



Kitsap Public Health District Coronavirus-19 (COVID-19) Pandemic After Action Report (AAR)/Improvement Plan

11 July 2023

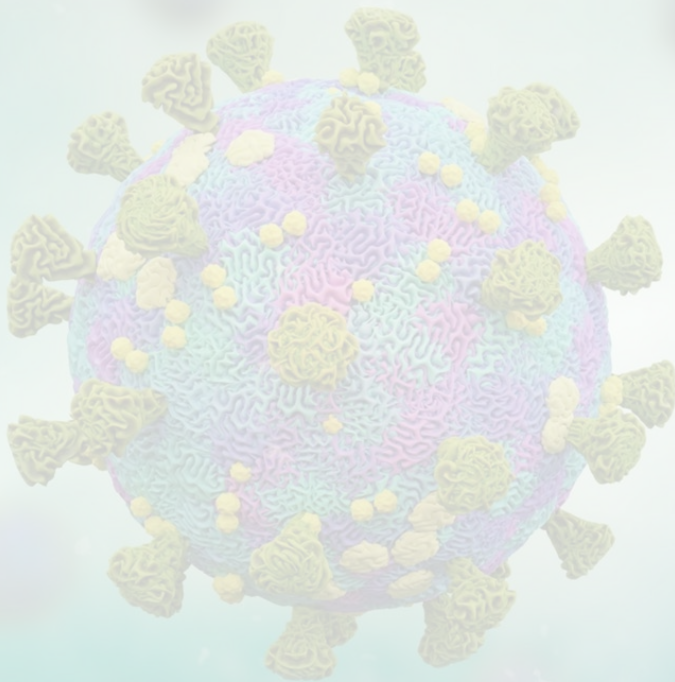


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Preface

The Kitsap Public Health District (KPHD) Coronavirus-19 (COVID-19) Pandemic After Action Report (AAR)/Improvement Plan (IP) was developed to synthesize the initial response of KPHD, the Kitsap County Department of Emergency Management (KCDEM) and select partners to the global COVID-19 pandemic. This AAR/IP focuses on the initial response spanning from March 2020 through April 2023. An after action review process was conducted to capture lessons learned and areas for improvement for future public health and emergency responses.

The AAR summarizes information gathered from KPHD and support partners through a documentation review, online survey process, and teleconference interviews with engaged stakeholders. The report provides feedback on identified successes and offers recommendations to enhance the response capabilities. Although these recommendations were derived from the response to the COVID-19 pandemic, recommendations apply to future public health emergencies as well

The suggested actions in this report should be viewed as recommendations only. In some cases, KPHD leadership may determine that the benefits of implementation do not sufficiently outweigh the costs. Additionally, alternative solutions may be identified at a later time that are more effective or cost-efficient. Each participating organization should review the recommendations and determine the most appropriate action and resources needed (i.e., time, staff, funding, etc.) for implementation. Many recommendations were specifically suggested by stakeholders during interviews and may require a collaborative effort to implement.

ADMINISTRATIVE AND HANDLING INSTRUCTIONS

1. The title of this document is the Kitsap Public Health District Coronavirus-19 (COVID-19) Pandemic After Action Report (AAR)/Improvement Plan (IP).
2. The information gathered in this AAR/IP is classified as “For Official Use Only” (FOUO) and should be handled as sensitive information not to be disclosed. This document should be safeguarded, handled, transmitted, and stored by appropriate security directives. Reproduction of this document, in whole or in part, is prohibited without prior approval from KPHD. At a minimum, the attached materials will be disseminated only on a need-to-know basis.
3. For more information about the KPHD COVID-19 Pandemic AAR/IP, please consult the following points of contact (POC):

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Overview

Name	Kitsap Public Health District Coronavirus-19 (COVID-19) Pandemic After Action Report/Improvement Plan (AAR/IP)	
Dates	March 2020–April 2023	
Scope	The AAR documents Kitsap Public Health District’s COVID-19 response operations and provides recommendations for elements of public health and emergency response that should be considered successes and sustained as well as recommendations to improve plans, processes, and procedures.	
Mission Area	Response Operations	
Federal Emergency Management Agency (FEMA) Response Core Capabilities	<p>The FEMA Response Core Capabilities reflected in the AAR include:</p> <ul style="list-style-type: none"> • Environmental Response/Health and Safety • Logistics and Supply Chain Management • Operational Communication • Operational Coordination • Planning • Public Health, Healthcare, and Emergency Medical Services • Public Information and Warning • Situational Assessment 	
Public Health Emergency Preparedness and Response Capabilities	<p>The Centers for Disease Control and Prevention (CDC) Public Health Emergency Preparedness and Response Capabilities reflected in the AAR include:</p> <ul style="list-style-type: none"> • Capability #3: Emergency Operations Coordination • Capability #4: Emergency Public Information and Warning • Capability #6: Information Sharing • Capability *7: Mass Care • Capability #10: Medical Surge • Capability #11: Nonpharmaceutical Interventions • Capability #14: Responder Safety and Health • Capability #15: Volunteer Management 	
Threat or Hazard	Global pandemic	
Organization	Kitsap Public Health District	
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Executive Summary

The Kitsap Public Health District (KPHD) Coronavirus-19 (COVID-19) Pandemic After Action Report/Improvement Plan (AAR/IP) was developed to analyze KPHD's operational response to the COVID-19 Pandemic. The AAR/IP focuses on the strengths to be maintained and built upon, identifies areas for improvement, and supports the enhancement of corrective actions.

The AAR was developed to review the actions taken by KPHD and select response partners during the response from March 2020 through April 2023 to capture lessons learned and areas for improvement.

Findings included within the AAR were developed with input from KPHD staff, local and county response partners, public and private sector partners, and community-based organizations (CBO). Data was gathered through a document review, an online survey, and virtual individual interviews.

Key findings and recommendations are summarized in the ***Analysis, Findings, and Recommendations*** section of this report.

Major Strengths

Numerous strengths were observed throughout the response:

- Staff demonstrated dedication and professionalism to serve the whole community during the rapidly changing and sustained incident.
- Kitsap community volunteers displayed dedication to serving the community throughout the incident.
- Through successfully leveraging community partnerships, KPHD established the Vaccine Equity Collaborative. This group informed emergency-related communications and supported equitable vaccine access.
- KPHD identified and implemented resources to address the stress and mental health needs of responders as a routine element of the operation.

Primary Areas for Improvement

- The lack of an agreed-upon method for information sharing impacted responding agencies' ability to coordinate at the onset of operations. This affected coordination efforts among fire agencies, emergency medical services providers, KPHD, and Kitsap County Department of Emergency Management (KCDEM).
- The roles and responsibilities for Emergency Support Function 8 (ESF 8) within the county response structure were unclear and should be reviewed in partnership with KCDEM to improve future responses.
- Deferred maintenance to planning, training, exercise, and volunteer engagement programs impacted response operations.
- Data infrastructure systems do not reflect modern expectations of production and interoperability with stakeholders to best serve the public.

Analysis, Findings, and Recommendations

Participants provided valuable observations and insights related to KPHD’s COVID-19 pandemic response through the online survey and virtual interviews. These observations were used to derive key findings and develop actionable recommendations.

The AAR/IP is organized by FEMA Response Core Capabilities and CDC Public Health Emergency Preparedness and Response Capabilities as follows:

FEMA Response Core Capabilities	CDC Public Health Emergency Preparedness and Response Capabilities
<ul style="list-style-type: none"> ▪ Environmental Response/Health and Safety ▪ Logistics and Supply Chain Management ▪ Operational Communication ▪ Operational Coordination ▪ Planning ▪ Public Health, Healthcare, and Emergency Medical Services ▪ Public Information and Warning ▪ Situational Assessment 	<ul style="list-style-type: none"> ▪ Capability #3: Emergency Operations Coordination ▪ Capability #4: Emergency Public Information and Warning ▪ Capability #6: Information Sharing ▪ Capability #7: Mass Care ▪ Capability #10: Medical Surge ▪ Capability #11: Nonpharmaceutical interventions ▪ Capability #14: Responder Safety and Health ▪ Capability #15: Volunteer Management

1. Environmental Response/Health and Safety

FEMA Response Core Capability: Environmental Response/Health and Safety – Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all hazards in support of responder operations and the affected communities.

CDC Public Health Emergency Preparedness and Response Capability #14: Responder Safety and Health – Responder safety and health is the ability to protect public health and other emergency responders during pre-deployment, deployment, and post-deployment.

Observation 1.1 Strength: Personal protective equipment (PPE) was prioritized for front-line response staff throughout the incident.

Analysis: PPE was reliably prioritized for local response partners and staff, including public and private sector partners through coordination with KPHD, Medical Reserve Corps (MRC), and Bainbridge Prepares. This was a noted best practice by community leaders.

Recommendation 1.1.1: Memorialize coordination methods into response plans for future public health emergencies.

Observation 1.2. Strength: Response staff demonstrated dedication and professionalism while focusing on protecting and improving the health of Kitsap County residents.

Analysis: Throughout the AAR interview process, stakeholders (e.g., volunteers, professional staff, and political leaders) expressed their admiration for the KPHD team's efforts. While some challenges were identified, participants consistently commented about how people did not give up on each other, how they would talk through problems, how KPHD demonstrated a distinct culture that encouraged collaboration, and how KPHD set a focused tone on progress through teamwork.

Recommendation 1.2.1: Working with other local partners, create a public event that celebrates Kitsap County coming together to respond to the COVID-19 incident, calling public attention to the focus on teamwork and community as a foundation of this mission.

Observation 1.3. Strength: KPHD proactively worked to address response-related issues of stress, mental health, and wellness of its workforce.

Analysis: KPHD actively engaged its staff in conversations about mental health and stress triggers. KPHD conducted mental health surveys several times during the incident, which was identified as a best practice. Utilizing the data from the surveys, a Mid-response Assessment Summary was produced, and later in response operations, a second survey was distributed and assessed. Information from the surveys informed approaches to stress, mental health, and wellness. This demonstrates KPHD's ongoing support of its staff's resilience. Participants shared that they felt appreciated and that their well-being was important to KPHD.

Recommendation 1.3.1: Memorialize prioritizing the mental health and wellness of staff in response plans for future public health emergencies.

Observation 1.4 Area for Improvement: The unprecedented length of the public health emergency and ongoing response placed considerable strain on staff, which was not adequately addressed within the Incident Command System (ICS).

Analysis: Most individuals interviewed for the AAR expressed pride in their role in response operations and even more in how they operated as a team. This incident was unprecedented and presented them with unique problems to address over a long period. One of those unique problems was the politicization that emerged within communities, both physical and virtual. Stressors included the rise of anti-vaccine positions, the national election, and cultural incidents involving civil unrest.

Coupling with the unique political elements that were a part of the COVID-19 pandemic were the work conditions of the response. Participants in the interviews indicated it was difficult to ask for time off when they saw all those around them working extended hours for months at a time, including leadership.

Furthermore, while some individuals were comfortable with ICS, others were new to it. There was little time spent on explaining ICS as a response system. This resulted in the stress that comes with learning a system and the expectations of leadership. It also exposed a gap in understanding the capabilities of ICS and the use of the Safety Officer position. The Safety Officer could have been better utilized to help address staff mental health concerns, physical health, and safety conditions.

Recommendation 1.4.1: Establish and enforce time-off policies for all deployed personnel (e.g., all staff will be required to take one full day off each week). Leadership should demonstrate acceptance by modeling time-off requirements.

Recommendation 1.4.2: When operating within ICS, KPHD should assign an Assistant Safety Officer-Resilience under the Command Staff Safety Officer to adopt and enforce guidelines for all response staff's mental health and wellness.

Recommendation 1.4.3: KPHD should develop policy language that communicates its mission of responder safety during pre-deployment, deployment, and post-deployment.

Recommendation 1.4.4: KPHD should develop a just-in-time training unit on basic ICS application to be delivered during response operations as a booster training for deployed staff.

Observation 1.5 Area for Improvement: The unprecedented length of the public health emergency and ongoing response placed considerable strain on staff due to deferred maintenance to essential programs in KPHD that support planning, training, and volunteer engagement programs in emergency readiness, response, and recovery.

Analysis: While it is natural to have limited resources and competing priorities during response operations, the length of the COVID-19 incident exposed gaps in KPHD programs designed to support its function in emergency management. There were health and safety issues that emerged from working extended hours over a period of two years because there was not enough staff available to deploy to the incident. Because there were limited human resources available for support, KPHD staff reported they needed to continue with the responsibilities of their full-time jobs and their incident response positions simultaneously. There were simply no existing positions in emergency management planning, field operations training, or volunteer engagement to fill the gaps and provide support to those essential services. Some of the impacts of these resource gaps were limited sleep, inability to balance professional

and personal demands, and diminished capacity. It was often identified as an unhealthy work environment. While KPHD leadership became aware of the stress and took measures to address some of the immediate issues, there were limited options to address the structural issues that seemed to have caused the gaps. Deferred maintenance on some of the infrastructure of KPHD seemed to be identified as the root cause of the safety and health issues of the emergency response workforce.

Recommendation 1.5.1: Establish and implement a strategy to address the structural gaps and workforce health and safety issues created by deferred maintenance to public health planning, training, and volunteer engagement programs that support emergency management readiness, response, and recovery in Kitsap County.

Observation 1.6 Area for Improvement: The Sheriff's Department and Correctional Facilities staff were not designated a priority group for early vaccine dispensing.

Analysis: The Sheriff's Department and Correctional Facilities staff interviewed for this AAR expressed concern that KPHD decision-makers did not fully understand their day-to-day roles and responsibilities and the potential for exposure. Participants indicated that while some staff may not be considered public-facing first responders, they were still in high-risk environments and were unable to work remotely. To that end, participants expressed that they should have been included in the first group to receive vaccinations rather than having to advocate for inclusion. KPHD decision-makers were following the guidelines provided by the Washington State Department of Health (WA DOH) and the CDC regarding vaccination priority groups.

Recommendation 1.6.1: KPHD decision-makers should establish a decision-making matrix regarding KPHD's priority list and follow it after addressing federal and state guidelines for vaccination distribution.

2. Logistics and Supply Chain Management

FEMA Response Core Capability: Logistics and Supply Chain Management – Deliver essential commodities, equipment, and services in support of impacted communities and survivors, to include emergency power and fuel support, as well as the coordination of access to community staples. Synchronize logistics capabilities and enable the restoration of impacted supply chains.

CDC Public Health Emergency Preparedness and Response Capability #11: Nonpharmaceutical Interventions – Nonpharmaceutical interventions are actions that people and communities can take to help slow the spread of illness or reduce the adverse impact of public health emergencies. This capability focuses on communities, community partners, and stakeholders recommending and implementing nonpharmaceutical interventions in response to the needs of an incident, event, or threat.

Observation 2.1: Strength: The Information Technology (IT) staff at KPHD effectively deployed equipment for staff assigned to telework.

Analysis: Having in-house IT staff at KPHD permitted rapid assessment of available equipment caches. IT staff were able to prepare computers and other required equipment and provide them to teleworking staff. This involved reassigning equipment, conducting training on new programs such as MS Teams, and tracking where materials were dispersed. This capability made the transition to telework effective and supported the health and working conditions of KPHD staff.

Recommendation 2.1.1: Memorialize the logistics capabilities related to equipment deployment in response plans for future public health emergencies.

Observation 2.2: Strength: KPHD and KCDEM had well-established strong community relationships that they utilized to mitigate healthcare supply gaps and provide resources to the community.

Analysis: Community-wide partnerships were critical to the resource acquisition of healthcare supplies. During the worldwide supply chain disruptions, one successful solution was to work as a community using a “stone-soup” model, where all partners contributed what they had available to meet the needs of the whole community. Volunteers worked with local pharmacies, KCDEM worked with statewide partners, and everyone worked with their normal supply chains to access PPE, test kits, and other critical resources.

Recommendation 2.2.1: KPHD and KCDEM should create a document to guide the upkeep and distribution of their stockpile of critical resources that support public health incidents.

Observation 2.3 Area for Improvement: There were technological equipment and service gaps for KPHD staff deployed to the initial activation of the KCDEM EOC.

Analysis: The initial activation of the KCDEM EOC was in-person. However, as the incident progressed it pivoted to virtual operations. While conducting in-person operations, the KCDEM EOC benefited from a volunteer who was a former Microsoft employee who assisted staff with the transition to virtual operations. However, following the transition, KCDEM did not have enough equipment or staff to support remote operations, and they needed to purchase additional supplies. In addition, KPHD staff deployed to the KCDEM EOC were required to bring KPHD equipment.

Recommendation 2.3.1: KCDEM should conduct a needs assessment to address IT capability gaps.

Recommendation 2.3.2: KPHD IT should anticipate supporting the logistics equipment needs of KPHD staff who are deployed to the KCDEM EOC.

3. Mass Care

FEMA Response Core Capability: Mass Care – Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies.

CDC Public Health Emergency Preparedness and Response Capability #7: Mass Care – Mass care is the ability of public health agencies to coordinate with and support partner agencies to address, within a congregate location (excluding shelter-in-place locations), the public health, health care, mental/behavioral health, and human services needs of those impacted by an incident. This capability includes coordinating ongoing surveillance and public health assessments to ensure that health needs continue to be met as the incident evolves.

Observation 3.1 Strength: KPHD successfully coordinated within congregate care facilities to expand capabilities to vulnerable populations.

Analysis: Essential services for vulnerable populations, such as those experiencing homelessness, still needed to be addressed during the pandemic. There was an expansion of available shelter beds and a move to a larger site at the fairgrounds. KPHD provided temperature check kiosks, test kits, and PPE. Response partners identified that KPHD staff were responsive and helpful with guidance, working closely with the Kitsap Rescue Mission and the Salvation Army to coordinate operations. Operations were supported with funding from the American Rescue Plan Act (ARPA) funds.

Recommendation 3.1.1: Memorialize the response roles and actions associated with congregate care facilities into a playbook or standard operating guide for future public health emergencies.

Recommendation 3.1.2: Create a working group to identify primary, secondary, and tertiary locations for congregate care and isolation/quarantine (I/Q) facilities.

Observation 3.2 Strength: KPHD's support of existing shelter systems was an effective policy direction to immediately address surge capacity needs in the county.

Analysis: Stakeholders identified that KPHD's support of the existing congregate care infrastructure was a sound and impactful strategy. It displayed trust in existing partners (e.g., Salvation Army, St. Vincent de Paul) and supported the needs of the most vulnerable populations. Standing up shelters and making them 24/7 with no turn-aways was identified as a very large, successful, and efficient effort. The existing infrastructure simply needed financial support to expand services, and with the support of KPHD, was able to secure funding.

Recommendation 3.2.1: KPHD should continue to coordinate with CBOs to ensure that shelter plans are reflective of the existing congregate care infrastructure.

4. Operational Communication

FEMA Response Core Capability: Operational Communication – Ensure the capacity for timely communications in support of security, situational awareness, and operations, by any and all means available, among and between affected communities in the impact area and all response forces.

CDC Public Health Emergency Preparedness and Response Capabilities # 6: Information Sharing – The ability to conduct multijurisdictional and multidisciplinary exchange of health-related information and situational awareness data among federal, state, local, tribal, and territorial levels of government and the private sector. This capability includes the routine sharing of information as well as issuing of public health alerts to all levels of government and the private sector in preparation for and in response to events or incidents of public health significance.

Observation 4.1. Strength: The workplace culture at KPHD encouraged information sharing through operational documents and checklists as well as camaraderie among staff.

Analysis: KPHD developed detailed procedures and processes to manage case investigation and outbreak investigations. Multiple documents were developed that clearly communicated processes and expectations of new tasks. These documents helped with working under new and stressful conditions and provided continuity and accountability. For example, there was a line list template developed for staff use, which helped during surges and provided continuity as additional staff were brought on to support this work.

Recommendation 4.1.1: Operational documents and checklists should be updated and maintained every year or immediately following a unique response operation.

Observation 4.2. Strength: Communication with WA DOH was prioritized and routine and had a positive impact on KPHD operations.

Analysis: KPHD staff attended briefings conducted by WA DOH on a variety of topics, including epidemiology meetings, data user meetings, vaccine data users' meetings, and state coordination calls. WA DOH combined all COVID-19-related meetings on relevant topics such as testing, vaccines, and wastewater screening. This helped with planning, and it provided opportunities to share ideas and updates and address data and coding challenges.

Recommendation 4.2.1: Memorialize these communication procedures with WA DOH into KPHD plan updates.

Observation 4.3 Strength: Weekly enrolled provider calls between KPHD and regional stakeholders enhanced partnerships and addressed operational issues.

Analysis: Pharmacies, hospitals, and local healthcare providers who had enrolled to provide the COVID-19 vaccines were invited to participate in a weekly call with KPHD. This provided a forum to share guidance, troubleshoot issues, and plan for vaccination work. It helped to break down silos as different organizations partnered together and increased collaboration through partnerships.

Recommendation 4.3.1: The process of establishing regional stakeholder calls should be operationalized and memorialized as an effective response partnership and explored for application in a preparedness capacity.

Observation 4.4 Area for Improvement: At the onset of operations, the expectations of Fire, EMS, KPHD, and KCDEM's regarding operational coordination and data sharing were not aligned.

Analysis: Operational coordination with Fire, EMS, KPHD, and KCDEM was identified as lacking at the beginning of the incident. Fire and EMS staff indicated that they work in an environment where response operations occur daily and that they felt that there was weakness in a unified response among KCDEM and KPHD, who were less experienced. Fire and EMS identified that they did not have extensive experience interacting with KPHD and lacked an understanding of how public health prioritized response operations. They directly linked this to a lack of previous interaction with KPHD in planning, training, or exercises. Fire and EMS indicated that their understanding was improving as response operations were ongoing and they were interacting with KPHD regularly.

Fire and EMS expressed that data regarding contact tracing was siloed with KPHD, and policies on sharing that information should have been available to them. This was magnified at the onset because of the potential exposure risk Fire and EMS staff had to COVID-19 through daily public interactions. They perceived a lack of communication from KPHD because requested data on infection locations and rates went unanswered, or KPHD indicated it was inappropriate to share the requested data, or access to the requested data was delayed by response partners at the State. Participants stated that senior leadership responsible for the long-term, ongoing support of the ESF 8 Task Force must ensure all stakeholders understand how to operate effectively in the best interest of the community during response operations with limited resources and competing priorities.

Recommendation 4.4.1: KPHD, in partnership with KCDEM, should update the appropriate ESF 8 planning document to include data-sharing abilities and expectations for public health emergencies.

Recommendation 4.4.2: A multi-year planning, training, and exercise program should emerge from the ESF 8 Task Force that is designed and approved by all members to increase operational coordination and communication among all stakeholders.

Observation 4.5 Area for Improvement: There was limited direct communication between Suquamish Tribe Emergency Management, Bainbridge Island Emergency Management, KPHD, and KCDEM.

Analysis: Local emergency managers from Suquamish Tribe Emergency Management and Bainbridge Island Emergency Management indicated that there was virtually no direct communication with them from County operations in both public health and emergency management. They had no access to the KCDEM EOC or Department Operations Center (DOC) operational briefings. To address this gap, they went to the KPHD and KCDEM web pages to access subject matter information on the incident. Local emergency managers shared information from the CDC and WA DOH with each other and with their voluntary agencies. Local emergency managers expressed a need to build a partnership between them, KPHD and KCDEM, because each felt they were called upon to become subject matter experts on a public health incident they had no background in, and they could have used a formal line of communication with KPHD.

Recommendation 4.5.1: Local and Tribal emergency managers should be invited to participate in operational briefings each time the KCDEM EOC is activated with ESF 8 deployed or when the KPHD Emergency Coordination Center (ECC) is activated.

Recommendation 4.5.2: KPHD plans should reflect a strong partnership with Tribal, local, and county emergency management partners.

Recommendation 4.5.3: Involve Tribal and local emergency managers in the ESF 8 Task Force.

Observation 4.6 Area for Improvement: Mass notification systems were available but not used by KCDEM.

Analysis: KCDEM did not utilize its mass notification for COVID-19 education. Participants indicated that it would have been an effective tool to utilize to share information such as symptoms, testing, vaccination, and general updates. It was looked upon as a missed opportunity.

Recommendation 4.6.1: KCDEM should assess its outreach strategy and consider multiple modalities when it communicates risk with the impacted community.

5. Operational Coordination

FEMA Response Core Capability: Operational Coordination – Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of Core Capabilities.

CDC Public Health Emergency Preparedness and Response Capability #3: Emergency Operations Coordination – The ability to coordinate with emergency management and to direct and support an incident or event with public health or health care implications by establishing a standardized, scalable system of oversight, organization, and supervision that is consistent with jurisdictional standards and practices and the National Incident Management System (NIMS).

Observation 5.1 Strength: When senior leadership at KPHD determined the organization needed to assume a response operations position, staff immediately assembled into an ICS structure to prioritize the mission.

Analysis: Many staff members at KPHD had ICS training and experience operating in the ICS structure. Those individuals led response operations and pulled in additional staff to support as the incident expanded. Some organizational goals were suspended while ICS expanded to prioritize emergency response.

Recommendation 5.1.1: Memorialize ICS as an effective initial response system in plans for future public health emergencies.

Observation 5.2 Strength: The just-in-time training supported ICS scalability, permitting staff from other programs to support contact tracing and case investigation.

Analysis: KPHD staff designed a training program for novices to understand contact tracing and case investigations. They also developed job aids, scripts, and checklists for use to provide accountability and consistency in service delivery.

Recommendation 5.2.1: Standardize just-in-time training units so they are easy to update, maintain, and deploy as the incident requires.

Recommendation 5.2.2: Develop and maintain just-in-time training units for additional incident types so they are ready to deploy at the onset of incident response.

Observation 5.3 Strength: Fire departments and EMS providers throughout the County were forward-leaning in the use of their agency/department's equipment and supplies and collaborated efficiently with many regional partners.

Analysis: Representatives from fire departments and EMS systems around the county noted that they relied on a stockpile of masks and other PPE for their essential equipment needs. This was associated with a well-organized inventory tracking and logistics distribution process. Other response partners borrowed from their supply stocks as well and there were no gaps in access to PPE.

Recommendation 5.3.1: Memorialize the fire service and EMS providers' inventory and logistics process as a best practice among ICS response partners in plans for future public health emergencies.

Observation 5.4 Strength: Community-based policies from the Suquamish Tribe and Port Gamble S’Klallam Tribes strengthened response operations.

Analysis: The Suquamish Tribe was a partner in Unified Command in the KCDEM EOC as a function of Kitsap County law enforcement. Indian Health Services reviewed the health plan from the State to determine how tribes would receive vaccinations. Local tribes created their vaccination distribution plans based on their own needs, which had not been done previously. COVID-19 safety plans were also established internally within the tribes. Collaboration was strong when the tribes worked with non-tribal partners for vaccine distribution for high-risk vulnerable populations (e.g., mobile home parks for retired people) and those non-tribal members who provided essential services to the Tribe (e.g., school personnel, clinic workers, police officers).

Recommendation 5.4.1: The community-based policies prioritized by the Suquamish Tribe should be memorialized as a best practice and recognized as contributing to the resilience of residents of the county.

Recommendation 5.4.2: KPHD should engage Tribal emergency managers in the ESF 8 Task Force.

Observation 5.5 Strength: Close communication between KPHD, the Naval Hospital at Bremerton, and civilian hospitals enhanced coordination as the incident progressed.

Analysis: Pre-existing partnerships with hospitals helped establish a foundation for strong communication between staff at the onset of the COVID-19 incident. It was a natural progression to establish a healthcare coalition among the hospitals and to address issues together. This was important as information from the CDC was being updated routinely. KPHD had a solid understanding of CDC directives and was able to address inconsistencies or changes to instructions as they evolved with the incident.

Participants from the Naval Hospital at Bremerton identified that communication with KPHD was effective because the health officer was easy to reach and returned calls quickly. They indicated feeling synchronized with KPHD and supported. Although the areas they indicated as needing improvement were internal issues related to military systems, they reported experiencing gaps similar to those at KPHD, including resources, staffing, reporting data, and politics. This led them to recommend that further engagement with KPHD would be welcome and information sharing through formal communication channels would be beneficial.

Recommendation 5.5.1: KPHD should operationalize the process for maintaining and recording the involvement of regional military and civilian hospitals in incident readiness, response, and recovery.

Observation 5.6 Strength: Close communication with local schools and community colleges enhanced incident coordination.

Analysis: At the onset of response operations, a communication channel through weekly meetings was organized for all schools, community colleges, and private schools. These meetings established relationships between school leaders and KPHD and encouraged regional coordination for policy and operational support. School staff felt the regular meetings and emails with KPHD kept them informed,

answered their questions, and provided them with additional resources (e.g., test kits). Participants noted that this was not the case with the statewide educational system.

Recommendation 5.6.1: KPHD should memorialize or codify the process for maintaining the involvement of local school and community college partners in incident readiness, response, and recovery.

Observation 5.7 Strength: Regional healthcare organizations formed a local coalition to address common concerns, share information, and develop consistent policies.

Analysis: Staff with different organizational roles (e.g., Chief Executive Officer, Chief Operating Officer, Medical Officer, 24/7 Operator, Head Nurse, Human Resource Director, Facilities Manager, etc.) formed a focused coalition that was COVID-19 mission-focused. It helped create consistent policies and actions across the different facilities (e.g., telehealth, PPE distribution). The coalition continues to meet monthly to exchange information.

Recommendation 5.7.1: Identify that coalition formation by local healthcare organizations is a best practice in plans for future public health emergencies.

Observation 5.8 Strength: KPHD policy and operation of the isolation and quarantine (I/Q) facility was efficient and supportive of surge capacity needs.

Analysis: Countywide healthcare organizations identified that KPHD was efficient at sharing essential information that supported the healthcare infrastructure in the County as the incident progressed. The I/Q facility was quickly contracted and operationalized to conduct medical monitoring, provide disease-specific guidance, address visitation protocols, provide family-friendly environments and activities for guests during residency, and offer behavioral health support and other wrap-around services. The epidemiologist and specialists at KPHD provided information that was clear and easy for overburdened staff to understand and apply.

Recommendation 5.8.1: Develop an I/Q facility plan that codifies operational procedures and services for future public health emergencies.

Observation 5.9 Strength: Establishing and utilizing a COVID-19 data dashboard provided a realistic overview of the incident for all stakeholders.

Analysis: The staff at KPHD established a workable structure for processing, storing, and distributing information about the progression of the COVID-19 incident. There was an existing workflow and checks built into the data collection processing system. One participant reported that when they were hired mid-response, it was seamless to adopt the processes as a new hire. Participants noted that the data from the dashboard was shared with high-level leadership partners in the County, and the response was favorable. Participants noted that they could see the reality of the ebb and flow of infection and the impact of occurrences like the Omicron variant.

Recommendation 5.9.1: Codify the COVID-19 data collection and sharing process as a standard operating procedure for future public health emergencies.

Observation 5.10 Strength: Many County employees transitioned easily to remote work and continued to offer essential services to the community.

Analysis: Individuals who worked remotely had the equipment and communication infrastructure to provide essential services uninterrupted. Flexible scheduling assisted with incident-specific dual priorities involving childcare, eldercare, healthcare, and education, addressing some equity issues. As the incident transitioned into long-term response and on-site work became safer, the workforce members interviewed indicated appreciation for flexible schedules that were in a hybrid format.

Recommendation 5.10.1: Identify the application of a hybrid work environment as a standard operating procedure for future public health emergencies.

Observation 5.11 Area for Improvement: Communication and coordination at the KCDEM EOC lacked continuity among staff and leadership, impacting operations.

Analysis: Activation of the KCDEM EOC was described as slow to achieve operational efficiency due to some unfamiliarity in operationalizing ICS and working out roles and responsibilities among deployed county staff. Some of this was attributed to a lack of training and exercises. Several participants stated that training was only occasionally available, and they could save time by taking online training, which was general and not tailored to Kitsap County. This resulted in limited trained staff available for deployment to the KCDEM EOC and staff that had significantly different levels of training. In addition, there was a lack of established level of authority of those involved in response decision-making attributed to the management style of leadership.

While the KPHD administrator was a part of Unified Command at the KCDEM EOC, there were not any KPHD staff initially assigned to participate or function in a liaison role in the facility. This caused some confusion about the role, scope, and expertise of KPHD in operations and the function of ESF 8. While the KCDEM EOC staff were action-oriented, the culture was not always compatible with KPHD. When KCDEM and KPHD started to work together, things improved, but participants noted that there remained room for improvement.

Recommendation 5.11.1: KCDEM should invest resources into a robust training and exercise program that emphasizes ICS training for all county employees so multiple people can assume positions in the KCDEM EOC upon activation.

Recommendation 5.11.2: KCDEM should establish three KCDEM EOC teams and train them quarterly in response operations (e.g., Red Team, White Team, Blue Team).

Recommendation 5.11.3: County leaders should establish the necessary policies to require ICS training for all employees.

Observation 5.12 Area for Improvement: Local government participants indicated there was a lack of support from county government partners.

Analysis: When local government leaders were asked about best practices from KPHD and KCDEM during COVID-19 response operations, they responded that they had minimal direct engagement with either. They identified that they interacted with some State partners and then primarily with local voluntary groups (e.g., Bainbridge Prepares). Participants noted that city mayors were not included in county response operations leadership teams and were not included in routine operational briefings. Local government participants indicated that they would have benefited from being included in collaborative

efforts between KPHD, KCDEM, and local healthcare providers but did not understand the structure of emergency management so did not know about options for engagement.

Recommendation 5.12.1: KCDEM should deliver a course on the roles and responsibilities of local elected and appointed officials in emergency management.

Recommendation 5.12.2: Local elected and appointed officials should be invited to KCDEM EOC operational briefings.

Recommendation 5.12.3: There should be a liaison position to local elected and appointed officials appointed to the Command Staff when the KCDEM EOC is activated.

Recommendation 5.12.4: There should be a liaison position to local elected and appointed officials appointed to the Command Staff when the KPHD ECC is activated.

Observation 5.13 Area for Improvement: There is a gap in the ability of healthcare systems in Kitsap County and statewide to unite in a cohesive system.

Analysis: Senior leaders in Kitsap County identified challenges working with healthcare organizations. This stemmed from long-term systemic issues impacted by Washington State and local control issues with public health. Healthcare organizations in Kitsap County and statewide were never able to rally as a system. They quickly became overwhelmed with COVID-19-positive patients, and the situation was made worse by staff shortages. Some of the issues with local healthcare infrastructure were the lack of bed capacity and limited engagement of private medical providers. The resulting gaps highlighted that the healthcare system in Washington State and the U.S. is geared toward efficiency and not resiliency, which impacted response operations and ultimately the health of county residents.

Recommendation 5.13.1: Long-term goals for KPHD should include further coalition building with healthcare organizations in Kitsap County and engagement in strategic policy development through intentional membership in statewide groups or committees to address issues that intersect with public health issues.

Observation 5.14 Area for Improvement: The length of time required to hire and onboard new staff had a negative impact on response operations.

Analysis: As the incident continued to build and KPHD needed additional staff, the traditional human resources (HR) process for hiring and onboarding did not adapt to the needs or conditions of response operations. Participants noted that going through a lengthy process during a period when it was challenging to recruit staff caused them to miss hiring some qualified candidates. Participants expressed the need for a streamlined approach to recruiting and onboarding during an active response.

Recommendation 5.14.1: KPHD HR should explore options to expedite hiring processes and pre-identify resources that are critical to response operations.

Observation 5.15 Area for Improvement: There were perceived equity issues related to the temporary hire classification for some employees at the KCDEM EOC.

Analysis: Some volunteers working in the KCDEM EOC were interviewed to fill positions. They were moved to a temporary hire classification and were deployed alongside full-time County staff. Employees with the

temporary hire classification are not eligible for holidays, sick time off with pay, or vacation. This was uncomfortable for some employees from an equity standpoint, and there were also concerns about how it would impact union employees.

Recommendation 5.15.1: KCDEM HR should examine the appropriateness of the temporary hire classification and address equity issues.

6. Planning

FEMA Response Core Capability: Planning – Conduct a systematic process engaging the whole community as appropriate in the development of executable strategic, operational, and/or tactical-level approaches to meet defined objectives.

Observation 6.1 Strength: The COVID-19 Plan for Congregate Spaces was identified as an exceptional support resource for organizations operating congregate care facilities.

Analysis: The COVID-19 Plan for Congregate Spaces, developed by KPHD staff during response operations, was identified by participants as a user-friendly, practical operational guide. Participants commented that the plan reflected a solid understanding of the critical resource shortfalls associated with congregate care such as their dependence on volunteers, which was significantly impacted by COVID-19.

Recommendation 6.1.1: Expand the COVID-19 Plan for Congregate Spaces for all future public health emergencies that may have similar nonpharmaceutical interventions.

Observation 6.2: Area for Improvement: There were no available pandemic plans to operationalize at the onset of the COVID-19 incident.

Analysis: While there have been successful campaigns at KPHD to encourage and deliver vaccination for other viruses, there was no plan (e.g., influenza plan) that was easily adapted for COVID-19. When KPHD consulted with other county public health departments, there seemed to be no standardization to call upon. KPHD had to rapidly identify vaccination locations, staffing plans, and funding sources to support the mass vaccination efforts. Ultimately, the response plan that was implemented included using space from local hospitals and assembling a hybrid workforce from hospitals, KPHD staff, and MRC volunteers.

Recommendation 6.2.1: KPHD should establish a planning cycle for a pandemic plan to revise, train, and exercise following Homeland Security Exercise and Evaluation Program (HSEEP) standards.

7. Public Health, Healthcare, and Emergency Medical Services

FEMA Response Core Capability: Public Health, Healthcare, and Emergency Medical Services – Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, complete health assessments, medical, and behavioral health support, and products to all affected populations.

CDC Public Health Emergency Preparedness and Response Capability #10: Medical Surge – The ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community. It encompasses the ability of the health care system to endure a hazard impact, maintain or rapidly recover operations that were compromised, and support the delivery of medical care and associated public health services, including disease surveillance, epidemiological inquiry, laboratory diagnostic services, and environmental health assessments.

Observation 7.1 Strength: Kitsap Mental Health Services effectively addressed the specific needs of a high-risk population by supporting the formation of a Vulnerable Adult Task Group.

Analysis: The risk of developing dangerous symptoms of COVID-19 increases with age. Researchers at the Mayo Clinic noted that about 81% of deaths in the United States from the disease have been in people aged 65 and older.¹ To address concerns that were emerging from the community, Kitsap Mental Health Services formed a Vulnerable Adult Task Group for older people in the community. They were hearing from at-risk community members that there was so much information from so many places that it was hard to gauge the level of importance and that a trusted source of information was needed. KPHD and Kitsap County Human Services Department were identified as excellent partners for the task group. Participants reported they had access to timely information and people to talk to who could help them untangle some of the inconsistencies that were present in the data.

Recommendation 7.1.1: Kitsap Mental Health Services should expand the membership of the Vulnerable Adult Task Group to include members of the vulnerable adult population.

Observation 7.2 Strength: KPHD's vaccine strategy had a clear mission to focus on vulnerable populations as priority eligible groups, which likely mitigated health impacts on the community.

Analysis: Although federal vaccination guidance changed rapidly, KPHD was able to successfully prioritize eligibility groups. Participants noted that it was their fierce adherence to the mission that contributed to ensuring healthcare workers and vulnerable populations had first access to the vaccine. Participants were encouraged to share information with other response staff on the specific requests of individuals with access and functional needs. They were also encouraged to identify community members who require specific outreach efforts such as agricultural workers or people in remote locations. Operations were flexible, which included drive-through sites, utilization of old hospital space, and volunteers to support activities.

¹ <https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-who-is-at-risk/art-20483301>

Recommendation 7.2.1: Memorialize strategies and tactics (e.g., vaccination at home programs) used to support vulnerable populations.

Recommendation 7.2.2: Develop checklists that allow staff to focus on critical information and logistical support requirements for access and functional needs populations at points of distribution.

Recommendation 7.2.3: Medical Countermeasures Plan updates, training, and exercise schedules should include membership from CBOs, advocacy groups, and private sector partners who support transient community members working in agriculture.

Observation 7.3 Strength: Private sector healthcare networks provided good partnerships for testing and vaccination operations.

Analysis: Relationships with private sector healthcare providers such as Kaiser Permanente shifted from regulatory/oversight and educational to collaborative during response operations. The twice-monthly meetings with Kaiser Permanente led them to become a major partner for vaccination operations, providing 46,000 patients with vaccines at their four clinics in Kitsap County.

Recommendation 7.3.1: Memorialize strategies and tactics utilized in partnership development with private sector healthcare networks.

Observation 7.4. Strength: KPHD's response to COVID-19 was data driven with policy and operations based on a wide scope of data sources from a variety of partners.

Analysis: The unique conditions of COVID-19 required staff to produce and analyze large amounts of new data from a variety of sources. The epidemiology staff sought out a series of data sources, created a quality improvement process, developed analytics, and worked under stressful conditions to create actionable information for policy-makers and operations to incorporate into their functions.

Recommendation 7.4.1: Seek avenues for collaboration across all response partners to prioritize evidence-based decision-making and support continual improvement of data systems.

Observation 7.5 Strength: Establishing processes to collect both quantitative and qualitative data created depth and breadth for the analysis of COVID-19's impact on the community.

Analysis: Intentional data collection from a variety of sources provided a composite picture of the impact of COVID-19. KPHD used quantitative data from federal and state sources, death records, outbreaks from long-term care facilities, congregate care facilities, hospital visit data, and others. They collected qualitative data by having team members conduct focus groups in the community to ask open ended questions which provided nuanced data that impacted the creation of knowledge about the incident.

Recommendation 7.5.1: Memorialize strategies and tactics to collect qualitative and quantitative data about COVID-19 for application to other incident types.

Recommendation 7.5.2: Ensure the structure of KPHD can support the staffing and data collection and interpretation required to provide the depth of analysis resulting from qualitative and quantitative data.

Observation 7.6. Strength: Designing a public-facing dashboard to inform the community about the rapidly changing conditions of COVID-19 was considered a best practice for this incident response.

Analysis: Members of the community utilized the COVID-19 dashboard routinely. By observing interactions on the dashboard, KPHD identified the need for visual information and data presented in an interactive format so the community could see it in an understandable and actionable way. It was easy to interact with and easy to download data. It validated the importance of data and of sharing it with the impacted community and media covering the incident.

Recommendation 7.6.1: Memorialize the interactive design of the data dashboard utilized by community members as a best practice for incident response.

Recommendation 7.6.2: Ensure the structure of KPHD can support the design, maintenance, and staffing required for a public-facing data-driven dashboard.

Observation 7.7. Area for Improvement: Policies and procedures and data systems need to be in place pre-incident so KPHD can coordinate data, address interoperability, and have information sharing between response partners.

Analysis: KPHD had pre-existing relationships with partners such as WA DOH, Bremerton Naval Hospital, the CDC, and regional health care providers. However, data sharing was challenging because their information systems do not integrate. When data arrived at KPHD it was in different formats and needed to be checked for duplication and gaps. That was time consuming when it needed to be utilized quickly. The impact of accessing data from partners is critical to the public health of the community.

Recommendation 7.7.1: Prioritize the development of a data system that is timely, accurate, and relevant to multiple stakeholders in multiple formats, which include interoperability for monitoring public health issues, emerging issues, and public health actions.

Observation 7.8. Area for Improvement: Evidence-based data evolved as COVID-19 did but was often politicized by stakeholders, and KPHD did not have procedures to promote a working understanding of how knowledge of incidents is created through scientific data.

Analysis: In a variety of discussions, participants identified how data was being used by partners and the media in confusing ways. The expectations of the media that data should be 100% correct and that KPHD could be discredited if the data had any errors were unrealistic. There was hesitance to understand that data recorded in real time is expected to have errors; media created new positions like “data reporters” who would challenge COVID data but did not have a background in public health science and data collection.

Recommendation 7.8.1: Consider forming a nonpartisan commission to promote understanding of evidence-based public health and the legitimacy of evolving science.

Observation 7.9. Area for Improvement: KPHD’s data infrastructure system is outdated and was not able to adequately sync with critical stakeholders during the COVID-19 incident.

Analysis: KPHD's data system capabilities struggled with disaggregation and completeness. There were challenges noted by epidemiologists who were using simple Excel worksheets to enter data by hand. They had to correct unreliable data from the Washington Disease Reporting System site for daily reporting and it had glitches. They did not have a data system that could address an identifiable glitch in a large data transfer, so that too had to be done manually. When data arrived in slightly different formats such as having a limited number of variables, KPHD's data system could not add information (e.g., date of death). Epidemiologists had to write their own programs to make sure all critical data was present, resulting in them working as data systems developers at the same time they were conducting epidemiology-focused response operations. The array of problems led to delays in data production, lack of coordination, and inconsistencies in policies and programs.

Recommendation 7.9.1: Fund, staff, and maintain KPHD data infrastructure systems to a level that allows KPHD to provide data that reflects modern expectations of production and interoperability with stakeholders to best serve the public.

Observation 7.10 Area for Improvement: Case investigation and contact tracing operations were ineffective for an incident as widespread as COVID-19.

Analysis: KPHD training and staff commitment to augment case investigation were well designed and implemented. While effective for incidents of other disease outbreaks, such as measles, because of the scope of this incident and inherent properties of COVID, traditional case investigation and contact tracing operations were ineffective.

Recommendation 7.10.1: KPHD should form a working group to identify triggers for activation and deactivation and address timing and efficacy considerations associated with case investigation and contact tracing.

Observation 7.11 Area for Improvement: Partners engaged in demobilizing the Kitsap I/Q facility did not communicate operational roles clearly, which resulted in stress on the congregate care providers.

Analysis: As the operational cycle for COVID-19 was transitioning from response to short-term recovery, KCDEM demobilized the Kitsap I/Q facility due to a lack of the necessary staff to support their standard of operations. KCDEM communicated plans to close the Kitsap I/Q facility to KPHD, who then reached out to congregate care providers with the news a month prior to the planned closure date. Congregate care providers waited until the week before demobilization to speak with KPHD, not KCDEM, about the anxiety they felt due to the closure. They were seeking a longer transition period and expressed concern at having to potentially isolate COVID-19 cases onsite. KPHD noted they would remain an active partner, and offered site visits and additional recommendations to accommodate case isolation onsite. In the AAR interviews, congregate care providers still focused on KPHD, not KCDEM, as the lead agency and remained disappointed with what they considered a stressful early closure.

Recommendation 7.11.1: KCDEM should engage all stakeholders involved in I/Q operations, clearly communicating demobilization roles and priorities.

8. Public Information and Warning

FEMA Response Core Capability: Public Information and Warning – Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken, and the assistance being made available.

CDC Public Health Emergency Preparedness and Response Capability #4 – Emergency Public Information and Warning – The ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management personnel.

Observation 8.1 Strength: KPHD utilized input from a variety of stakeholders to address risk and counter misinformation.

Analysis: Crisis and risk communication was conducted each daily operational period. The KPHD team used partnerships with the media, other county departments, and community members to support its messaging. Leadership wrote op-eds to local newspapers frequently as part of a strategy to aggressively disperse information to the public that was accurate and actionable.

Recommendation 8.1.1: Memorialize the engagement of community stakeholders as a best practice for addressing the variety of risk communication needs of the public.

Observation 8.2: Strength: KPHD established the Vaccine Equity Collaborative to provide input on incident-related communication and policy direction.

Analysis: KPHD engaged Kitsap Strong as a partner to invite members of CBOs and local leaders to become part of the Vaccine Equity Collaborative. One of the primary goals was to address issues related to communication and trust among communities of color. They examined effective communication delivery systems to reach racially and ethnically diverse populations with the intent to increase vaccination rates.

The Vaccine Equity Collaborative was identified as a best practice by participants and should be promoted as a national standard for equity in public health response operations.

Recommendation 8.2.1: The Vaccine Equity Collaborative should remain in an advisory capacity to inform all phases of medical countermeasure distribution and dispensing.

Observation 8.3 Area for improvement: The surge capacity of communications staff should have been implemented earlier in the response.

Analysis: Participants identified that the initial projections for public information officer (PIO) staffing needs were low. They did not anticipate the incident would be ongoing for years. There were not enough PIO staff members to maintain the needed operational pace, including the community's need for information and a 24/7 news cycle. Two additional PIO staff were hired eventually to address the gap, but the delay in hiring had implications on the amount of outreach that was conducted to the community.

Recommendation 8.3.1: KPHD and KCDEM should have a sufficient pool of pre-qualified PIO staff to address incident response needs of a 24/7 news cycle.

9. Situational Assessment

FEMA Response Core Capability: Situational Assessment – Provide all decision-makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.

CDC Public Health Emergency Preparedness and Response Capability #6: Information Sharing – The ability to conduct multijurisdictional and multidisciplinary exchange of health-related information and situational awareness data among federal, state, local, tribal, and territorial levels of government and the private sector. This capability includes the routine sharing of information as well as issuing of public health alerts to all levels of government and the private sector in preparation for and in response to events or incidents of public health significance.

Observation 9.1: Strength: Response partners stated that KPHD was easily accessible and responsive to requests for routine data updates.

Analysis: Stakeholders in the interview process routinely reported that KPHD was a good response partner regarding relationship building and information sharing. Communication was reported to be consistent, which was difficult at the start of the incident when federal partners were changing requirements. Partners expressed that they were able to quickly contact the Health Officer regarding questions about inconsistent information related to CDC/FEMA/State policies. Several partners noted that routine meetings were helpful to stay synchronized among a variety of stakeholders (e.g., military, law enforcement, emergency management, and KPHD). Although the length of the incident was unanticipated and trying, the length of response operations was noted as a positive for building trusted relationships.

Recommendation 9.1.1: Memorialize the effectiveness of relationship building and information sharing as a best practice in this response.

10. Volunteer Management

CDC Public Health Emergency Preparedness and Response Capability #15: Volunteer Management – The ability to coordinate with emergency management and partner agencies to identify, recruit, register, verify, train, and engage volunteers to support the jurisdictional public health agency’s preparedness, response, and recovery activities during pre-deployment, deployment, and post-deployment.

Observation 10.1. Strength: Access to trained emergency management volunteers as a surge capacity workforce was repeatedly identified as a strength in response operations.

Analysis: Trained emergency management volunteers, such as the MRC, were able to mentor and train emergent volunteers from the community. The individuals ranged from those with no medical background to retired healthcare workers to currently practicing medical professionals who donated time. Teams of volunteers significantly augmented response capacity by assisting with testing and vaccination. They were a force multiplier for emergency management and public health ultimately assisting with over 41,000 vaccine doses being administered to community members.

Recommendation 10.1.1: The ESF 8 Task Force should codify best practices from this incident and expand the roles of volunteers for other incident types.

Observation 10.2 Strength: Bainbridge Prepares was identified as an exceptional local and regional resource.

Analysis: Of the volunteers that supported COVID-19 response operations, Bainbridge Prepares was identified by city administrators, emergency management/public health staff, and other volunteers as being an exceptional response partnership. Bainbridge Prepares, in partnership with the City of Bainbridge Island, the Bainbridge Island Fire Department, and the Bainbridge Island Community Pharmacy, helped facilitate and operate more than 88 vaccination clinics administering upwards of 38,000 vaccines. More than 500 of its 650 volunteers participated in 2021, helping with the vaccine clinics and community-based COVID-19 testing site.² The organization was active and well-organized pre-incident and was able to expand and support operations quickly as the incident evolved. They were identified by the International Association of Emergency Managers (IAEM) as the top volunteer group of 2022.

Recommendation 10.2.1: Memorialize the effectiveness of Bainbridge Prepares in response plans for future public health emergencies.

Observation 10.3. Area for improvement: Managers and supervisors had inconsistent knowledge of the process of volunteer deployment and employment.

Analysis: Participants noted that at the beginning of response operations, KPHD was unsure how to best utilize MRC as a resource and unaware of Bainbridge Prepares as an available resource. This created some unintended consequences where volunteers felt unappreciated and underutilized. Although KCDEM understood volunteer capabilities, other county departments had inconsistent interactions with volunteer organizations, leaving response operations gaps rather than deploying ICS-compliant volunteers.

² [BP Named Emergency Management Voluntary Organization of the Year – Bainbridge Prepares](#)

Recommendation 10.3.1: KPHD ESF 8 lead should coordinate with the KCDEM Volunteer Coordinator to examine the variety of volunteer resources available to support the mission of KPHD.

Observation 10.4 Strength: The KCDEM EOC volunteer coordinator facilitated the expansion and thereby enhanced KPHD response capabilities as the incident required.

Analysis: KCDEM staff who focus on volunteer coordination had long-term relationships with multiple organizations throughout the county. The KCDEM EOC volunteer coordinator utilized many longstanding connections and expanded capabilities to engage more than 1,200 volunteers over the course of 3 years. Coordinating the core leadership team of volunteers, planning, operations, and communications were well organized and established credibility as a mission essential function. Those who volunteered were made to feel appreciated and supported so they remained engaged. Some of those techniques involved training, flexible schedules, providing food, and prioritizing volunteers for vaccinations.

Recommendation 10.4.1: The ESF 8 and KCDEM EOC Coordinators should work together to codify best practices on volunteer use for future emergencies.

Observation 10.5 Strength: The Volgistics software was an effective system to manage volunteer signups.

Analysis: Organization was an important function when working with ICS-compliant volunteers and emergent community volunteers. The use of the Volgistics software helped improve communication over the span of the incident, allowing volunteers to sign up online in advance. This permitted KPHD and KCDEM to check staffing levels weeks in advance.

Recommendation 10.5.1: Identify the use of Volgistics as an effective volunteer management system in KCDEM and KPHD plans.

APPENDIX A: IMPROVEMENT PLAN



Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
Observation 1.1 Strength: Personal protective equipment (PPE) was prioritized for front-line response staff throughout the incident.	Recommendation 1.1.1: Memorialize coordination methods into response plans for future public health emergencies.		M	
Observation 1.2. Strength: Response staff demonstrated dedication and professionalism while focusing on protecting and improving the health of Kitsap County residents.	Recommendation 1.2.1: Working with other local partners, create a public event that celebrates Kitsap County coming together to respond to the COVID-19 incident, calling public attention to the focus on teamwork and community as a foundation of this mission.		M	
Observation 1.3. Strength: KPHD proactively worked to address response-related issues of stress, mental health, and wellness of its workforce.	Recommendation 1.3.1: Memorialize prioritizing the mental health and wellness of staff in response plans for future public health emergencies.		M	
Observation 1.4 Area for Improvement: The unprecedented length of the public health emergency and ongoing response placed considerable strain on staff which was not adequately addressed within the Incident Command System (ICS).	Recommendation 1.4.1: Establish and enforce time-off policies for all deployed personnel (e.g., all staff will be required to take one full day off each week). Leadership should demonstrate acceptance by modeling time-off requirements.		H	
	Recommendation 1.4.2: When operating within ICS, KPHD should assign an Assistant Safety Officer-Resilience under		H	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
	the Command Staff Safety Officer to adopt and enforce guidelines for all response staff's mental health and wellness.			
	Recommendation 1.4.3: KPHD should develop policy language that communicates its mission of responder safety during pre-deployment, deployment, and post-deployment.		H	
	Recommendation 1.4.4: KPHD should develop a just-in-time training unit on basic ICS application to be delivered during response operations as a booster training for deployed staff.		H	
Observation 1.5 Area for Improvement: The unprecedented length of the public health emergency and ongoing response placed considerable strain on staff due to deferred maintenance to essential programs at KPHD that support planning, training, and volunteer engagement programs in emergency readiness, response, and recovery.	Recommendation 1.5.1: Establish and implement a strategy to address the structural gaps and workforce health and safety issues created by deferred maintenance to public health planning, training, and volunteer engagement programs that support emergency management readiness, response, and recovery in Kitsap County.		H	
Observation 1.6 Area for Improvement: The Sheriff's Department and Correctional Facilities staff were not	Recommendation 1.6.1: KPHD decision-makers should establish a decision-making matrix regarding its priority list		M	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
designated a priority group for early vaccine dispensing.	and follow it after addressing federal and state guidelines for vaccination distribution.			
Observation 2.1: Strength: The Information Technology (IT) staff at KPHD effectively deployed equipment for staff assigned to telework.	Recommendation 2.1.1: Memorialize the logistics capabilities related to equipment deployment in response plans for future public health emergencies.		M	
Observation 2.2: Strength: KPHD and KCDEM had well-established strong community relationships that they utilized to mitigate healthcare supply gaps and provide resources to the community.	Recommendation 2.2.1: KPHD and KCDEM should create a document to guide the upkeep and distribution of their stockpile of critical resources that support public health incidents.		L	
Observation 2.3 Area for Improvement: There were technological equipment and service gaps for KPHD staff deployed to the initial activation of the KCDEM EOC.	Recommendation 2.3.1: KCDEM should conduct a needs assessment to address IT capability gaps.		M	
	Recommendation 2.3.2: KPHD IT should anticipate supporting the logistics equipment needs of KPHD staff who are deployed to the KCDEM EOC.		M	
Observation 3.1 Strength: KPHD successfully coordinated within	Recommendation 3.1.1: Memorialize the response roles and actions associated with congregate care facilities into a		L	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
congregate care facilities to expand capabilities to vulnerable populations.	playbook or standard operating guide for future public health emergencies.			
	Recommendation 3.1.2: Create a working group to identify primary, secondary, and tertiary locations for congregate care and isolation/quarantine (I/Q) facilities.		L	
Observation 3.2 Strength: KPHD’s support of existing shelter systems was an effective policy direction to immediately address surge capacity needs in the county.	Recommendation 3.2.1: KPHD should continue to coordinate with CBOs to ensure that shelter plans are reflective of the existing congregate care infrastructure.		L	
Observation 4.1. Strength: The workplace culture at KPHD encouraged information sharing through operational documents and checklists as well as camaraderie among staff.	Recommendation 4.1.1: Operational documents and checklists should be updated and maintained every year or immediately following a unique response operation.		M	
Observation 4.2. Strength: Communication with WA DOH was prioritized and routine and had a positive impact on KPHD operations.	Recommendation 4.2.1: Memorialize these communication procedures with WA DOH into KPHD plan updates.		M	
Observation 4.3 Strength: Weekly enrolled provider calls between KPHD and regional stakeholders enhanced	Recommendation 4.3.1: The process of establishing regional stakeholder calls should be operationalized and		M	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
partnerships and addressed operational issues.	memorialized as an effective response partnership and explored for application in a preparedness capacity.			
Observation 4.4 Area for Improvement: At the onset of operations, the expectations of Fire, EMS, KPHD, and KCDEM’s regarding operational coordination and data sharing were not aligned.	Recommendation 4.4.1: KPHD, in partnership with KCDEM, should update the appropriate ESF 8 planning document to include data-sharing abilities and expectations for public health emergencies.		M	
	Recommendation 4.4.2: A multi-year planning, training, and exercise program should emerge from the ESF 8 Task Force that is designed and approved by all members to increase operational coordination and communication among all stakeholders.		M	
Observation 4.5 Area for Improvement: There was limited direct communication between Suquamish Tribe Emergency Management, Bainbridge Island Emergency Management, KPHD, and KCDEM.	Recommendation 4.5.1: Local and Tribal emergency managers should be invited to participate in operational briefings each time the KCDEM EOC is activated with ESF 8 deployed or when the KPHDECC is activated.		H	
	Recommendation 4.5.2: KPHD plans should reflect a strong partnership with		H	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
	Tribal, local, and county emergency management partners.			
	Recommendation 4.5.3: Involve Tribal and local emergency managers in the ESF 8 Task Force.		H	
Observation 4.6 Area for Improvement: Mass notification systems were available but not used by KCDEM.	Recommendation 4.6.1: KCDEM should assess its outreach strategy and consider multiple modalities when it communicates risk with the impacted community.		M	
Observation 5.1 Strength: When senior leadership at KPHD determined the organization needed to assume a response operations position, staff immediately assembled into an ICS structure to prioritize the mission.	Recommendation 5.1.1: Memorialize ICS as an effective initial response system in plans for future public health emergencies.		M	
Observation 5.2 Strength: The just-in-time training supported ICS scalability, permitting staff from other programs to support contact tracing and case investigation.	Recommendation 5.2.1: Standardize just-in-time training units so they are easy to update, maintain, and deploy as the incident requires.		M	
	Recommendation 5.2.2: Develop and maintain just-in-time training units for additional incident types so they are ready to deploy at the onset of incident response.		M	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
Observation 5.3 Strength: Fire departments and EMS throughout the County were forward-leaning in the use of their agency/department's equipment and supplies and collaborated efficiently with many regional partners.	Recommendation 5.3.1: Memorialize the fire service and EMS providers' inventory and logistics process as a best practice among ICS response partners in plans for future public health emergencies		M	
Observation 5.4 Strength: Community-based policies from the Suquamish Tribe and Port Gamble S'Klallam Tribes strengthened response operations.	Recommendation 5.4.1: The community-based policies prioritized by the Suquamish Tribe should be memorialized as a best practice and recognized as contributing to the resilience of residents of the county.		M	
	Recommendation 5.4.2: KPHD should engage Tribal emergency managers in the ESF 8 Task Force.		M	
Observation 5.5 Strength: Close communication between KPHD, the Naval Hospital at Bremerton, and civilian hospitals enhanced coordination as the incident progressed.	Recommendation 5.5.1: KPHD should operationalize the process for maintaining and recording the involvement of regional military and civilian hospitals in incident readiness, response, and recovery.		M	
Observation 5.6 Strength: Close communication with local schools and community colleges enhanced incident coordination.	Recommendation 5.6.1: KPHD should memorialize or codify the process for maintaining the involvement of local school and community college partners		M	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
	in incident readiness, response, and recovery.			
Observation 5.7 Strength: Regional healthcare organizations formed a local coalition to address common concerns, share information, and develop consistent policies.	Recommendation 5.7.1: Identify that coalition formation by local healthcare organizations is a best practice in plans for future public health emergencies.		M	
Observation 5.8 Strength: KPHD policy and operation of the isolation and quarantine (I/Q) facility was efficient and supportive of surge capacity needs.	Recommendation 5.8.1: Develop an I/Q facility plan that codifies operational procedures and services for future public health emergencies.		M	
Observation 5.9 Strength: Establishing and utilizing a COVID-19 data dashboard provided a realistic overview of the incident for all stakeholders.	Recommendation 5.9.1: Codify the COVID-19 data collection and sharing process as a standard operating procedure for future public health emergencies.		M	
Observation 5.10 Strength: Many County employees transitioned easily to remote work and continued to offer essential services to the community.	Recommendation 5.10.1: Identify the application of a hybrid work environment as a standard operating procedure for future public health emergencies.		M	
	Recommendation 5.11.1: KCDEM should invest resources into a robust training and exercise program that emphasizes		H	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
<p>Observation 5.11 Area for Improvement: Communication and coordination at the KCDEM EOC lacked continuity among staff and leadership, impacting operations.</p>	ICS training for all county employees so multiple people can assume positions in the KCDEM EOC upon activation.			
	<p>Recommendation 5.11.2: KCDEM should establish three KCDEM EOC teams and train them quarterly in response operations (e.g., Red Team, White Team, Blue Team).</p>		H	
	<p>Recommendation 5.11.3: County leaders should establish the necessary policies to require ICS training for all employees.</p>		H	
<p>Observation 5.12 Area for Improvement: Local government participants indicated there was a lack of support from county government partners.</p>	<p>Recommendation 5.12.1: KCDEM should deliver a course on the roles and responsibilities of local elected and appointed officials in emergency management.</p>		H	
	<p>Recommendation 5.12.2: Local elected and appointed officials should be invited to KCDEM EOC operational briefings.</p>		M	
	<p>Recommendation 5.12.3: There should be a liaison position to local elected and appointed officials appointed to the Command Staff when the KCDEM EOC is activated.</p>		M	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
	Recommendation 5.12.4: There should be a liaison position to local elected and appointed officials appointed to the Command Staff when the KPHD ECC is activated.		M	
Observation 5.13 Area for Improvement: There is a gap in the ability of healthcare systems in Kitsap County and statewide to unite in a cohesive system.	Recommendation 5.13.1: Long-term goals for KPHD should include further coalition building with healthcare organizations in Kitsap County and engagement in strategic policy development through intentional membership in statewide groups or committees to address issues that intersect with public health issues.		M	
Observation 5.14 Area for Improvement: The length of time required to hire and onboard new staff had a negative impact on response operations.	Recommendation 5.14.1: HR should explore options to expedite hiring processes and pre-identify resources that are critical to response operations.		M	
Observation 5.15 Area for Improvement: There were perceived equity issues related to the temporary hire classification for some employees at the KCDEM EOC.	Recommendation 5.15.1: KCDEM HR should examine the appropriateness of the temporary hire classification and address equity issues.		M	
Observation 6.1 Strength: The COVID-19 Plan for Congregate Spaces was identified as an exceptional support resource for	Recommendation 6.1.1: Expand the COVID-19 Plan for Congregate Spaces for all future public health emergencies		L	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
organizations operating congregate care facilities.	that may have similar nonpharmaceutical interventions.			
Observation 6.2: Area for Improvement: There were no available pandemic plans to operationalize at the onset of the COVID-19 incident.	Recommendation 6.2.1: KPHD should establish a planning cycle for a pandemic plan to revise, train, and exercise following Homeland Security Exercise and Evaluation Program (HSEEP) standards.		L	
Observation 7.1 Strength: Kitsap Mental Health Services effectively addressed the specific needs of a high-risk population by supporting the formation of a Vulnerable Adult Task Group.	Recommendation 7.1.1: Kitsap Mental Health Services should expand the membership of the Vulnerable Adult Task Group to include members of the vulnerable adult population.		M	
Observation 7.2 Strength: KPHD’s vaccine strategy had a clear mission to focus on vulnerable populations as priority eligible groups, which likely mitigated health impacts on the community.	Recommendation 7.2.1: Memorialize strategies and tactics (e.g., vaccination at home programs) used to support vulnerable populations.		M	
	Recommendation 7.2.2: Develop checklists that allow staff to focus on critical information and logistical support requirements for access and functional needs populations at points of distribution.		M	
	Recommendation 7.2.3: Medical Countermeasures Plan updates,		M	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
	training, and exercise schedules should include membership from CBOs, advocacy groups, and private sector partners who support transient community members working in agriculture.			
Observation 7.3 Strength: Private sector healthcare networks provided good partnerships for testing and vaccination operations.	Recommendation 7.3.1: Memorialize strategies and tactics utilized in partnership development with private sector healthcare networks.		M	
Observation 7.4. Strength: KPHD's response to COVID-19 was data driven with policy and operations based on a wide scope of data sources from a variety of partners.	Recommendation 7.4.1: Seek avenues for collaboration across all response partners to prioritize evidence-based decision-making and support continual improvement of data systems.		M	
Observation 7.5 Strength: Establishing processes to collect both quantitative and qualitative data created depth and breadth for the analysis of COVID-19's impact on the community.	Recommendation 7.5.1: Memorialize strategies and tactics to collect qualitative and quantitative data about COVID-19 for application to other incident types.		M	
	Recommendation 7.5.2: Ensure the structure of KPHD can support the staffing and data collection and interpretation required to provide the depth of analysis resulting from qualitative and quantitative data.		H	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
<p>Observation 7.6. Strength: Designing a public-facing dashboard to inform the community about the rapidly changing conditions of COVID-19 was considered a best practice for this incident response.</p>	<p>Recommendation 7.6.1: Memorialize the interactive design of the data dashboard utilized by community members as a best practice for incident response.</p>		M	
	<p>Recommendation 7.6.2: Ensure the structure of KPHD can support the design, maintenance, and staffing required for a public-facing data-driven dashboard.</p>		H	
<p>Observation 7.7. Area for Improvement: Policies and procedures and data systems need to be in place pre-incident so KPHD can coordinate data, address interoperability, and have information sharing between response partners.</p>	<p>Recommendation 7.7.1: Prioritize the development of a data system that is timely, accurate, and relevant to multiple stakeholders in multiple formats, which include interoperability for monitoring public health issues, emerging issues, and public health actions.</p>		H	
<p>Observation 7.8. Area for Improvement: Evidence-based data evolved as COVID-19 did but was often politicized by stakeholders, and KPHD did not have procedures to promote a working understanding of how knowledge of incidents is created through scientific data.</p>	<p>Recommendation 7.8.1: Consider forming a nonpartisan commission to promote understanding of evidence-based public health and the legitimacy of evolving science.</p>		M	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
<p>Observation 7.9. Area for Improvement: KPHD’s data infrastructure system is outdated and was not able to adequately sync with critical stakeholders during the COVID-19 incident.</p>	<p>Recommendation 7.9.1: Fund, staff, and maintain KPHD data infrastructure systems to a level that allows KPHD to provide data that reflects modern expectations of production and interoperability with stakeholders to best serve the public.</p>		H	
<p>Observation 7.10 Area for Improvement: Case investigation and contact tracing operations were ineffective for an incident as widespread as COVID-19.</p>	<p>Recommendation 7.10.1: KPHD should form a working group to identify triggers for activation and deactivation and address timing and efficacy considerations associated with case investigation and contact tracing.</p>		M	
<p>Observation 7.11 Area for Improvement: Partners engaged in demobilizing the Kitsap I/Q facility did not communicate operational roles clearly, which resulted in stress on the congregate care providers.</p>	<p>Recommendation 7.11.1: KCDEM should engage all stakeholders involved in I/Q operations, clearly communicating demobilization roles and priorities.</p>		M	
<p>Observation 8.1 Strength: KPHD utilized input from a variety of stakeholders to address risk and counter misinformation.</p>	<p>Recommendation 8.1.1: Memorialize the engagement of community stakeholders as a best practice for addressing the variety of risk communication needs of the public.</p>		L	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
Observation 8.2: Strength: KPHD established the Vaccine Equity Collaborative to provide input on incident-related communication and policy direction.	Recommendation 8.2.1: The Vaccine Equity Collaborative should remain in an advisory capacity to inform all phases of medical countermeasure distribution and dispensing.		H	
Observation 8.3 Area for improvement: The surge capacity of communications staff should have been implemented earlier in the response.	Recommendation 8.3.1: KPHD and KCDEM should have a sufficient pool of pre-qualified PIO staff to address incident response needs of a 24/7 news cycle.		H	
Observation 9.1: Strength: Response partners stated that KPHD was easily accessible and responsive to requests for routine data updates.	Recommendation 9.1.1: Memorialize the effectiveness of relationship building and information sharing as a best practice in this response.		M	
Observation 10.1. Strength: Access to trained emergency management volunteers as a surge capacity workforce was repeatedly identified as a strength in response operations.	Recommendation 10.1.1: The ESF 8 Task Force should codify best practices from this incident and expand the roles of volunteers for other incident types.		M	
Observation 10.2 Strength: Bainbridge Prepares was identified as an exceptional local and regional resource.	Recommendation 10.2.1: Memorialize the effectiveness of Bainbridge Prepares in response plans for future public health emergencies.		M	
Observation 10.3. Area for improvement: Managers and supervisors	Recommendation 10.3.1: KPHD ESF 8 lead should coordinate with the KCDEM		M	

Observation	Recommendation	Responsible Person(s)/Department	Priority	Completion Goal
had inconsistent knowledge of the process of volunteer deployment and employment.	Volunteer Coordinator to examine the variety of volunteer resources available to support the mission of KPHD.			
Observation 10.4 Strength: The KCDEM EOC volunteer coordinator facilitated the expansion and thereby enhanced KPHD response capabilities as the incident required.	Recommendation 10.4.1: The ESF 8 and KCDEM EOC Coordinators should work together to codify best practices on volunteer use for future emergencies.		M	
Observation 10.5 Strength: The Volgistics software was an effective system to manage volunteer signups.	Recommendation 10.5.1: Identify the use of Volgistics as an effective volunteer management system in KCDEM and KPHD plans.		M	
	END			

Appendix B: Acronyms

AAR	After Action Report
ARPA	American Rescue Plan Act
CBO	Community-Based Organization
CDC	Centers for Disease Control and Prevention
COVID-19	Coronavirus-19
EMS	Emergency Medical Services
EOC	Emergency Operations Center
ECC	Emergency Coordination Center
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
HR	Human Resources
HSEEP	Homeland Security Exercise and Evaluation Program
IAEM	International Association of Emergency Managers
ICS	Incident Command System
IP	Improvement Plan
I/Q	Isolation and quarantine facilities
IT	Information Technology
KCDEM	Kitsap County Department of Emergency Management
KPHD	Kitsap Public Health District
MRC	Medical Reserve Corps
NIMS	National Incident Management System
PIO	Public Information Officer
PPE	Personal Protective Equipment
WA DOH	Washington State Department of Health