



PLUMAS COUNTY PUBLIC HEALTH AGENCY **COVID-19 MID ACTION REPORT** SECOND DRAFT

January 27, 2021



Executive Summary

Heroism in the County Response to COVID-19 Pandemic

In 2019, when news of the detection and spread of a novel virus in Wuhan, China circulated, no one could have predicted that this localized outbreak would turn into a global pandemic. Despite the unprecedented nature of COVID-19, the Plumas County Public Health Agency (referred to as PCPHA throughout this report) rose to the occasion to carry out an immense public health response to the novel virus.

As of the writing of this report, the response to the COVID-19 pandemic has stretched over two years. During this public health emergency, first responders have overcome significant challenges to protect the health and promote the resiliency of their local community. In Plumas County, staff across departments continue to work tirelessly to prioritize the health and safety of county residents, sometimes at great personal sacrifice. PCPHA continues to lead the response, modeling dedication to their stakeholders.

In addition to acting as the lead agency in the public health response, PCPHA also supported the response to two wildfires, the North Complex (2020) and the Dixie Fire (2021), which ravaged the county and added a significant workload to already overwhelmed county infrastructure. Despite responding to simultaneous emergency incidents, PCPHA continued to overcome obstacles and leverage new and pre-existing partnerships to provide residents with the assistance and support they need.

Mid Action Report Purpose

To capture the events of the COVID-19 pandemic response and provide a testament to the commitment of PCPHA to their stakeholders and county residents, PCPHA thought it valuable to assess their performance during the response thus far in order to identify strengths and areas for improvement moving forward that can be addressed. As such, PCPHA contracted a third-party, public health and emergency management consultancy, Constant Associates, Inc. (CONSTANT), to assess the response to COVID-19 from January 2020 through August 2021 and document those findings in a Mid Action Report (MAR).

The purpose of the MAR is to provide an account of how PCPHA responded to the COVID-19 pandemic. To accomplish that goal, the report seeks to outline key elements of the response that went well and areas of the response that remain as areas for future improvement. The report also includes detailed recommendations for potential implementation by PCPHA and relevant county departments moving forward within the COVID-19 response and beyond, given that necessary resources (e.g., personnel, monetary, etc.) are available.

Data Collection and Report Development Overview

The MAR was developed through a multi-faceted data collection process, engaging stakeholders with individual and group interviews, an in-person debriefing, and two online surveys. CONSTANT conducted 10 group interviews in addition to individual interviews, focused on stakeholder groups such as public health staff, educators, healthcare providers, and emergency services. The in-person debriefing was attended by eight representatives from public health staff, county leadership, and healthcare providers, and focused on filling data gaps and providing valuable context for strengths and areas for improvement throughout the incident response. The online surveys provided an additional method for stakeholders to



engage with the data collection process, with 72 county stakeholders filling out an external or internal survey.

In addition to the stakeholder engagement methods listed above, CONSTANT conducted a thorough documentation review of PCPHA and county plans, standard operating procedures, response documentation, response incident action plans, and open-source publications. From the data collection process, ten key themes emerged, and these themes were refined into comprehensive MAR themes listed below.

Table 1: Summary of MAR Themes

#	PCPHA COVID-19 MAR Themes
1.	Response Operations
2.	Internal Communication
3.	Continuity of Operations
4.	Community Need/Impacts
5.	Public Information and Messaging
6.	Healthcare Coordination
7.	Epidemiological Investigation and Contact Tracing
8.	Vaccine Management
9.	Resource Management
10.	Staffing

The “Analysis of Findings” section within this report consists of a summary, strengths, areas for improvement, and recommendations for each of the above themes. Report recommendations are further organized in a separate Corrective Action Plan (CAP) to track and assign identified improvements to build towards improved mitigation, preparedness, response, and recovery efforts in Plumas County. The report was developed with the understanding that COVID-19 remains an active response. As such, recommendations were crafted with actionable language to be included in the CAP so that recommendations may be incorporated as the response to COVID-19 variants continues.



Introduction

Thanks and Acknowledgements

PCPHA would like to extend gratitude to staff, partners, and residents of the county for continued support and resilience through the pandemic. PCPHA, alongside first responders, partner organizations, and local jurisdictions received an immense outpouring of support throughout the response. The COVID-19 pandemic continues to require a Whole Community response engaging the private and nonprofit sectors including hundreds of volunteers, healthcare facilities and organizations, social services organizations, faith-based communities, businesses, school systems, academia, and county residents. Each of these partners are instrumental in supporting those that are vulnerable, working together to slow the spread of COVID-19 within the county.

Despite the ongoing pandemic and growing complexity of the outbreak, response efforts highlight the unity necessary to overcome the challenges presented by COVID-19. For this, the county would like to thank everyone who contributed to the development of the report by completing surveys, identifying potential interviewees, participating in interviews, participating in the debriefing, preparing incident documentation, and validating key input.

A special thanks is due to the Project Planning Team for providing ongoing project oversight and feedback on the report. The Planning Team has been listed within the Appendices, along with other key contributors to this report.

Plumas County COVID-19 Overview

The first official case of COVID-19 in California was identified on January 25, 2020. As of August 31, 2021, California has recorded 4,301,508 confirmed cases and 67,050 total deaths.¹ The California Department of Public Health activated its Medical and Health Coordination Center (MHCC) in January 2020 to conduct emergency operations and support local jurisdictions responding to COVID-19. Statewide efforts to contain the disease included contact tracing, distanced learning and work, mask mandates, and shelter-in-place orders.

In March 2020, PCPHA activated their Department Operations Center (DOC) in response to the increased cases statewide, the need for PPE resource coordination, and the demand for increased information sharing to key stakeholders and the public. As the pandemic progressed, state leaders began regular calls to provide updates on the number of confirmed cases and to provide guidance to the community to slow the spread. Following the State of California's declaration of a public health emergency on March 4, 2020, Plumas County declared a local public health emergency on March 17, 2020.² PCPHA's DOC began to assess internal capacity for medical surge and testing operations. To present forward-facing information to the local community, the DOC released regular social media updates, website posts, and radio messaging with the goal of keeping the community informed while addressing public concerns.

¹ California Department of Public Health, "COVID-19 Data & Tools." Updated December 23, 2021.

² PCPHA: Incident Action Plan 03/17/2020-3/18/2020



As of August 31, 2021, Plumas County had a total of 1,053 confirmed cases and 10 reported deaths. Medical providers continue to work closely with PCPHA and coordinate with local partners to care for patients. By working with local partners, providers were able to provide testing and screening at multiple testing sites through Plumas County. By December 21, 2020, the first vaccines for COVID-19 were administered in Plumas County.³

Throughout the response, PCPHA has sought to address public fear and misconceptions surrounding the COVID-19 pandemic by providing data-driven messaging and educational resources to reassure the public. They have also worked to empower local partners in their response efforts by sharing accurate and timely data specific to their needs. While vaccinations, masking, and isolation and quarantine remain the most effective tools to reduce the spread of COVID-19, county officials continue to work to strike a balance for community members struggling to feel connected to their neighbors and community.

The county also faced multiple, simultaneous emergency incidents during the pandemic. The county experienced multiple wildfires including the North Complex Fire (2020) and Dixie Fire (2021), resulting in large evacuations which made social distancing and compliance with public health guidance challenging. These simultaneous emergencies challenged an already thinly stretched response and added significant workload to county staff.

³ PCPHA Interview

PLUMAS COUNTY COVID-19 TIMELINE





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Analysis of Findings

Response Operations

Summary

Given the personnel constraints of a small, rural county, PCPHA were innovative in their operational approach the pandemic. Stakeholders noted repeatedly that staff were hardworking and continuously exceeded expectations. PCPHA positioned the county for a successful response by closely monitoring the spread of the virus worldwide in the early days of the pandemic. The DOC was activated in February 2020 in response to the increased cases, which allowed for more streamlined personal protective equipment (PPE) resource coordination, and information sharing to key stakeholders and the public.⁴

Due to the size of the county, PCPHA successfully fostered effective relationships between PCPHA and county stakeholders. In most cases, partners were able to contact PCPHA staff quickly and directly, but a common barrier was inadequate personnel resources. Schools were one stakeholder group that felt they needed more support to safely reopen and follow ever-changing guidance.

As this unprecedented long-lasting event resumed, staffing became a challenge. PCPHA regularly trained and exercised their "core" response staff but lacked depth in positions for a long-term response. It was continuously mentioned that Incident Command leadership included all stakeholders in decision making and kept open lines of communication. However, county and PCPHA executive leadership sometimes felt out of alignment with each other in key decision-making, which remains an issue at the time of writing this report. PCPHA's diligent staff continuously strives to mitigate the spread of COVID-19 and increase the resiliency of its community through vaccination efforts.

Strengths

1: PCPHA demonstrated early buy-in for incident response, as demonstrated by the early adoption of a mandatory face covering order six weeks before the statewide mandate.

On May 6, 2020, the Plumas County Health Officer issued a mandatory face covering order to reduce transmission of COVID-19.⁵ The Health Officer knew, "early on this would be a pandemic," and that the county had to, "do whatever is necessary."⁶ Ensuring the health of the community became a priority upon activation of the DOC. Tracking science-based guidance to reduce community transmission was important to PCPHA. The California Department of Public Health (CDPH) issued its statewide mandate on June 18, 2020, a full six weeks after Plumas County.

2: Key stakeholders praised PCPHA staff flexibility and adaptability throughout an extended and constantly changing response.

⁴ PCPHA IAP

⁵ PCPHA Press Release May 6, 2020

⁶ Stakeholder Interview

In every interview conducted, it was clearly stated that PCPHA has dedicated, hardworking staff that always made themselves available to meet the needs of stakeholders and the community. Staff demonstrated an ethic of care to the community by answering calls and emails at all times of the day or night, through weekdays and weekends. Only a limited amount of staff were trained in emergency response for an infectious disease resulting in lack of depth, but there even untrained staff had a willingness and desire to do more towards the response.

As the pandemic progressed, staff continued to adapt and achieve the objectives set in motion. The accomplishments of the PCPHA staff in response to COVID-19 for the health and safety of Plumas County cannot be overstated.

3: PCPHA monitored the situation and pushed out information early and frequently, starting from activation.

The DOC was first activated on February 27, 2020, at the lowest level. However, it quickly became clear that due to the level of staffing required to address the pandemic, a higher level of activation was necessary. The DOC elevated its activation to Level 2 on March 4, 2020. The objectives were clear that the situation must be continuously monitored while presenting timely and accurate information to healthcare partners and the community. To accomplish this, PCPHA activated a Joint Information Center (JIC) on March 5, 2020, to support unified information and messaging. Information was monitored strategically by PCPHA by obtaining input from staff subject matter experts for evolving guidance and information pushed out from federal and state health experts.

Areas of Improvement

1: Training and experience in National Incident Management System (NIMS)/ Incident Command Structure (ICS) during the active response was initially lacking within the county at large.

PCPHA brought in a contractor to provide annual ICS 300 and ICS 400 training to county key stakeholders. These trainings were often deemed a low priority for many stakeholders until the time came to utilize training during the pandemic. County departments had minimal staff with NIMS/ICS training for utilization in the Emergency Operation Center (EOC) and DOC. Many trained individuals outside of PCPHA did not have the experience to apply the training to a public health-led emergency, causing confusion.

2: County administration, the Board of Supervisors (BOS), and PCPHA leadership felt disconnected when informing critical decisions.

When critical decisions had to be made, key parties often felt unsupported by PCPHA executive leadership. County and PCPHA executive leadership did not establish regular communication to encourage shared situational awareness. The BOS received regular COVID-19 reports by PCPHA, but time was not always allotted for a question-and-answer session. It was noted that the county administration and the BOS often obtained critical information simultaneously along with the public, resulting in concerns about "closed-door" decision-making by

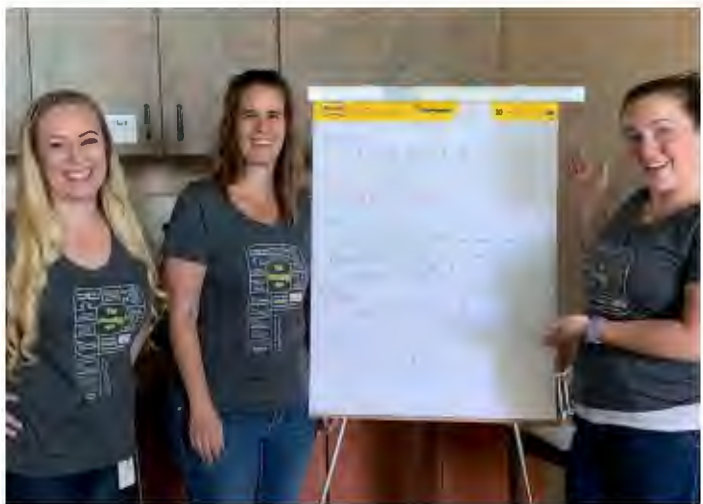


Image 1: PCPHA staff pose within the DOC by a whiteboard used to display public health information.

PCPHA.⁷ Regular meetings between the county administration, the BOS, and PCPHA executive leadership would have resulted in a cohesive public approach to mitigate government distrust.

Initially, meeting with the Public Health Officer, Environmental Health, District Attorney, and Sheriff proved helpful in support of enforcement. The EOC was activated for a short time to support the countywide COVID-19 objectives, but it was quickly demobilized due to the structure not fitting the response needs. Instead, PCPHA decided to use a DOC structure. The county provided very few Disaster Service Workers (DSWs) to support the overwhelmed DOC. A few departments assisted with personnel requests to fill contact tracing and logistics positions but trained ICS staff to relief command staff and sections chiefs were not requested or offered.⁸ ICS-trained DSWs would have helped alleviate overworked staff in the DOC.

3: Schools required additional direction, guidance, and support from PCPHA pertaining to guidance and safely reopening.

State guidance rapidly changed, making it difficult for PCPHA to disseminate information to the public, including schools. It was cumbersome and time-consuming for PCPHA staff to keep up with the changing guidance in multiple sectors. The schools felt the repercussions of this challenge while preparing for safely reopening and providing contact tracing. The delayed communication directly resulted from the limited staffing resources to apply federal and state guidance to the county. This resulted in delayed communication to parents, students, and staff in Plumas County schools.

Recommendations

Recommendation 1: Collaborate with the Office of Emergency Services (OES) on updating the county's Emergency Operations plan (EOP) and associated annexes. Consider:

- Up-to-date roles and responsibilities for public health in an infectious disease response using lessons learned during COVID-19
- A formal resource requesting process for DSWs
- Annual required NIMS/ICS training for all county employees

Recommendation 2: Continue to build upon current training efforts by incorporating regular NIMS/ICS training opportunities for all PCPHA employees during onboarding and continue to train consistently. Consider:

- FEMA ICS 100, 200, 700, and 800 for all PCPHA staff
- FEMA ICS 300 for all PCPHA management and emergency preparedness staff
- FEMA ICS 400 for Incident Command pre-assigned staff

Recommendation 3: Advocate for County Administration to include NIMS/ICS courses in new hire orientation trainings and continue to train consistently. Consider:

- FEMA ICS 100, 200, 700, and 800 for all Plumas County staff
- FEMA ICS 300 for all Plumas County management and emergency preparedness staff
- FEMA ICS 400 for Incident Command pre-assigned staff and Department Heads

Recommendation 4: Develop a plan for decision-making with key decision-makers, including the County Administrator and Board of Supervisors during public health emergencies. Consider establishing roles and responsibilities for Health Officer, County Administrator, and Board of Supervisors.

⁷ Stakeholder Interview

⁸ California Government Code, "Section 3100-3109: Disaster Service Workers," accessed December 23, 2021.



Recommendation 5: Continue to provide situational awareness to the County Administrator and Board of Supervisors during public health emergencies.

Recommendation 6: Continue to conduct regular public health focused and led exercises with a multiagency approach. Include on PCPHA's Multi-year Training and Exercise Plan (MYTEP).

Recommendation 7: Update the Medical Emergency Operations Plan (MEOP) in coordination with community stakeholders to reflect the findings from this MAR.

Recommendation 8: Host a discussion with multiple countywide agencies and entities to review the outcomes of this MAR and associated CAP relevant to outside stakeholders to share feedback.

Recommendation 9: Continue to build strong relationships with schools to understand their needs and challenges, e.g., through regular meetings, town halls, and/or joint exercises.

Recommendation 10: Provide regular training to community stakeholders (healthcare partners, schools, shelter, etc.) on contact tracing.

Internal Communications

Summary

Communication is crucial to disseminating information and maintaining situational awareness among key stakeholders during an emergency response. It is critical to identify communication channels prior to the response to ensure all key stakeholders are included. The county had strong and frequent internal communications to ensure departments' needs were met with the rapidly changing information.

Initially, internal communications occurred smoothly with minimal issues. Despite that, the rapid change in information required more engagement with external stakeholders, leading to challenges with communication between PCPHA Executive Leadership including Health Officer, Director, and Assistant Director, and internal stakeholders.

Strengths

1: Incident Command disseminated frequent internal communication and was responsive to the department's needs.

At the beginning of the pandemic, PCPHA quickly responded by assigning people to different operations-based groups and ICS roles and overcame the challenge of having minimal tools and resources at their disposal. The PCPHA Director at the time provided frequent internal communication to ensure that all staff were aware of the situation. He provided comprehensive information on COVID-19 through various forms, including daily emails, weekly board briefings, and situational reports. The DOC held daily briefings for response staff to provide and prioritize objectives and response activities. Especially during chaotic times, the frequent communication reassured staff members and helped foster a safer work environment. To protect staff, leadership further communicated any changes to working guidelines.

Areas of Improvement

1: PCPHA Executive Leadership sometimes gave conflicting feedback to external stakeholders or overpromised on what services the county could deliver, which led to confusion and frustration.

Maintaining situational awareness during the response has proved to be challenging. Within PCPHA, ICS is utilized, but training on ICS was not a priority prior to the pandemic. This became an issue when PCPHA Executive Leadership held meetings with external stakeholders and gave conflicting feedback or overpromised what the county could deliver. The administrative and operations field staff were not always informed of the communication or commitments promised during these meetings. This left operations field staff feeling confused and frustrated with the lack of internal communication as they would be the ones expected to deliver services promised to stakeholders. Additionally, support for operations teams was not always provided to staff despite the high expectations set by executive leadership, which made response operations unsustainable.

There is a need to include key stakeholders, such as those responsible for completing the deliverables, in meetings for situational awareness on all levels. This is to ensure that trust is maintained between leadership and staff as well as to manage the sustainability of response efforts.

2: Inconsistent communication of intent from the leadership team to operations-based staff led to overburdening staff.

Some individuals in leadership wanted to be involved in every aspect of the response, which led them to request cumbersome and overly detailed daily reports. For instance, the case investigators became

burdened with another daily task on top of their overwhelming workload when PCPHA Executive Leadership requested daily detailed reports on COVID-19 cases. The case investigators did not understand why leadership was requesting detailed information that was already being reported up the chain of command. Leadership needs to be transparent and communicate through proper ICS chain of command to identify the best option to acquire the intended information. Additionally, PCPHA Executive Leadership needs to communicate with each other to prevent overburdening staff and providing context regarding why certain information is needed.

Identifying staff roles and responsibilities can ensure that individuals understand what they need to do during the response, prevent overburdening staff with additional responsibilities, and streamline communication. When individuals clearly know their roles and responsibilities, it helps others around them to understand their responsibilities as well. Further identifying additional responsibilities that arise can help provide parameters for implementation strategies while also protecting staff wellbeing.

Recommendations

Recommendation 1: Continue to provide ICS training to staff as well as conduct tabletop exercises with key stakeholders.

Recommendation 2: Update the MEOP's Communication Plan or build out a formalized Crisis Emergency Response Communication (CERC) plan for the agency that includes organizational charts, county contacts, and a method for tracking regular maintenance of contact lists. Consider:

- Within the CERC plan, incorporate regularly scheduled meetings with key internal stakeholders to maintain situational awareness
- Outline roles and responsibilities to manage expectations and sustain workflow

Recommendation 3: Provide regular communication (email, staff meeting, or another forum) by PCPHA Executive Leadership to internal stakeholders for situational awareness during crisis response, include staff health and safety information.

Continuity of Operations

Summary

Continuity of Operations is a critical component to any incident, ensuring that the individual department and jurisdiction as a whole can maintain continuity of government with minimal disruption for key essential functions and services for the community. PCPHA was ultimately able to maintain foundational public health programs and essential services for the community with minimal disruption. However, staffing has and continues to be difficult, as indicated in interviews and surveys both by internal staff and key external partners.

It is important to note within the context of this report, COVID-19 was not the only imminent threat during 2020 and 2021. Two wildfires, the North Complex (2020) and Dixie Fire (2021) created two complex incidents during the active pandemic, further straining resources and impacting the execution of continuity strategies. For example, the Dixie Fire led to 1,329 structures being destroyed, including over 600 residences.⁹ While devastating for Plumas County and residents, it also affected the ability of PCPHA to attract, recruit, and hire new personnel in addition to retaining temporary staff hired to fill essential positions during the pandemic.

In several shared interviews, it was noted that the impact of the wildfires two years in a row led to a surge of fire victims. Individuals seeking county assistance and relying on services due to displacement and loss of jobs further compromised the limited county capacities needed to support basic public health protection and ensure the community's health such as food and commodity programs. Furthermore, evacuation led to increased exposure rates and COVID-19 outbreaks as evacuees returned to Plumas County post-fire. This created a demand for additional capacity and resources and required expansion of contact tracing and testing in an already resource-constrained environment for a defined small, rural local health department serving less than 50,000 people.¹⁰

Three key areas for improvement impacted the ability of PCPHA to implement successful continuity of operations: staffing levels, remote work infrastructure, and a lack of pre-established countywide continuity of operations planning and training. These critical functions and an overall lack of systemic countywide planning contributed to PCPHA and the county's hindered ability to efficiently and effectively maintain essential response and continuity functions, coordinate critical assets, and simultaneously maintain dual response and continuity roles during the pandemic.

Strengths

1: PCPHA adapted available resources to maintain public health programs and essential services to serve the community.

Survey respondents reported that programs and essential services provided by PCPHA have adapted and continued to serve clients and the community. For example, some payments for services and applications to request forms, certificates, etc. were converted to the online website and downloadable forms for users to submit electronically or by mail. Community members are now able to pay select bills online through GovPay systems. This is, however, contingent upon the individual's ability to access the internet or a mobile phone. Fortunately, as non-pharmaceutical interventions are more prevalent, many

⁹ InciWeb, "North Complex Fire," updated December 4, 2020. <https://inciweb.nwcg.gov/incident/6997/>

¹⁰ National Association of County and City Health Officials (NACCHO), "2019 National Profile of Local Health Departments," published in 2019. https://www.naccho.org/uploads/downloadable-resources/Programs/Public-Health-Infrastructure/NACCHO_2019_Profile_final.pdf



in-person walk-up desks have resumed by appointment which further builds capacity to address equity issues for access by community members.

Areas of Improvement

1: Transitioning to a work-from-home hybrid model forced the Information and Technology (IT) department to implement new procedures and rapidly accommodate staff.

Considerable efforts and collaboration occurred to support the current hybrid telework and on-site operations used today by Plumas County departments, including PCPHA, during the ongoing pandemic. The system had many vulnerabilities when setting up and deploying Virtual Private Network (VPNs), including slow internet speeds and a lack of proper VPN usage. Staff experienced the internet connection to the county network as very slow or not working.

Supplies and resources for telework were not always available right away. For example, not all staff had video cameras for remote conferencing, which was difficult to source in the early days of the pandemic but eventually was overcome as supplies became available. There was also a need to support employee training on new technologies for both response and continuity of operations.

2: PCPHA lacked support from other county departments when personnel needs arose due to lack of staffing and burnout.

The need for staff to maintain foundational public health programs such as communicable disease control was and continues to remain a relevant continuity issue for PCPHA and Plumas County as a whole. While disease control and surveillance are further explored later on in this report, the ability for a public health department to provide a foundational area of public health programming as an essential function is critical to provide timely, locally relevant, and accurate information to health care, public partners (e.g., school districts), and the community. The concern for PCPHA to maintain this capability has been echoed by several external partners noting limited resources, including staff to execute a disease control plan at the rate required, which has prevented timely clinical and non-pharmaceutical interventions. While many compliments were provided to what PCPHA has been able to do as a small, resource-constrained health department, there have been consequences to understaffing and shortages such as delayed contact tracing, leaving children to continue to go to school while unconfirmed COVID-19 positives expose staff and other students, since contact tracing continues to fall a week or two behind schedule.¹¹

However, the lack of staffing has been further exacerbated by staff burnout in addition to the natural attrition and turnover of employees. In multiple accounts of the COVID-19 experience through interviews, employees commented on the fact that multiple department heads, senior ranking officials, and operational staff retired, retired early, or left the agency due to burnout, especially in the earlier months of the pandemic.

Even now, in the second year of the pandemic, some employees reported that individuals that had put off their initial retirement date are now considering retirement. Temporary staffing contracts are coming to a termination, creating a second delayed wave of attrition for PCPHA and an immediate need to revisit hiring and recruitment strategies.

There were some examples of cross-disciplinary efforts as some county departments with staff unable to work, such as Library and Probation Department staff, were able to support home deliveries of food for high-risk populations.¹² This example demonstrates the county's commitment to supporting multiple life-

¹¹ Stakeholder Interview

¹² Stakeholder Interview



saving and life-sustaining interventions for high-risk populations and ensuring the community's public health overall.

3: There was a lack of synchronized, countywide continuity of operations planning, training, and policy review to ensure the ongoing delivery of government services within Plumas County.

Under State Law, Title I, Section 3100 of the California Government Code, all government employees are declared Disaster Service Workers who can be called upon in any emergency.¹³ Each government employee subscribes to this oath which can help provide the necessary policy and infrastructure to support staffing pools across the county and aid in staffing contingencies and continuity planning in response to all-hazard disasters.

Future preparedness planning activities should include increasing education and awareness of this policy by county employees and senior leadership. A comprehensive training plan for county employees on the use of the Disaster Service Work law should be integrated into county/department Continuity of Operation Plans (COOP) and aligned with improvements in Human Resources technologies to streamline implementation of the DSW program.

As part of the overall pandemic response and improvement planning, there is also an opportunity for Plumas County as a whole to increase countywide resiliency by assigning responsibility across county departments for the activation of DSWs and demobilization back to steady-state operations all-hazard response. As continuity planning efforts expand systematically across the county, there is an opportunity to engage external partners to validate county-led continuity planning and together build an effective and comprehensive whole of government continuity plan which builds upon the resiliency of each partner to provide critical essential functions, capability, and services at all levels.

CHAPTER 8. Oath or Affirmation of Allegiance for Disaster Service Workers and Public Employees [3100 - 3109]

"It is hereby declared that the protection of the health and safety and preservation of the lives and property of the people of the state from the effects of natural, manmade, or war-caused emergencies which result in conditions of disaster or in extreme peril to life, property, and resources is of paramount state importance requiring the responsible efforts of public and private agencies and individual citizens. In furtherance of the exercise of the police power of the state in protection of its citizens and resources, all public employees are hereby declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law." (*Amended by Stats. 1971, Ch. 38.*)

Recommendations

Recommendation 1: In collaboration with the Human Resources Department, develop a public health recruitment plan that can be utilized in the continued COVID-19 response and identify critical positions for each phase of a pandemic response.

- Identify critical public health positions required, collaboratively develop position descriptions, and review necessary knowledge, skills, abilities, and required education to fill critical positions
- Identify if additional temporary/permanent Human Resources positions are required to support public health recruitment, hiring, and onboarding

¹³ California Government Code, "Section 3100-3109: Disaster Service Workers," accessed December 23, 2021.



- Identify a set of Hiring/Recruitment goals and strategic Key Performance Indicators (KPIs) in a dashboard to track and monitor the effectiveness of efforts reviewed quarterly
- Identify possible barriers to recruitment and adjust tactics as appropriate
- Identify if essential staffing models change for all Plumas County continuity strategies, including primary on-site in-person, alternate site in-person, fully remote, and a hybrid mix of on-site and off-site models

Recommendation 2: Establish a financial management plan and a multi-disciplinary advisory board for Plumas County agencies for disaster-specific response and recovery funding to include financial impact, reporting, compliance, notice and reallocation of funding to support transparency and oversight of response and recovery efforts to strengthen continuity efforts in alignment with Federal Emergency Management Agency's (FEMA) whole of government approach,

Recommendation 3: Provide education and training for government employees and senior leaders on DSW responsibilities and usages for all-hazard disasters. Establish department-specific and/or countywide agreements with Plumas County agencies for staffing contingencies.

Recommendation 4: Encourage the county COOP and Continuity of Government plans to include all-hazard disasters (e.g., earthquakes, pandemics, wildfires, etc.) to include cyberterrorism and public safety power outages along with lessons learned from COVID-19, further enhancing county resiliency.

Recommendation 5: Update PCPHA COOP to include all-hazard disasters (e.g., earthquakes, pandemics, wildfire, etc.) to include cyberterrorism and public safety power outages along with lessons learned from COVID-19 further enhancing county resiliency.

Community Needs/ Impacts

Summary

PCPHA staff worked diligently to keep their community healthy, safe, and informed. PCPHA notably maintained integrity even when their work required difficult and unpopular decision-making. Flexible and determined staff filled response roles to mitigate community spread and infection control with limited staffing. County agencies and community partners supported the response as a common objective to keep the community healthy. With the economic and social impacts of the pandemic, the community faced many vulnerabilities that were exacerbated by the Dixie Fire, which impacted the county. Coordination with local agencies has been impactful toward the mission, but sometimes caused unintended consequences.

Strengths

1: Keeping the community safe has continuously been a key objective in the PCPHA response, even with limited personnel resources.

Community leaders consistently recognized that PCPHA deeply cared about the community, as demonstrated by their tireless hours worked and timely communication to the community. The "Core Staff," as they were commonly referred to, led by example in the community. Dedication among PCPHA staff contributed to the strengths written in this report. Every interview conducted spoke highly of the determination at PCPHA.

PCPHA conducted outreach to businesses to support their fight to keep the community whole. When updated guidance was made available by federal or state health experts, PCPHA continued to provide interpretive guidance to the appropriate stakeholders. PCPHA

also acquired critical supplies for the community as well, including hand sanitizer, face coverings, and gloves when scarce supplies became available.



Image 2: PCPHA signage demonstrates public safety. Measures such as wearing a mask and practicing social distancing.

2: Through a partnership with PCPHA, the Plumas Crisis Intervention and Resource Center (PCIRC) provided resources to support infection control and prevention for persons experiencing homelessness.

PCIRC is a private non-profit organization that supports individuals facing crisis situations becoming independent. They partnered with PCPHA to support housing issues focused on isolation and quarantine lodging during the pandemic. Wraparound services were originally supposed to be supported by Plumas County Behavioral Health, but this task fell on PCPHA early on in the response. PCPHA provided CARES funding that allowed PCIRC to support this mission. PCIRC helped with testing and vaccinations for those experiencing homelessness. As this report is being written, PCPHA is establishing a formal contract with PCIRC for future provisions.

3: In coordination with other county agencies, PCPHA supported the coordination and delivery of essentials to vulnerable individuals, including services such as meal delivery.

As vulnerable individuals deemed it unsafe to leave their homes due to isolation, quarantine, or stay-at-home order, essentials were hard to secure. The county's Senior Services and Social Services put food insecurity prevention measures in place. A transition was made from providing senior meals in a central location to delivering meals directly to homes. Triple the number of meals that were prepared pre-pandemic were delivered to an extended delivery area. Weekly COVID-19 specific informational newsletters were delivered with the meals. PCPHA supported the funding of the meal delivery program's increased expenditures.

Areas of Improvement

1: Strict procedures challenged reimbursement of expenses incurred when providing case management to high-risk clients.

Essential services such as picking up medications, grocery delivery, and other essential services were rendered by the Senior Services Program. Plumas County did not have the procedures in place to reimburse the costs incurred during these deliveries. Local grocery stores allowed for direct payment from the clients by allowing "store charge accounts" to accumulate and pay directly. Eventually, government funding helped support some of the expenses. A streamlined policy for reimbursement would have benefitted this otherwise innovative approach.

2: Stakeholders identified behavioral health resources as a continuous gap within the community.

The social and economic repercussions of the pandemic have caused an uptick in mental and behavioral needs in communities across the world. PCPHA worked closely with Plumas County Behavioral Health at the beginning of the COVID-19 response. PCPHA provided funding for Behavioral Health to support housing and wraparound services for individuals in Isolation and Quarantine. The Public Information Officer (PIO) and Director of Behavioral Health coordinated unified messaging for mental health resources early in the pandemic but quickly discontinued due to workloads. Behavioral health is still deemed a necessary resource through community engagement and messaging.

Recommendations

Recommendation 1: Publicly recognize the dedicated PCPHA staff's accomplishments protecting the health and safety of their community.

Recommendation 2: Execute agreements between PCPHA and PCIRC for continued COVID-19 support.

Recommendation 3: Establish a fiscal procedure in coordination with the Auditor's Office to allow reimbursement for expenses during in-home case management.

Recommendation 4: Advocate for additional behavioral health resources and public messaging during a pandemic response, including additional funding opportunities.

Public Information and Messaging

Summary

PCPHA worked diligently to push out public information and messaging using several different avenues and platforms. Getting accurate information out to the community was a challenge, but PCPHA's PIO continuously pushed out information as guidance frequently changed at the national and state levels. Strategies had to be implemented to help mitigate misinformation and distrust of government. Accessibility to technology in this rural county contributed to PCPHA developing a weekly newsletter after the only media outlet, the Plumas News, discontinued printing in the early stages of the pandemic. Although communication gaps still exist and are exacerbated by limited, trained staffing, data collection proved PCPHA continuously pushed through barriers to keep the community informed.

Strengths

1: Strategic distribution of non-virtual messaging allowed PCPHA to disseminate information to a diverse population with technology accessibility issues.



Image 3: An example of a county weekly update newsletter.

Only days after the first case of COVID-19 was confirmed, the sole newspaper in the county stopped printing their paper and switched to a virtual platform.¹⁴ This hindered PCPHA's ability to get information out to community members that cannot easily access technology. PCPHA developed creative approaches for their hard-to-reach populations, including the development of weekly COVID-19 specific newsletters. These newsletters were posted on community bulletin boards, at highly frequented businesses within the county, and also delivered to those receiving home meals from Senior Services. The newsletters included COVID-19 related data, informational articles, and other critical mitigation measures and guidance in English and Spanish.

2: The JIC successfully collaborated across schools, healthcare partners, and county departments and provided messaging and information to county stakeholders.

PCPHA established a JIC on March 5, 2020, to foster collaboration with critical stakeholders to ensure unified messaging was established for the community. Healthcare facilities said this was beneficial to their response and allowed their facilities to keep their focus on patient care. Stakeholders frequently reposted PCPHA's COVID-19 campaign messaging and information to their social media or websites. The JIC met virtually twice a week, extending

¹⁴ Hailey Branson-Potts, "In rural Northern California, pandemic crushes newspapers that delivered news and warmth during winter cold," *Los Angeles Times*, May 2, 2020. <https://www.latimes.com/california/story/2020-05-02/la-me-coronavirus-newspapers-closed-northern-california>

over six months and allowing for situational awareness for partners in addition to providing guidance to stakeholders and other county departments.

Areas of Improvement

1: Communication gaps still exist due to individuals with access and functional needs in a rural county.

Although the weekly newsletter mitigated a significant gap in communication throughout the rural county, barriers still exist for individuals without reliable internet access, individuals who lack technology literacy, or Disability, Access, and Functional Needs (DAFN) populations. The county is limited in internet accessibility, including some areas where service is not available. These hard-to-reach populations have additional public messaging considerations that are not always feasible. PCPHA was limited to the types and amount of information distributed to those without access to typical virtual platforms.

Stakeholders who serve these populations may benefit by collaboration to develop strategies to engage these individuals without access to digital news media. One interviewee suggested a town hall meeting to encourage two-way dialogue with the community to close the gap with technology. However, due to health and safety concerns and potential civil unrest, an in-person town hall was not conducted for the public. PCPHA used several different tools to engage the public including Facebook Live, a COVID-19 email account, the Call Center, and other social media platforms.

2: The PIO had several other roles and duties, thus communication/messaging sometimes lagged.

Public information and messaging were in the spotlight for the COVID-19 pandemic as information rapidly changed, and mistrust became prevalent. PCPHA does not have a dedicated PIO for the county during a public health emergency, but one staff member has been trained to fill this role during an incident. Only one staff member has formal PIO training, and it was reported that a few other PCPHA staff members have basic PIO training to serve as PIO backup support. As the county does not have its own PIO, the PCPHA PIO served in this role for COVID-19 related messaging. The PIO was not a dedicated position and struggled to balance multiple ICS and day-to-day roles while maintaining regular updates and communications to the public.

3: Call center management was difficult to navigate without dedicated staff to fulfill a supervisory role.

The PCPHA call center served as a critical method of information dissemination, especially once vaccine rollout began. It was pivotal once the newspaper stopped printing to field questions from the public. The call center supported Healthcare Facilities (HCFs) and gave them an avenue for community requests for unified COVID-19 information. Managing and staffing the call center was challenging due to limited staffing at PCPHA. Call center staffing was supplemented by other county departments but proved inconsistent due to limited day-to-day availability.

The call center required the person answering the phone to have technical expertise on COVID-19 guidance and data. It was challenging to keep the call center staffed with technical experts with the ever-changing guidance and inconsistent staffing. The PCPHA PIO served in a leadership role over the call center, but a lead was never established outside of this position, which already had an unmanageable span of control. Having a dedicated staff member to serve as the liaison between PCPHA, the JIC, and the call center would have benefited the center's ability to serve the community better.



Recommendations

Recommendation 1: Advocate for a countywide communication workgroup to be established to support the gaps in non-virtual communication and messaging. Consider:

- Informative bulletin boards in high traffic areas such as the post office.
- Hosting two-way information forums such as Facebook Live, Press Conferences or virtual town halls including County BOS, County Administration, School, Hospitals, or other key stakeholders.
- Building relationships with neighboring news outlets

Recommendation 2: Hire a dedicated, trained PIO with at least one trained backup.

- Establish PIO duty officer policy and schedule

Recommendation 3: Revise PCPHA's MEOP "Risk Communication and Information Sharing" section to better support emergency health communication to the public. Consider: Incorporating call center policies and an organization chart for dedicated staff leadership to handle daily supervisions and communication to the EOC/DOC

Recommendation 4: Explore agreements with neighboring community media outlets to support information dissemination to the county during an emergency response.

Recommendation 5: Continue distribution of a print newsletter on a regular basis (weekly, monthly, or quarterly).

Healthcare Coordination

Summary

PCPHA had strong working relationships with HCFs and the healthcare coalition prior to the COVID-19 pandemic, which benefitted their incident response. Overall, coordination between PCPHA and HCFs went well. PCPHA staff routinely emphasized the importance and value of the work performed by county hospital workers, and hospital leadership also acknowledged appreciation for PCPHA leadership throughout the pandemic. The strength of this relationship is highlighted, especially in the testing operations carried out by hospitals in the county. Testing operations in the county were successful and met the community's needs. By leveraging close relationships with HCFs and the healthcare coalition, PCPHA supported and provided guidance on testing operations throughout the county. Challenges experienced in testing operations were experienced across the country; including low testing supplies, a lack of information regarding COVID-19 spread early on in the response, and constantly changing guidance. Relationships with HCFs and PCPHA helped ease the impact of these challenges and demonstrated the importance of frequent communications.

Strengths

1: PCPHA collaborated with HCFs to carry out case investigations and testing, leveraging a strong relationship with HCFs and its healthcare coalition.

During the first few months of the COVID-19 pandemic, testing was the overarching objective for public health departments across the country. PCPHA approached testing with urgency. During those first months, the county led the rest of the state in testing.

PCPHA staff and employees emphasized the importance of HCFs and their leadership throughout the duration of the COVID-19 pandemic response. PCPHA did not conduct testing services directly and provided limited guidance on testing to the HCFs. Instead, they collaborated with three healthcare facilities: Seneca Healthcare District, Eastern Plumas Health Care, and the Plumas District Hospital to provide testing to the community.¹⁵ The Health Officer provided recommendations when an individual identified as a close contact was diagnosed with COVID-19 to prioritize testing and further case investigations. HCFs worked tirelessly to staff and operate mass testing events, report PUIs, and provide care to the community during the sustained response.

Similar to PCPHA's appreciation for the resilience and dedication of hospital staff, HCFs highlighted that PCPHA worked tirelessly to amplify testing capabilities and communicate new and evolving guidance from the state and county. Despite limited staffing, PCPHA worked closely with HCFs to provide recommendations and support contact tracing. This was especially beneficial during the simultaneous response to the Dixie Fire, which caused an increase in COVID-19 cases.¹⁶

2: PCPHA conducted regular meetings with HCFs as a best practice to maintain situational awareness.

Due to rapidly changing federal and state guidance, PCPHA recognized the need for frequent communications with HCFs to help them stay apprised of resource availability, local confirmed cases/death, and interpreted guidance updates. PCPHA conducted weekly meetings with HCF leadership, scaling back to biweekly calls as the response became prolonged. This allowed PCPHA to

¹⁵ Weekly Newsletter, PCPHA, September 17, 2020.

¹⁶ Stakeholder Interview

maintain situational awareness on the county side while also receiving updates from HCFs regarding bed availability and resource gaps while providing a point of contact for centralized resource sharing.

Areas for Improvement

1: Communications from PCPHA to HCFs carrying out testing operations were inconsistent, and county recommendations were at times out of alignment with the resources and capabilities possessed by HCFs.

Changing guidance from federal and state agencies challenged communications. At times, this resulted in conflicting guidance from the Health Officer and PCPHA regarding testing guidelines and operations for HCFs. As hospitals carried out all the COVID-19 testing operations in the county, the lack of resources was keenly felt. Hospital staff noted that having a representative from PCPHA at mass testing sites would have been helpful to provide coordination and surge support.

Additionally, the community frequently asked for additional communications from PCPHA regarding testing results. While the Health Officer communicated test results in some cases, for example, to parents and students at schools, these communications were often exceptions to an overall lack of communications regarding testing results. PCPHA struggled to keep up with informing Persons Under Investigation (PUIs) of positive test results, sometimes resulting in significant delays, during which time PUIs were unaware of the need to isolate.

2: HCFs struggled to keep up with county requests while feeling the impact of limited staffing, operational changes, and scarce resources, and would have benefitted from stronger PCPHA leadership early on in the response.

While leadership from PCPHA became strong and reliable as the response continued, it was noted that PCPHA could have been more decisive early in the response as state resources came into the county. While all three HCFs and the county had to learn how to respond to the pandemic's magnitude, the lack of a leadership structure that clearly defined the roles and responsibilities of HCFs and PCPHA sometimes caused confusion regarding which agency was leading which response efforts.¹⁷ HCFs were used to running their incident responses but quickly realized the sheer size and coordination required by the COVID-19 pandemic was far out of their scope.

Likewise, PCPHA was quickly thrust into the primary response agency role for the county and struggled to find the staff and resources while adjusting to this new role. As a result, the scale for overseeing partner activities varied and was inconsistent at times, ranging from very detailed requirements for some efforts and vague or unclear guidance for others. This caused some friction in the initial phases of response efforts but gradually smoothed as the response continued and communication became more frequent.¹⁸

Recommendations

Recommendation 1: Continue to educate HCFs on established communications and points of contact for HCFs during crisis communication.

Recommendation 2: Codify routine calls with HCFs into PCPHA crisis communications planning. Consider inviting HCFs to incident management exercises/trainings, even practicing the HCF role in public health-led incident response.

¹⁷ Stakeholder Interview

¹⁸ Stakeholder Interview



Recommendation 3: Consider formalizing Memorandum of Understanding (MOUs) with local pharmacies to support testing efforts during infectious disease response.

Epidemiological Investigation and Contact Tracing

Summary

The county provided a level of epidemiological investigation including contact tracing to help stop the spread of COVID-19. This strategy relied on multidisciplinary public health partners and dedicated staff to support the rapid cycle of testing, identification, and notification for individuals to effectively take protective measures.

Like many other jurisdictions, the county reached thresholds during the pandemic where they became overwhelmed with case investigations. Increased cases caused delays in contact tracing efforts which were expressed as a primary concern of multiple interviewed response partners.

However, PCPHA leveraged strong relationships to bolster contact tracing efforts. This allowed PCPHA to share data with the public and response partners, which helped the county understand where transmission continues to occur within the community. Contact tracing efforts successfully gathered valuable intelligence and transmission data, which continues to contribute to a common operating picture. Data was shared using public-facing, visually dynamic dashboards utilizing Geographic Information System (GIS) mapping. Additionally, statewide systems contributed to the overall effectiveness of epidemiological investigation and contact tracing by streamlining processes.

Strength

1: CalCONNECT was used to streamline surveillance for comprehensive case investigation and tracing.

In May 2020, a press release from Governor Newsom announced that the state of California had launched an interoperable electronic system called California Connected (CalCONNECT) to serve as the state's contact tracing program and public awareness campaign.¹⁹ CalCONNECT would ultimately aid public health in reporting confirmed disease outbreaks to CDPH and connect with individuals who have tested positive for COVID-19 and those who may have been exposed through text, call, and email messaging. The system helped streamline efforts for contact tracing. It simultaneously helped increase public education and awareness of the program for individuals to answer calls and texts to be notified and take appropriate quarantine or self-isolation actions building on public health efforts.

The PCPHA Dashboard, including GIS mapping, informed the public of community spread. PCPHA has developed a COVID-19 informational website that displays up-to-date COVID-19 status, including Health Officer Orders, a map of confirmed COVID-19 cases by region, press releases, and links to other resources such as state updates and COVID-19 information.

Additionally, the statewide California Reportable Disease Information Exchange (CalREDIE) system is compiled into a COVID-19 dashboard updated weekly utilizing a visual display of data. The dashboard includes CalREDIE confirmed cases, hospitalizations, case rates, and graphs of epidemiological data. Throughout the data collection process, the PCPHA dashboard was highlighted as a valuable resource provided by the county for the community and response partners.

¹⁹ Office of Governor Gavin Newsom, "Governor Newsom Launches California Connected – California's Contact Tracing Program and Public Awareness Campaign," May 22, 2020. <https://www.gov.ca.gov/2020/05/22/governor-newsom-launches-california-connected-californias-contact-tracing-program-and-public-awareness-campaign/>

Area of Improvement

1: Plumas County struggled to sustain the pace of contact investigation and tracing due to limited staffing.

From both surveys and interviews with external partners, a primary concern has been the ability of PCPHA to maintain a contact tracing and surveillance program at the appropriate levels, including surge. The ability of PCPHA to maintain this capability is especially important as an accredited public health department to provide public health protections and prevent the spread of communicable diseases.

PCPHA has leveraged relationships with community partners, including local hospitals, the unified school district, colleges, and human services organizations. However, the ability of PCPHA to provide timely contact tracing and notification to individuals with close contact and was stated in multiple interviews noting delays that can potentially lead to additional exposure and spread of COVID-19.

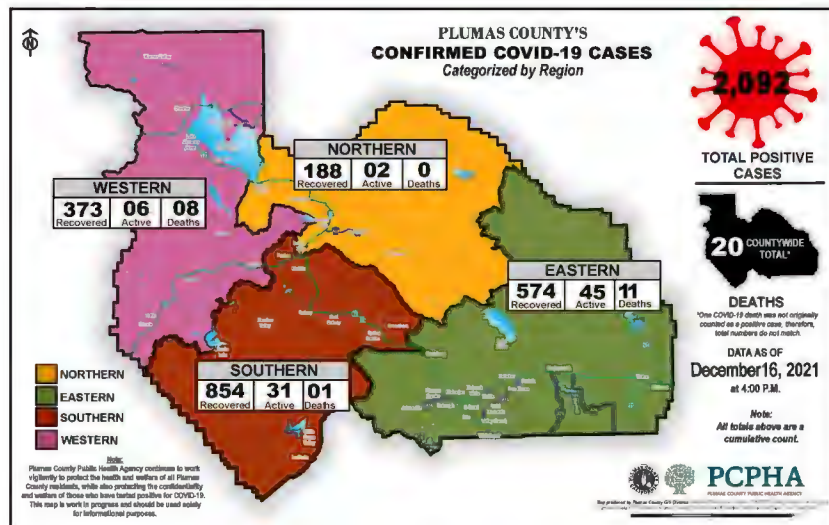


Image 4: A snapshot of the PCPHA COVID-19 confirmed cases data dashboard by region.

“Contact tracing is delayed by almost a week even with same day PCR; this does not slow the spread.”

-External Survey Respondent

Additionally, there are concerns regarding staffing levels to address the growing demand for timely surveillance and notification. This is especially important for community partners such as schools and colleges. An effective contact tracing strategy relies on appropriate staffing levels to receive results, notify individuals, and advise on available COVID-19 resources.

Contact tracing is an essential strategy to curb the spread of COVID-19, but stakeholders noted that contact tracing wasn't as effective when transmission was widespread in the community. While the county has sought to increase staffing for contact tracing, the levels necessary to support the ongoing demand falls short of current staffing levels.

Recommendations

Recommendation 1: Continue to use CalCONNECT and provide recommendations for improvement to the state.

Recommendation 2: Deepen the disease contact tracing and investigation bench by providing annual training and exploring local partnerships and volunteer pools as well as advocating for emergency funding and contracts for temporary staff when necessary.

Recommendation 3: Infectious disease plans should be updated utilizing the valuable policies and procedures developed during the response, including any recommendations for streamlining the contact tracing and notification procedures utilized during COVID-19.

Vaccine Management

Summary

Before vaccines were even available to the county, PCPHA had been actively organizing and planning for mass vaccination efforts. Healthcare entities supported PCPHA to vaccinate residents in alignment with federal and state priority tiers of essential workers, at-risk patient populations, and the general public. Staffing shortages were challenging, but PCPHA leveraged local hospitals, Emergency Medical Services (EMS), and Licensed Vocational Nurse (LVN) students in vaccination efforts, including in-home vaccination and rural community clinics.

PCPHA planned for and developed a vaccine scheduling and tracking system aligned with previous mass vaccination protocols. The state released a vaccine scheduling and reporting platform that became a barrier to the already in-motion process. PCPHA overcame many challenges, including small allotments of vaccines distributed to its county, state systems, and community concerns. As of August 31, 2021, 53% of Plumas County residents have been fully vaccinated.

Strengths

1: Creative strategies for vaccine sites such as partnerships with LVN students and EMS allowed for successful vaccination clinics.

PCPHA stayed ahead of the curve set by other California counties by using innovative approaches to reach their target populations. Limited personnel resources for staff licensed to vaccinate inspired the operations section to rapidly establish a qualified vaccinators pool. The local hospitals provided staffing resources to most of the vaccination clinics throughout the county. As hospitals faced their own staffing shortage, PCPHA established relationships with the LVN Program at Feather River College to utilize their students at vaccination clinics.

As the state authorized paramedics and Emergency Medical Technician (EMTs) to administer vaccines, PCPHA partnered with local EMS agencies to support vaccination efforts. In consultation with PCPHA, EMS established a homebound vaccination program to support individuals unable to leave their homes. Innovative approaches and new relationships assisted PCPHA with actively progressing through the state's priority tiers. Once the state's priority tiers were fulfilled, Plumas quickly adapted its strategy to the following priority tier. For example, educators were vaccinated before the majority of the state opened up that tier in their county.

Areas of Improvement

1: MyTurn, the state's vaccine scheduling platform, was challenging to implement and is still not being used to capacity.

In early 2021, as vaccination efforts were underway, California announced a new scheduling platform for local public health agencies, requiring them to utilize the system for vaccination scheduling. PCPHA had already established a scheduling system and quickly transitioned to MyTurn to avoid vaccine allocation diversion to other counties that had already implemented the new system. Vaccination efforts were hindered due to the system's complexity. Hospital partners felt the system was duplicative to their electronic health records and became frustrated with the platform. The system was not user-friendly and required repeated training for utilization.

The general public had to use the system to schedule their vaccine appointments and experienced similar challenges. The system was not user-friendly and required internet accessibility, which is limited in the



county. This, combined with the fact that approximately 30% of the county's population is aged 60 years or older, caused significant public frustration with the new system.²⁰ Within 90 minutes of the system's rollout, PCPHA received over 12,000 calls about it, causing a strain on the phone system and staff. MyTurn slowly improved its system by providing several modifications, but each required subsequent staff training and still did not fully meet the needs of a rural community.

2: During the initial vaccine distribution, the small number of vaccine doses made it challenging to begin the vaccination process for the most at-risk populations in the county.

Vaccine allocation was determined at the federal and state levels based on the county's population. Due to Plumas County's low population, they were allocated less than 100 doses of vaccine in their first shipment. These small allocations made it challenging to plan mass vaccination clinics for the priority tiers. As the statewide allocation increased, PCPHA received proper allotments to vaccinate the priority tier.

Eventually, a regional distribution plan was established for vaccine allocation to several counties in the Mutual Aid Region III supported by the Regional Disaster Medical Health Specialist (RDMHS). The distribution required PCPHA to arrange logistics, including transportation and cold chain storage of the vaccine from Shasta County Public Health in Redding. The trek from Redding to Quincy is close to 300 miles roundtrip and during the winter months frequently became difficult terrain for travel due to weather conditions. A strategy was developed to acquire proper cold storage at PCPHA to provide ease of logistics for the county and its neighboring jurisdictions.

Recommendations

Recommendation 1: Develop mass vaccination plans that are aligned with Mutual Aid Region III Counties. Consider:

- Including key stakeholders, such as LVN student programs, EMS, and healthcare providers
- Utilizing best practices and lessons learned during COVID-19 clinics
- Clinic logistics (including facility information, flow charts, supply list, storage)

Recommendation 2: Provide regularly scheduled mass vaccination exercises and drills with key stakeholders. Consider:

- Incorporation of My Turn, CalConnect,²¹ and CalRedie²²

Recommendation 3: Continue to research and educate PCPHA staff and community partners on the factors impacting vaccine hesitancy in Plumas County. Update infectious disease response plans with these lessons.

Recommendation 4: Formalize partnerships with MOU/MOAs, including reimbursement costs with the Licensed Vocational Nurse (LVN) student programs and EMS agencies for future use.

²⁰ December 9, 2021 Debriefing

²¹ California Connected (CalConnect) is a statewide contact tracing program.

²² The California Reportable Disease Information Exchange (CalREDIE) is a secure system that the California Department of Public Health (CDPH) has implemented for electronic disease reporting and surveillance.

Resource Management

Summary

As resources became scarce throughout the nation, PCPHA worked diligently to procure necessary supplies for the County's Medical and Health needs. Throughout the data collection process, the reoccurring consensus was that PCPHA supported stakeholders' resource needs. The Medical and Health Operational Area Coordinator (MHOAC) program supported the resource requests for supplies utilizing a cultivated process from past exercises. As healthcare facilities requested resources through the MHOAC program, they stated that PCPHA filled the requests in a timely and efficient manner when resources were available.

In the beginning phases of the response, funding was uncertain, but Public Health Emergency Preparedness (PHEP) and Hospital Preparedness Program (HPP) grants were quickly adapted to support the financial needs of the response. As the County shifted to a work-from-home hybrid model, tablets, laptops, and other technology supplies were difficult to attain due to high demand throughout the nation. Many supplies were available in PCPHA's inventory or sourced through resource requests through the mutual aid system established through the state.

Strength

1: Resource procurement through the MHOAC Program and mutual aid between healthcare facilities was seamless due to previously established protocols and relationships.

PCPHA and the healthcare coalition regularly trained and exercised with their healthcare partners on resource requesting. These opportunities allowed familiarity with the forms and submission process for requesting resources from the MHOAC program, making the process smooth during the pandemic. Forms were received via email to the MHOAC, then filled through PCPHA's inventory or sourced through the state. PCPHA did not have to go outside their typical supply chain for supplies, mainly because resources were scarce, and vendors were unavailable.

Most healthcare partners agreed that requests were rapidly filled when the item was available. Due to nationwide shortages, PPE and cleaners were not easy to procure but often shared with other county healthcare facilities. Having pre-established relationships with the other healthcare partners within the County made resource sharing easier for the facilities. Although a formal process was not codified for financial record keeping, inter-county resource requests were noted as successful due to pre-established relationships.

Areas of Improvement

1: IT did not have the equipment or workforce required when shifting to a work-from-home hybrid model.

In March 2020, Governor Newsom issued a stay-at-home order to help slow the spread of COVID-19.²³ Many agencies, including PCPHA, shifted to a work-from-home hybrid model for their workforce, causing a new set of barriers for IT teams across the state. Equipment such as laptops, tablets, and MiFis were in high demand and in short supply, making it difficult for staff to have the needed resources to work from

²³ Office of Governor Gavin Newsom, "Governor Newsom Launches California Connected – California's Contact Tracing Program and Public Awareness Campaign," published May 22, 2020. <https://www.gov.ca.gov/2020/05/22/governor-newsom-launches-california-connected-californias-contact-tracing-program-and-public-awareness-campaign/>



home. VPN requests reached an all-time high and network connectivity took a toll at the same time. Plumas County's system had many vulnerabilities, including slow connections and proper guidance on VPN policy.²⁴

2: MHOAC resource request logistics were fulfilled by the Director of Nursing instead of utilizing the Logistics Branch in the DOC.

As the MHOAC approved resource requests, fulfillment was executed by the Director of Nursing, who primarily served in the MHOAC role. The request was not sent to the logistics section due to the state's strict requesting procedures and limited Salesforce accessibility. Many resources were available in-house due to H1N1 PPE supplies of expired N95's approved by the state for use during COVID-19 mitigation. Many facilities stated their resources were available quickly despite a formal logistics fulfillment process.

An inventory list has been created for grant-funded items by PCPHA, but a comprehensive list of all emergency preparedness inventory does not exist. Supply storage is spread throughout storage office space, conference rooms, cargo containers, supply trailers, and fairground premises. An inventory list including location would have benefited the MHOAC and logistics when procuring supplies.

Recommendations

Recommendation 1: Continue to train or exercise with Medical and Health stakeholders on the resource requesting process. Consider:

- Obtaining feedback from stakeholders on best practices and lessons learned on the request form

Recommendation 2: Include IT resource deployment procedures in Emergency Operations Plan.

Recommendation 3: Develop comprehensive resource requesting and fulfillment procedures for PCPHA. Consider:

- Establish a critical supply list
- Store a stockpile of resources for use in future outbreaks
- Include inventory list with location
- Include county internal process for requesting Medical and Health resources
- Just-in-Time Training for the Logistics Branch on MHOAC Resource Requests
- Securing additional storage space

Recommendation 4: Encourage local stakeholders to establish a cache of supplies critical to their facility during an infectious disease response.

²⁴ PCPHA Stakeholder Interview

Staffing

Summary

The unprecedented nature of COVID-19 prolonged the length of response, impacting staffing on all levels across the nation. Plumas County has experienced the need for more personnel, but it has been difficult to request mutual aid with Region III counties undergoing the same experience. This required longer workdays to sustain the response. Yet, with a highly capable team, PCPHA persevered and demonstrated their expertise in emergency management.

Despite the challenges with staffing, PCPHA staff have shown their dedication to both their community and agency through their flexibility and willingness to help throughout the ongoing response. The PCPHA leadership has worked to protect their staff's wellbeing; however, it is an ongoing effort to provide adequate behavioral health resources to their employees and address staff turnover.

Strengths

1: Staff dedication and commitment to the pandemic were crucial to the effectiveness of the Plumas County response.

PCPHA established a highly capable team prior to the pandemic, which proved advantageous to their response operations. Seasoned staff members experienced in emergency management, evacuation shelters, vaccination clinics, and other response efforts, supported a smooth operation. When the response called for additional support or longer days, the staff demonstrated the flexibility and willingness to go above and beyond to support their community and agency.

With a lack of personnel, staff also had to work longer hours than normal, and leadership recognized the need to support staff wellbeing due to the prolonged response. Leadership encouraged all staff to take time off whenever they were able to and continues to do so. Even being short-staffed, the majority of staff have been able to take time off throughout the response.

Areas of Improvement

1: The length of the response caused burnout and fatigue among leadership and dedicated response staff.

Leadership could not elude the fatigue and burnout experienced by their response staff as well. Changeover of leadership positions, including the Director and Assistant Director(s), took a toll and exacerbated the burnout of mid-level management. Not only were they unable to perform their regular leadership duties, but the mid-level management also had to take on the responsibilities of high-level management when those leaders left their positions. Because staff wellness has not been addressed, it is challenging to fill new positions and retain staff.

While leadership recognized the need to address staff wellbeing with the encouragement of time off, there is still much work needed in behavioral health support for staff. County employees receive Employee Assistance Program (EAP) resources for mental health, and there has been an increase in staff utilization of EAP benefits for counselor visits. Aside from the counselor visits, the only other resource was an employee assistance hotline accessible through extended hours for immediate support or to access other EAP benefits. In addition to the lack of behavioral health resources, leadership has found it difficult to carry out regular leadership duties, such as checking in with staff and modeling the behavior for staff to follow.

While Behavioral Health can call staff on the phone to discuss mental health, there is a need for leadership to have a conversation with their teams about ongoing issues and how they could be addressed. The staff members need to be able to voice their concerns directly to their leaders, and leaders must identify actionable solutions with their teams. Because both leaders and staff are feeling burnout and fatigue from the prolonged response, regular one-on-one check-ins can be a way to make sure both feel supported by each other and recognized for their work. Furthermore, these check-ins can help foster an environment of trust and team spirit as well as a better understanding of the capacity for different roles. It is crucial to provide proactive support and coordination when response staff are overextended, especially from leadership and administration. Moreover, for future long-term responses, creating a plan to rotate response staff or to maintain adequate staffing levels to mitigate burnout would be beneficial.

2: Many agencies across the county, including PCPHA, struggled with maintaining adequate staffing.

Staffing was a significant factor that limited the hospitals' ability to sustain contact tracing efforts. The inability to sustain contact tracing exacerbated communication gaps with the communities, and the spread of COVID-19 for individuals who were unaware that they were positive for COVID-19 and needed to isolate. The smaller healthcare facilities also faced challenges with personnel and were left to carry the charge with testing, as PCPHA was unable to send personnel support. At times, the facilities had to do their own research to keep up with the rapidly changing guidance. Because PCPHA struggled with their own staffing, it was difficult to support other agencies. A county-wide process for requesting personnel resources from other county departments may be essential to maintaining adequate staffing for extended responses.

Recommendations

Recommendation 1: Strategically adopt a PCPHA Staffing Plan to mitigate staff burnout, including behavioral health resources and rotation of non-PCPHA agencies DSWs into a long-term public health emergency response.

Recommendation 2: Advocate for a countywide Staffing Plan to mitigate staff burnout, including behavioral health resources and rotation of non-lead agencies DSWs into a long-term response.

Recommendation 3: Coordinate with County Human Resources on streamlining recruitment process due to BOS approval on all positions. Consider:

- Not requiring BOS approval when existing, vacant positions must be filled
- Not requiring BOS approval for a position when the position is grant-funded
- Providing the ability to create new job descriptions outside of the month of January, when circumstances require flexibility

Recommendation 4: Continue to engage in exercises with different agencies to practice rotation during a response.

Recommendation 5: Formalize a process for requesting personnel resources from other county departments.

Recommendation 6: Continue to advocate for additional funding for new staff positions for PCPHA, anticipating the long-term recovery needs that will result from COVID-19.



Long-Term Concerns

As the COVID-19 pandemic continues, public health, first responders, healthcare workers, and caregivers prepare to enter a third year of response efforts. New variants of the SARS-CoV-2 virus, such as Delta and Omicron, are causing serious concern as case rates in the United States begin to rise once more.

While this report is a mid-action snapshot of response efforts that took place through August 2021, the report captured several long-term concerns response staff have regarding county efforts thus far, which can inform the future of all-hazards incident management. Two main concerns emerged when participants in the online survey, interviews, and debriefing were asked to share long-term concerns regarding the COVID-19 pandemic: PCPHA staffing levels and the morale of public health in general and public burnout regarding life-saving public safety measures.

The pandemic revealed a significant lack of staffing in PCPHA for the scale of the response required to keep its community safe. Despite being severely understaffed, PCPHA employees answered calls and requests at all hours of the day and night to ensure people received the information and resources they needed. However, this level of work is not sustainable and actively harms recruitment for future staffing. Significant concerns were voiced throughout the data collection for this report that public health positions may be funded, but may remain empty because work levels scare away potential staff. Additionally, the United States is experiencing a nationwide shortage of technical expertise to fill needed public health positions. This causes concern that depth in positions will be challenging to increase moving forward, threatening the sustainability of future public health incident management. Funding for staffing positions may also expire when policymakers determine the pandemic to be over. While case surge may decrease with rising vaccination rates, the ramifications of the pandemic on staffing will likely stretch over years to come and expiration on funding for these staffing positions would negatively impact public health efforts.

As staff feel the effects of burnout and fatigue, the public also faces ramifications of a prolonged response. Public burnout is a significant public health concern, as many become tired or frustrated with public health measures such as universal masking, social distancing, and guidance to get vaccinated. As shown throughout the pandemic, the impacts of commitment to these measures are demonstrated over months, not days. As a result, it can be difficult for the public to see the impacts of not abiding by public health guidance until it is too late, and the county experiences another surge. In addition, the urge to politicize public health guidance and recommendations may keep segments of the community from ever accessing lifesaving measures, increasing their risk of getting sick or spreading the virus. Long-term, this could stretch out the impact of COVID-19 on the community.



Final Thoughts

Findings in this report are not unique to Plumas County or PCPHA alone, as these are common themes expressed at the local, tribal, territorial, state, and federal levels across the U.S. as well as around the world during the COVID-19 pandemic. However, the county has demonstrated immense care to its community while overcoming challenges due to the pandemic, which is uniquely due to the compassion and dedication of its responders. The themes expressed by county stakeholders within this report highlight opportunities for PCPHA to build upon strengths and opportunities for future growth. These findings should be utilized to create new and innovative ways to invest in all-hazards response and public health in the county in the coming years.

The widely acknowledged “silver lining” to the COVID-19 pandemic is renewed national and global attention to the risks of infectious disease emergencies and the importance of public health infrastructure and response capabilities. It is the responsibility of local, state, and federal government authorities to ensure that future investments in funding, staffing, resource allocation, and program development in public health are informed by data, staff, and stakeholder input. This MAR represents the commitment of PCPHA to develop strategies that take a science-driven and people-centered approach to improving the health and safety of its community.

At the time of writing this report, COVID-19 response efforts are still ongoing for the county and state of California. PCPHA may use this report to provide a basis for a final COVID-19 AAR once the response is officially and completely demobilized to capture additional data and inform long-term planning efforts.

Appendices

Appendix A: Internal Survey Data Summary

Overview

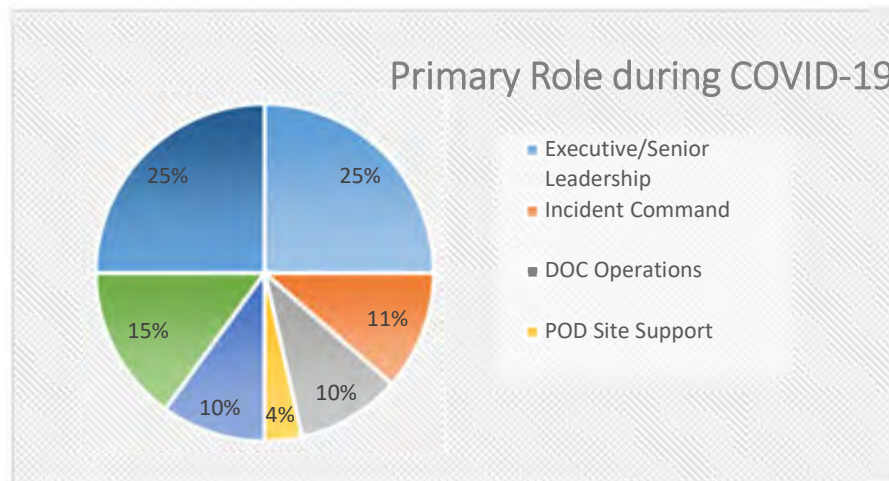
The PCPHA COVID-19 MAR Internal Survey was available online from October 29, 2021 to December 13, 2021 to PCPHA and other county-employed stakeholders. A total of 44 (n=44) respondents affiliated with Plumas County completed the survey.

Respondent Background

44 (n=44) people participated and provided information on the Plumas County where they work. Over 36% of the respondents work for the Public Health Department, but respondents included a wide array of other county departments listed below:

Behavioral Health	District Attorney
Sheriff	Fairgrounds
Planning	Board of Supervisors
Ag	Child Support Services
IT	Administration
Courthouse	Public Works
Probation	Environmental Health
Cooperative Extension	County Counsel
Library	Clerk-Recorder's
Assessor	Risk Management
GIS	

When respondents selected the role(s) that best described their primary role in their organization during the COVID-19 response, 35% of the respondents indicated they served in an Executive/Senior Leadership role. 21% did not hold a COVID-19 response related role throughout the pandemic.

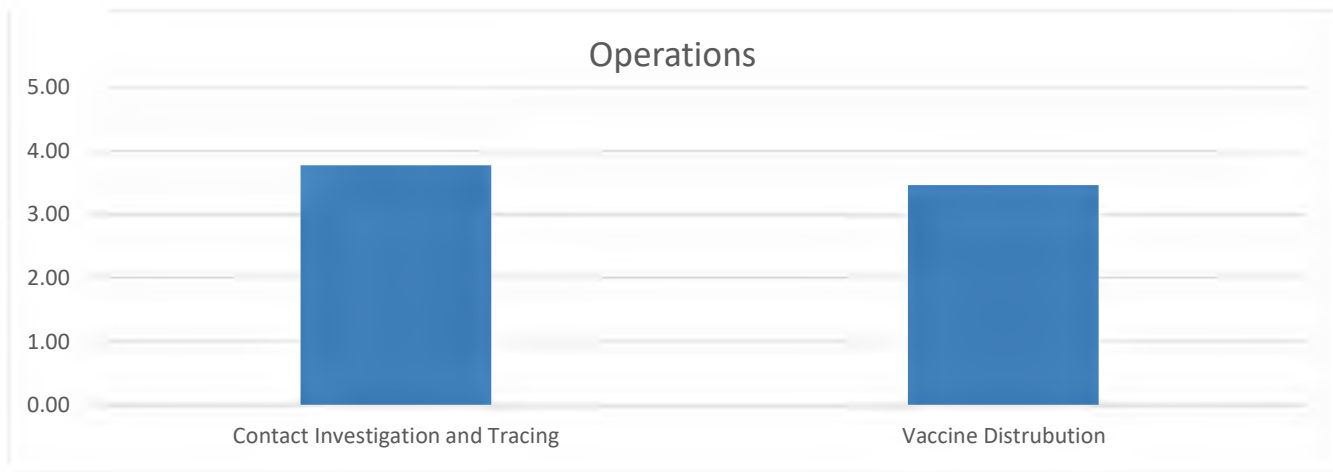


COVID-19 Response

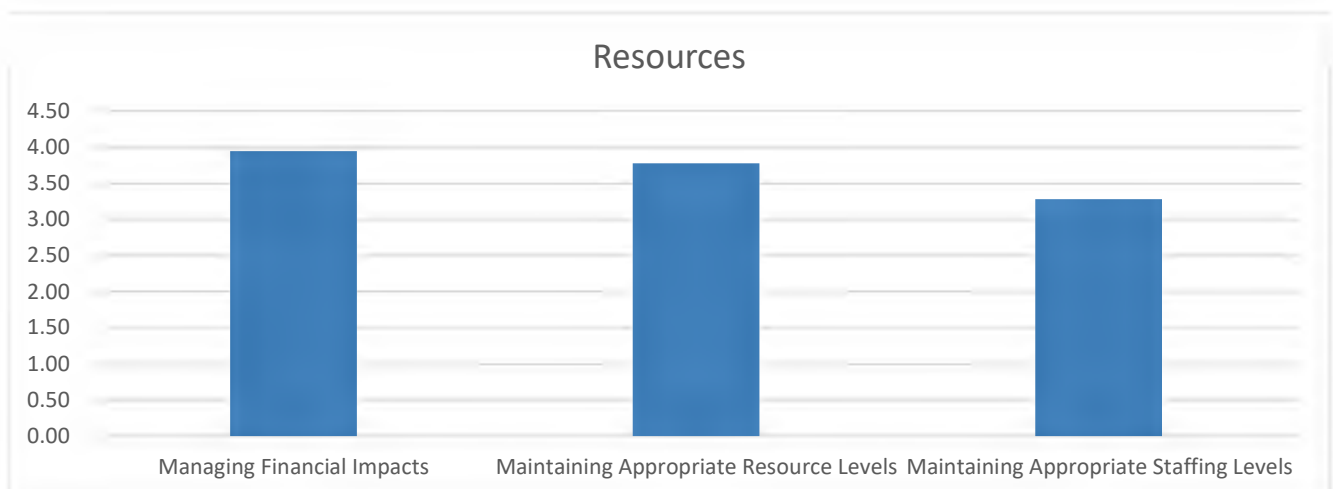
Respondents were asked to provide their perceptions of PCPHA effectiveness to specific response activities. The response options were on a five-point scale:

- Not effective (1)
- A Little effective (2)
- Somewhat Effective (3)
- Very effective (4)
- Extremely effective (5)

41% of respondents rated contact investigation and contact tracing as very effective, with an average rating of 3.7 as somewhat effective. Respondents rated vaccine distribution as very effective, with an overall rating of 4.4.

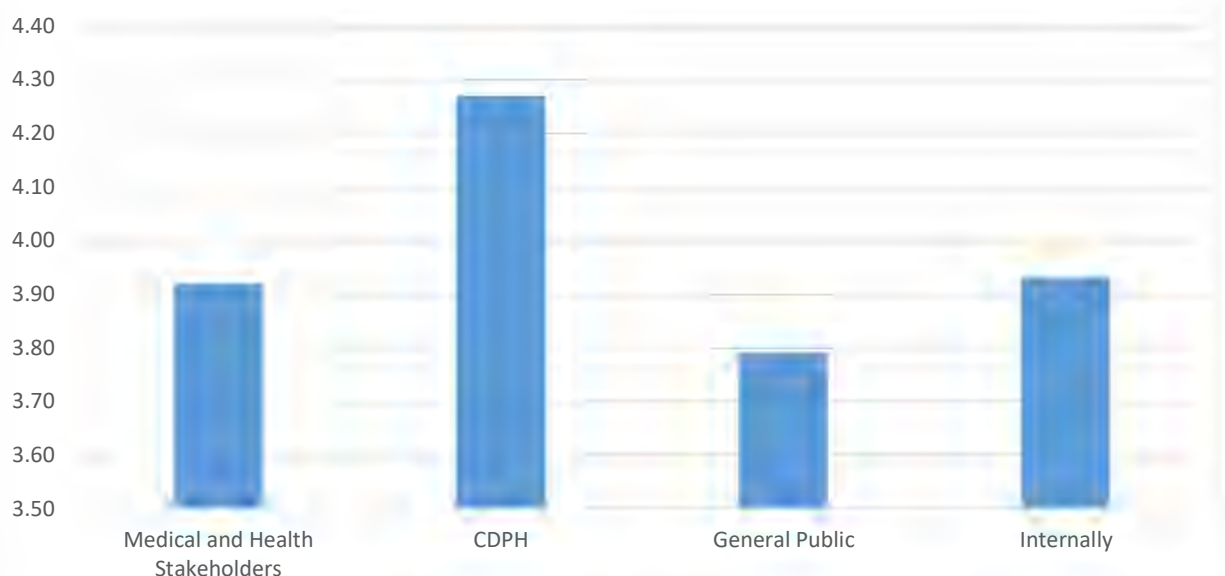


When asked about PCPHA's effectiveness in managing the financial impacts of COVID-19, respondents rated 3.9, which is just shy of very effective. Maintaining appropriate resources levels was somewhat effective, with an average response of 3.7. Respondents selected PCPHA as somewhat effective in maintaining appropriate staffing levels at 3.2.



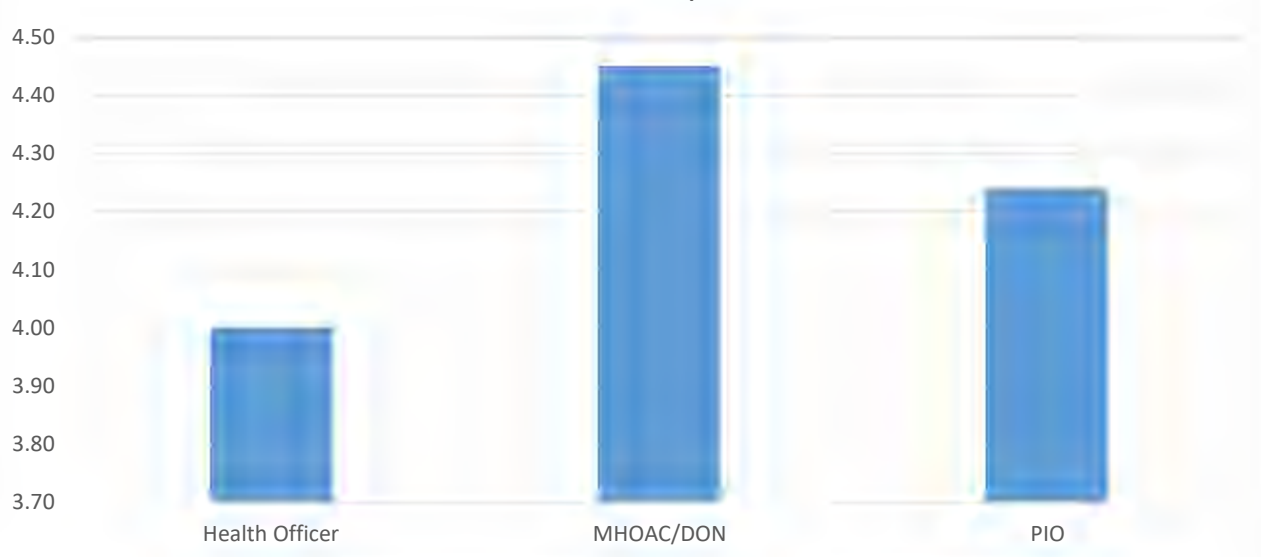
Coordinating and sharing information with medical stakeholders averaged 3.9, which is somewhat effective on the verge of being very effective. Internal stakeholders rated the effectiveness of the coordination with CDPH as very effective at 4.2. Respondents rated coordination and sharing information with the general public as somewhat effective, with a 3.7. Coordinating and sharing information internally were rated slightly higher but still somewhat effective at 3.9.

Coordinating and Information Sharing

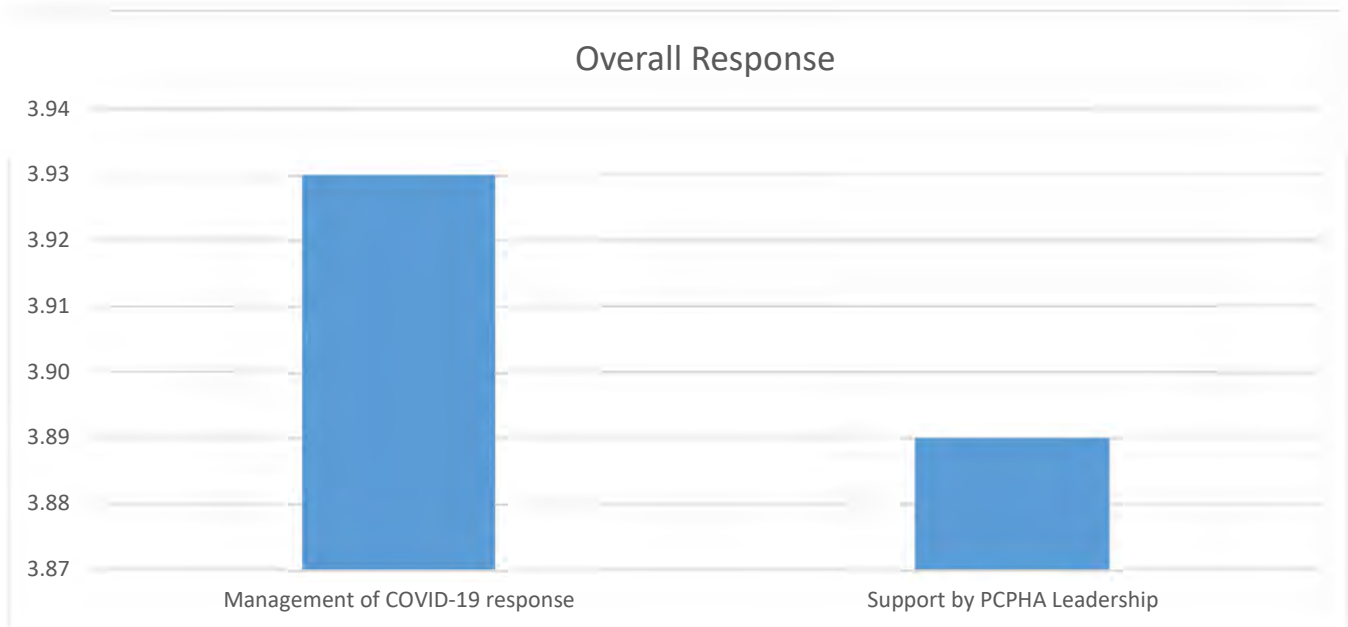


Respondents rated coordination with specific roles within PCPHA, including the Health Officer (Very effective 4.0), MHOAC or Director of Nursing (Very effective 4.4), and PIO (Very effective 4.2).

Coordination with Specific Roles



Respondents rated the effectiveness of PCPHA's management of the overall COVID-19 response as a 3.9, just shy of very effective. When asked how supported the individual felt by PCPHA leadership during the COVID-19 response, it was somewhat effective on the verge of very effective at 3.8.



Qualitative Survey Data

Respondents were asked a series of open-ended questions to evaluate PCPHA's response to the COVID-19 pandemic. 26 of the respondents answered the question, "What has PCPHA done well during the COVID-19 response?" Nine out of 26 indicated communication and information sharing as a strength in the response. "Managing excessive workloads to the best of our abilities," said one respondent, along with six others having similar responses pertaining to the hard work and dedication of the PCPHA staff.

When asked, "What could PCPHA do better in future public health emergencies and disaster response?" 24 respondents answered. Respondents primarily indicated additional staffing and expertise, ICS training, and better coordination with other county departments, including the Board of Supervisors. "Low staffing numbers have been a huge barrier," said one respondent. "Engage the Board and public in meetings," said another respondent.

21 respondents answered the question, "What innovative strategies and tactics did you observe or help implement during the response?". One respondent said, "In some cases, everything was innovative because the agency never experienced a pandemic on the scale." Another respondent sums up several responses into one, "Personalized connections with businesses and county partners during vaccine rollout. Livestream updates to community. Continuously staff phones, Local case maps."

When posed the questions, "What are your long-term concerns for the ongoing COVID-19 response?", 26 individuals responded. Eight of the respondents answered with some form of staffing concerns, including "staff burnout" and "prolonged response is leading to fatigue in the public and staff." Other concerns included "Vaccine hesitancy," "Vaccine Mandates," and "incompliance with NPIs in the community."



The final question on the survey asked respondents, "What plan, policies, or procedures should be maintained or developed for future public health emergencies and disaster response?". Respondents had a wide variety of responses, including, "Updated COOP that takes into account multiple disasters (e.g., pandemic and wildfire)," "Ongoing funding to maintain preparedness, including data analysis, epidemiology, and public communication," and "more staff should have training in response." COOP, IT Disaster Recovery, Infectious Disease, and Communication plans were all mentioned by respondents in regards to plans that should be developed or maintained.

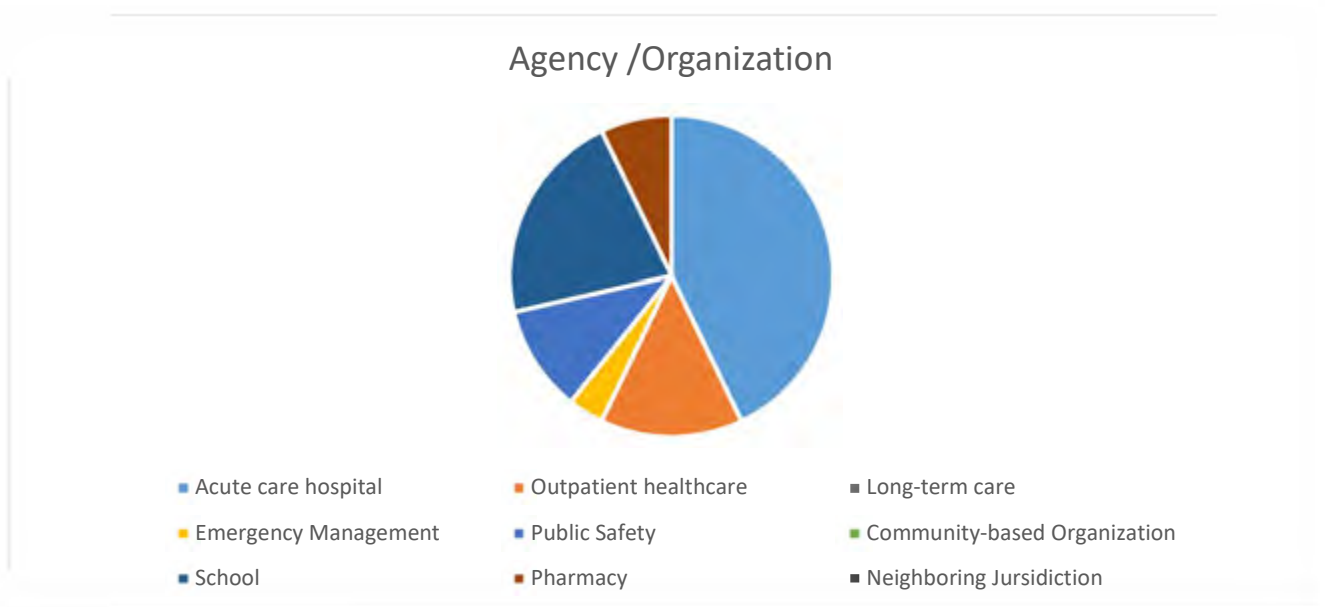
Appendix B: External Survey Data Summary

Overview

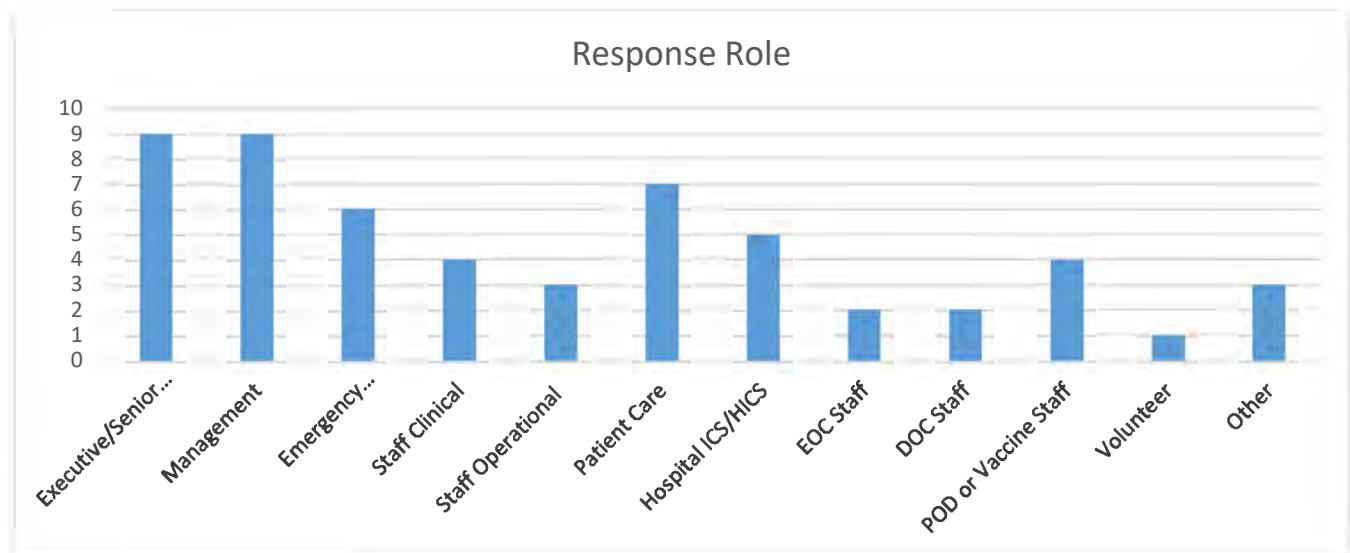
The PCPHA COVID-19 MAR External Survey was available online from October 29, 2021 to December 13, 2021 to PCPHA key external stakeholders. A total of 28 (n=28) respondents affiliated as a critical stakeholder for Plumas County COVID-19 response completed the survey.

Respondent Background

28 (n=28) people participated and provided information on PCPHA's response to COVID-19. 43% of the respondents best describe their agency/organization as an acute care hospital, but respondents included various agencies, such as 21% from schools and 14% from outpatient healthcare agencies.



When respondents selected the role(s) that best described their primary role in their organization during the COVID-19 response, 35% of the respondents indicated they served in an Executive/Senior Leadership role. 21% did not hold a COVID-19 response related role throughout the pandemic.

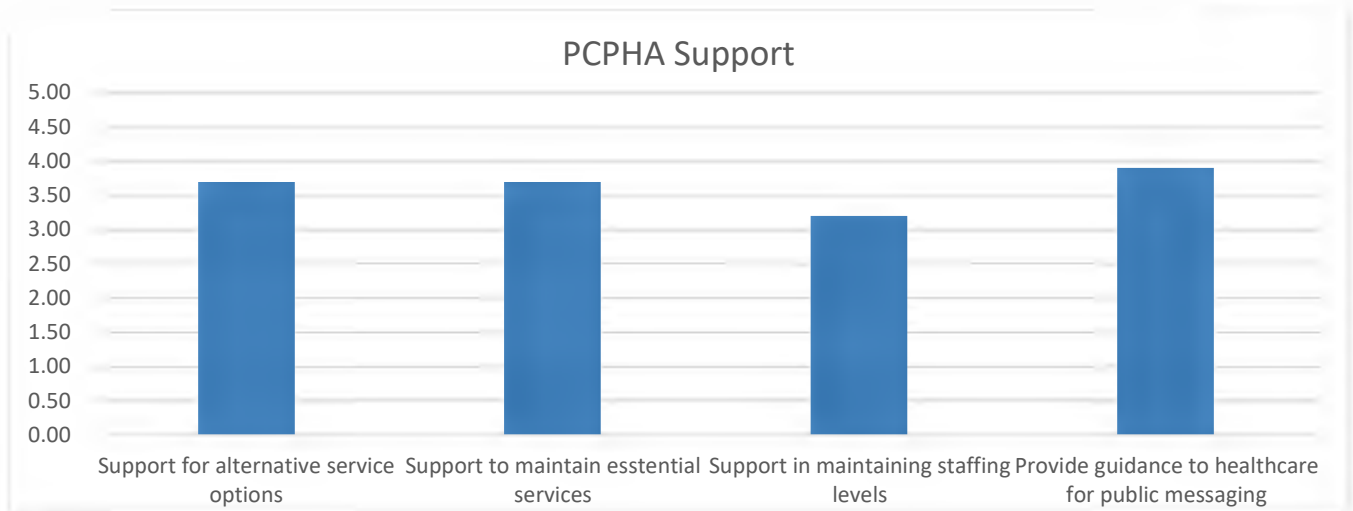


COVID-19 Response

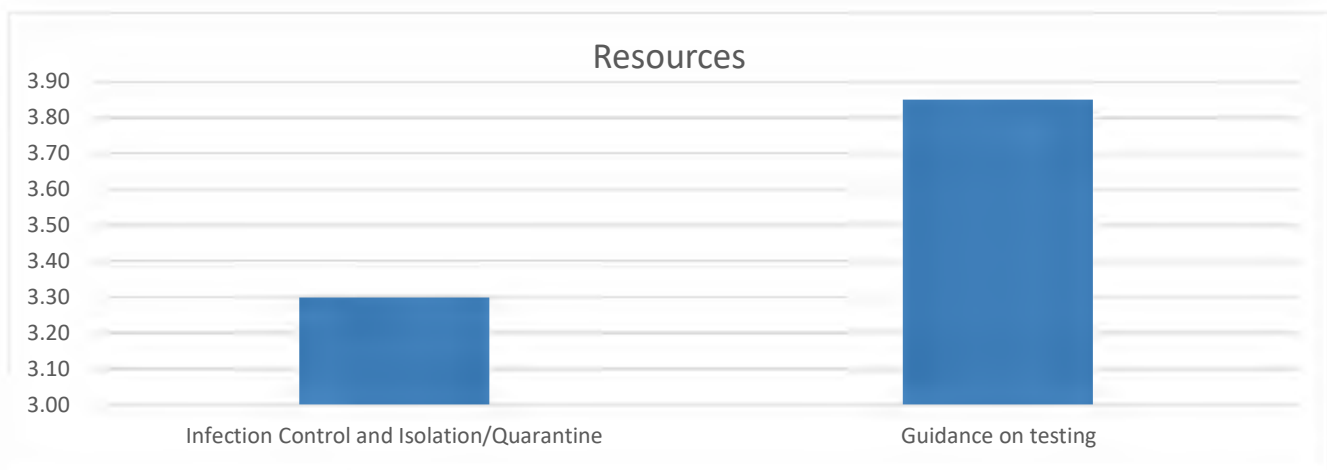
Respondents were asked to provide their perceptions of PCPHA effectiveness to specific response activities. The response options were on a five-point scale:

- Not effective (1)
- A Little effective (2)
- Somewhat Effective (3)
- Very effective (4)
- Extremely effective (5)

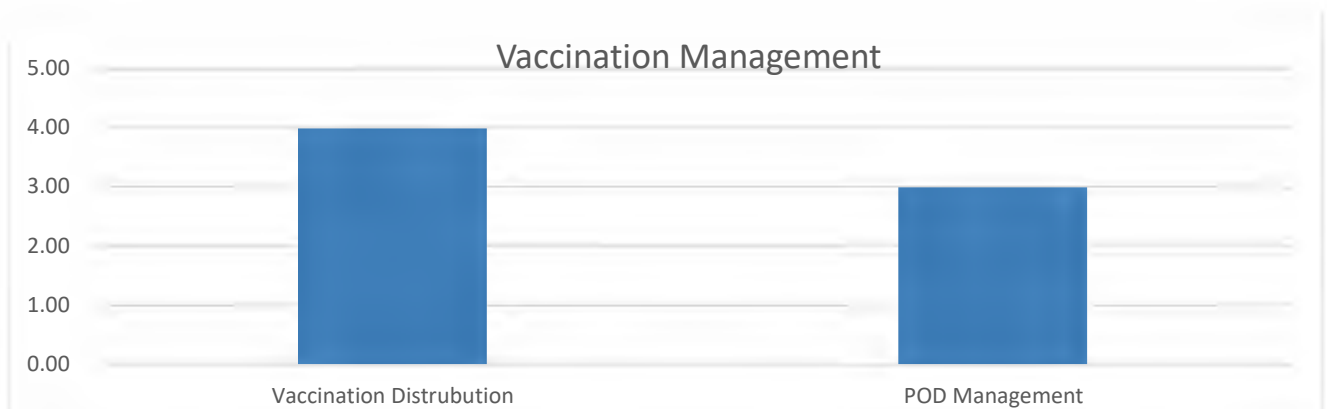
Respondents rated the effectiveness of PCPHA "providing support for alternative service options to a broader patient population (e.g., expanded hours, using telehealth, rescheduling, etc.)" with an average rating of 3.7 as somewhat effective. Respondents rated "providing support to your facility to maintain essential services (essential services are considered those that are critical functions or services- e.g., payroll, infection control, laboratory services, etc.)" with the same rating of 3.7 somewhat effective. "Supporting your facility in maintaining appropriate staffing levels?" rated lower but still somewhat effective at 3.2. An average rating of 3.9 was still somewhat effective but close to very effective was the ability to "providing guidance to healthcare for public messaging?".



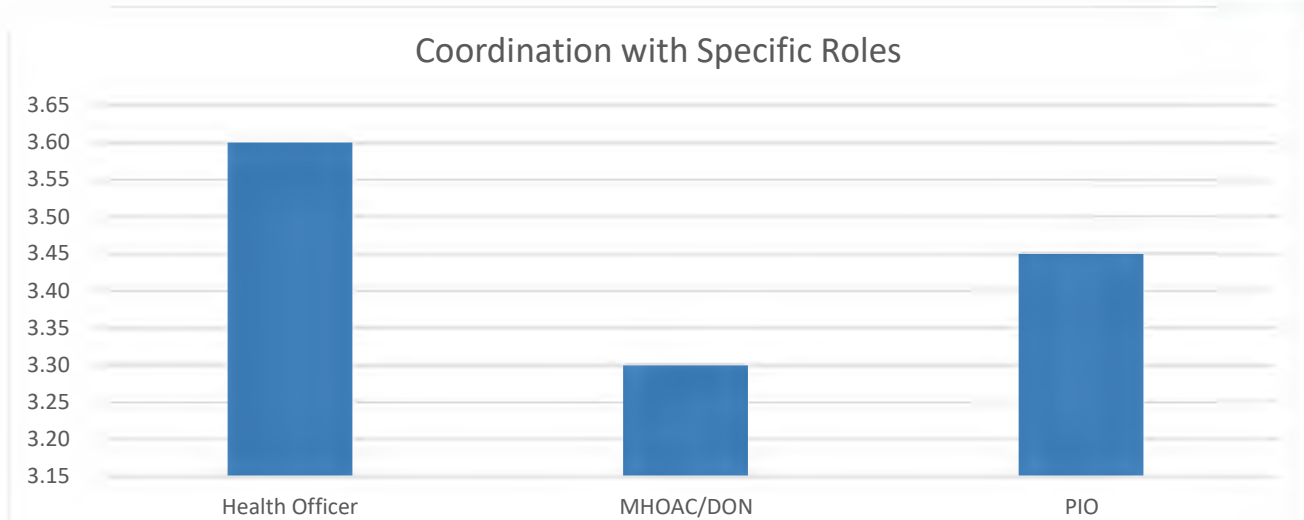
When asked about PCPHA's effectiveness in supporting infection control and isolation/quarantine measures with their facility, respondents rated 3.3 as somewhat effective. The effectiveness of providing guidance on COVID-19 testing was somewhat effective, with an average response of 3.8.



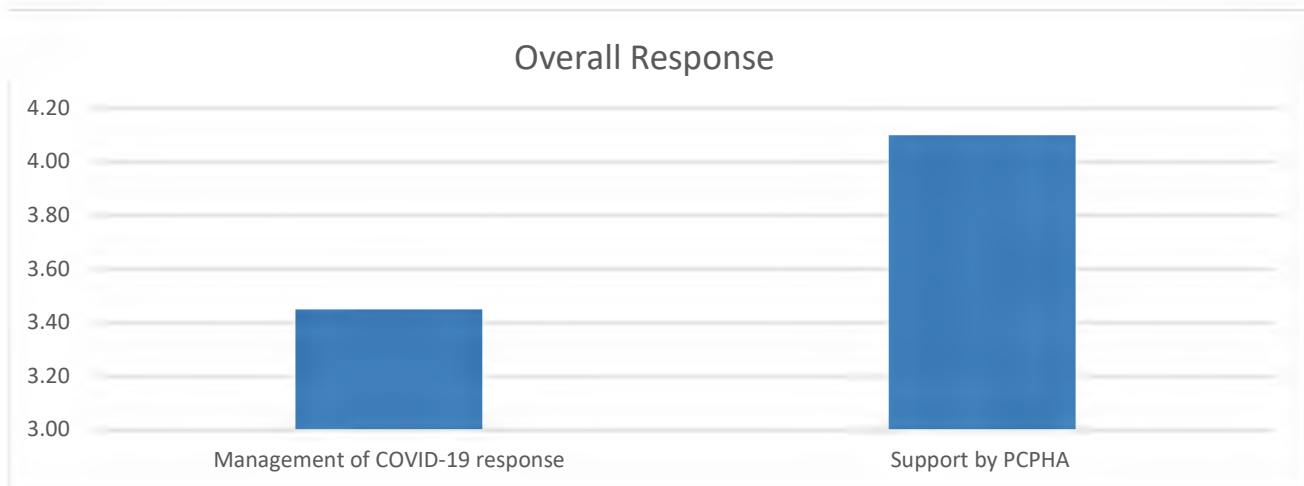
Support for vaccination distribution averaged 4.0, which is very effective. External stakeholders rated the effectiveness of the overall Point of Dispensing (POD) management as somewhat effective at only 3.0.



Respondents rated coordination with specific roles within PCPHA as somewhat effective, including the Health Officer (3.6) MHOAC or Director of Nursing (3.3) and PIO (3.4).



Respondents rated the effectiveness of PCPHA's management of the overall COVID-19 response as a 3.4, somewhat effective. When asked how supported the individual felt by PCPHA during the COVID-19 response, it was somewhat effective on the verge of being very effective at 4.1.



Qualitative Survey Data

Respondents were asked a series of open-ended questions to evaluate PCPHA's response to the COVID-19 pandemic. 16 of the respondents answered the question, "What has PCPHA done well during the COVID-19 response?". 12 out of 16 indicated communication and staff availability as a strength in their response. "Supported the local hospitals and provided supplies," said one respondent, along with four others having similar responses of the ability to support their agency with vaccination and supply needs.

When asked, "What could PCPHA do better in future public health emergencies and disaster response?", 17 respondents answered. Respondents primarily indicated the need for better communication and expediated contact tracing. "Staffing has played a large factor in the ability of public health to support



community vaccine administration and contact tracing," said one respondent. "Community meeting with healthcare professional every month," said another respondent.

Seven respondents answered the question, "What innovative strategies and tactics did your facility/agency observe or help implement during the response?". One respondent said, "Working with Public Health leadership to create FAQs for our staff to refer to." Another respondent said, "Testing strategies, vaccine clinics, and logistics." "Livestream information was helpful for community communication," said a respondent.

"What were some of the biggest challenges your facility/agency faced during the pandemic overall, and how would you tackle them in the future?" was asked in the survey with 15 responses. Responses from two separate respondents included, "We did all the COVID testing and immunization for the county, lack of resources hurt us" and "Staffing and juggling all the assistance PCPHA needed from HCFs while trying to still do our jobs at the hospital." "Covid has been very political, so we have felt like no decision is perfect for everyone," said one respondent. "Timely contact tracing to ensure our parents, students, and staff of their safety" was one of the respondent's challenges.

When posed the questions, "What are your long-term concerns for the ongoing COVID-19 response?", 13 individuals responded. Five of the respondents answered with staffing concerns, including "staff burnout, maintaining and recruiting staff," and "staff shortages." Other concerns included "Vaccine Mandates," "Lack of available beds," and "community compliance with mitigation measures."

The final question on the survey asked respondents, "What plan, policies, or procedures should be maintained or developed by PCPHA for future public health emergencies and disaster response?". Respondents had a wide variety of responses, including, "I think more involvement with major entities in the plans would be mutually beneficial," "A timely and consistent way to track and report," and "Public Health need to hire additional resources." "Community meeting each month" and "continue stakeholder meeting for collective strategy plan development and resource utilization" said, other respondents.



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Appendix D: Acronyms

BOS	Board of Supervisors
CAP	Corrective Action Plan
CDPH	California Department of Public Health
CERC	Crisis Emergency Response Communication
COOP	Continuity of Operation Plan
DAFN	Disability, Access, and Functional Needs
DOC	Department Operations Center
DSW	Disaster Service Workers
EAP	Employee Assistance Program
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System
HCF	Healthcare Facility
ICS	Incident Command Structure
ICU	Intensive Care Unit
IT	Information & Technology
JIC	Joint Commission Center
LVN	Licensed Vocational Nurse
MAR	Mid Action Report
MEOP	Medical Emergency Operations Plan
MHCC	Medical and Health Coordination Center
MHOAC	Medical Health Operation Area Coordinator
MOU	Memorandum of Understanding
MYTEP	Multi-year Training and Exercise Plan
NIMS	National Incident Management System
NPI	Non-pharmaceutical Intervention
OES	Office of Emergency Services
PCIRC	Plumas Crisis Intervention and Resource Center
PCPHA	Plumas County Public Health Agency
PHEP	Public Health Emergency Preparedness
PIO	Public Information Officer
PPE	Personal Protective Equipment
PUI	Persons Under Investigation
RDMHS	Regional Disaster Medical Health Specialist
VPN	Virtual Private Network

Appendix E: Key Contributors

Special thanks to the many individuals who contributed to the production of this report, many of whom lent their time and knowledge despite being engaged in ongoing COVID-19 response efforts.

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