MONTANA'S COVID-19 AFTER ACTION REVIEWS

A Summary of Local and Tribal Health Department's After Action Reviews Conducted August – October 2021

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BACKGROUND

The first Coronavirus infection was identified in the United States in January 2020. From there, the virus eventually spread to every state and territory, with the initial COVID-19 case identified in Montana on March 14, 2020. Pandemic response efforts across Montana differed in the details, but all local and tribal health departments played a role in the response in collaboration with their community partners.

As a requirement of the Public Health Emergency Preparedness (PHEP) program funding, all health departments were required to complete a COVID-19 After Action Review (AAR) by October 2021. An AAR is a powerful tool that can help an organization reflect, assess, learn, and improve its response to emergencies. The process was developed by the U.S. Army to learn on-the-ground during and after events and is based on the premise that the best source of actionable knowledge emerges from the experience of individuals who are directly involved in a response. The results of the AAR are used to revise and strengthen emergency response plans, protocols, and procedures, and ultimately, to strengthen the ability to respond, recover, and build resiliency.

Most Montana health departments began planning for the AAR process in spring/early summer 2021, with the bulk of the reviews completed between August and October 2021. However, as the AAR process began to kick-off across Montana, cases of COVID-19 started to rise again. Given this rise in cases, the AAR became more of a mid-pandemic review since the response was ongoing. As a result of the ongoing nature of response efforts, this report will provide a summary of immediate areas of improvement that were addressed following the AARs and long-term areas of improvement still needing attention.

The Montana Public Health Institute (MTPHI) was contracted by the Montana Department of Public Health and Human Services (DPHHS) to provide support for the AAR process. Recognizing that the amount of support requested would differ by health department, MTPHI provided four support options:

1. The health department completes their own AAR process, and the final report is provided to MTPHI for inclusion in the statewide report.
2. The health department is provided AAR tools and templates created by MTPHI for their own facilitation of the review. The completed AAR report is provided to MTPHI for inclusion in the statewide report.
3. In collaboration with the health department, MTPHI provides logistical planning and assistance for the process, the health department facilitates their own AAR (with MTPHI in attendance) and MTPHI writes the AAR report, and information from the report is included in the statewide report.
4. In collaboration with the health department, MTPHI supports the entire process, including logistical planning and assistance, facilitation of the AAR and writes the AAR report, and information from the report is included in the statewide report.

To assist this process, MTPHI provided the following AAR tools and templates to all local and tribal health departments via email, and made the documents available online:

- Invitation templates
- A list of recommended invitees
- A slide deck to facilitate the AAR process
- An AAR Report template
- Participant feedback form
- Public Health Capabilities Definitions

MTPHI assisted 28 health departments to facilitate their AAR process, while 12 other agencies completed the process on their own. This report considers all 40 of those AAR processes (see Appendix A).

METHODOLOGY

The AARs for public health are designed to consider the response of a jurisdiction related to the Public Health Preparedness Capabilities. The Public Health Preparedness Capabilities consist of 15 standards designed to advance the emergency preparedness and response capacity of public health systems (see full list and definitions of Public Health Preparedness Capabilities in Appendix B). Per PHEP requirements for this project, all health departments were required to address risk communication in their AAR (Capability 4: Emergency Public Information and Warning).

To ensure the ability to theme findings, and meet PHEP requirements, MTPHI asked all health departments receiving facilitation support to review two standard public health capabilities: Emergency Operations Coordination and Public Information and Warning. The health departments were also provided the opportunity to address any additional public health capabilities of their choosing. This report does not include a summary of all 15 capabilities, as some capabilities were not routinely addressed across the AARs.

Due to the increase in COVID-19 cases, there was a mix of both virtual and in-person AARs conducted. The invite list was at the discretion of the health department. Due to this and the size of the jurisdiction, the number of participants for the AARs varied by jurisdiction.

For all health departments, the AAR process involved a directed discussion of three main questions:

1. What were your key accomplishments/strengths during the response?
2. What were areas in which you could have improved?
3. What are recommended corrective actions?

KEY FINDINGS

MTPHI assessed the AAR processes it helped facilitate as well as reports from agencies that completed the process independently to identify trends and themes that emerged among the various communities. Those findings are summarized below.

Emergency Operations Coordination

Definition: Emergency operations coordination is the ability to coordinate with emergency management and to direct and support an incident or event with public health or health care implications by establishing a standardized, scalable system of oversight, organization, and supervision that is consistent with jurisdictional standards and practices and the National Incident Management System (NIMS).

Strengths:

- **Partnerships & relationships were well-established:** Community partners had long-standing relationships that were key to the success of the response and allowed the initial response to begin quickly. These pre-existing relationships included Local Emergency Planning Committees, regulated businesses (e.g., the businesses that are required to receive licensing from a Sanitarian), and schools.
- **Response participation from a variety of organizations:** Healthcare, schools, long-term care, universities, media, and the state were named as some of the key participants and collaborators in the response.
- **Use of Incident Command System:** The Incident Command System was utilized by most jurisdictions and put in place early in the response with representatives from key agencies.
- **Use of Task Forces/Committees for communication to larger stakeholder groups:** Some/many health departments found that it was very difficult to include all relevant organizations in all Incident Command System meetings and therefore created various task forces and/or committees to collaborate and communicate with organizations. These groups helped provide each organization the opportunity to hear from the health department and to share what was happening within their own organizations.

Improvement Areas:

- **Incident Command System training:** There was lack of prior training in Incident Command System specific to a long-term public health event, which created uncertainty in how to apply the Incident Command structure.
- **Length of response:** There was extreme difficulty in maintaining the Incident Command structure for an event that went on for such a long period of time. No health department reported having used ICS structure to respond to an emergency for this extended amount of time. Unlike wildfire or other response structures, health departments did not have access to back-up/relief for staff assigned to the ICS structure and therefore, people remained in their roles for an extended period of time. This was a major challenge that compounded as the response continued.
- **Continuity of non-pandemic services:** The pandemic workload/surge had tremendous ripple effects on "non-pandemic" health department services. Many services were completely shut down for weeks, sometimes months, as staff were reassigned. In addition, COVID-19 prevention measures presented challenges to continuing to offer direct services.
- **Public Information not well placed in the ICS structure:** Public information was a vital function, particularly at the start of the pandemic when vaccines were not yet available. However, in the ICS organizational chart, the Public Information Officer fits in as Command Staff. The huge importance and amount of work associated with public information for this event may have been better accomplished and aligned as a dedicated section with staffing necessary to handle the major demands of this functional area.
- **Response structure was removed when COVID cases dropped and not re-implemented with rise in cases:** Incident Command, and other meetings among key partners, were discontinued following the initial surge in cases. This was especially pronounced during the summer of 2021 when case numbers tended to drop. However, as the virus was beginning to surge again at the time of these reviews the response structures were rarely re-activated.
- **Lost institutional and ICS knowledge:** Many staff with long-term, institutional knowledge left their positions at health departments during the pandemic, which exacerbated staffing issues. Even if the health department was able to re-hire these positions, new staff were often not trained in the Incident Command System.
- **Coordination with Community Agencies Serving Vulnerable Populations:** Emergency coordination and communication with agencies serving vulnerable and marginalized populations was lacking throughout the pandemic and response efforts. Health departments indicated that this lack of coordination and communication may have stemmed from the lack of pre-existing relationships with individuals or organizations serving these populations.

Public Information and Warning

Definition: Emergency public information and warning is the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management personnel.

Strengths:

- **Robust, multi-faceted communication strategies:** Health departments and their collaborative partners utilized a variety of communication methods throughout the response, including social media, emergency alerts, traditional media, reader boards, and posters.
- **Diverse messengers**: Input on public information was sought from partners and coordinated through the Incident Command System. Partners worked through appropriate channels to compile and share information specific to their constituencies while staying on message.
- **Direct communication with businesses:** Businesses with which health departments had an established relationship were able to receive up-to-date, timely, and ongoing information about the pandemic and how upcoming regulations would likely affect them. This was an excellent opportunity to share information with businesses in the county and for them to pass that information to the public.

Improvement Areas:

- **Public Information Officer wore multiple hats:** The role of communication fell primarily to health departments, on top of their additional COVID-19 response duties, making it difficult to sort and synthesize the vast amount of incoming information, create public information messages and mechanisms, and disseminate information to the public. This was especially pronounced in smaller departments with fewer human resources and less communication expertise.
- **Minimal formal public information training:** Those that were tasked with public information roles often lacked formal training in risk communications.
- **Lack of local media in rural communities:** Rural communities identified that the traditional methods of communication (e.g., newspapers, radio, television) are either not available or are not rapid (e.g., weekly newspapers), making community-specific communication difficult.
- **Lack of capacity and expertise to provide local data:** Heath departments received frequent requests for COVID-19 related data. Health departments, particularly smaller health departments, lacked the capacity and expertise to compile local data for public communication.

- **Hard-to-reach populations were missed:** Inconsistent internet access in rural communities presented numerous complications in disseminating information to the public, as it required multiple messages over numerous platforms (including the postal service) to reach most of the population. This was often time-consuming and impacted by operational demands on staff and technological challenges. In addition, populations that utilize less traditional methods of communication did not always receive communication.
- **Curbing the volume of information and misinformation:** Health departments struggled with the volume of misinformation about COVID-19. Specifically, departments of all sizes struggled with finding ways to keep up on the misinformation being distributed, combatting it with information, and determining how to respond to the negative and hostile responses to public information disseminated.
- **Managing consistently changing science and recommendations:** While health departments worked to create and disseminate messaging that was robust, timely, accurate, and consistent, there were times when recommendations and mandates from the state and national level outpaced the ability of local departments to change messaging. These changing messages sometimes eroded public confidence in the public health system and created confusion among the public and partners.
- **Lack of relationships with non-regulated businesses:** While there were strong relationships with health department-regulated businesses, it was difficult to link to non-regulated businesses for which there were no pre-developed communication methods.

Nonpharmaceutical Interventions

Definition: Nonpharmaceutical interventions are actions that people, and communities, can take to help slow the spread of illness or reduce the adverse impact of public health emergencies. This capability focuses on communities, community partners, and stakeholders recommending and implementing nonpharmaceutical interventions in response to the needs of an incident, event, or threat.

Strengths:

- **Early compliance with mandates:** Early in the pandemic compliance with prevention measures was high. This was assisted by the implementation of state mandates.
- **Use of evidence-based & emerging science:** Health departments and collaborative partners utilized scientific evidence and emerging science to guide the public health decision-making process.
- **Large event planning and approval processes:** Multiple health departments established an event planning process wherein groups wanting to hold a large gathering could submit an application, which was then reviewed by the health department, to ensure events were planned in a manner that helped to prevent the spread of COVID-19.
- **Scaling up staffing to support prevention measures:** Health departments worked to scale up staffing for contact tracing, isolation and quarantine, and enforcement. These staff were key to implementing community prevention measures.

Improvement Areas:

- **Enforcement:** Health departments noted the lack of consistency across the state in the response of COVID-19 enforcement measures. Tensions about balancing control measures with personal freedoms, and the appropriate role of government, created division among partners. There were varying expectations about enforcement and compliance, even among legal experts.
- **Support from the community:** The changing and, at times, conflicting nature of information available, guidance provided, and understanding of the scope of the problem created a lack of credibility for public health. This challenge was exacerbated by the varying levels of disease spread in varying communities, with some experiencing weeks of high transmission while other rural areas experiencing no cases for months into the pandemic. These differences created significant challenges for some rural and frontier health departments that were asked to enforce statewide restrictions weeks or months before detecting their first case of COVID-19.
- **Housing for isolation and quarantine**: Housing for isolation and quarantine for COVID-19 positive patients, especially in multigenerational households, tourists, and individuals experiencing homelessness was difficult to solve and there was a lack of hotels wanting to collaborate on this issue, or other short-term housing options.

- **Understanding of public health powers and authorities:** Prior to the pandemic, there were Board of Health members and elected officials (including county commissioners and state legislators) who did not understand the public health responsibilities and authorities assigned in statute to health officers and boards of health, which led to misunderstandings of how to make decisions. In addition, mid-pandemic there were legislative changes that occurred related to the powers and authorities of local Boards of Health, adding to the lack of understanding.
- **Support of elected officials:** As the pandemic progressed, support from local and state elected officials waned. This was driven, in part, by the intensifying political dynamic associated with the presidential election and its aftermath.

Medical Countermeasure Dispensing and Administration

Definition: Medical countermeasure dispensing, and administration is the ability to provide medical countermeasures to targeted population(s) to prevent, mitigate, or treat the adverse health effects of a public health incident. This capability focuses on dispensing and administering medical countermeasures, such as vaccines, antiviral drugs, antibiotics, and antitoxins.

Strengths:

- **Mass Vaccination Clinics:** Health departments were comfortable with the mass vaccination clinics due to past training in conducting this type of vaccine distribution in the past. This ensured the events were able to deploy smoothly and adapt as needed.
- **Collaboration with local partners:** Health departments routinely partnered with other health agencies in their communities to ensure the distribution of vaccines in an efficient manner. Many partners also assisted with the staffing of vaccine events.

Improvement Areas:

- **Coordination with Federal efforts:** Health departments often lacked information on what was occurring with the Federal distribution of vaccines through pharmacies, making it difficult to ensure that all populations were being served.
- **Surge staffing:** Surge staffing of the mass vaccination clinics was difficult to recruit and maintain. This was especially true as the pandemic stretched on and people tired of working in clinics. The issue was made more complex by hospital operations that were under prolonged and sustained stress from fluctuating numbers of covid patients in need of hospitalization.
- **Reaching the vaccine hesitant:** There was minimal information provided, from state or national organizations, to aid in identifying and reaching residents that were vaccine hesitant. This made it difficult to ensure there was appropriate messaging and opportunity for this group to get questions answered, as well as address misinformation about vaccine safety and side effects.

Medical Material Management and Distribution

Definition: Medical materiel management and distribution is the ability to acquire, manage, track, and distribute medical materiel during a public health incident or event and the ability to recover and account for unused medical materiel, such as pharmaceuticals, vaccines, gloves, masks, ventilators, or medical equipment after an incident.

Strengths:

- **Assistance with distribution:** The county-level staff within local Department of Emergency Services (DES) operations were regularly engaged in the distribution of the materiel received (e.g., gloves, masks) allowing the health departments to focus on other tasks.

Improvement Areas:

- **Limited supplies available early on:** Widespread shortages of personal protective equipment (PPE) impacted numerous local operations since few agencies had their own caches of PPE outside of healthcare, and even those were very limited.
- **Confusion on acceptable uses:** Once caches became available, there was confusion regarding the process to order and the prioritization method for disbursement of supplies in the community. Some communities expressed frustration that long-standing state and local distribution plans for supplies and material were not always used during the actual response.

Responder Safety & Health

Definition: Responder safety and health is the ability to protect public health and other emergency responders during pre-deployment, deployment, and post-deployment.

Strengths:

- **First responder priority:** First responders and healthcare workers were a priority for risk communications regarding PPE recommendations and availability, follow-up of exposures, and changing criteria.

Improvement Areas:

- **Lack of PPE early on:** High demand for PPE supplies and lack of resources for adequate delivery stressed the public health response during the first months of the pandemic.
- **PPE training:** Not all first responders were trained in disease control and use of PPE, resulting in inconsistent use.
- **Sharing of information:** There was differing interpretations on the information that should be provided to first responder agencies. Specifically, in some counties first responder agencies wanted addresses for all positive COVID-19 cases and public health professionals were concerned that sharing such information was both a risk to medical confidentiality and impractical (due to the constantly changing list of people in isolation or quarantine).

Public Health Surveillance & Epidemiological Investigation

Definition: Public health surveillance and epidemiological investigation is the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes. It also includes the ability to expand these systems and processes in response to incidents of public health significance.

Strengths:

- **Epidemiologist positions at the local level:** Mid-pandemic funding became available to support epidemiologist positions particularly at large health departments. The addition of staff with specific expertise in data analysis allowed health departments to make data-informed decisions and provide additional information to their community.
- **Incorporation of innovative technologies:** Health departments incorporated innovative technologies into their operations to support testing, case investigations, and contract tracing. The platforms used included SaraAlert, PrepMod, and JotForm.

Improvement Areas:

- **Slow hiring of additional staff:** Significant tasks, like case management, contact tracing, testing, patient care, information and data assessment and management, technical guidance and enforcement, and vaccination all required a substantial amount of staff resources and time. Most health departments indicated they had brought on additional staff to assist with these tasks, but they had difficulty hiring people in a timely manner due to organizational hiring policies that do not allow for a rapid hiring process. In addition, departments were sometimes unable to receive approval to hire staff to work remotely, which limited their ability to bring on additional staff due to office space constraints.
- **Lack of capacity to manage data:** While epidemiologist positions were hired at larger health departments, the small/medium health departments struggled with having adequate capacity and expertise to manage data requests from the public and media.

Medical Surge

Definition: Medical surge is the ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community. It encompasses the ability of the health care system to endure a hazard impact, maintain or rapidly recover operations that were compromised, and support the delivery of medical care and associated public health services, including disease surveillance, epidemiological inquiry, laboratory diagnostic services, and environmental health assessments.

Strengths:

- **Use of volunteers:** Most health departments indicated that they utilized volunteers in some manner during the response, which allowed for capacity growth during the response. Communities with an active Medical Reserve Corps utilized these professionals to provide services such as patient care, testing, and vaccinations.

Improvement Areas:

- **Training capacity:** Despite the presence of many willing and able volunteers, the surge of cases and patients still created significant capacity issues, especially related to training. Training was often time-consuming, and it was difficult for staff to step away from their positions long enough to provide ample training to volunteers.
- **Burnout and fatigue:** Throughout the pandemic, there was a growing need for those involved in the response to seek mental health support and be encouraged to utilize self-care practices. Feelings of isolation and burnout experienced by health department staff due to lack of time off and the contentious nature of the work as months passed led to increased resignations, making it even more difficult to respond during surges.

Public Health Lab Testing

Definition: Public health laboratory testing is the ability to implement and perform methods to detect, characterize, and confirm public health threats.

Strengths:

- **Drive-through and mobile testing:** Health departments and their partners were creative in their ways of ensuring testing was available to the community. Drive-through and mobile testing sites were part of the response in many communities.

Improvement Areas:

- **Maintaining testing operations:** Maintaining testing operations was a challenge due to a variety of factors, including periods of low testing supplies, scaling operations to meet community need and interest, and ensuring non-duplication among partner agencies.

Immediate Recommendations and Actions

Since the bulk of the reviews were completed between August and October 2021 (a period when COVID-19 cases were beginning to rise again), most AARs included immediate areas of improvement. This section summarizes the immediate actions that were noted for improvement to continue the ongoing COVID-19 response, along with a summary of some of the supports put in place by public health support organizations based on the needs identified.

Immediate Actions for Improvement:

- **Reimplement structures to manage the response:** Most health departments had de-activated their ICS or response structure during the spring/summer of 2021 following the initial waves of the pandemic. Therefore, they were trying to manage the uptick in cases without their original structure, which resulted in some difficulties. The re-start of this management structure differed from re-implementation of the ICS structure to activating a pandemic response working group.
- **Restart vaccine clinics and testing sites:** The initial wave of interest in vaccines and testing had declined and so these operations had halted in some places. With the new increase in cases, especially during the fall of 2021, there was identified need to restart vaccine clinics and testing sites.
- **Seek guidance on legislative changes:** The 2021 Montana Legislature passed a number of pieces of legislation that changed local public health authority, sometimes in ways that created confusion and uncertainty for local officials. There was concern about how these changes would impact the response and more understanding was needed to ensure health department actions were in compliance with the new legislation.
- **Improve/continue public communication:** It was identified that public communication still was a critical element of an effective response. However, public health officials still felt that they needed additional assistance both from local partner agencies and public health support organizations (such as MTPHI) to ensure a consistent community message and to continue building internal communication expertise.

Actions Completed:

- **Communications support:** MTPHI partnered with the CDC Foundation and Montana Department of Public Health and Human Services (DPHHS) to have a full-time communications staffer assigned to MTPHI to work directly with lead local public health managers. This work has included creation of content (such as social media and press releases), communications planning, as well as training designed to build the capacity of health departments to do this work in the future.
- **Wellness program:** The Montana Public Health Training Center partnered with DPHHS to create an encompassing wellness program for public health officials. The program offerings include one-on-one therapy sessions, health coaching, and on-site wellness support.

- **Immunization toolkit and technical assistance:** MTPHI, with funding from the CDC Foundation and the National Association of County City Health Officials, created an immunization toolkit to assist health departments in the distribution of COVID-19 vaccinations. The toolkit provided information on ways to improve COVID-19 vaccination outreach and ensure an equitable distribution of vaccines amongst community members. In addition, MTPHI offered direct technical assistance to all health departments to review, discuss, and plan for vaccine distribution to hard-to-reach populations.
- **Legislative toolkit:** To assist in implementation of the 2021 legislative changes, MTPHI produced an interactive facilitation guide to help local officials lead discussions and work towards community consensus necessary to adjust to the new realities of public health authority. In addition to the facilitation guide, MTPHI enlisted legal counsel to help create templates for policy documents that can be used to document and implement changes necessary for compliance with the new laws.

Long-Term Recommendations

This section summarizes the long-term actions that were noted for improvement by health departments.

Long-Term Actions for Improvement:

- **Emergency preparedness training:** Additional training of health department staff was identified as an area for improvement. The areas more frequently mentioned for additional training were Incident Command System, risk communication for leadership, and advanced public information officer training.
- **Emergency preparedness exercises:** Exercises and tabletops that provide immediate real-world application of ICS in a long-term public health emergency.
- **Revamp/rescale ICS and provide staffing relief:** The prolonged response of COVID-19, with the same response team throughout, is not what the traditional ICS was created to support. However, these sorts of prolonged events are likely in the future, and it is critical that public health agencies recognize this need and adapt. This likely means finding ways to temper the intensity and expectations of the initial weeks and months of the response to a more sustainable tempo and/or finding ways to relieve public health staff much in the same way that wildfire teams get relief.
- **Find ways to prevent burnout:** Burnout and fatigue were significant issues for public health staff, particularly those in leadership roles. Additional cross-training in response roles is needed to provide relief for leadership.

- **Tailoring ICS structure and practice to meet communications needs:** The prolonged nature of the pandemic combined with the high importance of public communications as a fundamental part of the response argues for emphasis on certain features of ICS structure and consideration of changes to that structure to meet public health needs. Those actions could include the following:
    - **Create Joint Information Systems:** While communications took center stage in the COVID-19 response, few communities used a Joint Information System as way to manage communications efforts. Additional training and exercising with partners of a Joint Information System is needed. Communities that did implement JICs may be helpful in providing this training.
    - **Hiring of Public Information Officer:** Many health departments identified the issue that their PIO was also in charge of various other tasks in the response. Hiring or designating a dedicated, full-time PIO was an identified need. Health departments also noted that they should explore ways of working with partner organizations, including the local governmental jurisdictions / departments (e.g., City, County, Disaster and Emergency Services, etc.) to fund a PIO position that could assist the health department along with other departments/organizations.
    - **Elevate communications within ICS:** Consider alterations to ICS structure to elevate public communications to be better positioned to achieve the foundational capabilities often necessary to achieve behavior change within a community or population area. One possible way to do this would be to elevate communications to own functional area of the ICS structure beside Operations, Logistics, Planning, and Admin/Finance.
- **New approaches to public health response:** With legislative changes, the authority for public health actions has been altered and public health must take new approaches to halt the surge of infectious diseases. Ideas included creating new approaches to messaging about public health events, such as the development of a color-coded community warning system similar to what is utilized to warn the public about air quality issues.
- **Develop systems and policies for remote work and rapid onboarding:** Prior to another event that requires remote work, health departments identified the need to put in place the appropriate systems, policies, and procedures to allow for remote work and rapid hiring. It was noted that while this could be needed in an emergency, it may also help solve some of the workforce issues public health department experience during non-emergency times.

- **Examine ways to get additional local data support:** The lack of capacity and expertise to analyze local data hindered health department's ability to respond to the event and keep the public informed. While COVID-19 funding has allowed for the hiring of epidemiologists at some of the larger health departments, this remains a gap at most rural/frontier health departments. Determining if there are mechanisms for shared hiring of epidemiologists, more local level training on data analysis, and increased support from state level epidemiologists should be explored.
- **Cultivate new partnerships:** The lack of relationships with minority or marginalized communities contributed to a lacking response. Health departments should invest resources into building partnerships and collaborating with all types of organizations – especially those serving marginalized populations.

CONCLUSION

The AARs summarized here were conducted in the fall of 2021. At that time, the state was just beginning to experience a resurge of newly diagnosed cases of COVID-19. Therefore, this report may not be a full summary of the strengths and improvements identified during the COVID-19 response. However, it is known that the Montana public health system had major changes during the past two years, including the loss of authority to take public health action and the loss of many experienced public health practitioners (both at the leadership and staff level). The improvements listed here are going to be essential to start on the path of recovery for the Montana Public Health system so that every Montanan is afforded the same level of public health programs, services, and protections.

LIMITATIONS

This qualitative analysis has several limitations. Each AAR provides only perspective-based data from those that participated in the AAR that has not been objectively verified. In addition, this report was intended to collect detailed, descriptive information, rather than to assign exact frequencies to the issues explored or to provide information that could be extrapolated to other populations or issues. As with any qualitative analysis, the personal experiences and knowledge of those conducting the AARs likely influenced observations, and the use of multiple methods (and facilitators) for the AAR process likely brought inter-rater variation in observation and recording of information.

APPENDIX A

List of Health Department Reviews

Received MTPHI Facilitation	
Beaverhead	Meagher
Big Horn/Crow	Missoula
Broadwater	Park
Carter	Pondera
Cascade	Powder River
Choteau	Prairie
Central MT Health District	Ravalli
CSKT/Lake	Roosevelt
Custer	Rosebud
Dawson	Sanders
Flathead	Sweet Grass
Hill	Teton
Lewis and Clark	Treasure
Lincoln	Yellowstone

Completed on Own
Blackfeet
Blaine
Carbon
Gallatin
Garfield
Jefferson
Northern Cheyenne
Powell
Rocky Boy
Sheridan
Toole
Wibaux

APPENDIX B

Public Health Capabilities Definitions

CAPABILITY 1: COMMUNITY PREPAREDNESS

Definition: Community preparedness is the ability of communities to prepare for, withstand, and recover from public health incidents in both the short and long term.

CAPABILITY 2: COMMUNITY RECOVERY

Definition: Community recovery is the ability of communities to identify critical assets, facilities, and other services within public health, emergency management, health care, human services, mental/behavioral health, and environmental health sectors that can guide and prioritize recovery operations. Communities should consider collaborating with jurisdictional partners and stakeholders to plan, advocate, facilitate, monitor, and implement the restoration of public health, health care, human services, mental/behavioral health, and environmental health sectors to at least a day-to-day level of functioning comparable to pre-incident levels and to improved levels, where possible.

CAPABILITY 3: EMERGENCY OPERATIONS COORDINATION

Definition: Emergency operations coordination is the ability to coordinate with emergency management and to direct and support an incident or event with public health or health care implications by establishing a standardized, scalable system of oversight, organization, and supervision that is consistent with jurisdictional standards and practices and the National Incident Management System (NIMS).

CAPABILITY 4: PUBLIC INFORMATION & WARNING

Definition: Emergency public information and warning is the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management personnel. This could include the use of “crisis” or “risk” communications plans and tools.

CAPABILITY 5: FATALITY MANAGEMENT

Definition: Fatality management is the ability to coordinate with organizations and agencies to provide fatality management services.

CAPABILITY 6: INFORMATION SHARING

Definition: Information sharing is the ability to conduct multijurisdictional and multidisciplinary exchange of health-related information and situational awareness data among federal, state, local, tribal, and territorial levels of government and the private sector. This capability includes the routine sharing of information as well as issuing of public health alerts to all levels of government and the private sector in preparation for and in response to events or incidents of public health significance.

CAPABILITY 7: MASS CARE

Definition: Mass care is the ability of public health agencies to coordinate with and support partner agencies to address within a congregate location (excluding shelter-in-place locations) the public health, health care, mental/behavioral health, and human services needs of those impacted by an incident.

CAPABILITY 8: MEDICAL COUNTERMEASURE DISPENSING & ADMINISTRATION

Definition: Medical countermeasure dispensing and administration is the ability to provide medical countermeasures to targeted population(s) to prevent, mitigate, or treat the adverse health effects of a public health incident. This capability focuses on dispensing and administering medical countermeasures, such as vaccines, antiviral drugs, antibiotics, and antitoxins.

CAPABILITY 9: MEDICAL MATERIAL MANAGEMENT & DISTRIBUTION

Definition: Medical materiel management and distribution is the ability to acquire, manage, track, and distribute medical materiel during a public health incident or event and the ability to recover and account for unused medical materiel, such as pharmaceuticals, vaccines, gloves, masks, ventilators, or medical equipment after an incident.

CAPABILITY 10: MEDICAL SURGE

Definition: Medical surge is the ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community. It encompasses the ability of the health care system to endure a hazard impact, maintain or rapidly recover operations that were compromised, and support the delivery of medical care and associated public health services, including disease surveillance, epidemiological inquiry, laboratory diagnostic services, and environmental health assessments.

CAPABILITY 11: NONPHARMACEUTICAL INTERVENTIONS (NPI)

Definition: Nonpharmaceutical interventions are actions that people and communities can take to help slow the spread of illness or reduce the adverse impact of public health emergencies. This capability focuses on communities, community partners, and stakeholders recommending and implementing nonpharmaceutical interventions in response to the needs of an incident, event, or threat.

CAPABILITY 12: PUBLIC HEALTH LAB TESTING

Definition: Public health laboratory testing is the ability to implement and perform methods to detect, characterize, and confirm public health threats.

CAPABILITY 13: PUBLIC HEALTH SURVEILLANCE & EPIDEMIOLOGICAL INVESTIGATION

Definition: Public health surveillance and epidemiological investigation is the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes. It also includes the ability to expand these systems and processes in response to incidents of public health significance.

CAPABILITY 14: RESPONDER SAFETY & HEALTH

Definition: Responder safety and health is the ability to protect public health and other emergency responders during pre-deployment, deployment, and post-deployment.

CAPABILITY 15: VOLUNTEER MANAGEMENT

Definition: Volunteer management is the ability to coordinate with emergency management and partner agencies to identify, recruit, register, verify, train, and engage volunteers to support the jurisdictional public health agency's preparedness, response, and recovery activities during pre-deployment, deployment, and post deployment.