Bloomington, Edina, Richfield's Multi-Agency Coordinated, Unified Command

COVID-19 Response

After-Action Report | Executive Summary

Public Health Alliance of Bloomington, Edina, and Richfield

City of Bloomington Public Health Division
1900 W. Old Shakopee Rd.
Bloomington, MN 55431
952-563-8900

City of Edina Public Health Division
6250 Tracy Ave.
Edina, MN 55436
952-826-0370

City of Richfield Public Health Support Services
6700 Portland Ave.
Richfield, MN 55423
612-861-9881

REPORT PREPARED BY:

Amanda Lemke, MPH
Public Health Specialist – Emergency Preparedness
City of Bloomington Public Health Division
1900 W. Old Shakopee Rd.
Bloomington, MN 55431
952-563-4968 | 612-210-1875
alemke@bloomingtonmn.gov

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Introduction

The SARS-CoV2 (*Severe Acute Respiratory Syndrome – coronavirus 2*) virus, responsible for the illness known as *COVID-19*, encircled the world the world in a matter of weeks starting at the end of 2019. This virus was a novel (new) form of coronavirus introduced to humans in a spillover event from wild animals to humans that was first reported in Wuhan, Hubei Province, China. Since the onset of the pandemic, the World Health Organization has reported over 750 million confirmed cases of COVID-19, and close to 7 million deaths from COVID-19 worldwide.

The cities of Bloomington, Edina and Richfield responded to the SARS-CoV2 (COVID-19) pandemic by activating a full incident response team led by the City of Bloomington Public Health Division. The coordinated response lasted 782 days (March 9, 2020 – April 30, 2022), and involved numerous individuals, disciplines, and resources. It was a monumental effort with far-reaching impacts across the three cities and beyond.

This document serves as an analysis of the public health-led response effort to the COVID-19 pandemic from those who were embedded at the core of planning, implementing, and evaluating response operations. There were many successes, innovations, and silver linings from the prolonged response, as well as numerous challenges to overcome and lessons learned. This after-action review will outline major findings and highlight areas for improvement to be incorporated into work plans across Public Health to benefit future emergency response plans and operations.

Bloomington, Edina, and Richfield (BER) History & Demographics

The cities of Bloomington, Edina and Richfield are in the southern portion of Hennepin County in the state of Minnesota. The cities of Edina and Richfield have contracted public health services from the City of Bloomington since 1977. The three-city public health alliance make up three of the four city-based health departments in the state of Minnesota (the other being the City of Minneapolis, also in Hennepin County), which provides the unique ability to serve the citizens of Bloomington, Edina, and Richfield locally based services.

The three cities combined account for a population of nearly 180,000 residents, with an additional influx of daily workers, visitors, or guests of the more than 9,500 hotel rooms. Figure 1 provides an overview of the primary demographics of residents in each city. What the data simplifies is the spectrum of individuals and families with fewer resources and those with access and functional needs. BER includes populations who have

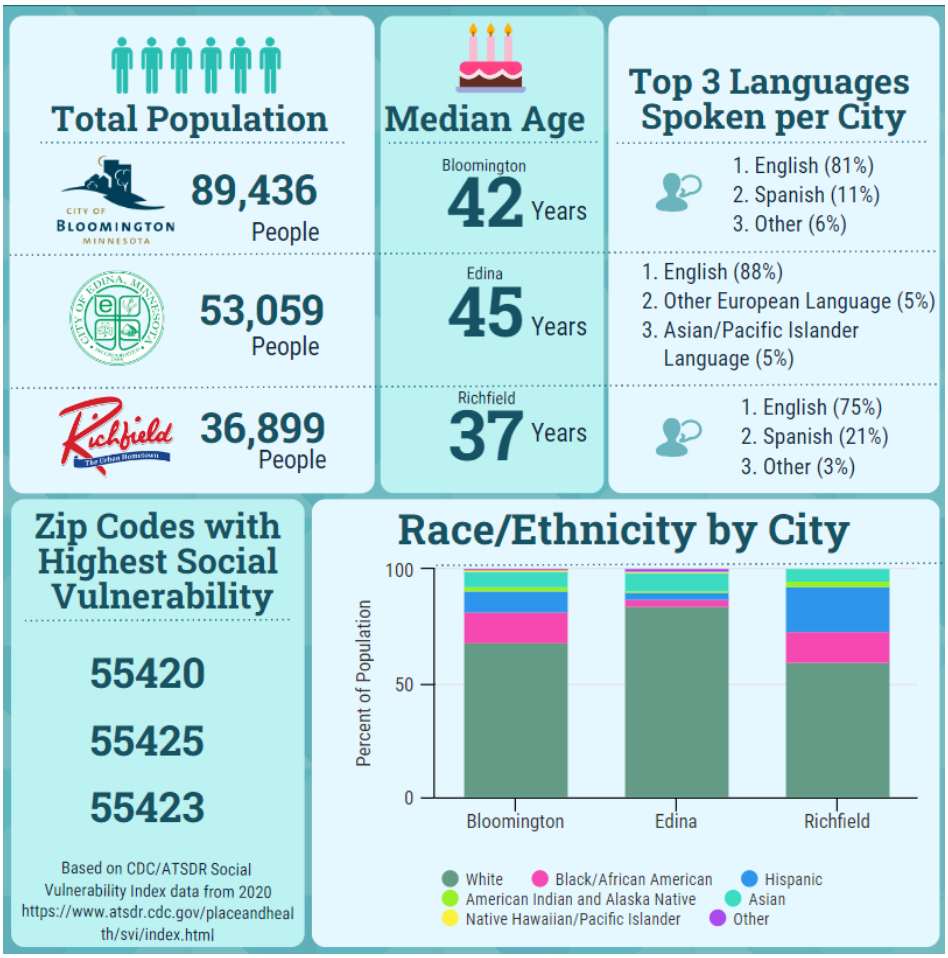


Figure 1. Bloomington, Edina, and Richfield demographic breakdown.

historically, and currently, experience health disparities due to structural racism. It is important to keep in mind the information provided in Figure 1 as the COVID-19 response is examined, but more importantly, it is necessary to comprehend the fact that COVID-19 affected every individual in vastly different ways.

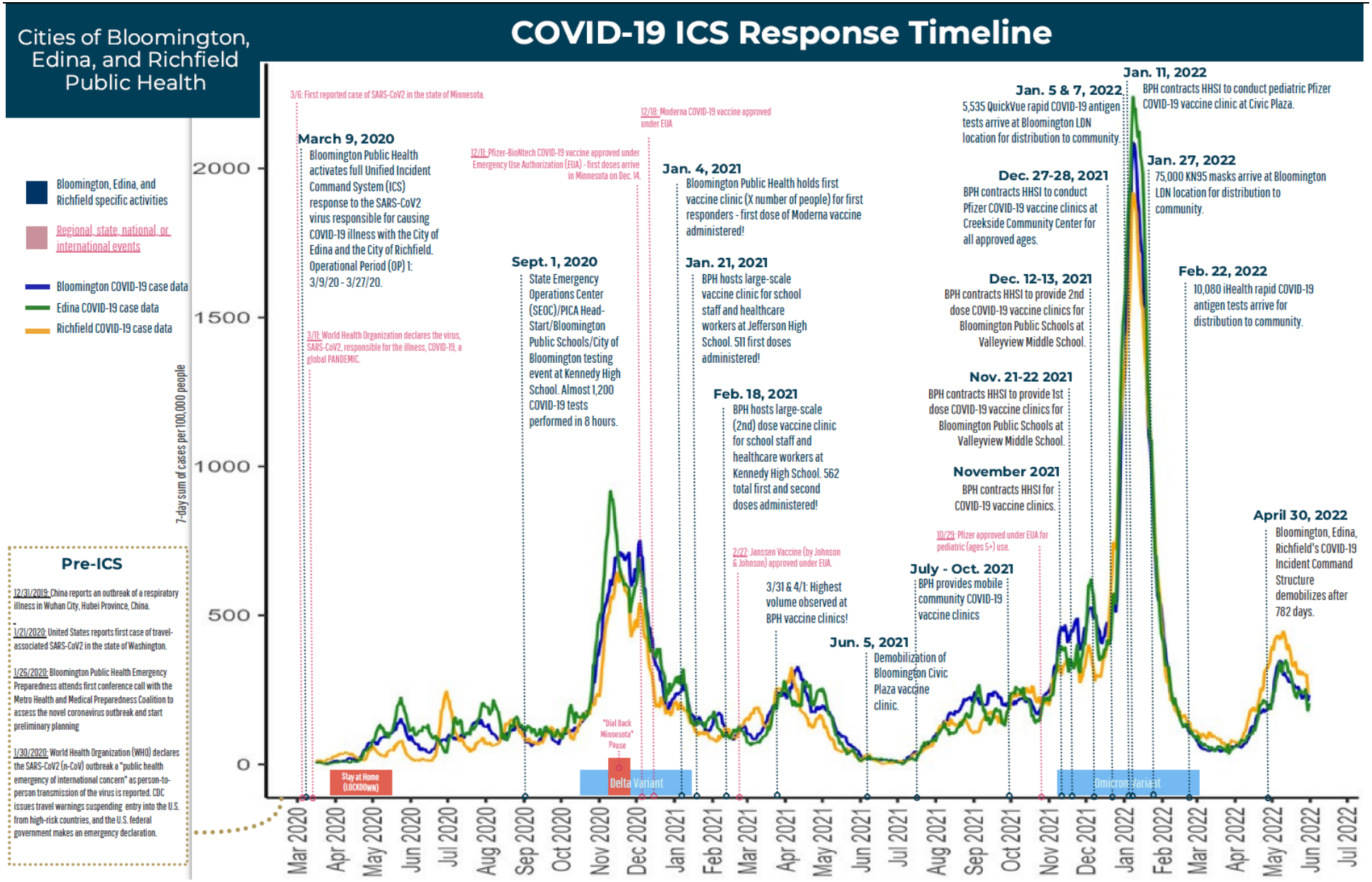
Analysis Criteria

A critical review of response objectives and outcomes was conducted internally using the public health emergency response national standards defined by the Centers for Disease Control and Prevention (CDC) Public Health Emergency Preparedness and Response Capabilities (CDC, 2019) as criteria to analyze against. Table 1 provides a summary of the domains in which capabilities are categorized. The findings from the review have been summarized into common themes.

Domain	CDC Preparedness Capability(s)	Description of Domain
1. Community Resilience	1. Community Preparedness 2. Community Recovery	Community resilience is the ability of a community to use its assets to strengthen public health and health care systems and to improve the community's physical, behavioral, and social health to withstand, adapt to and recover from adversity (ASPR, 2022; CDC, 2019)
2. Incident Management	3. Emergency Operations Coordination	An Incident Command structure is critical to organize the response within a health care facility or agency or across disciplines to assure common structures, terminology, communications, development of objectives, and management of information and resources (CDC, 2019).
3. Information Management	4. Emergency Public Information and Warning 6. Information Sharing	Information management involves the gathering and dissemination of timely information that is pertinent to the unfolding and ongoing emergency (CDC, 2019).
4. Countermeasures and Mitigation	8. Medical Countermeasure Dispensing and Administration 9. Medical Materiel Management and Distribution 11. Nonpharmaceutical Interventions 14. Responder Safety and Health	*Medical countermeasures* (MCM) involve the dispensing of vaccines, antiviral drugs, antibiotics, antitoxins, or medical equipment, while *mitigation* involves the ability to prevent, lessen the impact of a situation, or treat the adverse health effects of a public health incident. Domain 4 encompasses most of the operations BER's COVID-19 response team had to plan, coordinate, and execute. All four capabilities associated with this domain are heavily intertwined in all operations, decisions, and impacts felt to this day.
5. Surge Management	5. Fatality Management 7. Mass Care 10. Medical Surge 15. Volunteer Management	Medical surge is the ability to expand care capabilities and provide medical evaluation and care to the injured or ill during events—natural or man-made—that cause health care facilitates to exceed the limits of their normal medical capacity (CDC, 2019).
6. Biosurveillance	12. Public Health Laboratory Testing 13. Public Health Surveillance and Epidemiological Investigation	Biosurveillance primarily focuses on developing effective surveillance, prevention, and operational capabilities for detecting and countering biological threats (DHS, 2022; CDC, 2019).

Table 1. CDC Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal and Territorial Public Health (CDC, 2019)

Summary of Response Timeline



After-Action Review Findings

The analysis of BER's COVID-19 pandemic response revealed many successes, innovations, challenges, and lessons learned. The following are the common themes and takeaways from the response review:

Staffing

- Having enough people to provide the necessary response operations is critical even if they are not all public health staff.
- Having staff take on multiple roles within the response is not healthy and is not recommended or in line with the National Incident Management System (NIMS)/Incident Command System (ICS) framework.
- Staff need to be able to rotate positions, take breaks from response work to tend to regular work, take time off, and have a healthy work-life balance, especially in prolonged responses.
- Incorporating the City of Bloomington's Risk and Litigation Manager and Chief Racial Equity Officer into the ICS framework as the Safety Officer and Equity Liaison respectively was beneficial for aligning policies and practices for employees and response operations.
- Deploying staff to Incident Command System structure positions based on skill sets, backgrounds and expertise creates efficiency and confidence in staff.
- Getting authorization for EMTs to administer vaccine in addition to paramedics turned into the biggest strength for vaccine clinics. Clinic throughput would have suffered severely had we not been able to use EMTs either from not being authorized or if Fire and Police departments had not been willing to lend us their staff (even while short-staffed). The process for getting authorization of atypical vaccinators was a learning opportunity that will have an impact on future emergency plans and operations.
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Areas for Improvement

	Recommendations for Improvement
There was insufficient number of staff with appropriate subject matter expertise to provide a healthy and balanced delegation of duties and allow for necessary breaks from response duties. The lack of staff was due in part to staff turnover, the need to continue critical services through the continuity of services plan, the duration of the response, and the assumption that all staff would be able to work and not be considered part of the high-risk/vulnerable population.	• Work with Emergency Management to determine how staffing could have been better during the COVID-19 response and develop a training and exercise solution for being able to use non-Public Health staff from around the City to provide sufficient redundancy for critical ICS positions. Evaluate how to onboard staff to a non-textbook ICS response. • Define expectations with City Leadership around staffing a response. • Revise emergency response plans to reflect the potential exclusion of staff from high-risk operations based on personal vulnerabilities and include lessons learned in the COVID-19 response, prolonged response considerations, and pandemic response considerations.

Response Framework

- The multi-agency coordinated unified command approach used between Bloomington, Edina, and Richfield was unconventional in terms of ICS standards but was innovative to meet the needs of each city. Recognizing and respecting the autonomy of each city while creating the space to work together to accomplish mutual goals was key. Staff were quick to implement the Continuity of Services plan and were creative and resourceful in the ways they reached clients and continue to provide necessary support services.
- The textbook version of NIMS/ICS is not made for a public health response, let alone a response of prolonged duration. Aspects of the framework needed to be modified to fit the needs of the COVID-19 response thereby weakening the standardization that NIMS/ICS affords those trained for being able to jump in.
- Within the City of Bloomington, the Public Health division led the COVID-19 response for the public but was subject to the City of Bloomington as an employer's, city-level response policies as well as regular policies. At times the response-within-a-response model hindered the ability for Public Health to fully respond to all needs in the community effectively.
    - Examples of internal policies that affected the COVID-19 response:
        - Contracting processes
        - Purchasing processes
        - Signage and other communication standards
        - Chain of command for signatures and authorities (no real authority held by Public Health Administrator, all is held at the City Manager and City Council levels)
        - Budgeting and compensation for use of staff outside of Public Health

Areas for Improvement

	Recommendations for Improvement
Emergency plans written based on textbook NIMS/ICS processes, procedures, and staffing does not translate well to a public health response as textbook NIMS/ICS is not meant for a prolonged response with far reaching impacts.	Build a unit within Logistics dedicated to the training, onboarding, offboarding and recruitment of staff and volunteers for response work. This unit should be separate from Logistics Chief duties.
	Update emergency plans to reflect operational realities in a public health response about the ICS framework and how it is implemented over a long period of time.

Emergency Plans and Operations

- Existing Public Health emergency plans were written for a shorter duration, with a bioterrorism response focus as a result of federal government priorities overseeing and funding the public health emergency preparedness program since 2001.
- Existing emergency plan concepts, frameworks, and training were valuable in determining necessary resources for developing, planning, and conducting COVID-19 vaccine clinics for the public in compliance with guidance from MDH and the CDC. BER's COVID-19 Response Team was able to provide 19,600 vaccinations through a phased rollout at a grueling pace of several clinics per week (sometimes multiple clinics per day) for four months straight (January 2021 – June 2021) and went on to provide mobile vaccine clinics through February 2022. BER's COVID-19 Response Team are responsible for over 21,000 doses of COVID-19 vaccine being administered to the public.

AREAS FOR IMPROVEMENT

	Recommendations for Improvement
Recovery plans for an event of such duration and magnitude do not exist within Public Health's emergency operation plan, nor are the roles of recovery assistance clear for a situation like a pandemic.	Public Health Emergency Preparedness will consult with Emergency Management to develop or adopt existing plans and procedures describing how government resources are allocated for recovery efforts under prolonged, far-reaching, and high-impact situations.
Existing mass dispensing/administration plans were incomplete or did not account for potential scenarios, processes, or dependencies.	Update and/or write emergency plans… • …with mass dispensing/administration site plans that could be used for prolonged operations • …with appropriate accommodation considerations for access and functional needs of clinic patrons such as accommodations for pets/service animals/emotional support animals, reasonable accommodations for those with a social/emotional/medical need, or religious/cultural need at clinics. • …to include a catalogue of facilities in the BER area that could accommodate mass dispensing/mass administration operations of various types including needs for observation areas and the implications of NPI's, specifically the need for social distancing • …Incorporating the need for emergency protocols, supplies, and qualified staff to respond to emergency situations • …With processes for implementing waitlists or standby lists for clinics • …In collaboration with Disease Prevention & Control staff on inventory processes for vaccines – ordering, receipt, storage, resupply, and sharing - that could be outlined in plans and/or provided as considerations for just-in-time planning based on the situation. • …that account for Shipping and receiving processes during continuity of operations plan activation. Reflect in Logistics documentation as considerations for types of staff needing to fulfil the tasks. • …that factor supply needs into plans based on incident type (e.g., Infectious disease response needing a vaccine clinic will need additional supplies for observation room, extra PPE for staff and patrons, social distancing markers for the floor, and electronic devices that can be mobile and access the system being used for obtaining a vaccination.) • …that incorporate the limited cold chain management abilities into considerations for future response decision making. Explore the ability to share storage for vaccines or other items that BER does not possess and determine and legal requirements around sharing said storage. Explore the logistics

	of transportation of items to and from the storage location during the planning phase.

COMMUNICATIONS

- It is imperative to have a team of communication experts that can help implement a framework/architecture layout for inlets and outlets of communication and information sharing; authorities for who can approve messages for internal and external use; plans for how the public will be able to contact the city, the functionalities that are necessary, surge abilities, and staffing needs; and ensuring all Communications staff in all three cities are connected to the response for consistent messaging and situational awareness.
- Risk communication strategies are important to know and be able to properly execute to maintain integrity and influence compliance with infection prevention guidance.
- Preexisting emergency communication plans provided a successful framework and system to approach the numerous communications needs during the COVID-19 pandemic response including new ways to disseminate information both internally and externally with a focus on accessibility for all.
- The COVID-19 pandemic tested the capacity, skills, and ability to communicate with internal and external audiences at a level never experienced before. The partnership between Bloomington, Edina and Richfield proved to be invaluable with message consistency, data sharing, and methods to reach the public in the best way. Compared to fellow jurisdictions in the Metro region, BER had the advantage of having city-level communication departments, which meant information could be tailored specifically to the populations within the three cities and local efforts such as Vaccine Advocates could have drastic impacts on decisions the public made. Data sharing agreements and the connections between the cities and community partners set up successful channels for situational awareness to frequently flow back and forth, giving an accurate picture of the needs in the community to develop a common operating picture for response work.

AREAS FOR IMPROVEMENT

	Recommendations for Improvement
Involvement of Edina and Richfield Communication staff into the creation of early response content and messaging.	Update communication plans and Emergency Operations Coordination plans to direct the activation of Edina and Richfield Communications Staff for a multi-agency coordinated, unified command PIO/Communications Unit for all future responses.
Communications Plans	Review all Communications plans and update with lessons learned from COVID-19 response work. Special care should be taken to make sure plans involving the items below are incorporated into updated response plans: • approval routes for content dissemination; • Communications Unit operations; • accessible, appropriate, and culturally informed methods for reaching individuals outside of digital platforms; and • processes or protocols to evaluate how many messages are going out, which platforms, and their frequency
Call Center/hotline capability and activation.	Use lessons learned from COVID-19 hotline/call center/recorded messages to work with IT Department on sustainable plans that can be implemented quickly in an emergency. Document any pertinent instructions for requesting the setup of the hotline/call

	center/recorded message and steps staff would need to take to get access and/or operate the system. Review annually.

Data and Analysis

- Epidemiological data was the most crucial asset to informing response work and was one of the most challenging pieces of information to get a hold of for numerous reasons both within, and outside of BPH's control.
- Data-driven response objectives are necessary for mitigating or preventing further spread of the disease.
- The three cities worked well together to share data internally and create data-driven content for public messaging. Worked across the three cities to ensure data was represented accurately and compliant with data privacy laws. COVID-19 dashboards were essential for the visualization and understanding of what was happening in the community regarding cases rates, hospitalizations, and deaths.
- Displaying epidemiological data to help inform the public of what is happening locally is a highly important communication tactic and processes to build and maintain data dashboards quickly and efficiently, is essential in a response.

Areas for Improvement

	Recommendations for Improvement
Data Analytics emergency operations	BPH will create a section on data collection, management, and dissemination in emergency operation plans. The section will provide guidance on convening a data sharing meeting with partners that will provide space for open conversations about creating a standard metric for consistency and data integrity purposes before everyone starts creating their own metrics. Also included will be processes and standards for data visualization in dashboards.

Outreach, Engagement, and Relationships

- In many instances, the COVID-19 pandemic response showed us it's not about what you know, but who you know. Relationships and connections helped with the capacity to provide outreach and engagement, operationalize plans, and stay informed.
- Including and communicating early, honestly, and frequently with key stakeholders generated support and autonomy for BPH to lead response initiatives as deemed necessary. Additionally, the inclusion and collaboration between Bloomington, Edina, and Richfield generated support for each other in terms of messaging, policy adoption, staffing needs and resources.
- *Community Preparedness* is ongoing, ambiguous, and nearly impossible to measure. Although much had been accomplished pre-pandemic in terms of understanding potential hazards to the community and working to prepare the community for a disaster or public health incident, nothing could have prepared us all for the COVID-19 pandemic and its far-reaching impacts on the public health workforce and the community. *Preparedness* is unique to everyone in the community, and the resources, time, and capacity to prepare all levels of the community were, and still are, limited. The pace of updates and the complexity of decisions meant BER had to focus *preparedness* efforts on informing the community and supporting critical community resource partners to mitigate the impacts of the pandemic on disparate populations.

- More needs to be done to develop internal outreach and engagement strategies that build and maintain relationships with key partners internally and externally, and community leaders throughout the three cities.
- A realistic examination and evaluation of the division's connectedness is needed to inform further on areas we are short on.
- Local, regional, and state partnerships and collaborations were essential for coordination of response initiatives, processes, operations, and more.

Areas for Improvement

	Recommendations for Improvement
Community Preparedness	Public Health Emergency Preparedness program will dedicate a larger percentage of time and resources in non-emergency times toward building community partnerships, providing preparedness educational opportunities in the community, and informing the public about resources in the community. Resource topics may include healthy living, preventing disparities, and skills to help mitigate the impact of a disaster. Emergency Preparedness will also work internally across the division to support and build on services provided in the community to improve resilience.
Outreach and engagement methods and philosophies in an emergency	Examine emergency operation plans for appropriate location to outline the concept of operations for outreach and engagement groups/units in the ICS structure. Determine key players for staffing outreach and engagement groups/units and work with them on developing the concept of operation during the planning phase.
	Language needs will always be an element to plan for. Ensure emergency operation plans reference up to date communication, language assistance, and other access and functional needs policies
	Plan for staffing resources and equipment needs to help with registering for a vaccine appointment or similar situation. Incorporate as a core duty of a unit such as Vaccine Advocates or Community Outreach and Engagement Unit.

Mental Health, Well-being, and Recovery

- Many staff suffer(ed) from negative mental health and well-being impacts because of their participation in response work. Moral injury, ambiguous loss, and secondary/vicarious trauma are some afflictions staff described. The desire to always do the right thing based on guidance, data, morals, could not contend with reality and human behavior.
- Internal struggles along with the stress and anxiety of building response operations from the ground up at times led to negative comparisons to others feeding resentment towards coworkers, feelings of helplessness, incompetency, anger, frustration, fear, exhaustion, etc.
- Over the course of 782 days, these persistent feelings fundamentally changed staff and have had lasting impacts. To mitigate the impacts of response work, more effort needs to be put into responder health and safety actions before and during a response instead of just after a response. Using existing resources or

allocating funds to bring in resources for staff as part of response operations will be more beneficial than expecting staff to seek resources on their own.

- *Community Recovery* is not one size fits all. Recovery is going to be different for each person, business, sector, or community. The pandemic provided a whole host of challenges, and there were numerous events that challenged us as a society mentally, emotionally, physically, and socially. These external factors had an impact on the COVID-19 response, as did the regular factors of time, funds, staff capacity, expertise, and skills.
- Community recovery requires the assistance of both private and public sectors.
- In a far-reaching disaster like a pandemic, what are the ethical guidelines that determine where government resources are allocated? What is Public Health able to provide when the recovery needs are so vast (e.g., mental/behavioral health needs, stable housing, income, etc.)?

Areas for Improvement

	Recommendations for Improvement
Addressing moral and ethical dilemmas during an emergency response.	Response plans need to explore an ethical framework to use for response operations. Training staff on ethics and the framework inserted into plans will need to take place and be required for all staff eligible to hold a leadership position within the ICS structure.
Infrastructure for mental health and well-being support during a response.	Use this experience to inform the work that an internal responder health and well-being unit could provide in future response work. Consider existing reflective consultation consultant contract, or other in-house resources that could be expanded to include response staff. Explore the feasibility of this service and develop plans for mobilizing internal responder health and well-being resources under the Safety Officer's role.
The demobilization of the COVID-19 response left many staff in a state of confusion and emotional instability. There was no period for recognition and recovery for staff, just one day in the response, the next business as usual. Work in response felt minimally recognized from the City despite the amount of effort put in.	Improve demobilization plan to include guidance from responder health and well-being unit on how to incrementally demobilize to mitigate the impact on responder's mental well-being especially after a prolonged response. Consider support services for recovery, time off compensation for response work, and other methods to use to help staff during the transition.

Dependencies and Challenges

- Responses are local but dependent. Even the best laid plans have dependencies that are outside your control.
- Specificity of plans has a minor role compared to adaptable frameworks with checklists and considerations that can allow for the dependencies (i.e., federal and state guidance, epidemiological data, supply distribution, etc.) that may or may not be situation specific.
- Using skill sets of staff, connections, and resources available to build upon frameworks is how operations come together.

Health Equity

- Using a racial and health equity lens was at the forefront in developing and executing response operations.

- In almost every briefing provided to City Councils in all three cities, the disproportionate burden of COVID-19 was discussed, and the actions being taken to address that.
- BER's COVID-19 Response Team relayed stories from the public about the impact of not having earned sick and safe leave, which helped to create the initiative to have an ordinance creating that in Bloomington.
- Intentional conversations were had with community partners and leaders to help identify ways to overcome barriers the community was experiencing.
- Concentrated communication efforts on providing accurate, appropriate, and translated material on COVID-19 , tests, and vaccines. Used various communication methods to reach people in ways that work for them.
- Community Outreach and Engagement unit helped connect response leadership with community members, partners, and leaders to work together on response efforts and ensure direct lines of communication.

In summary, BER's COVID-19 response made efforts to respond with a racial and health equity lens and was mostly successful in doing so. There is room for improvement as we implement recommendations outlined in this AAR that can better prepare, serve, and mitigate the impacts of future incidents in our marginalized communities. Continuing to use data to inform decisions and emphasizing community outreach and engagement to better know the community and form trusting relationships will only improve BPH's ability to respond and serve the communities in the event of an emergency.

Access and Functional Needs

BER's COVID-19 response focused on being the "safety net provider" for the community – that is, the group that would provide services for those who fell through the cracks of the health care system and/or other socioeconomic systems . In all operations, the primary audience for service were those with access and functional needs which is a generalized term for individuals with a *need* rather than a *condition, diagnosis, or label*, which may include, but is not limited to:

- People with disabilities
- People who live in institutionalized settings
- Elderly
- Children
- People from diverse cultures
- People with limited English proficiency
- Non-English speaking
- Transportation disadvantaged

BER's COVID-19 response team strove to incorporate the needs of the individuals included in the list above by using best practices and guidance for mass dispensing sites, utilized City policies and contracted services such as Language Line, ensured all communication was translated and disseminated in multiple ways, enlisted the help of community leaders and advocates to help with messaging, connected people to resources, worked to bring in resources when the response team could not provide a services (i.e., contracting with a traveling medical contractor to provide pediatric vaccines; liaising with long-term care facilities for testing, etc.); pushed back on requests from the State to record data on individuals; implemented protocols for no-barrier registrations for undocumented individuals; and more. In the context of the COVID-19 response, BER fully demonstrated the ability to account for access and functional needs in the planning phases and the response operations. There is always room for improvement which can be accomplished in building relationships, staying informed, and looking to ethical guidance for best practices.

CONCLUSION

The COVID-19 pandemic and subsequent response was the largest mobilization of public health operations around the world in over 100 years. Despite the external forces working against and in defiance of public health efforts, billions of people around the world have been fully vaccinated meaning an incalculable number of lives potentially saved and impacts of COVID-19 mitigated. There are many aspects of the response that should've, could've, would've, been better had this not been the perfect storm of political, social, economic, personal, and mental factors colliding.

Locally, BER's COVID-19 response can largely be called a success. Unlike other anecdotal experiences in other local public health jurisdictions, the cities of Bloomington, Edina, and Richfield came together as one and supported public health efforts in ways that had not been seen before. COVID-19 response staff banded together to take every challenge head-on and made what felt like the impossible, possible. In all the good being done, there was the bad that happened too and staff met that challenge as well by providing mutual support and empathy for each other that continues beyond the response.