) activated at Enhanced Level
State	2/29/20	Washington State declares COVID-19 State of Emergency.



JURISDICTIONAL LEVEL	DATE	MILESTONES
		Governor Inslee directs all state agencies to use resources necessary to prepare and respond to the crisis
Local	3/1/20	Proclamation of Emergency is signed in King County, enabling "extraordinary measures" to fight the COVID-19 outbreak including waiving procurement protocols, authorizing overtime for employees, and purchasing an area motel to isolate and quarantine patients.
Local	3/3/20	King County opens Novel Coronavirus Call Center, activated and staffed by PHSKC
Local	3/4/20	Large employers in area (Microsoft and Amazon) mandate telecommuting
Local	3/9/20	All area colleges move to online courses through September 2021
Local	3/11/20	State and Local Health Officer limits large gatherings to less than 250
State	3/16/20	Statewide proclamation limiting and Local Health Officer orders gatherings to less than 50 people; state and local prohibition of onsite consumption of food or beverages until phased reopening completed in May 2020
State	3/17/20	K-12 schools closed statewide for in person learning
Federal	3/18/20	Families First Coronavirus Response Act signed into law, provides paid sick leave, tax credits, and free COVID-19 testing; expands food assistance and unemployment benefits; and increases Medicaid funding.
State	3/18/20	Ratepayer Assistance and Preservation of Essential Services proclamation ensures that energy, electric, telecommunications, and water utilities cannot disconnect or refuse to reconnect services
State	3/18/20	Family Emergency Assistance Program/FEAP provides Disaster Cash Assistance through July 2020 and expands this order to include individuals without children
Local	3/19/20	First COVID-19 testing site opens for first responders in King County



JURISDICTIONAL LEVEL	DATE	MILESTONES
Local	3/20/20	Kent Isolation and Quarantine site opens
State	3/23/20	Governor Inslee announced a “Stay Home, Stay Healthy” order, implementing mandatory telecommuting for all employees who are not First Responders or Mission-Critical.
State	3/24/20	State proclamation that expands telehealth services, testing coverage to include provider visits for all respiratory illness and drive-up testing without copays
Local	3/25/20	King County launches Stand Together, Stay Apart campaign
Local	3/25/20	PHSKC launches public data dashboards with daily updates of local COVID-19 cases and deaths
State	3/25/20	Stay Home, Stay Healthy Order through 4 May 2020 bans all gatherings for social, spiritual, recreational activities and all businesses except essential.
Federal	3/27/20	Coronavirus Aid, Relief, and Economic Security Act (CARES, Act) signed into law, including one-time cash payments. Increased unemployment benefits, creation of the Paycheck Protection Program, additional funding for state and local governments.
Local	3/27/20	CDC issues COVID-19 prevention guidance in Morbidity and Mortality Weekly Report for Long Term Care (LTC) Facilities based off Public Health - Seattle & King County findings and transparency with their first LTC outbreak.
Local	3/27/20	Aurora Isolation and Quarantine site opens
Local	3/29/20	Issaquah Isolation and Quarantine site opens
Federal	3/30/20	Stay at home guidelines are extended by President Trump until April 30.
Local	4/1/20	PHSKC/HMAC Community Well-Being Group support begins to focus on behavior health impacts of the outbreak.
Local	4/2/20	King County announces plan to reduce capacity at shelters by moving nearly 400 people to hotel rooms



JURISDICTIONAL LEVEL	DATE	MILESTONES
Local	4/10/20	PHSKC starts releasing preliminary data of COVID-19 cases by race/ethnicity
Local	4/28/20	COVID-19 public education campaign videos have been released in 24 languages
Local	5/18/20	King County directive to wear face coverings while in public goes into effect
Local	6/2/20	Phase 1 Safe Start - Stay Healthy King County Reopening - allows limited operation of restaurants, retail and personal services
State	6/5/20	Statewide implementation of "Washington Listens," an emotional health support program to reach those most affected by the stress of the outbreak. \$2.2 million designated for this program with a call center and 120 counselors or team leaders available for support. \$2M grant also issued for support to those with substance abuse and mental health disorders
Federal	6/10/20	There are 2 million confirmed cases of COVID-19 in the US.
Local	6/10/20	New free testing sites open in south King County bringing the total number of free testing sites in south Seattle and south King County to 10, with 18 free testing sites overall in King County.
Local	6/11/20	King County declared racism a public health crisis, recognizing that racism is an underlying root cause of the disproportionate impacts of the COVID-19 pandemic on communities of color, and committing to implementing a racially equitable response to this crisis, centering on community.
Local	6/19/20	Phase 2 Safe Start - Stay Healthy King County Reopening - allows gatherings of 5 or fewer people and allows restaurants, retailers and other businesses to reopen.
State	6/26/20	Secretary of Health mandates face coverings through 3/11/2022 for all people above the age of 2 or with a medical condition that prohibits the use of the mask.
Local	7/3/20	Safe Start for Taverns and Restaurants (SSTAR) program



JURISDICTIONAL LEVEL	DATE	MILESTONES
		begins educational outreach and enforcement of Safe Start requirements for operating restaurants, bars, and taverns.
State	7/9/20	State expands eligibility of the Family Emergency Assistance Program through 6/30/2021
Federal	8/24/20	The CDC restricts its testing recommendations to only symptomatic individuals who have been exposed to the virus.
Local	8/31/20	Two new free drive-thru COVID-19 test sites announced in Renton and Auburn
Local	9/1/20	Individual Eviction and Rental Assistance granted through December 2020
Local	10/6/20	Tukwila testing site open
Local	10/13/20	Federal Way test site opens
State	11/16/20	State rolls back its phased reopening plan until 1/22/2021 to slow the spread of rapidly increasing COVID-19 cases, hospitalizations and deaths before health systems become overloaded
Local	11/20/20	Test site opens at Highline College to expand testing capacity in south King County as case numbers increase
Federal	12/2/20	CDC announces that those who have been exposed to someone with COVID-19 can quarantine for ten days without a COVID-19 test if they have no symptoms or seven days if they have no symptoms and a negative test result.
Local	12/10/20	Test site opens in Enumclaw to expand testing access in southeast King County
State	12/11/20	State issues first vaccine through tiered approach for high-risk health care workers; high risk first responders and long-term care facility residents
Local	12/15/20	Bellevue College test site opens, bringing the first free high-volume test site to King County's Eastside.



JURISDICTIONAL LEVEL	DATE	MILESTONES
Local	12/18/20	King County begins vaccinating high-risk workers in health care settings, patients and staff of long-term care facilities, and high risk first responders (EMTs, paramedics, and fire fighters)
Local	1/1/2021	In collaboration with PHSKC and dozens of local hospitals, many hundreds of EMS personnel staffed mass vaccination sites and mobile vaccination vehicles.
State	1/11/21	State declares "Healthy Washington - Roadmap to Recovery" that outlines recovery plan and metrics that will be monitored in each region to transition phases
Federal	1/21/21	The Biden administration publishes its national COVID-19 response strategy. It includes a data-driven response to the pandemic and expanded access to care and treatment; policy directives on the domestic goal of 100 million vaccinations in 100 days and strengthening the global response;
State	1/28/21	State expands vaccine eligibility to all individuals 65 and older
Federal	1/30/21	Required mask mandate for travelers into, within, and out of the United States on airplanes, ships, ferries, trains, subways, buses, taxis, and ride shares.
Local	2/1/21	Two mass vaccination sites for COVID-19 opened in South King County
Local	3/2/21	500,000 vaccines administered in King County
State	3/2/21	State expands eligibility for vaccine to educator and care givers
Federal	3/11/21	American Rescue Plan Act signed into law. Among other actions, the law provides a boost to unemployment benefits through September; expands the child tax credit, rental payment assistance, and funds for COVID-19 vaccine distribution and testing; and directs money to state, local, and tribal governments and to schools.
Local	3/11/21	First cases of unique and highly transmissible COVID-19 variants (United Kingdom and South African variants)



JURISDICTIONAL LEVEL	DATE	MILESTONES
		detected in King County
Federal	3/18/21	White House declares COVID-19 outbreak a National Emergency
State	3/22/21	Governor Inslee announces that the state will enter phase 3 in a county-by-county evaluation process versus a regional decision. He lifts ban on in person spectators for professional and high school sports
Local	4/7/21	1 million vaccines administered in King County
Federal	4/15/21	The Pfizer-BioNTech COVID-19 vaccine is authorized for age 16+ and Moderna and J&J COVID-19 vaccines are authorized for age 18+.
Local	4/26/21	Public Health - Seattle & King County releases COVID-19 principles for equitable vaccine delivery
Federal	4/28/21	CDC releases assessment that states that "fully vaccinated adults 65 years and older were 94% less likely to be hospitalized with COVID-19 than people of the same age who were not vaccinated."
Local	5/13/21	Vaccines are available for ages 12+ in King County
Local	6/30/21	King County eases COVID-19 restrictions to prepare for reopening of Washington State (Vaccinated people have the option to go maskless indoors)
State	7/1/21	State proclaims through "Washington Ready" that face covering, movement and occupancy restrictions can be modified through 8/13/2021
Local	7/24/21	The delta variant accounts for 56% of positive cases sequenced in King County.
State	8/9/21	State requires Vaccine for employees in all higher education institutions, most childcare, early learning providers, K-12 educators, school staff, coaches, bus drivers, school volunteers and any others working in school facilities as a condition of employment. Effort is ongoing.
State	8/23/21	Statewide Mask Mandate expanded to include vaccinated



JURISDICTIONAL LEVEL	DATE	MILESTONES
		individuals in indoor settings through 3/11/2022
Local	9/8/21	COVID-19 -19 Case Investigation and Contact Tracing transitioned from PHSKC to Washington Department of Health
Local	9/16/21	Vaccination Verification Order ensuring that all patrons 12 years and older are required to have proof of vaccination to attend all indoor events with a capacity of 12 people or more and all outdoor events with 500 or more people
State	9/21/21	Pfizer booster eligibility expanded to those older than 65 years, younger adults with risk of severe COVID-19 or high risk of exposure - ongoing
State	10/18/21	Vaccine Requirement for all employee, on site contractors and volunteers at public and private K-12 schools, public and private 2–4-year institutions of higher learning and all early learning and childcare programs. Colleges and Universities are allowed to reopen upon compliance with Proclamation 21-14.1
State	10/22/21	Booster Eligibility expanded statewide to those 18+ who received J&J > 2 months ago, or Pfizer/Moderna > 6 months at a higher risk of severe COVID-19 or high risk of exposure
State	11/3/21-11/22/21	Eligibility for Pfizer Vaccine includes children 5-11; Booster Eligibility expanded statewide to those 18+ Pfizer/Moderna > 6 months ago
Local	12/4/21	Public Health – Seattle & King County confirmation of the first case of the Omicron variant of COVID-19 in King County
State	12/9/21	Booster Eligibility expanded statewide to those 16-17 who have received Pfizer/Moderna > 6 months ago
State	1/3/22 - 1/22/22	Booster Eligibility expanded statewide to those 12-15 who have received Pfizer/Moderna > 6 months ago; Booster Eligibility changed from 6 months to 5 months; Washington "Say Yes! COVID-19 Home Test" Program launched allowing residents to order 2 COVID-19 tests per



JURISDICTIONAL LEVEL	DATE	MILESTONES
		month
Local	3/1/22	King County Vaccination Verification Order ends
State	3/11/22	King County Mask Directive is lifted for all venues and gatherings



ACRONYMS

A&I	Analytics and Informatics
AAR	After Action Report
AC/RC	Alternate Care / Recovery Center
ACS	Alternate Care Site
ADA	Americans with Disabilities Act
ALF	Assisted Living Facilities
APDE	Assessment, Policy Development, and Evaluation
BIPOC	Black, Indigenous, People of Color
CBO	Community-Based Organization
CDC	Centers for Disease Control and Prevention
CHS	Community Health Services
CLIA	Clinical Laboratory Improvement Amendment
CMS	Centers for Medicare and Medicaid Services
COOP	Continuity of Operations Plans
COVID-19	Coronavirus Disease – 2019
CSB	Customer Service Bureau
DAJD	Adult and Juvenile Detention
DOH	Washington State Department of Health
DHHS	Department of Health & Human Services
DOC	Department Operations Center
EAP	Employee Assistance Program
EHD	Environmental Health Services
EMSA	Emergency Medical Services Authority
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ERT	Equity Response Team
EUA	Emergency Use Authorization
ESF	Emergency Services Function
FAST	Field Assessment Support and Technical Assistance
FBO	Faith-Based Organization
FBOD	Finance and Business Operations Division
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
HAI	Hospital Associated Infection
HAR	Household Assistance Request
HCC	Healthcare Coalition
HEART	Homeless Health Emergency Action and Response Teams
HHS	U.S. Department of Health and Human Services
HMAC	Health and Medical Area Command
HPI	Healthy Places Index



HR	Human Resources
I&Q	Isolation and Quarantine
IAP	Incident Action Plans
ICS	Incident Command System
IT	Information Technology
JHS	Jail Health Services
JIS	Joint Information System
KCIT	King County Information Technology
LTCF	Long- Term Care Facility
MEO	Medical Examiner's Office
MHCC	Medical and Health Coordination Center
MHOAC	Medical Health Operational Area Coordinator
MOU/MOA	Memorandum of Understanding/Agreement
MYTEP	Multi-Year Training and Exercise Program
NIMS	National Incident Management System
OEM	Office of Emergency Management
OWS	Operation Warp Speed
PAPR	Powered Air Purifying Respirator
PARCAG	Pandemic and Racism Community Advisory Group
PHN	Public Health Nurse
PHSKC	Public Health - Seattle & King County
PHRC	Public Health Reserve Corps
PICC	Public Information Contact Center
PIO	Public Information Officer
PPE	Personal Protective Equipment
RR	Resource Request
SEOC	State Emergency Operations Center
SNF	Skilled Nursing Facilities
SOP	Standard Operating Procedure
SSTAR	Safe Start for Taverns and Restaurants
SWIQ	Stipend for Workers in Isolation and Quarantine
ULTF	Ultra-low Temperature Freezer
WASCLA	Washington State Coalition for Language Access
WDRS	Washington Disease Reporting System
WIC	Women, Infants, and Children