



STATE OF MICHIGAN

COVID-19 AFTER-ACTION REPORT

Created in Consultation with Tidal Basin Group

JULY 2022

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1 ADMINISTRATIVE STATEMENT

1.1 Administrative Handling Instructions

This report is intended for State of Michigan executive leadership, department directors, and those who the aforementioned parties deem critical partners. Please share only with the express permission of Brianna Briggs of the Michigan State Police (MSP)/Emergency Management and Homeland Security Division (EMHSD).

1.2 Points of Contact

Brianna Briggs
Operations Management Section Manager
Emergency Management and Homeland Security Division
Michigan State Police
PO Box 30634
Lansing, MI 48909
517-230-2949
BriggsB3@michigan.gov

The United States has not experienced a public health crisis equivalent to the scale of the Coronavirus Disease 2019 (COVID-19) pandemic since the 1918 influenza pandemic. In January 2020, the United States had its first confirmed case of COVID-19, the disease caused by a novel human coronavirus, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2).

On February 28, 2020, Michigan's State Emergency Operations Center was activated in response to the COVID-19 outbreak. Since that time, the State of

Michigan has expended significant effort and resources to respond to this ongoing crisis. Although still active in operations at the time of this report, the Michigan State Police (MSP) / Emergency Management and Homeland Security Division (EMHSD) and the Michigan Department of Health and Human Services (MDHHS) began the development of this After-Action Report / Improvement Plan (AAR/IP) to capture response outcomes, strengths, areas for improvement, and recommendations from the period of January 1, 2020, to July 31, 2021.

Report Methodology

Between October 2021 and July 2022, the After-Action Report (AAR) planning team engaged state employees and external partners across Michigan in a comprehensive information gathering process that included stakeholder meetings, document analysis, surveys, and interviews to inform the report. The AAR planning team consisted of representatives from the MSP/EMHSD, MDHHS, and the Attorney General's Office. During its engagement, the AAR planning team convened more than 20 times to strategize and provide updates on the report's development. The team also established a project-specific website where a total of 47 source documents were uploaded that were pertinent to an agency's/department's planning and/or response to the pandemic, such as previous agency-specific AARs, public health and emergency response plans, and human resources policies.

An in-depth response survey was disseminated to agency leaders, who cascaded the survey to their teams, resulting in 137 survey responses representing 15 state agencies/departments. The team conducted 79 interviews with 108 interviewees who represented 24 state agencies/departments and the Red Cross. Sixty-nine of the interviewees also provided responses to a Pre-Interview Questionnaire, which was leveraged as another information collection tool. Using discretion and sensitivity throughout the process, the planning team acknowledged different perspectives among interview and survey respondents depending on their role and involvement in the response, resulting in a more targeted approach to accurately inform and prepare the AAR. The team also went to great lengths to critically analyze the diverse observations and their potential impacts on state functions.

2 EXECUTIVE SUMMARY

The views and statements expressed within this report were validated by multiple sources independent of one another. The observations and recommendations within this AAR/IP are intended to be used as a guide for State of Michigan agencies and departments to consider as they reflect on their experiences in responding to the COVID-19 crisis. The AAR/IP will help to inform future preparedness and planning, policy, and procedure development throughout the State.

Findings

This report organizes all findings into specific themes generated from data collected in response to the pandemic and identifies strengths and areas of improvement identified by and captured from state agency and departmental employees. Recommendations for improvements are listed and summarized in the IP.

The following 11 focus areas represent the categories of information that were targeted for collection and analysis to inform the AAR/IP development process. An individual AAR was developed for each focus area below.



Business Continuity
and COOP



Communications



Hospitals and
Healthcare



Incident
Management



Logistics



Planning and
Operations



Financial
Management



Volunteer
Coordination



Public Health



Public-Private
Partnerships



State-Local
Coordination

2 EXECUTIVE SUMMARY

Strengths

Overall, the event was well coordinated across the State of Michigan. A few key strengths and their respective focus areas are noted below:

- Existing emergency plans, teams, and experience positioned Michigan to begin the state's forward-leaning efforts in December 2019, prior to the first confirmed COVID-19 case within the state (Planning and Operations).
- State employees' transition to a remote work environment was effective and did not significantly disrupt or delay service delivery (Business Continuity and COOP).
- The state's communication externally to the public, internally to employees, and horizontally across state agencies, was effective (Communications).
- Michigan distributed federal relief funds to hospitals and health care providers, which prevented a catastrophic collapse of the healthcare system during the pandemic (Financial Management) and leveraged strong pre-existing relationships to expedite and collaborate in response efforts (Hospitals and Healthcare, Public-Private Partnerships).
- At the state level, Michigan's COVID-19 incident management structure remained flexible and adaptive throughout the pandemic (Incident Management), which enabled the State Emergency Operations Center to centralize the functions necessary to source supplies, vet and fulfill resource requests, and manage donations (Logistics).
- The Executive Office of the Governor involved key public health officials in response efforts, enabling the timely implementation of public health initiatives in COVID-19 surveillance and outbreak management, expansion of testing, and genomic sequencing to identify and track emerging variants (Public Health).
- Michigan's COVID-19 response also benefited from a large network of well-trained local emergency management personnel (State-Local Coordination).

Areas for Improvement

The pandemic tested existing response capabilities and revealed areas for improvement to carry forward to future responses. Some notable areas for improvement and their corresponding focus areas are below:

- Operationally, COVID-19 exceeded all anticipated scenarios in scope, duration, and breadth of impact in response plans. (Planning and Operations).
- The state's limited remote work policies and novelty in managing remote staff highlighted the need to develop or revise policies to adapt to the unprecedented needs of the pandemic response (Business Continuity and COOP).
- Long-standing underinvestment in state government technology systems initially inhibited efficient data analysis to inform policy and response decisions (Public Health); a challenge that also emerged during a review of the state's volunteer registry systems (Volunteer Coordination).
- A state spending freeze early in the pandemic, coupled with challenges in allocating and managing multiple emergency federal funding sources for state agency/department use, complicated response efforts (Financial Management).

2 EXECUTIVE SUMMARY

- Within state government, siloed decision-making delayed the approval of messaging to partners (Communications) and resulted in duplication of efforts (Volunteer Coordination).
- The state’s existing Incident Management structures and systems were exceeded by the complexity of the pandemic and exacerbated by parallel responses to simultaneous disasters. State government did not effectively employ unified command. Research findings indicated a lack of response staff in state government that are trained in the Incident Command System (ICS) and have institutional knowledge/experience in emergency response (Incident Management).
- Vertical coordination between state and local officials can be improved, as the timing of state policy and its impact on local implementation emerged as a source of tension (State-Local Coordination).

Recommendations

The recommendations presented encompass planning, organizational processes, resources, training, and exercise investments necessary to enhance Michigan’s disaster responses in the future. Suggested planning investments include updates to COOP plans and the creation of policies and protocols to reflect new workplace dynamics. Organizational suggestions are centered on improving coordination across state agencies and departments to reduce response gaps and overlaps in future response operations. It is recommended that the State of Michigan also consider investments in personnel resources, and equipment (and software) to increase capability and agility for in-person, hybrid, and virtual operating environments. With the momentum gained from this AAR/IP, the State of Michigan should leverage opportunities to regularly bring together multi-disciplinary groups to participate in training and exercises spanning multiple departments and agencies, affording opportunities to increase knowledge, skills, and abilities while building relationships.

Looking Ahead

Throughout the pandemic, the State of Michigan demonstrated leadership, forethought, and consistency to support the nearly 10 million residents living in the State. Although the pandemic is ongoing, the state intends to leverage this document as an interim learning and improvement tool to enhance awareness of and aggregate the experience gained during Michigan’s response to the COVID-19 pandemic. Lessons learned from this event will better prepare state-level agencies and departments for the continued response to COVID-19, future large-scale events, and statewide coordination efforts.

Next steps to close identified gaps, and improve future responses are detailed in the focus area AARs and the IP. The IP converts lessons learned from the COVID-19 response into clear actions that result in improved capabilities to create a more resilient and response-ready Michigan. This IP describes the corrective actions that a designated agency or department will take to address each recommendation presented in the AAR, who will be responsible for taking the action, and the timeline for completion.

84%

of participating departments/agencies have, or plan to complete, an internal AAR of their COVID-19 response.

79%

of participating departments/agencies have identified a need for future response planning.

3 INTRODUCTION

3.1 Overview

In October 2021, the State of Michigan, the Michigan State Police (MSP) / Emergency Management and Homeland Security Division (EMHSD), and the Michigan Department of Health and Human Services (MDHHS) launched an initiative to develop a comprehensive statewide COVID-19 After-Action Report / Improvement Plan (AAR/IP).

The scope of this AAR/IP is from January 1, 2020, to July 31, 2021, encompassing the statewide response to COVID-19. This “whole of government” AAR/IP is based on quantitative¹ and qualitative² data that has been gathered and analyzed. The purpose of the AAR/IP is to identify what planning and response efforts were successful and effective, what gaps existed that were addressed during the evaluation period or are yet to be addressed, and what actions are recommended to improve readiness, as well as address remaining gaps. This report’s findings are organized into specific themes that emerged from the collected data. Developing this AAR involved the use of multiple data collection methods, such as confidential survey tools, key stakeholder interviews, and document analysis. The report identifies strengths, challenges, and areas for improvement offered by Michigan state government employees, as well as external stakeholders.

This effort was intended to determine:

- Essential elements of information (EEI) to be included in the findings of this report.
- Successes and challenges encountered at the state level.
- Recommendations for improving the state’s readiness and resiliency for responding to a pandemic.
- Corrective actions to be incorporated into an Improvement Plan and implemented by state-level organizations.

3.2 Purpose

The purpose of this AAR/IP is to improve Michigan’s response to future pandemics and other disasters. The findings within the document were identified through a thorough analysis of data collected predominately from personnel employed by state-level agencies and departments throughout Michigan and are not prescriptive for any agency/department within the State of Michigan. The report will serve as an unbiased informational product to influence future pandemic planning and preparedness initiatives across the State of Michigan.



79% of agencies and departments communicated or coordinated with local actors during the response.



74% of agencies and departments participated in joint state-local taskforces.

“COVID has been one massive, full-scale continuity exercise. And on that ... I think we’ve done really well; better than [we] could have hoped for.”

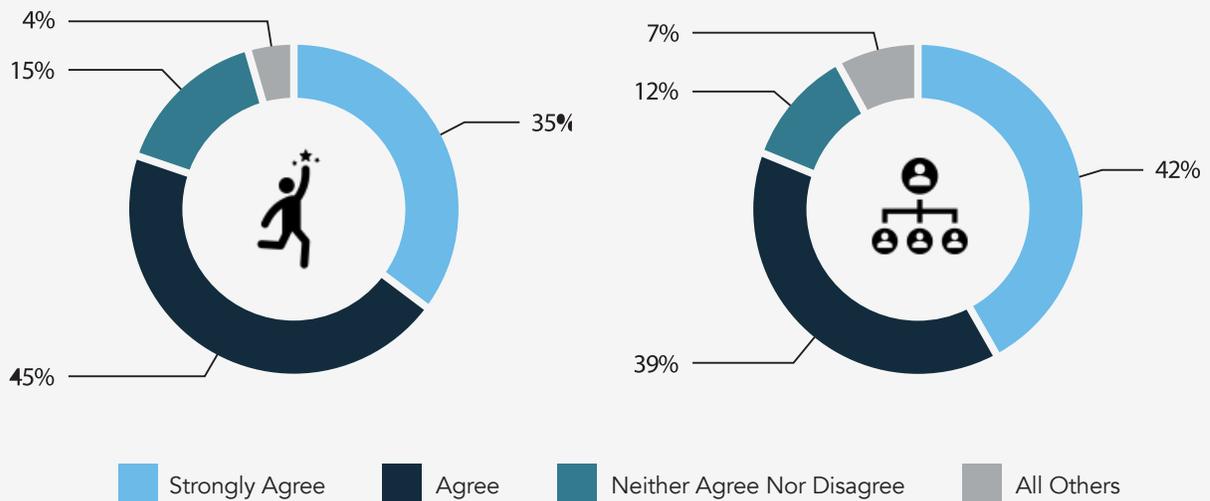
¹Relating to, measuring, or measured by the quantity of something rather than its quality.

²Relating to, measuring, or measured by the quality of something rather than its quantity.

3 INTRODUCTION

This report focuses on COVID-19 response and coordination activities that occurred within and between key state-level agencies/departments and offices in the State of Michigan during the period of January 1, 2020, to July 31, 2021. Although some response activities are likely to have been affected or influenced by local, federal, and even global initiatives, this report is intended to capture observations, strengths, and opportunities for improvement regarding state-level pandemic response. The COVID-19 crisis posed unique challenges across Michigan, impacting agencies, departments, and personnel very differently. As such, these findings are not intended to be prescriptive for any specific agency. Please refer to Section 6 of this report for a full listing of state agencies and departments and external organizations that contributed to the development of this report.

Impressions of the overall response and structure were widely positive.



Note: The left graphic uses data from the General Survey while the right graphic uses data from the Pre-Interview Questionnaire. Pre-Interview Questionnaire respondents had a higher concentration of upper leadership.



58% of departments/agencies used private partnerships during their COVID-19 response. Partners included:

- Meijer
- Walmart
- Meyer
- McKinsey
- Kroger
- CVS
- Walgreens
- Dow Chemical

4 COVID-19 EVENT OVERVIEW

4.1 Background

Coronavirus Disease 2019 (COVID-19) is caused by a novel human coronavirus, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and was first detected in Wuhan, China, in late 2019. By March 2020, the World Health Organization (WHO) declared a worldwide COVID-19 pandemic, as infections from this disease spread across the globe. On January 21, 2020, the first case of COVID-19 was confirmed in the United States (US) when a man returned to Washington State from Wuhan, China. On March 13, 2020, President Donald Trump declared a national emergency and shortly thereafter, imposed travel restrictions to and from countries with high case counts of COVID-19.

COVID-19 is the fifth documented pandemic since the 1918 Spanish Flu, which is estimated to have claimed the lives of 50 million people, including 675,000 Americans. By July 31, 2021, COVID-19 claimed the lives of more than 4.2 million people worldwide, including 612,000 in America alone, of which 19,921 were Michiganders.

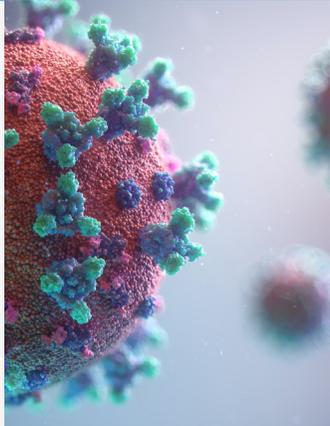
Limited information was initially available to guide government administrators and policymakers, emergency managers, and health care providers in preparation for and response to this novel disease. Information about risk factors, transmission methods, treatments, and personal protective guidance changed frequently, especially in early 2020.

As the State of Michigan began to monitor COVID-19 cases in the US, the Michigan Department of Health and Human Services (MDHHS) Community Health Emergency Coordination Center (CHECC) started to support local and state response to the outbreak. On February 28, 2020, Michigan's State Emergency Operations Center (SEOC) was activated in response to the COVID-19 outbreak. The first two (2) COVID-positive cases in the state were reported on March 10, 2020, the same day Michigan Governor Gretchen Whitmer declared a State of Emergency. On March 13, 2020, the governor issued Executive Order (EO) 2020-05 that prohibited gatherings of 250 or more people to limit disease transmission and ordered K-12 schools to close on March 16, 2020.

From January 1, 2020, until July 31, 2021 (the evaluation period of this After-Action Report / Improvement Plan), the governor issued 223 EOs to address the COVID-19 pandemic, largely to mitigate the transmission of the disease across Michigan. The need to swiftly develop policies and secure appropriations for COVID-19 response efforts was challenging because of the legal framework, and because of the lack of political and societal consensus. Additionally, the Michigan Department of Health and Human Services (MDHHS) was challenged to uniformly implement public health policies across Michigan's large, urban populations and less-densely populated farm communities.

The nation's COVID-19 response challenges have been exacerbated by difficulties in local, state, and federal inter-agency coordination. COVID-19 caused serious disruption to everyday life and required near-immediate interventions from the government as public health and health care professionals learned more about the novel virus. Variants of COVID-19 have been emerging and circulating around the world since the beginning of the pandemic. Some variants emerge and disappear while others persist. The Centers for Disease Control and Prevention (CDC) continue to work with state and local public health officials to monitor the spread since an increase in the overall number of cases could cause an increase in hospitalizations, put more strain on healthcare resources and potentially lead to more deaths. **As of early July 2022, Michigan has recorded over 2,619,533 million cases with over 36,982 deaths. The United States has reported over 88 million cases with almost 1.02 million deaths across the country.**

4 COVID-19 EVENT OVERVIEW AND TIMELINE

12/31/19	The government in Wuhan, China confirms that health authorities are treating dozens of cases of pneumonia of unknown cause which surfaced in a Chinese seafood and poultry market in December 2019.	
1/20/20	Officials in Washington confirm the first case of COVID-19 on U.S. soil.	
1/24/20	The CDC, MDHHS, local public health departments, and the state's healthcare community begin to monitor.	
1/30/20	The U.S. reports first confirmed case of person-to-person transmission of COVID-19.	
1/31/20	U.S. HHS Secretary issues a Public Health Emergency.	
2/3/20	MDHHS activates the CHECC to support the response to the COVID-19 outbreak.	
2/28/20	SEOC activated to coordinate Michigan's response.	
3/10/20	<i>First two cases of COVID-19 confirmed in Michigan.</i>	
3/10/20	Governor declares State of Emergency in response to COVID-19.	
3/10/20	The SEOC activates the JIC to coordinate state agency communications efforts in response to the potential spread of COVID-19.	
3/11/20	WHO declares COVID-19 a global pandemic.	
3/12/20	Governor orders all K-12 schools to close.	
3/13/20	President Donald Trump declares a National Emergency.	
3/15/20	Michigan receives the first shipment of commodities from the Strategic National Stockpile.	
3/16/20	Governor bans gatherings of more than 50 people with exceptions for particular sectors.	
3/18/20	<i>First Michigan resident dies from COVID-19.</i>	
3/20/20	Governor allows tenants and mobile homeowners to remain in their homes during the COVID-19 pandemic even if they are unable to stay current on their rent.	
3/23/20	Governor issues stay-at-home order for Michigan residents.	
3/24/20	MDHHS issues their first emergency order regarding COVID-19 testing and resource reporting.	

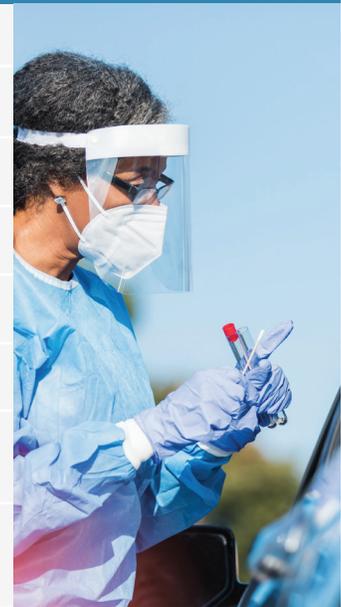
4 COVID-19 EVENT OVERVIEW

3/26/20	Governor requests major disaster declaration for entire State of Michigan.
3/27/20	President Trump makes a disaster declaration for the state.
3/30/20	Governor signs an agreement between Michigan and the U.S. Dept. of Labor to implement Pandemic Unemployment Assistance and Compensation programs for workers affected by COVID-19.
3/30/20	The Mayor of Detroit announces the city is offering on-the-spot COVID-19 testing.
4/2/20	Governor orders all K-12 schools to close for the remainder of the school year.
4/9/20	Michigan becomes the first state in the country to gain federal approval of a program that will provide nutritious food to children who were affected by school closings due to COVID-19.
4/10/20	The first “alternative care facility”, the converted TCF Center in Detroit.
4/20/20	Governor creates the Michigan Coronavirus Task Force on Racial Disparities with MDHHS
4/20/20	MDHHS expands testing criteria to include all essential workers reporting to a work site.
4/24/20	Governor extends “Stay Home, Stay Safe” order.
4/26/20	<i>Global death toll from COVID-19 is more than 200K.</i>
4/28/20	The U.S. passes 1M confirmed cases of COVID-19.
4/30/20	President Trump launches Operation Warp Speed to produce a COVID-19 vaccine.
4/30/20	Governor declares a State of Emergency under the Emergency Powers of the Governor Act, 1945 PA 302 and Emergency Management Act, 1976 PA 390.
5/1/20	Governor allows resumption of some work with very low risk of infection as part of MI Safe Start plan.
5/22/20	Governor extends the State of Emergency.
5/27/20	The U.S. death toll from COVID-19 surpasses 100K.
6/11/20	The U.S. passes 2M confirmed cases of COVID-19.
7/10/20	Governor Whitmer requires all Michigan residents over the age of 5 to wear masks.
8/16/20	The CDC begins developing a plan to distribute a COVID-19 vaccine.



4 COVID-19 EVENT OVERVIEW

8/16/20	<i>Michigan surpasses 100K confirmed cases of COVID-19.</i>
9/22/20	<i>The U.S. death toll from COVID-19 surpasses 200K.</i>
9/28/20	<i>Global death toll from COVID-19 is 1M.</i>
11/8/20	<i>The U.S. passes 10M confirmed cases of COVID-19.</i>
11/9/20	Michigan rolls out app to alert people of COVID-19 exposure: "MI COVID Alert".
11/11/20	Governor announces in-person classes at high schools and colleges statewide will be suspended for three (3) weeks along with eat-in dining at restaurants and bars.
11/18/20	<i>The U.S. death toll from COVID-19 exceeds 250K.</i>
12/8/20	<i>10K Michigan residents killed by COVID-19.</i>
12/11/20	The FDA approves the Pfizer vaccine for emergency use.
12/13/20	Pfizer begins distributing COVID-19 vaccines in the U.S.
12/14/20	<i>The U.S. death toll from COVID-19 surpasses 300K.</i>
12/18/20	FDA approves Moderna COVID vaccine for emergency use.
2/22/21	<i>The U.S. death toll from COVID-19 exceeds 500K.</i>
2/27/21	FDA approves Johnson & Johnson vaccine for emergency use.
3/9/21	Governor signs off on at least \$2.5 billion in COVID-19 relief funding.
3/22/21	All Michiganders ages 16 and up with medical conditions and disabilities eligible for a COVID-19 vaccine.
4/17/21	<i>Global death toll from COVID-19 surpasses 3 million.</i>
4/23/21	National Guard-run vaccination clinics begin offering vaccinations to any Michigan residents over 18 years of age.
5/15/21	Fully vaccinated Michiganders no longer required to wear a mask indoors or outdoors.
6/1/21	Governor lifts all outdoor capacity limits. Restaurants and bars can operate indoor dining at 50% capacity.
6/22/21	Governor lifts all COVID-19 restrictions in Michigan.
7/1/21	Governor announces a \$5 million sweepstakes as an incentive for Michigan residents to get vaccinated against COVID-19.



5 METHODOLOGY

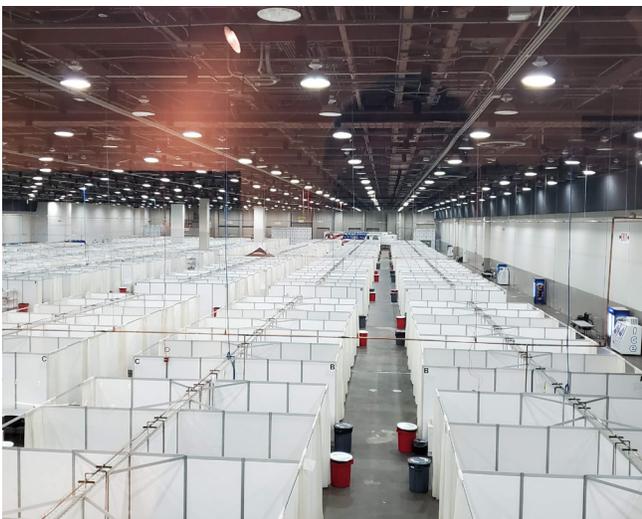
5.1 Source Document Collection and Evaluation

Key stakeholders consisting of personnel from multiple agencies/departments across the Michigan state government were routinely engaged during the data collection period from January 21, 2022, to February 4, 2022. State employees from participating departments and agencies were invited to upload relevant documents to a secure, web-based portal specifically developed to collect and store documents related to the preparation of the MI COVID-19 After-Action Report/Improvement Plan (AAR/IP). State staff provided source documents considered pertinent to each agency's/department's planning and/or response to the COVID-19 pandemic, such as previous agency-specific AARs, public health and emergency response plans, human resources policies, COVID-19 meeting summaries and briefings, and memoranda related to pandemic response.

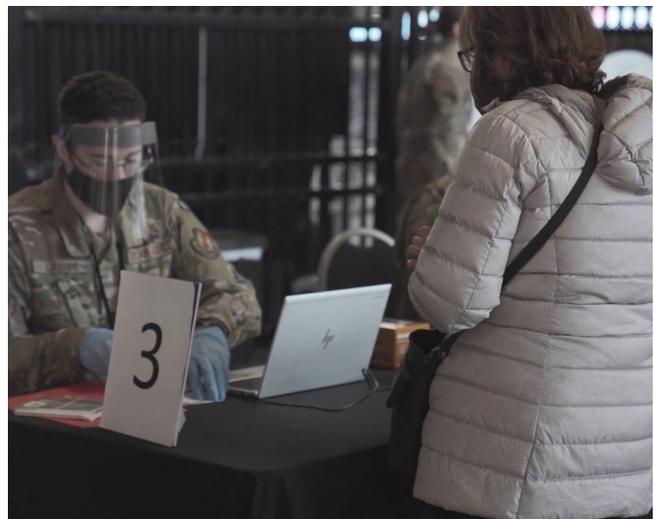
Each of the 47 source documents collected was categorized by an assigned priority level.

- **HIGH** – Significant content regarding how state agencies/departments responded, communicated, and coordinated activities during the overall pandemic response.
- **MEDIUM** – Some relevance to state agency / departmental pandemic response and coordination.
- **LOW** – Not significant enough to inform findings regarding pandemic response.
- **UNKNOWN** – Needs further engagement with state-level personnel to understand and determine applicability to the pandemic response.

The project team completed a preliminary review of all submissions and categorized 23 documents as either “High” or “Medium” due to their relevance, completeness, and connection to the state response. Plans, policies, reports, and other general correspondence classified as “Low” or “Unknown” by the project team were not subject to additional assessment. During the subsequent analysis, the “High” and “Medium” documents were thoroughly vetted to identify connections to any of the AAR’s 11 Focus Areas and highlight content indicative of successes and challenges experienced throughout the state in response to the pandemic. The project team developed a crosswalk matrix (Figure 1) to identify each of the 23 documents’ alignment with one (1) or more of the Focus Areas.



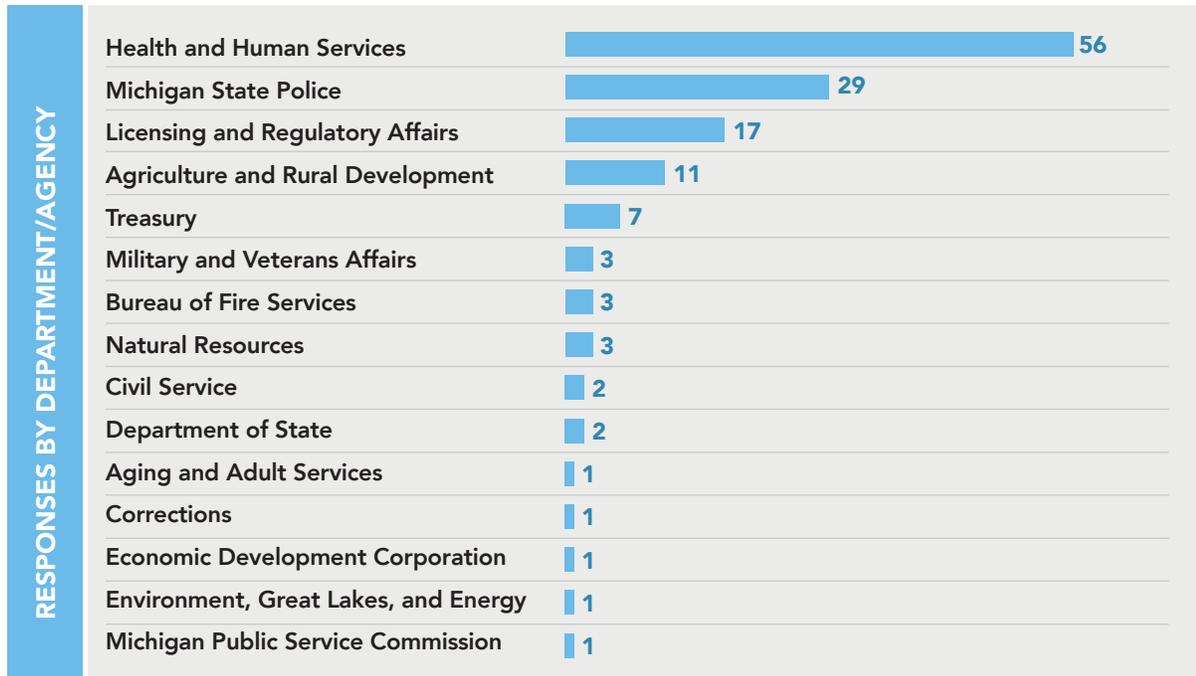
Alternative Care Site



Registration Desk

5 METHODOLOGY

Figure 2: General Survey Responses by Department/Agency



5.3 Interviews

5.3.1 Interview Design

The project team conducted interviews with key state employees and select external partners to provide a qualitative analysis of Michigan’s COVID-19 response efforts as derived from first-hand accounts of the incident. Using the state’s pre-identified list of 11 Focus Areas, the project team developed the interview question set. The Focus Areas represent categories of information that had been targeted for collection and analysis to inform the AAR/IP and included: Business Continuity and Continuity of Operations, Communications, Financial Management, Hospitals and Healthcare, Incident Management, Logistics, Planning and Operations, Public Health, Public-Private Partnerships, State-Local Coordination, and Volunteer Coordination.

Before interview conduct, interviewees were asked to complete an online pre-interview questionnaire (PIQ). The 64 PIQ questions, estimated to take 30 minutes or less to complete, were approved by the state and developed into a digital survey format built on the Qualtrics platform. A total of 69 PIQs were completed for the 79 total interviews with 108 interviewees.

The PIQ maximized interviewees’ time during the virtual interview by pre-collecting basic information and answers to binary yes-or-no screening questions such as, “Were you involved in budgetary or financial planning for your department/agency during the COVID-19 response?” These screening questions in the PIQ were mapped onto interview questions to allow for the elimination of questions that were irrelevant to a given interviewee. The interview question list can be referenced in Appendix C.

The COVID-19 response involved extensive inter-organizational communication, expanding upon existing relationships.

85% *of survey respondents communicated or coordinated with other state-level organizations.*

94% *reported coordination with other state-level organizations changed as a result of COVID-19.*

5.3.2 Interview Conduct

From January 4, 2022, to February 11, 2022, 79 virtual interviews were conducted with 108 interviewees representing 24 state-level agencies, and the American Red Cross. The initial list of interviewees was provided by the EMHSD and was augmented by the project team, as approved. Some interviews contained one (1) participating state employee, while others contained multiple participants. The project team scheduled approved interview candidates for a 60-minute Zoom or Microsoft Teams video meeting and requested that each participant complete the PIQ at least 48 hours before their interview. Appendix C provides a list of participating agencies/departments, the count of interviews completed by organization, and metrics associated with the virtual interviews.

Once an interview was scheduled, the project team assigned both an interviewer and a notetaker. Before each interview, the project team conducted research to ascertain the interviewees' job functions and any other publicly available information. If appropriate, the notetaker revised the interview questions based on this background information and the PIQ, if received. The notetaker removed irrelevant interview questions based on PIQ results, and additional information was injected, where appropriate, to customize questions.

The interview began with introductions of participants and included a snapshot of the project's purpose and reason for the interview. Interviews were electronically recorded only with the permission of all interviewees in each session; absent this consent, the notetaker captured interview notes manually. At the conclusion of each interview, participants were asked to provide any documents mentioned during the interview as well as any recommendations for additional interviewees.

When available, recorded interviews were used to generate a transcript through the Otter.ai platform². Project team members edited each interview transcript for accuracy and incorporated it into a notetaking spreadsheet. This consolidation provided a single point of reference for interview analysis. Each interview's recording, transcript, and notes collectively produced a first-hand account of Michigan's COVID-19 response.

Varying viewpoints are expected and valued in the AAR/IP process. Viewpoints shared by state employees and external stakeholders during interviews are based on individual perspectives and personal and lived experiences and are provided in the AAR/IP without attribution. Of note, interviews represent stakeholders' recollections and analyses of events and actions. Interviewees represented departments or incident management units through their participation but may not have incorporated every viewpoint or event of the department or unit in their responses.

6 AGENCY/DEPARTMENT/PARTNER ENGAGEMENT

6.1 Participating Agencies, Departments, and Partners

This section provides background information and highlights of Michigan state-level agencies and departments, as well as relevant, select external stakeholders, for the Coronavirus Disease (COVID-19) response period from January 2020 through July 2021 evaluated in this After-Action Report (AAR) and Improvement Plan (AAR/IP).

The Michigan State Police, Emergency Management and Homeland Security Division, Michigan Department of Health and Human Services, and Michigan Executive Office of the Governor are reviewed first, due to their sponsorship of this AAR/IP project, extensive response efforts, and significant engagement in the AAR/IP process. An examination of all other agencies' and departments' response efforts follow and are listed in alphabetical order, based on the acronym used by the agency.



Ford Field Vaccination Site

“The Protect Michigan commission was pulled together [by...] a staff person who had run our entire census operation. ... So, it was very cool to see preexisting relationships that had been solidified for something as important as the U.S. Census being repurposed for the pandemic.”

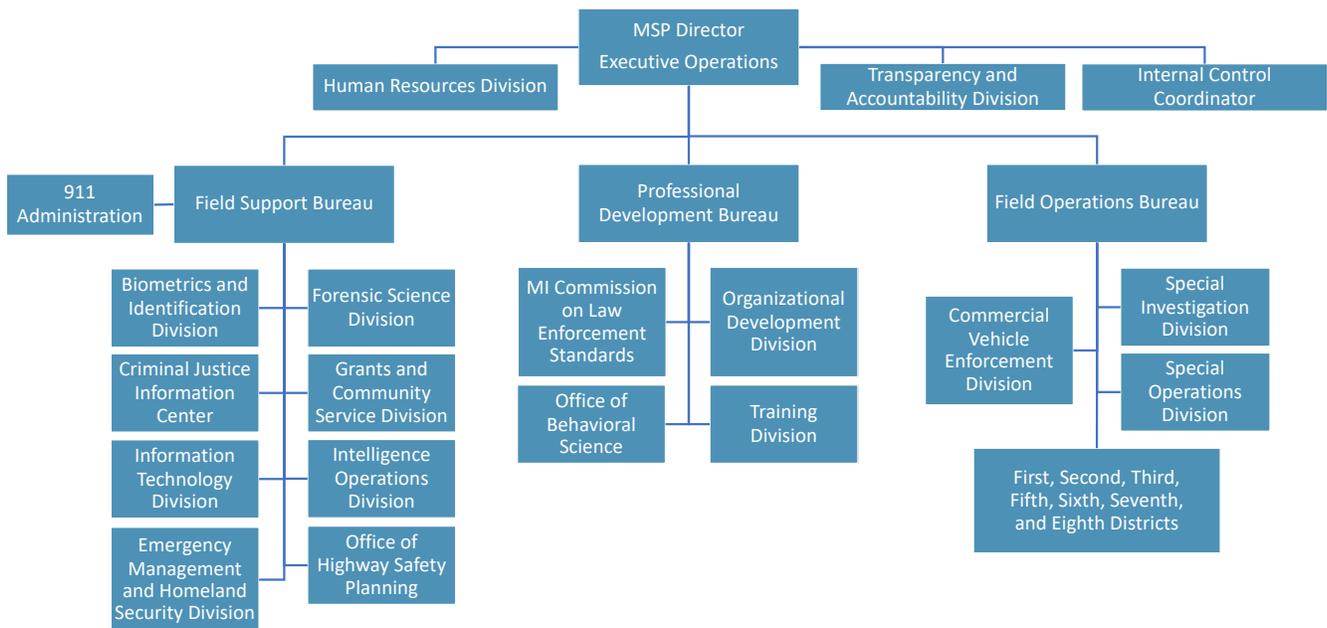
6 AGENCY/DEPARTMENT/PARTNER ENGAGEMENT

6.1.1 Michigan State Police (MSP)

BACKGROUND

The Michigan State Police (MSP) is a full-service state police force with the mission to provide the highest quality law enforcement and public safety services throughout Michigan.

Figure 3 : MSP Organizational Chart



Founded in 1917, the MSP currently has more than 3,000 members, including a 300-person cavalry, across three (3) bureaus and 21 divisions and offices (see Figure 3), including:

- **Field Support Bureau**
 - Biometrics and Identification Division
 - Criminal Justice Information Center
 - Information Technology Division
 - Forensic Science Division
 - Grants and Community Service Division
 - Intelligence Operations Division
 - Office of Highway Safety Planning
- **Professional Development Bureau**
 - MI Commission on Law Enforcement Standards
 - Office of Behavioral Science

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- o Organizational Development Division
- o Training Division
- **Field Operations Bureau**
 - o Commercial Vehicle Enforcement Division
 - o Special Investigation Division
 - o Special Operations Division
- **Human Resources Division**
- **Transparency and Accountability Division**
- **Internal Control Coordinator**
- **Emergency Management and Homeland Security Division**

Although the MSP exists as a stand-alone, state-level agency, its personnel frequently interact and coordinate services with local law enforcement agencies across Michigan.

RESPONSE HIGHLIGHTS

The MSP's primary role in the State of Michigan's COVID-19 response was to enforce Public Health Orders. Some enforcement measures were unpopular among Michiganders; this required the MSP to frequently work with other state agencies and departments to ensure the safe and seamless implementation of COVID-19 Public Health Orders.

The MSP Special Operations Division coordinated with EMHSD throughout the activation of the State Emergency Operations Center (SEOC) and led the MSP Emergency Coordination Center (ECC), which aided in the overall coordination of the MSP's involvement in the State of Michigan's COVID-19 response.

One of MSP's many duties in the ECC was management and oversight of the Personal Protective Equipment (PPE) acquisition process and deployment of acquired PPE to MSP personnel. This was separate from the role of the SEOC Logistics Section Chief, an MSP/EMHSD employee, who oversaw resource management operations for the statewide COVID-19 response, including the acquisition and distribution of resources throughout the event, such as PPE.

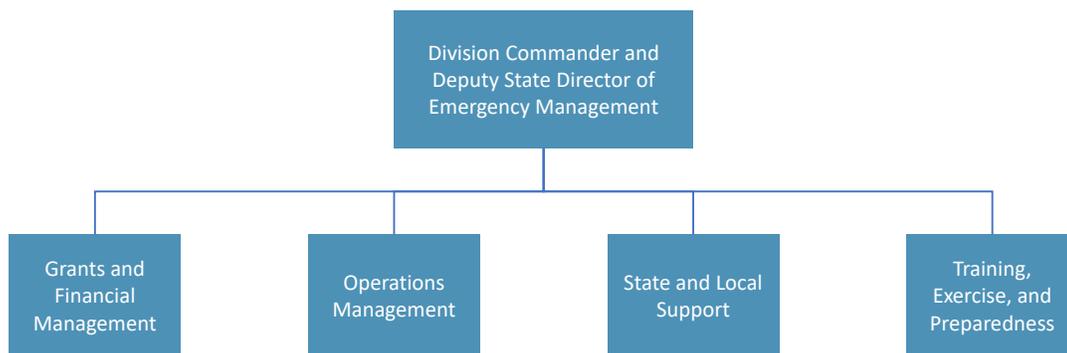
6 AGENCY/DEPARTMENT/PARTNER ENGAGEMENT

6.1.2 Emergency Management and Homeland Security Division (EMHSD)

BACKGROUND

The Emergency Management and Homeland Security Division (EMHSD) of the MSP is responsible for coordination of state and federal resources to assist local governments in emergency response and relief activities, as well as managing homeland security initiatives and various federal grants.

Figure 4: EMHSD Organizational Chart



The EMHSD is divided into four (4) sections as depicted in Figure 4, including:

- Grants and Financial Management
- Operations Management
- State and Local Support
- Training, Exercise, and Preparedness

EMHSD staff work directly with local emergency management coordinators who are responsible for preparedness, response, recovery, and hazard mitigation activities in their local communities. Under the Michigan Emergency Management Act (Public Act 390 of 1976, as amended), each county is required to appoint an emergency management coordinator.

As needed, the EMHSD is also responsible for initiating, managing, and supporting the Michigan SEOC, where state and federal agencies, non-governmental organizations and sometime private partners convene in-person or virtually to coordinate emergency response.

RESPONSE HIGHLIGHTS

Typically, the SEOC manages events that last several weeks or months before de-escalating and demobilizing. COVID-19 has been a unique emergency, as the SEOC has been engaged in the state's COVID-19 response since February 2020. During the State of Michigan's COVID-19 response, the SEOC also was activated to support other incidents, such as dam failures, extreme weather, and civil unrest. These other incidents required the EMHSD to divert time, attention, and resources away from the COVID-19 response.

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A few of the EMHSD's notable SEOC accomplishments during the COVID-19 response include:

- Providing situational awareness updates to key Michigan agencies actively engaged in response activities.
- Improving IT and communications capabilities through the shift into a virtual SEOC activation.
- Engaging private-sector partners through the Public-Private Partnership Program.
- Allocating PPE shipments to Michigan agencies and external stakeholders.
- Providing the public with COVID-19 updates.
- Analyzing data entered into the Michigan Critical Incident Management System (MI CIMS) to accurately track resource requests, deployments, and PPE.

Despite the EMHSD's ongoing engagement and response to the dynamic COVID-19 situation, the division remained prepared to effectively respond to any natural, human-caused, or technological hazard that threatened or impacted Michigan throughout the COVID-19 response.

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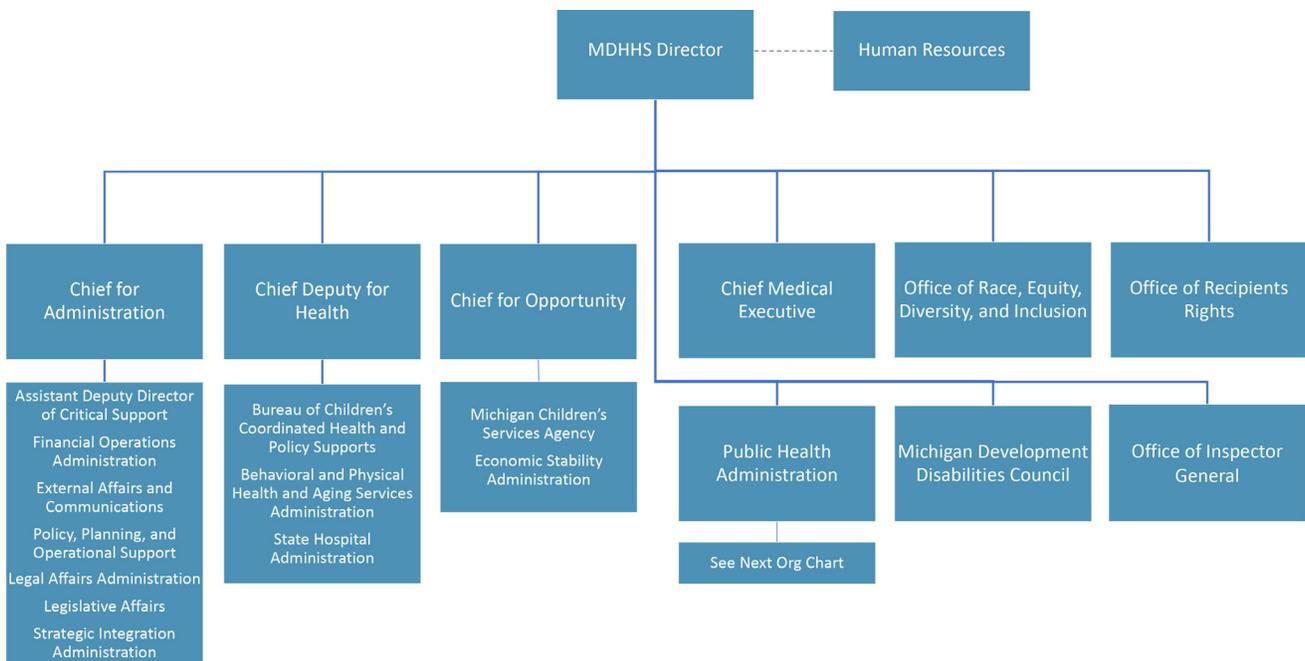
6.1.3 Michigan Department of Health and Human Services (MDHHS)

BACKGROUND

The Michigan Department of Health and Human Services (MDHHS) provides opportunities, services, and programs that promote a healthy, safe, and stable environment for residents to be self-sufficient. The MDHHS strives to develop and encourage measurable health, safety, and self-sufficiency outcomes that reduce and prevent risks, promote equity, foster healthy habits, and transform the health and human services system to improve the lives of Michigan’s residents.

The MDHHS was created in April 2015 when then Governor Rick Snyder’s Executive Order 2015-4 merged two (2) existing agencies – the Michigan Department of Human Services (DHS) and the Michigan Department of Community Health (DCH) – to create a single, unified department to manage the core resource areas of health services, population health, workforce, family support, and children and adults’ services. The MDHHS is one of the largest state agencies in Michigan and has nearly 14,000 employees.

Figure 5: MDHHS Organizational Chart



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Figure 6: MDHHS Public Health Administration Organizational Chart

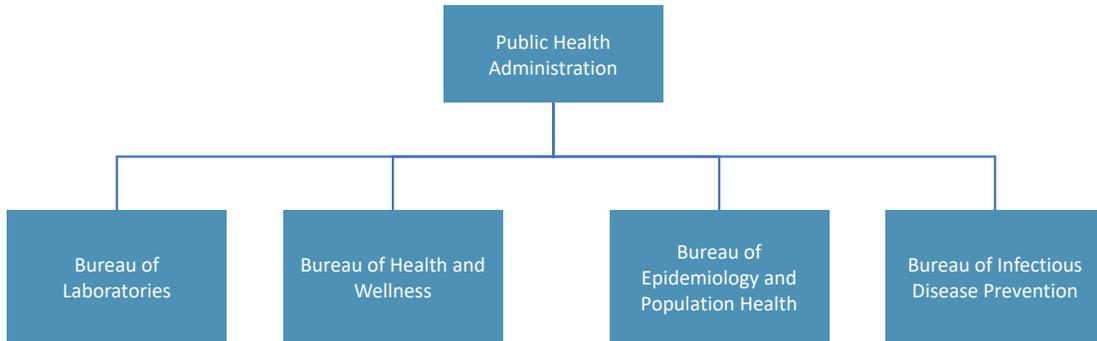
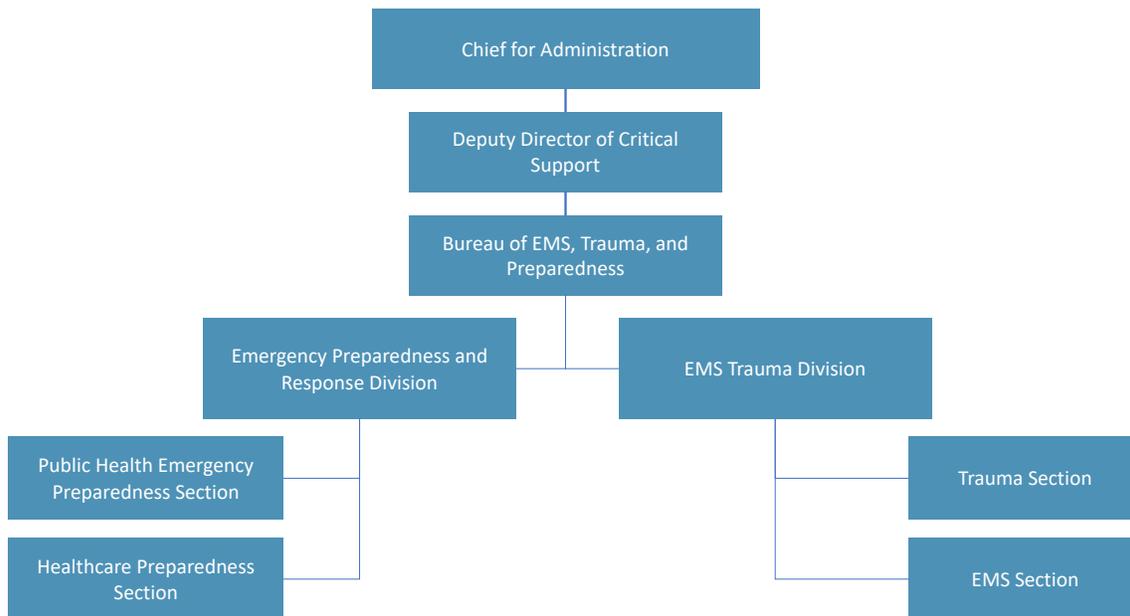


Figure 7: MDHHS Bureau of EMS, Trauma, and Preparedness Organizational Chart



The MDHHS is divided into several distinct sections (see Figures 5, 6, 7), including:

- Chief for Administration
- Chief Deputy for Health
- Chief for Opportunity
- Chief Medical Executive
- Office of Race, Equity, Diversity, and Inclusion
- Office of Recipients Rights
- Public Health Administration
- Michigan Development Disabilities Council
- Office of Inspector General

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RESPONSE HIGHLIGHTS

As the central public health entity for the State of Michigan, MDHHS was at the nexus of the state's COVID-19 response efforts. From December 2019 – when state epidemiologists first began to monitor news of an emerging respiratory virus in China – to current times, the MDHHS has worked to maximize knowledge of the virus's spread and pathogenicity, and to mount an effective defense against it.

The period considered by this review – January 2020 – July 2021 – includes the fastest-paced and most demanding times for the MDHHS COVID-19 response. Though the MDHHS had previously confronted extended public health crises and the threat of diseases, such as H1N1 and Ebola, the scale and duration of the COVID-19 pandemic set it apart from anything previously experienced this century. The demands of the response pushed every MDHHS capacity to the limit. Information technology systems, laboratories, and emergency management structures had to be continuously adapted to meet the needs of the rapidly evolving situation requiring many MDHHS employees to work extended overtime hours.

The MDHHS played a leading role in disease surveillance, testing, vaccination, hospital and healthcare provider support, contact tracing, laboratory virology, mass care sites, public policy advising, information campaigns, and public health enforcement. These efforts required close partnerships with other state departments and agencies, as well as local stakeholders. The MDHHS maintained close coordination with the state's 83 local health departments and eight (8) regional healthcare coalitions, as well as industry groups of healthcare providers and community stakeholders through advisory councils, such as the Protect Michigan Commission. Working partnerships with other state-level agencies and departments included the Michigan Department of Corrections (MDOC) to facilitate daily inmate testing and employing the Michigan National Guard (MING) to assist in staffing free community testing sites. The MDHHS's Community Health Emergency Coordination Center (CHECC) was co-located with the Michigan SEOC early in the response to improve logistics operations.

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6.1.4 Michigan Executive Office of the Governor (EOG)

BACKGROUND

The Executive Office of the Governor (EOG) supports Michigan's governor, who is the elected constitutional officer and head of the executive branch. As such, the governor commands actions among state agencies, develops a state budget, declares states of emergency, and operationalizes the MING in emergency response efforts, among other things.

The EOG, which is comprised of approximately 75 people, includes a chief of staff, several deputy chiefs of staff with specific focus areas, a chief operating officer who acts as a management tactician, a legal team, and a communications team. All Executive Orders (EOs) and Directives for state government originate with the EOG.

RESPONSE HIGHLIGHTS

The EOG staff worked long days during the 19-month pandemic response evaluation period to ensure the governor remained accessible to constituents and stakeholders. The EOG also expanded its legal, communications, stakeholder outreach, and public affairs capabilities over the pandemic to meet surge demands for increased information during the COVID-19 pandemic. The EOG formed additional advisory and mission-focused groups, including the Protect Michigan Commission, which brought together state partners, local government, private businesses, and non-profit entities in an effort to further the state's vaccination campaign. The Coronavirus Task Force on Racial Disparities took action to identify and address racial health disparities in Michigan's health care system. Key actions implemented to address included reducing barriers to COVID testing in communities of color, expanding testing to those most at risk for serious illness, developing culturally competent messaging for best practices of COVID-19 mitigation, improving racial data collection and sharing, and improving access to health care for marginalized populations.

As part of its administrative oversight of all Michigan state agencies and the SEOC, the EOG instituted a unique business-model and decision-making incident command team and structure, known as P-leads. Like a C-Suite structure, the P-leads construct enabled the State of Michigan to make policy and operational decisions rapidly throughout the COVID-19 response.

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6.1.5 Michigan Aging and Adult Services Agency (AASA)

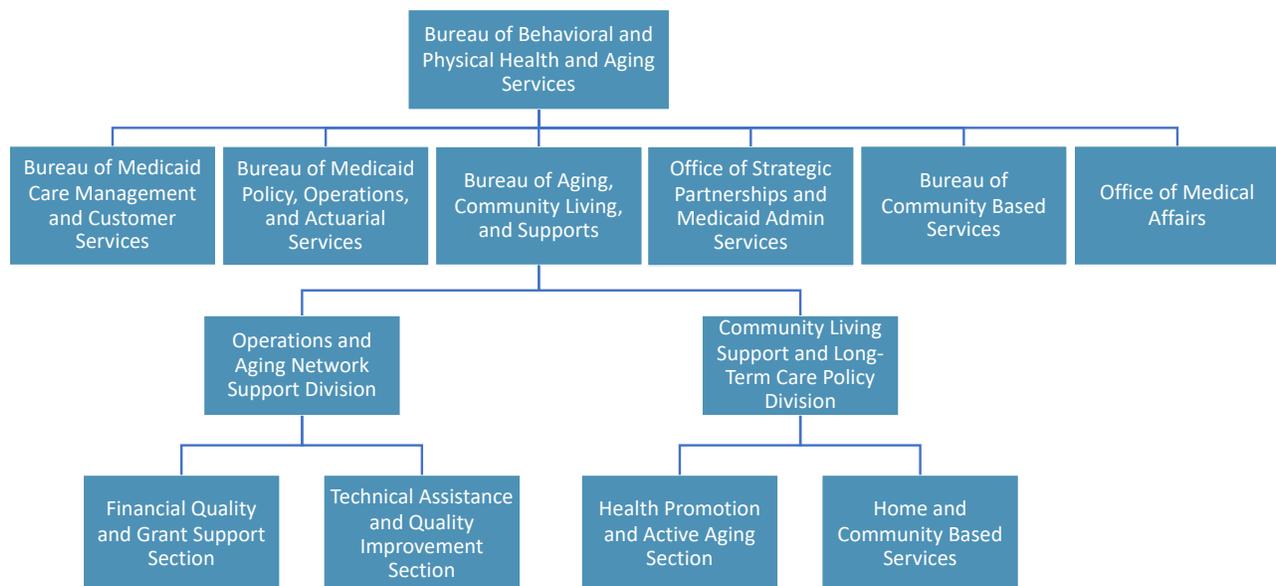
BACKGROUND

The Aging and Adult Services Agency's (AASA) mission is to provide statewide leadership, direction, and resources to support Michigan's aging, adult services, and disability networks, with the aim of helping residents live with dignity, meaning, purpose, and independence. The AASA was formed under the Older Michiganians Act of 1981 and operates under the authority of the federal Older Americans Act of 1965, which set specific objectives for states to maintain the dignity and welfare of older adults and established the National Aging Network. The AASA is an agency within the MDHHS.

In 2020, the AASA managed around \$100 million in federal and non-Medicaid state funding that provided home and community-based programs that serve Michigan's seniors and other vulnerable adults through Michigan's aging network. This was a partnership between the AASA, 16 regional agencies on aging, and more than 1,000 local service providers that offer caregiving services to seniors, other vulnerable adults, and their families. In addition, the AASA operated Michigan's local Area Agencies on Aging (AAA), which provided services to Michigan's aged and aging population at the local level and offered statewide resources and services available through <https://www.michigan.gov/coronavirus>.

In October 2021, EO 2021-14 combined the AASA with the Medical Services Administration under a new Behavioral and Physical Health and Aging Services Administration (BPHASA). As the change occurred after the evaluation period covered in this AAR/IP, this report attributes the response activities of AASA staff to the AASA, despite the agency no longer existing.

Figure 8: BPHASA (Formerly AASA) Organizational Chart



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The BPHASA includes six (6) bureaus and offices (see Figure 8), including:

- Bureau of Medicaid Care Management and Customer Services
- Bureau of Medicaid Policy, Operations, and Actuarial Services
- Bureau of Aging, Community Living, and Supports (formerly AASA)
 - Operations and Aging Network Support Division
 - Community Living Support and Long-Term Care Policy Division
- Office of Strategic Partnerships and Medicaid Admin Services
- Bureau of Community Based Services
- Office of Medical Affairs

An additional AASA section, Supportive Adult Services, was moved under the MDHHS Economic Stability Administration.

RESPONSE HIGHLIGHTS

Through partnerships with state and local healthcare providers and the Michigan Community Service Commission (MCSC) that provided volunteer resources, the AASA successfully offered a wide array of direct and indirect support services during the pandemic to its clients, who represent one of the most vulnerable demographics in Michigan.

The AASA supported the at-risk aged population of Michigan through many pandemic-specific services that were offered through the local AAA, such as at-home COVID-19 testing and vaccination services. The AASA also established a new toll-free phone line and COVID-19 data dashboard focused on individuals aged 60 years and older. The statewide toll-free number was for older adults and persons with disabilities to easily connect with service agencies, including the AAAs and centers for independent living. The AASA, in conjunction with the Michigan Aging Network, also expanded existing resources for individuals aged 60+ years to all 83 counties. This included friendly assurance calls to help combat social isolation, and services that ensured individuals' safety and basic living needs were met. As a result of these new programs, 8,853 additional Michiganders were added to the Michigan Aging Network services, with the "friendly assurance program" alone resulting in more than 30,496 calls to 7,027 aged Michigan residents.

The AASA worked with the Food Bank Council of Michigan, Van Eerden Foodservice, and LaGrasso Brothers Produce to create the Quarantine Box (QBox) project, which delivered boxes of non-perishable food items to older adults. The AASA also participated in the U.S. Department of Agriculture (USDA) Farmers to Family Food Box Program. A total of 30,100 boxes were delivered to or picked up by older adults as of September 30, 2020, and overall, the AASA was able to provide food boxes to more than 108,000 older adults who were unable to leave their homes because of the pandemic.

To promote these services, as well as others offered by the AASA and local AAAs, the AASA launched the first-ever Michigan Aging Network paid advertising campaign in both English and Spanish, utilizing multimedia platforms, including radio, newspaper, and social media to reach older Michiganders and their caregivers.

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6.1.6 American Red Cross (Red Cross)

BACKGROUND

The Red Cross operates with the mission to prevent and alleviate human suffering in the face of emergencies by mobilizing the power of volunteers and the generosity of donors. While the Red Cross is an independent, non-profit humanitarian organization and is not part of Michigan state government, the organization plays a key role in state operations during crisis situations by providing vital services that support the State of Michigan's emergency response operations. These services include community preparedness, disaster response activities, family reunification and recovery, and blood donation collection and management, among others. Within Michigan and across the United States, the Red Cross helps families create disaster plans and provides relief to those who suffered loss from a disaster.

RESPONSE HIGHLIGHTS

Although the Red Cross did not have a direct role in managing or implementing the state of Michigan's pandemic response, they did contribute resources when they were available and requested by the State, including providing volunteers for COVID-19 testing and vaccination sites across the state. While the Red Cross continued to respond to other disasters in the state during this AAR/IP evaluation period, it also facilitated the donation of blood, with a special focus on requesting donations of convalescent blood plasma. This type of blood plasma contained COVID-19 antibodies from people who recovered from a COVID-19 infection, making it useful as a treatment for other patients.

The Red Cross maintained close contact with Michigan state agencies through involvement in the SEOC and communication with the State Emergency Management Coordinators, keeping abreast of the State's pandemic response actions. Red Cross Disaster Program Managers maintained close contact with local emergency managers and public health departments with which they exchanged information. The Red Cross built and continues to operate a Virtual Family Assistance Center (VFAC) where those affected by COVID can find emotional support and locate appropriate national, state and local resources.

The need for Red Cross services continued despite the pandemic. In Michigan, the Red Cross maintained its regular operations by conducting more activities remotely and by ensuring that all activities were implemented in compliance with federal, state, and local public health guidelines. When there was a need for sheltering, the Red Cross operated non-congregate shelters, for example. The health and safety of Red Cross clients and workforce remain paramount concerns.

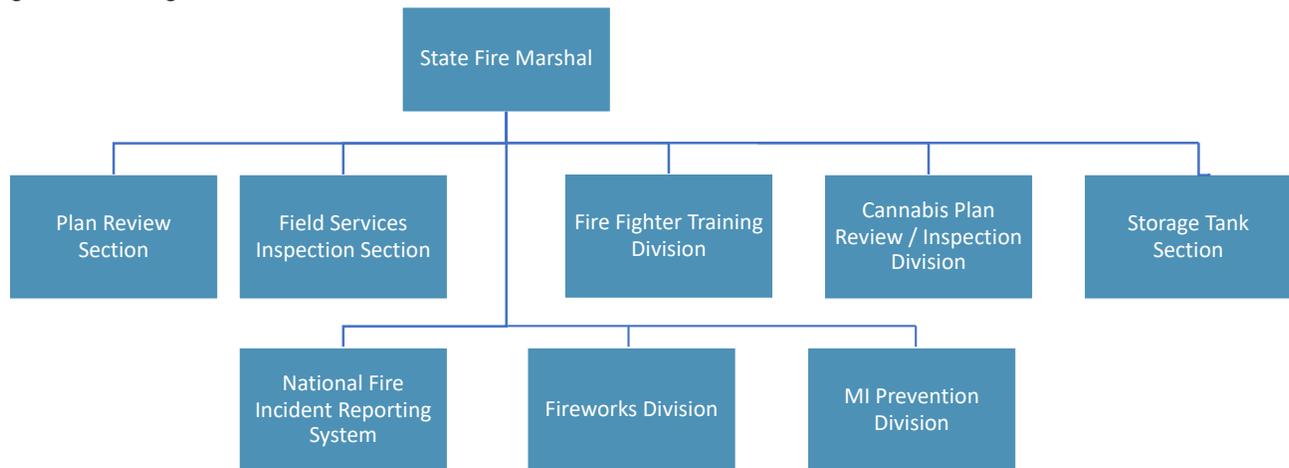
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6.1.7 Bureau of Fire Services (BFS)

BACKGROUND

The Bureau of Fire Services (BFS) is one (1) of 12 bureaus of the Michigan Department of Licensing and Regulatory Affairs (LARA). The mission of the BFS is to prevent loss of life, protect property and safeguard the environment through education and regulation based on rules, laws, and codes in an efficient and professional manner. In March 2021, the BFS had approximately 70 full-time employees.

Figure 9: BFS Organizational Chart



The BFS is comprised of four (4) divisions and three (3) sections (see Figure 9).

The Plan Review Section (PRS) performs plan reviews of all new construction, additions, or renovations of state-regulated facilities. This includes architectural fire safety reviews, along with shop drawing reviews of fire alarms, sprinkler systems, and hood suppression systems.

The Field Services Inspection Section (FSIS) assures maintenance of fire-safe conditions in state-regulated facilities through the inspection of all new construction, additions, or renovations of existing facilities, as well as annual inspections required by licensing agreements.

The Firefighter Training Division (FFTD) serves the training needs of approximately 1,029 fire departments and approximately 34,500 firefighters throughout the state by preparing and publishing advisory and training standards, as well as establishing courses of study, qualifications, and regional training centers.

The Cannabis Plan Review/Inspection Division performs reviews for all Grow, Processor, Micro-business and Designated Consumption Establishments for new construction, remodeling of existing buildings, renovations to existing facilities and equipment changes made to currently approved facilities. Field inspections are completed twice a year for all licensed medical or Adult-use cannabis facilities.

The Storage Tank Section (STS) regulates and oversees tanks and containers designed to store and dispense flammable liquids and combustible liquids tanks, liquefied petroleum gas containers, and compressed natural gas systems.

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The Michigan (MI) Prevention Division provides sustainable community risk reduction programs to minimize fire deaths, injuries and property loss within the state of Michigan by fostering collaborative relationships, implementing education programs, establishing data and analytics and developing strategic community outreach.

The National Fire Incident Reporting System has been designed as a tool for fire departments (FD) to report and maintain computerized records of fires and other FD incidents in a uniformed manner. The Bureau of Fire Services serves as the State Program Manager of the NFIRS 5.0 program for the United States Fire Administration (USFA). NFIRS 5.0 was developed by the USFA in partnership with National Fire Information Council (NFIC). The Bureau of Fire Services (BFS) maintains and manages Michigan's fire data and ensures that it is entered into the national reporting system.

RESPONSE HIGHLIGHTS

Throughout the COVID-19 pandemic, the BFS successfully maintained all its regular duties, as it provided critical infrastructure services. In addition to regularly scheduled inspections, the agency implemented additional inspections on field hospitals and similar medical facilities established or expanded to support Michigan's COVID-19 response. BFS staff regularly participated in SEOC calls to gain information on the status of the pandemic and the State's response. BFS field staff also promoted awareness of new and changing COVID-19 regulations to the public.

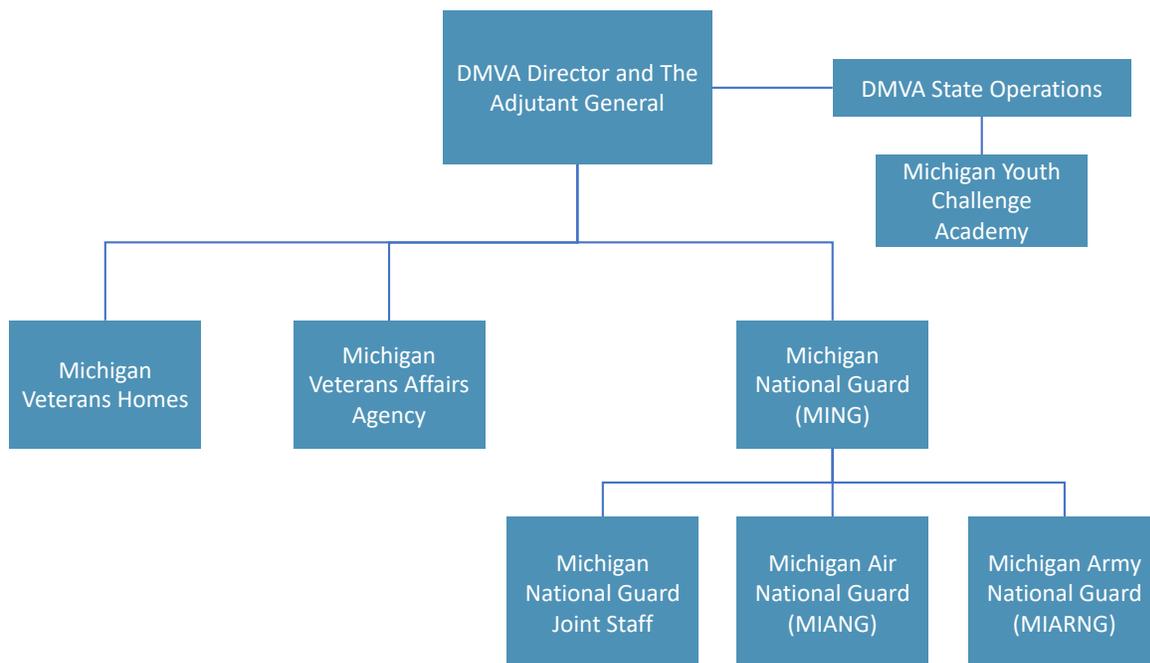
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6.1.8 Michigan Department of Military and Veterans Affairs (DMVA)

BACKGROUND

The Michigan Department of Military and Veterans Affairs (DMVA) advances military readiness and serves veterans and their families. The DMVA's mission is to synchronize strategic, legislative, and fiscal initiatives to build and sustain military readiness, to care and advocate for veterans, and to cultivate purposeful partnerships.

Figure 10: DMVA Organizational Chart



The DMVA has four (4) sub-agencies with nearly 800 employees (see Figure 10), including:

- Michigan National Guard
- Michigan Veterans Homes
- Michigan Veterans Affairs Agency
- Michigan Youth Challenge Academy

The MING includes both the Michigan Army National Guard (MIARNG) and the Michigan Air National Guard (MIANG), which collectively serve and protect Michigan communities and residents from natural disasters, civil disturbances, and other emergencies. Michigan Veteran Homes (MVH) operates three (3) residential care facilities and provides skilled nursing for Michigan's veterans, with a special focus on long-term care, dementia and memory care, and palliative care. The Michigan Veterans Affairs Agency (MVAA) connects veterans and their families to federal and state benefits, and breaks down barriers to employment, education, healthcare, and quality of life. The Michigan Youth Challenge Academy (MYCA) offers teenagers

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aged 16 - 18 years the opportunity to change their lives through a 17.5 month program that encourages physical, mental, and moral development.

RESPONSE HIGHLIGHTS

The DMVA enacted a multi-pronged COVID-19 response. The MVAA and MVH had more limited roles in the response and primarily focused on maintaining and adapting regular services in a pandemic environment. This was especially challenging for MVH, as it faced the same difficulties as other care facilities during the pandemic – namely, keeping residents healthy and safe.

The MING was the branch of the DMVA that was directly involved with pandemic response. National Guard forces were engaged by the governor and federal authorities to assist in COVID-19 response efforts across the state. Significant operations included staffing mass care sites, such as the TCF Center and Ford Field, mass testing of the public and incarcerated populations, logistics and warehouse support, food bank deliveries, and other functions that required a readily mobilized workforce.

One (1) interviewee specifically requested that the historic breakthrough the MING had with the City of Detroit be highlighted in this AAR/IP. Due to tensions dating back to racially charged civil unrest in 1967, Detroit's community has been leery of the National Guard; in the early days of the pandemic, no Detroit operations were possible. As the response evolved, the MING established trust with local health officials and faith leaders. This breakthrough enabled collaboration in testing and vaccination campaigns and bridged what had been long-broken relations

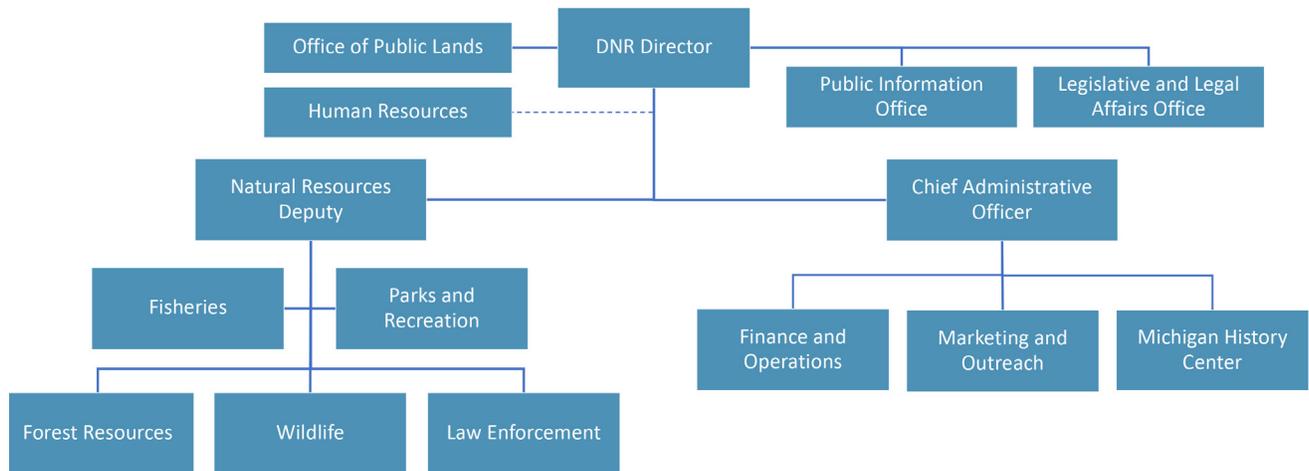
6 AGENCY/DEPARTMENT/PARTNER ENGAGEMENT

6.1.9 Michigan Department of Natural Resources (DNR)

BACKGROUND

The Michigan Department of Natural Resources (DNR) is committed to the conservation, protection, management, use, and enjoyment of the state's natural and cultural resources for current and future generations. It strives to protect natural and cultural resources, ensure sustainable recreation use and enjoyment, enable strong natural resource-based economies, improve, and build strong relationships and partnerships, and foster effective business practices and good governance.

Figure 11: DNR Organizational Chart



The DNR consists of two (2) divisions, each with several branches (see Figure 11) that operate under the DNR Director, including:

- Administrative Division
- Natural Resources Division
- Human Resources (HR) Office
- Public Information Office
- Legislative and Legal Affairs Office

There are approximately 2,700 employees in DNR.

RESPONSE HIGHLIGHTS

The DNR oversaw several aspects of the state's COVID-19 response, including enforcement of the governor's EOs related to certain outdoor activities. DNR law enforcement officers also maintained social distancing requirements in state parks and other outdoor recreational areas once the State began to open some outdoor activities to the public.

Apart from its support of the Michigan's COVID-19 response, the DNR participated in the SEOC to gain information on the status of the pandemic and the State's response; identified and purchased Personal Protective Equipment (PPE) from vendors; managed a supply warehouse for PPE; and supported the distribution of PPE to all DNR field staff.

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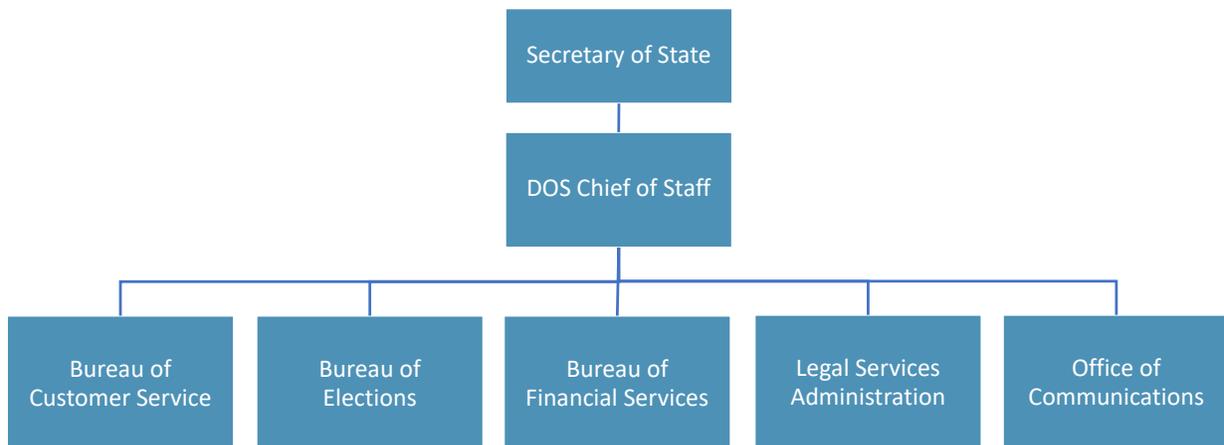
6.1.10 Michigan Department of State (DOS)

BACKGROUND

The Michigan Department of State (DOS) is the oldest department in Michigan State government and is administered by the secretary of state, who is elected on a partisan ballot for a four-year term. The secretary of state is the third-highest state official in Michigan. If the governor and lieutenant governor are both absent, or if the offices are concurrently vacant for some other reason, the secretary of state serves as acting governor. In addition, the secretary of state is a voting member of several state boards and commissions, including the State Administrative Board and the Michigan Truck Safety Commission.

The DOS oversees the statewide elections process, administers driver licensing and vehicle registration systems, enhances traffic safety, protects consumers, and ensures the integrity of records maintained by the state. The secretary of state also oversees and regulates notary publics and is the keeper of the Great Seal of Michigan.

Figure 12: DOS Organizational Chart



The DOS includes five (5) bureaus, offices, and administrations (see Figure 12), including:

- Bureau of Customer Service
- Bureau of Elections
- Bureau of Financial Services
- Legal Services Administration
- Office of Communications

RESPONSE HIGHLIGHTS

The DOS participated as an active member in the SEOC, serving as part of the Logistics Team during the SEOC's activation in response to COVID-19. While the DOS did not have a prominent role in initial response efforts, outside of their own agency, the DOS provided support for various SEOC requests, both related and unrelated to the COVID-19 response. The DOS was primarily responsible for election safety during the

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pandemic and ensuring the continued success of its licensing program, by assisting private employers with Commercial Driver's Licenses (CDL), as well as expediting licensing and the issuance of vehicle titles for other state agencies and departments to support COVID-19 operations.

The internal structure of the DOS COVID-19 response was limited to the Occupancy Service Group, which oversaw warehouses, an inventory unit, and construction management for the DOS. The Occupancy Service Group supported 131 branches throughout the State and helped identify PPE needs and protective measures for state employees. In response to financial concerns and the state's operational needs, the DOS temporarily furloughed nearly 1,000 members of its staff throughout different periods of the pandemic response.

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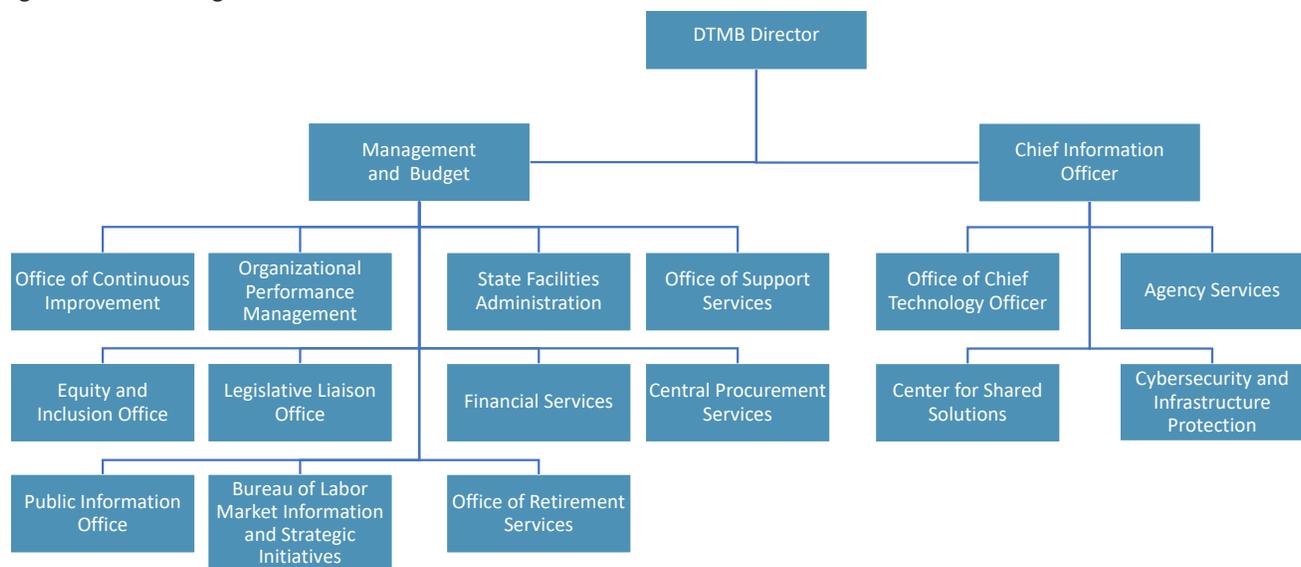
6.1.11 Michigan Department of Management, Budget, and Technology (DTMB)

BACKGROUND

The Michigan Department of Technology, Management and Budget (DTMB) supports the business operations of state agencies through a variety of services, including building management and maintenance; information technology; centralized contracting and procurement; budget and financial management; space planning and leasing; construction management; motor vehicle fleet operations; and oversight of the state retirement systems. Other specialized services provided by the DTMB include travel services; records management; printing and mailing services; identification mail and delivery services; Geographic Information Systems (GIS) maps and products; cybersecurity; auctions of surplus state goods; real estate services; and management of the State Unified Information Technology Environment (SUITE).

The DTMB's mission is to optimize enterprise-wide business, financial, and technical services to enable a government that works.

Figure 13: DTMB Organizational Chart



The DTMB includes 15 offices and administrations divided into two (2) sections with approximately 2,800 employees (see Figure 13), including:

- Management and Budget
 - Office of Continuous Improvement
 - Organizational Performance Management
 - State Facilities Administration
 - Office of Support Services
 - Equity and Inclusion Office
 - Legislative Liaison Office

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- o Financial Services
- o Central Procurement Services
- o Public Information Office
- o Bureau of Labor Market Information and Strategic Initiatives
- o Office of Retirement Services.
- Chief Information Officer
 - o Office of Chief Technology Officer
 - o Agency Services
 - o Center for Shared Solutions
 - o Cybersecurity and Infrastructure Protection

RESPONSE HIGHLIGHTS

In accordance with the governor's EO to remain home and stay safe, the DTMB made continuous improvements to the secure login application that provided access to several state online services to state employees working from home, adjusting for the increase in demand for remote access to these services. Additionally, the DTMB partnered with other state agencies to execute various technology-based initiatives throughout the response that include, but are not limited to, the rollout of the statewide COVID-19 exposure notification application MI COVID Alert, Wi-Fi hotspot location mapping, and increasing server capacity to enable additional processing of unemployment claims.

The DTMB was actively involved in the procurement of equipment and supplies for the State throughout the COVID-19 pandemic. These efforts resulted in the agency securing millions of PPE items for frontline workers, successfully expanding broadband access for households and businesses, and aiding nearly 30,000 state employees in the shift to remote work.

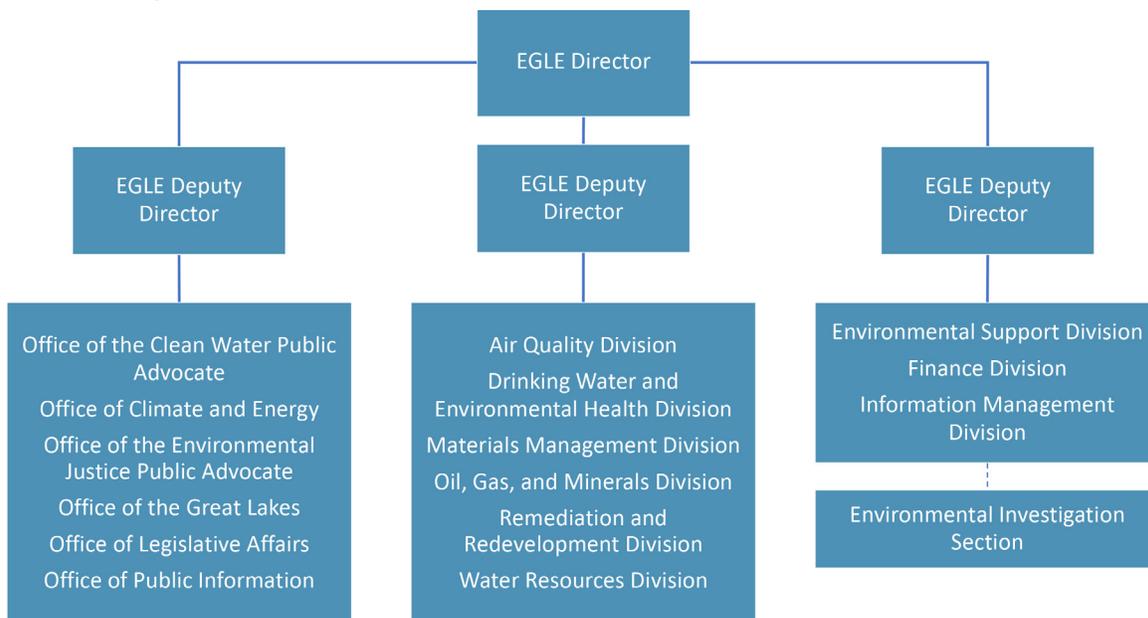
6 AGENCY/DEPARTMENT/PARTNER ENGAGEMENT

6.1.12 Michigan Department of Environment, Great Lakes, and Energy (EGLE)

BACKGROUND

The Michigan Department of Environment, Great Lakes, and Energy's (EGLE) mission is to protect Michigan's environment and public health by managing air, water, land, and energy resources. EGLE, which was formerly the Michigan Department of Environmental Quality (DEQ), was founded in 1995 when environmental protection functions were split off from Michigan Department of Natural Resources (MDNR). DEQ was renamed EGLE in 2019 through an Executive Order.

Figure 14: EGLE Organizational Chart



EGLE is comprised of 16 divisions and offices with nearly 1,300 employees (see Figure 14), including:

- Air Quality Division (AQD)
- Drinking Water and Environmental Health Division (DWEHD)
- Environmental Investigation Section (EIS)
- Environmental Support Division (ESD)
- Materials Management Division (MMD)
- Office of Climate and Energy
- Office of the Clean Water Public Advocate
- Office of the Environmental Justice Public Advocate
- Office of the Great Lakes
- Oil, Gas, and Minerals Division (OGMD)

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- Remediation and Redevelopment Division (RRD)
- Water Resources Division (WRD)
- Finance Division
- Office of Legislative Affairs
- Office of Public Information

EGLE is the primary state agency responsible for responding to environmental emergencies, including spills, emissions, releases, or improper handling of hazardous materials and risks to public drinking water supplies.

RESPONSE HIGHLIGHTS

Due to its strong existing relationships, EGLE participated in the SEOC and facilitated communications between the US Environmental Protection Agency (EPA) and the SEOC during the response. EGLE also used its existing water testing laboratories and resources to support the Michigan's COVID-19 wastewater pilot project, which surveilled wastewater treatment facilities and congregate living environments, and tested wastewater samples for COVID-19.

During day-to-day operations, EGLE provided COVID-19 education, literature, and awareness outreach to the public. The agency also provided medical waste disposal exemptions to facilities that produced high quantities of medical waste due to COVID-19, allowing them to dispose of medical waste safely outside of normal channels.

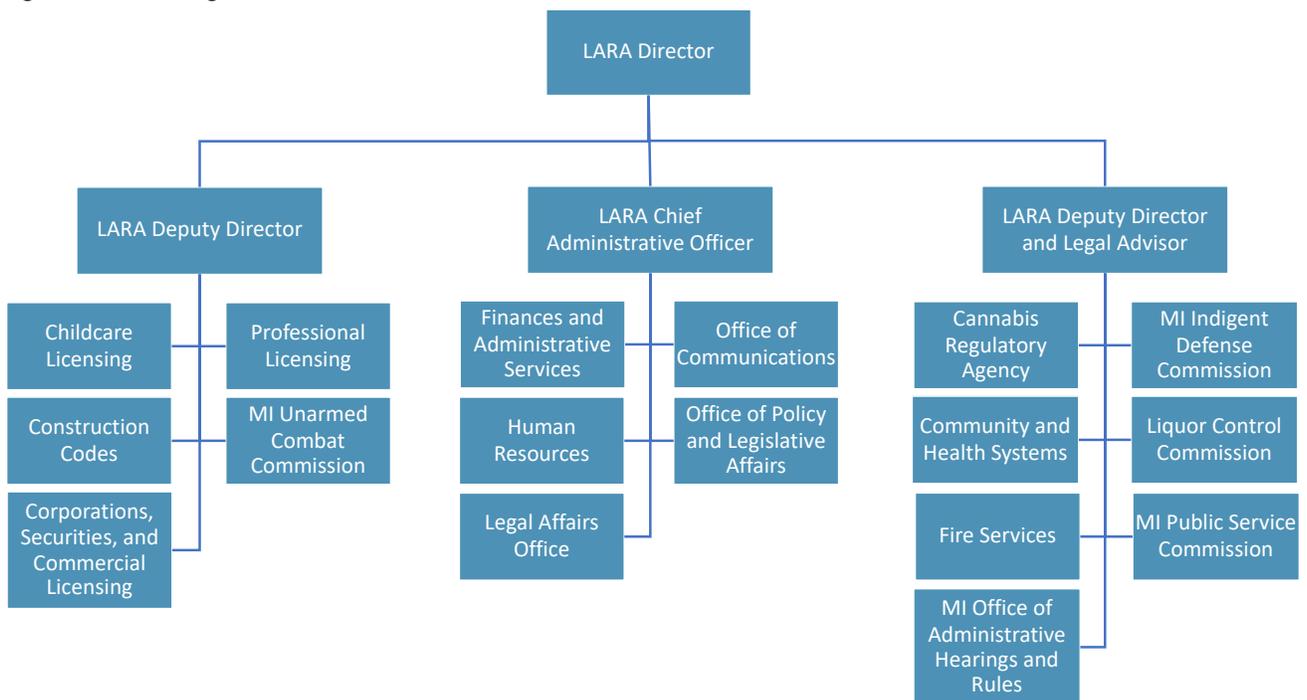
6 AGENCY/DEPARTMENT/PARTNER ENGAGEMENT

6.1.13 Michigan Department of Licensing and Regulatory Affairs (LARA)

BACKGROUND

The Michigan Department of Licensing and Regulatory Affairs (LARA) administers licensing and oversight of a wide variety of industries within Michigan to promote business growth and job creation through streamlined, simple, fair, and efficient regulation, while protecting the health and safety of Michigan's residents.

Figure 15: LARA Organizational Chart



LARA has 17 sub-agencies, bureaus, and commissions with approximately 1,500 employees (see Figure 15) including:

- Bureau of Child Care Licensing
- Bureau of Construction Codes
- Bureau of Corporations, Securities, and Commercial Licensing
- Bureau of Professional Licensing
- Michigan Unarmed Combat Commission
- Marijuana Regulatory Agency
- Bureau of Community and Health Systems
- Bureau of Fire Services
- Michigan Liquor Control Commission

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- Michigan Indigent Defense Commission
- Michigan Office of Administrative Hearings and Rules
- Michigan Public Service Commission
- Office of Communications
- Office of Finance and Administrative Services
- Office of Human Resources
- Office of Legal Affairs
- Office of Policy and Legislative Affairs

RESPONSE HIGHLIGHTS

LARA ensured compliance with COVID-19 restrictions among its regulated industries. This included suspension of business licenses of operators who violated COVID-19 EOs and other restrictions, and temporarily relaxing existing licensing requirements to assist agencies, businesses, and other key entities during the pandemic. LARA clarified new rules issued under EO 2020-30, which allowed out-of-state licensed healthcare workers to work in Michigan during the emergency.

Overall, LARA's mission remained the same as it was prior to the COVID-19 pandemic. However, LARA staff adjusted normal operations during the pandemic to implement and enforce new regulations created to protect public health.

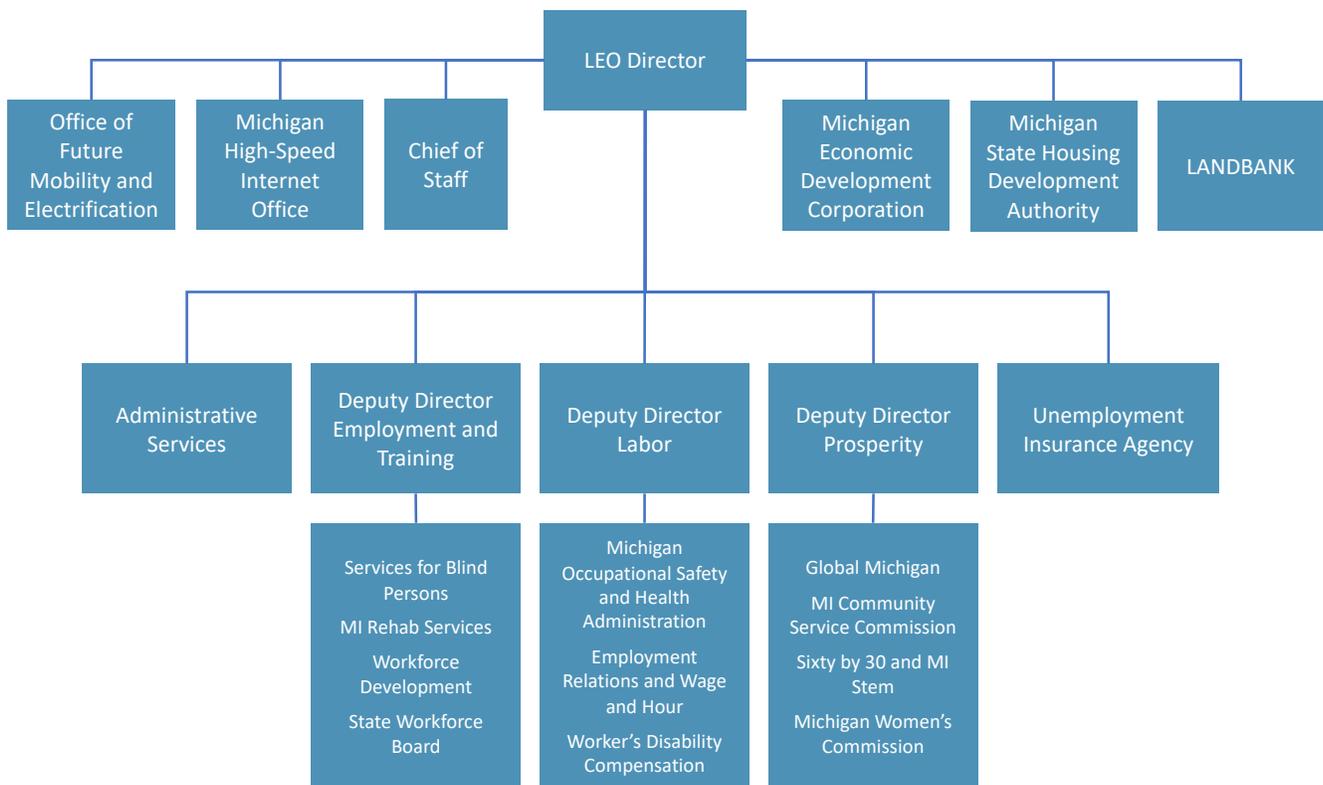
6 AGENCY/DEPARTMENT/PARTNER ENGAGEMENT

6.1.14 Michigan Department of Labor and Economic Opportunity (LEO)

BACKGROUND

The Michigan Department of Labor and Economic Opportunity (LEO) provides the connections, expertise, and innovative solutions to drive continued business growth, build vibrant communities, create affordable housing, generate tourism, and attract and retain key talent to fill Michigan's vast pipeline of opportunities. LEO programs assist Michiganders with issues related to unemployment, job search, housing, and workers' disability compensation.

Figure 16: LEO Organizational Chart



LEO has more than 2,600 employees, a centralized "executive office" and oversight of a variety of sub-agencies, bureaus and commissions including (see Figure 16):

- Bureau of Employment Relations
- Bureau of Services for Blind Persons
- Employment Relations
- LEO Administrative Services
- Michigan Community Service Commission
- Michigan High Speed Internet Office
- Michigan Occupational Safety and Health Administration

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- Michigan Rehabilitation Service
- Michigan Women’s Commission
- Office of Future Mobility and Electrification
- Office of Global Michigan
- The Office of Sixty by 30/MI Stem
- State Landbank Authority
- Unemployment Insurance Agency
- Wage and Hour Division
- Workers’ Disability Compensation Agency
- Workforce Development

Two quasi-public agencies, the Michigan Economic Development Corporation and the Michigan State Housing Development Authority (MSHDA), are also under the umbrella of LEO.

RESPONSE HIGHLIGHTS

LEO participated in the SEOC and served as a source of state agency information and guidance regarding worker health and safety and the acquisition of PPE. The LEO also participated in the Protect Michigan Commission, which brought together public and private pandemic response partners from across Michigan to promote accurate public health information and achieve widespread vaccination. As part of the Protect Michigan Commission, LEO facilitated outreach and messaging to communities across Michigan regarding COVID-19 workplace safety.

Within LEO, the MIOSHA collaborated with the National Institute for Occupational Safety and Health (NIOSH) to lead guidance offered to other Michigan state agencies and businesses about COVID-19 workplace safety, particularly on topics such as appropriate masks, mask fitting, workplace sanitation, and disease mitigation measures.

MSHDA conducted an internal COVID-19 response that included sanitation of MSHDA buildings and distribution of PPE to staff in other offices. MSHDA also provided some rental assistance to individuals and families in Michigan in collaboration with the federal government. MSHDA participated in the SEOC by designating an agency representative through LEO.

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6.1.15 Michigan Association of Broadcasters (MAB)

BACKGROUND

The Michigan Association of Broadcasters (MAB) is a non-profit 501(c)(6) organization representing commercial radio and television broadcast stations in Michigan and provides advocacy, programs, and events. The MAB is governed by a board of directors consisting of top managers and owners from radio and television stations throughout Michigan and is based in Lansing.

RESPONSE HIGHLIGHTS

The MAB supported the State of Michigan's COVID-19 response by facilitating the release of information from the EOG to the public through multiple platforms, such as radio, television, and association members' social media accounts. The MAB also helped facilitate the broadcast of the governor's press conferences by working with association members to film these events, arrange satellite uplinks, and reserve time on radio and television channels across Michigan.

The MAB served as a central information collection and distribution point. Association members then amplified messaging by sharing it with the public.

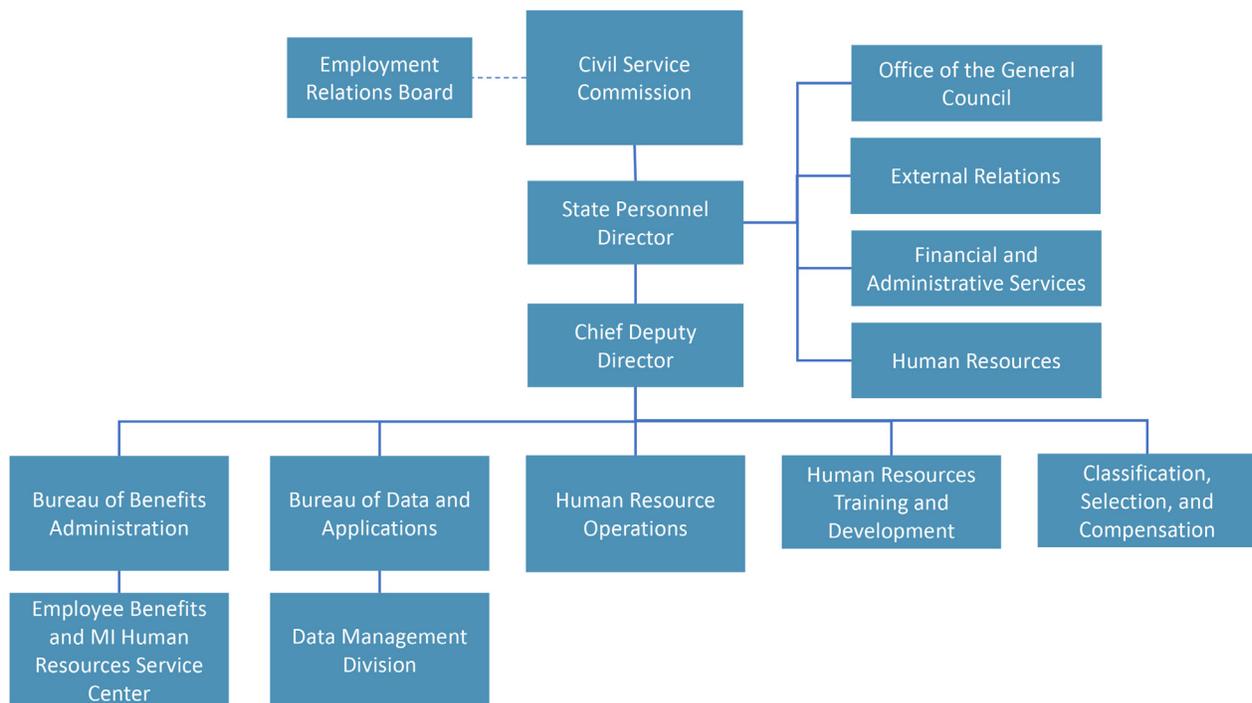
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6.1.16 Michigan Civil Service Commission (MCSC)

BACKGROUND

The Michigan Civil Service Commission (MCSC) is a constitutionally regulated body that manages rules and regulations for State of Michigan Classified Service employees. The MCSC's mission is to provide innovative, effective, and timely human resources consultation and services to attract, develop, and retain a diverse, flexible, and creative workforce that can meet state government's ever-changing needs (see Figure 15).

Figure 17: MCSC Organizational Chart



The MCSC is divided into multiple divisions (see Figure 17) that employs approximately 430 people, including:

- Bureau of Benefits Administration
 - Employee Benefits and Service Center
- Bureau of Data and Applications Support
 - Data Management Division
- Human Resource Operations
- Human Resources Training and Development
- Classification, Selection, and Compensation Section
- Office of General Counsel
- External Relations
- Financial and Administrative Services
- Internal HR

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The Michigan Constitution empowers the MCSC to classify all positions in the Classified Service according to their respective duties and responsibilities; fix rates of compensation for all classes of positions; approve or disapprove disbursements for all personal services; determine by competitive examination and performance exclusively on the basis of merit, efficiency, and fitness the qualifications of all candidates for positions in the Classified Service; make rules and regulations covering all personnel transactions; and regulate all conditions of employment in the Classified Service.

RESPONSE HIGHLIGHTS

The MCSC's pandemic response role was to support Classified Service employees under the MCSC's rules and regulations. The MCSC participated in the SEOC throughout the incident, both in-person and virtually.

Operationally, the MCSC ensured that HR systems (e.g., payroll, benefits) remained available to Classified Service employees throughout the pandemic and answered any questions about mandates, isolation, leave policies, and other relevant topics.

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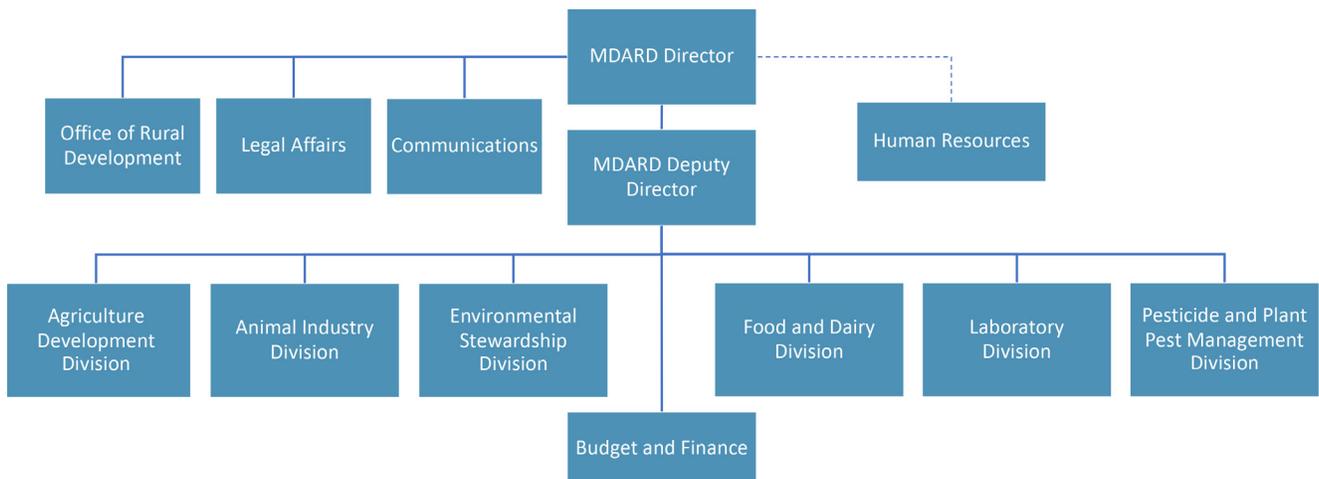
6.1.17 Michigan Department of Agriculture and Rural Development (MDARD)

BACKGROUND

The Michigan Department of Agriculture and Rural Development (MDARD) assures the food safety, agricultural, environmental, and economic interests of Michigan are met through service, partnership, and collaboration.

MDARD uses a customer-driven, solution-oriented approach to cultivate and expand new economic opportunities for the food and agricultural sector; safeguard the public's food supply; inspect and enforce sound animal health practices; control and eradicate plant pests and diseases threatening the \$104.7 billion food and agriculture system; preserve the environment by which the farming community makes their living and feeds consumers; and protect consumers by enforcing laws relating to weights and measures.

Figure 18: MDARD Organizational Chart



MDARD has six (6) divisions with approximately 470 employees (see Figure 18), including:

- Agriculture Development Division (AgD)
- Animal Industry Division (AID)
- Environmental Stewardship Division (ESD)
- Food and Dairy Division (FDD)
- Laboratory Division
- Pesticide and Plant Pest Management Division (PPMD)

RESPONSE HIGHLIGHTS

Throughout the COVID-19 pandemic, MDARD satisfied its regular duties to support critical agricultural infrastructure in Michigan. This included oversight of COVID-19 protections for migrant labor populations

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and completing in-person inspections of food facilities when federal inspectors were barred from working in the field due to COVID-19.

MDARD staff actively participated in the SEOC. The agency also provided an IMT to help run alternate care facilities set up by the State to provide additional beds for COVID-19 patients. MDARD contributed laboratory staff to COVID-19 testing efforts and manufactured hand sanitizer in MDARD labs for internal and external distribution.

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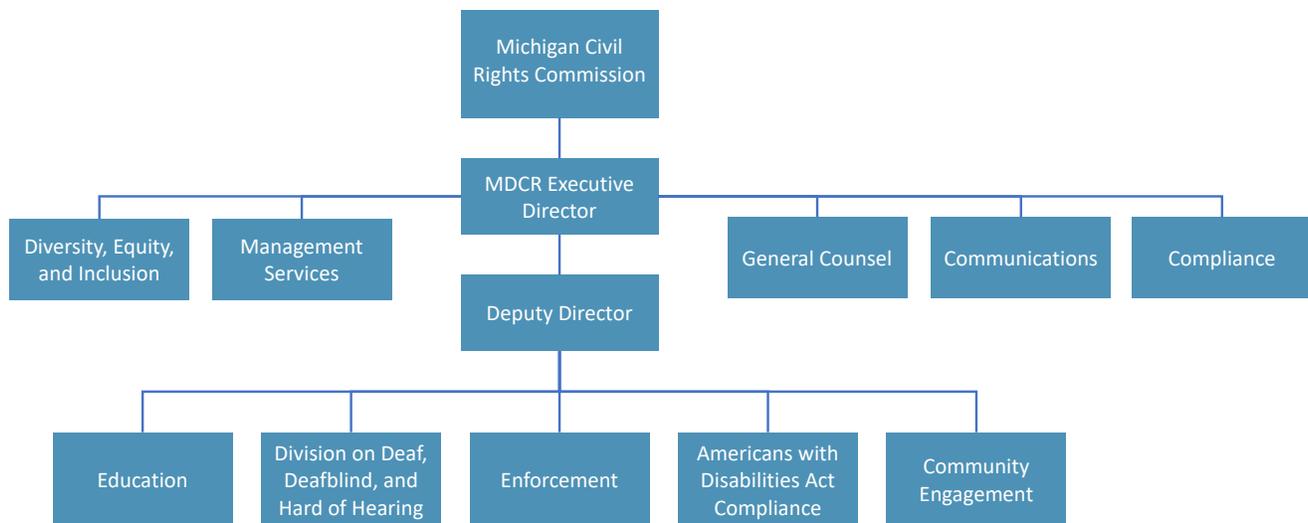
6.1.18 Michigan Department of Civil Rights (MDCR)

BACKGROUND

In 1964, Michigan became the first state to include civil rights protections in its constitution. A year later, the Michigan Department of Civil Rights (MDCR) was created as the operational arm of the eight (8)-member Michigan Civil Rights Commission. Appointed by the governor for alternating four (4)-year terms, members of the Commission investigate alleged discrimination against any person on the basis of religion, race, color or national origin, genetic information, sex, age, marital status, height, weight, arrest record, or physical or mental disability.

The MDCR's primary purpose is to investigate complaints of discrimination in employment, education, housing, public accommodation, law enforcement, and public service. The MDCR investigates and resolves discrimination complaints and works to prevent discrimination through educational programs that promote compliance with civil rights laws.

Figure 19: MDCR Organizational Chart



The MDCR includes seven (7) divisions (see Figure 19), including:

- Diversity, Equity, and Inclusion (DEI) Division
- Americans with Disabilities Act (ADA) Compliance Division
- Division on Deaf, Deafblind, and Hard of Hearing
- Community Engagement Division
- Contract Compliance Division
- Education Division
- Enforcement and Investigation Division

MDCR employs over 80 people and has offices in Lansing, Detroit, and Grand Rapids.

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RESPONSE HIGHLIGHTS

During the COVID-19 pandemic, the role of the MDCR was multi-fold. It included outreach to state and local officials to encourage COVID-19 transmission mitigation safeguards in schools. This was crucial to protect students with disabilities who may be more likely to contract COVID-19 due to underlying medical conditions, inadequate health care, and systemic social inequities. Additionally, the MDCR cautioned Michigan businesses, healthcare entities, and law enforcement agencies to ensure compliance with state and federal laws and orders regarding masks in public facilities and other COVID-19 mitigation measures. This included reminders that, under the ADA, all businesses and agencies must afford reasonable accommodations to a person with a disability. During the pandemic, the MDCR, like other state and national civil rights organizations, responded to and where appropriate opened civil rights investigations involving incidences of discrimination and harassment stoked by misinformation about the virus's origin and prevalence, and other anti-COVID-19 policies, procedures and protocols.

The MDCR provided guidance and resources for procurement and use of accessible virtual meeting forums and platforms in support of other state agencies and secured American Sign Language (ASL) interpreters and other accessibility accommodations. The MDCR also participated in the SEOC during the pandemic response.

The MDCR also served as a member of the Protect Michigan Commission, comprised of diverse leaders from across the state and worked to ensure that Michigan residents had the most up-to-date information about the COVID-19 safety and vaccine protocols and procedures. The Protect Michigan Commission served as an advisory group to the Governor and MDHHS.

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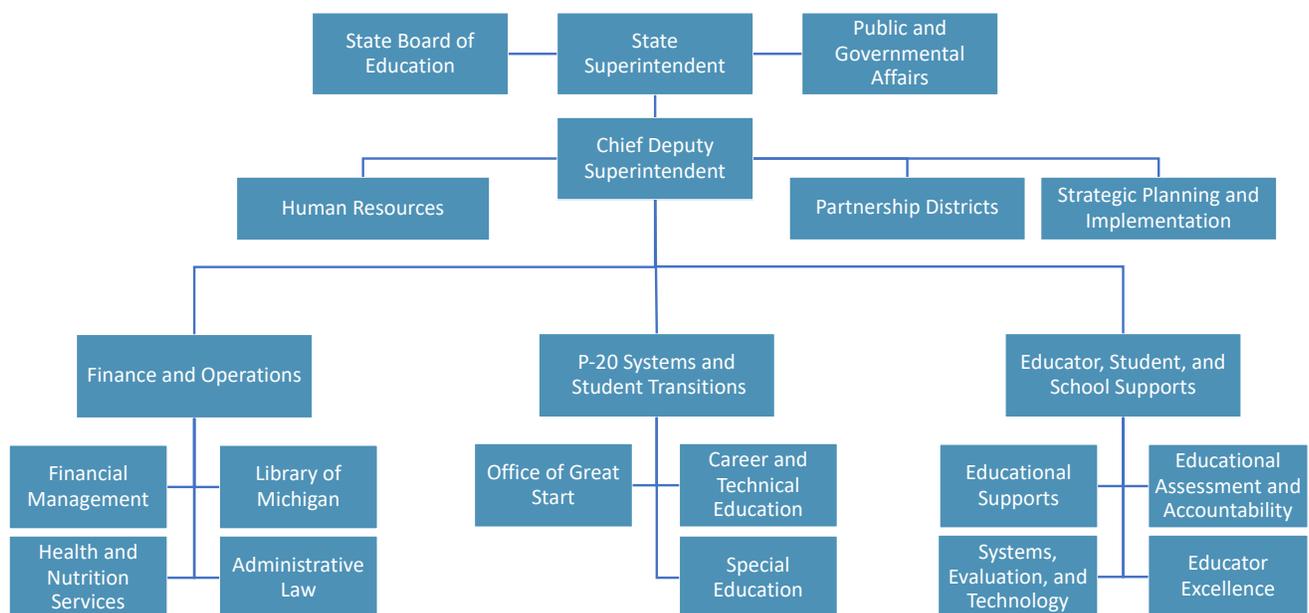
6.1.19 Michigan Department of Education (MDE)

BACKGROUND

The Michigan Department of Education (MDE) supports learning in Michigan. The MDE works to ensure that every learner in Michigan’s public schools has an inspiring, engaging, and caring learning environment that fosters creative and critical thinkers who believe in their ability to positively influence Michigan and the world beyond. More than 500 people are employed by MDE.

The MDE is guided by the Eight Goals of Michigan’s Top 10 Strategic Education Plan. These goals include expanding early childhood learning opportunities; improving early literacy achievement; improving the health, safety, and wellness of all learners; expanding secondary learning opportunities for all students; increasing the percentage of all students who graduate from high school; increasing the percentage of adults with a post-secondary credential; increasing the numbers of certified teachers in areas of shortage; and providing adequate and equitable school funding.

Figure 20: MDE Organizational Chart



The MDE includes the State Board of Education and the Office of the State Superintendent. The state superintendent oversees three (3) divisions, each with several offices under them (see Figure 20).

- Division of Finance and Operations
- Division of the P-20 System and Student
- Educator, Students, and School Supports Division

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RESPONSE HIGHLIGHTS

The MDE participated in Michigan's COVID-19 response by taking an active role in the SEOC's education committee, which brought the MDE together with the EOG, MSP, MDHHS, and Office of the Attorney General, as well as colleges, universities, and other educational system stakeholders to identify issues COVID-19 posed for the education sector, and provide guidance. As part of this effort, the MDE helped produce the MI Return to Safe Schools Roadmap, which contained planning frameworks that local school districts could use to develop safety plans and protocols for the return to in-person teaching.

The MDE also provided COVID-19 information, guidance, recommended actions, and learning resources to local school districts through the MDE website, Joint Information Center (JIC)-approved written products, and channeling information through existing relationships with local emergency managers and school district staff.

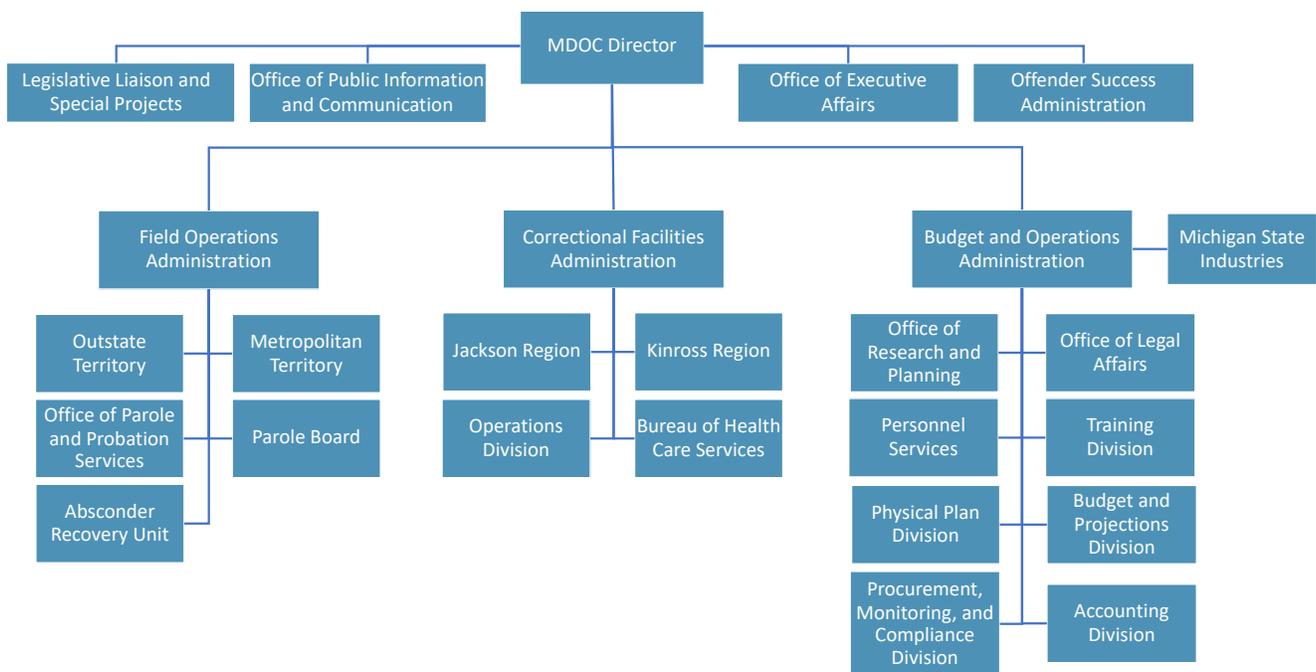
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6.1.20 Michigan Department of Corrections (MDOC)

BACKGROUND

The mission of the Michigan Department of Corrections (MDOC) is to create a safer Michigan through effective offender management and supervision of its facilities and communities while holding offenders accountable and promoting their rehabilitation. MDOC is committed to the safety of its staff and the security of offenders. As such, the department is responsible for providing human and protective custodial care, rehabilitative opportunities, and reentry assistance for offenders. Partnerships with public and private entities assist the department in accomplishing its mission. MDOC is one of the State of Michigan's larger agencies, with nearly 11,000 employees.

Figure 21: MDOC Organizational Chart



MDOC contains three (3) administrations, each of which oversees several divisions (see Figure 21), including:

- Field Operations Administration
- Correctional Facilities Administration
- Budget and Operations Administration

In addition, the MDOC Director oversees the Legislative and Special Projects Section, Office of Public Information and Communication, Office of Executive Affairs, and Offender Success Administration.

RESPONSE HIGHLIGHTS

MDOC made numerous modifications to its processes and procedures during the COVID-19 response. Early in the response, the department was not actively engaged with the SEOC, as the staff was actively

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responding to the emerging situation within its own facilities. Shortly after the governor declared a State of Emergency, all in-person visits to MDOC facilities were halted for approximately one (1) year. During the period without in-person visits, the department worked with its vendors to provide alternative communication services to the prison population.

MDOC received and shipped needed equipment early in the COVID-19 response before a state warehouse was established. Due to the size of its facilities, MDOC temporarily stored equipment for the state's use and deployment. Upon establishment of a state warehouse, MDOC personnel were instrumental in making that operation successful. As the crisis progressed, concerns over prisoner health arose, leading to a need for COVID-19 testing. MDOC staff did not have the capacity to conduct daily duties and COVID-19 testing, so MING support was leveraged to supplement testing demands in facilities statewide.

Throughout the COVID-19 response, the MDOC implemented and enforced a comprehensive response that included taking unprecedented cleaning and hygiene measures; suspending visitation; testing every prisoner in their cells; screening every individual entering its facilities; creating isolation areas; requiring prisoners and staff to wear masks; providing free masks; enacting and enforcing social distancing; and educating prisoners and staff about the department's protocols.

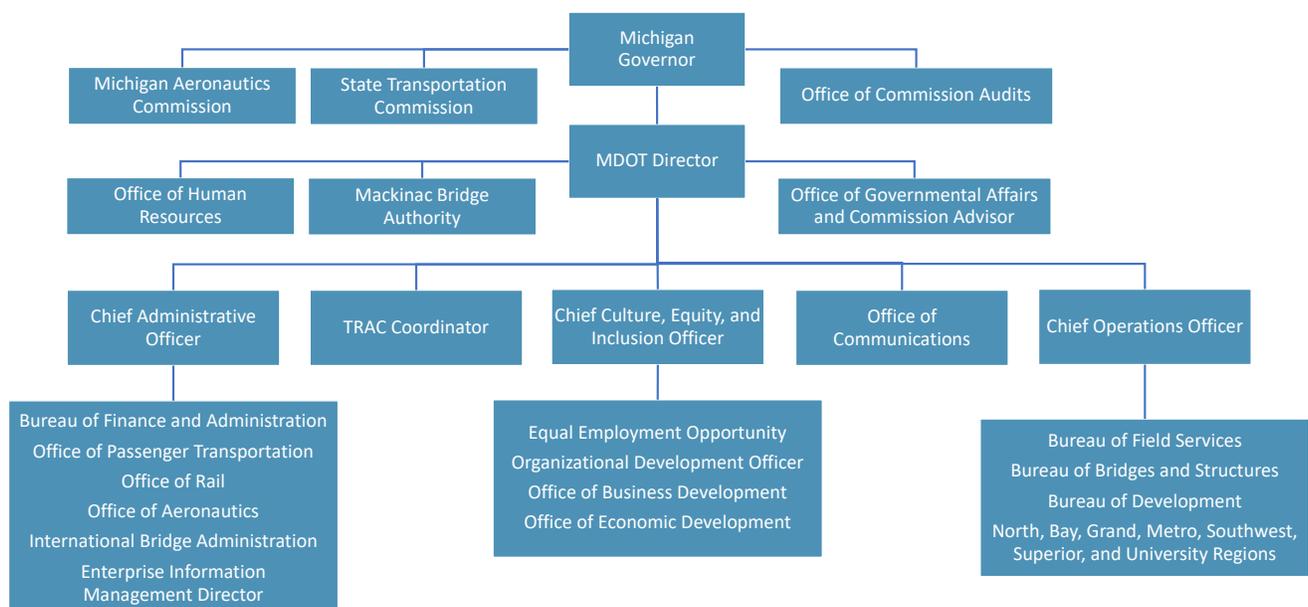
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6.1.21 Michigan Department of Transportation (MDOT)

BACKGROUND

The Michigan Department of Transportation (MDOT) is responsible for Michigan's 9,669-mile state highway system, comprised of all state trunkline, interstate, and United States-numbered highway routes. MDOT also administers several state and federal transportation programs, including those for aviation, intercity passenger services, rail freight, and local public transit services, as well as the Transportation Economic Development Fund (TEDF), among others.

Figure 22: MDOT Organizational Chart



MDOT consists of over 2,600 employees and is organized into seven (7) regions statewide (see Figure 22). MDOT also includes 35 offices, administrations, and divisions that cover administrative functions, types of transportation services, resource and fiscal management, planning and operations, structural design and preservation, and business development, among other functions.

RESPONSE HIGHLIGHTS

MDOT largely maintained its typical steady-state operations throughout the COVID-19 crisis, except for providing traffic control support at COVID-19 testing and vaccination sites across Michigan. Multiple sites were established, including state welcome center parking lots, where MDOT provided traffic control and direction. MDOT also participated in the SEOC to stay apprised of statewide response activities and to understand how to assist with surge response activities.

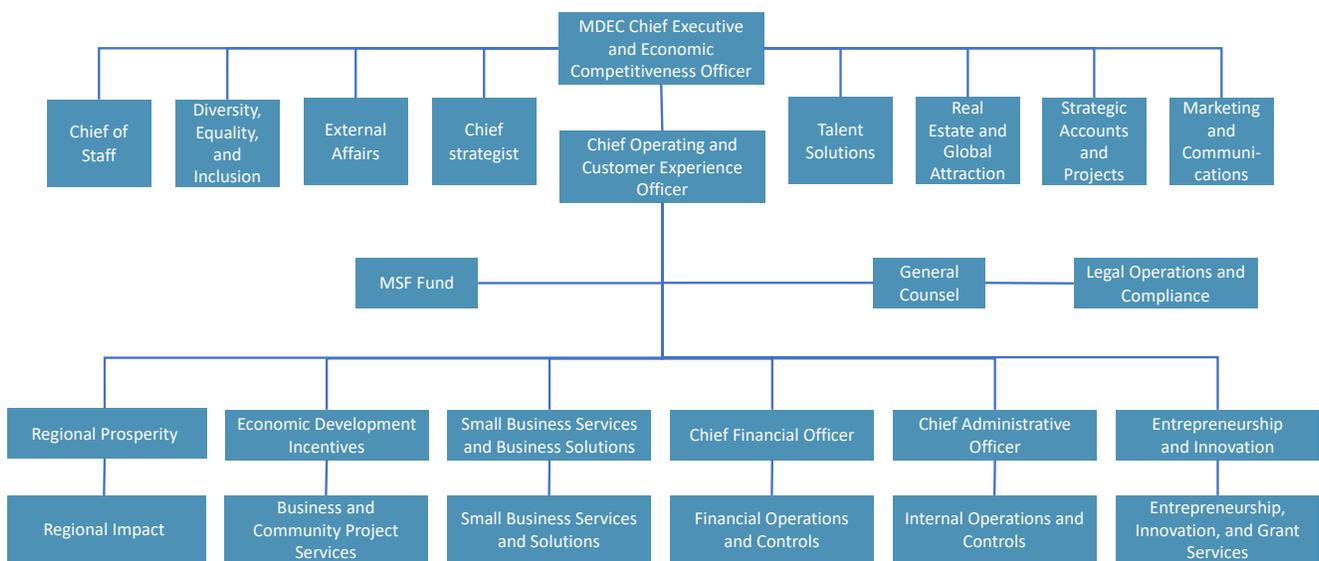
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6.1.22 Michigan Economic Development Corporation (MEDC)

BACKGROUND

The Michigan Economic Development Corporation (MEDC), in collaboration with more than 100 economic development partners, markets Michigan as the place to do business, assists businesses in their growth strategies, and fosters the growth of vibrant communities across the State. The mission of the MEDC is to achieve long-term economic prosperity for Michiganders by investing in communities, enabling the growth of good jobs, and promoting Michigan's strong image worldwide.

Figure 23: MEDC Organizational Chart



The MEDC includes the MEDC Board, which includes representatives from MEDC's local partners as well as 20 members of the MEDC Executive Committee (see Figure 23) that includes the Michigan Strategic Fund (MSF), the Michigan Workforce Development Board (MWDB) and the Commission for Logistics and Supply Chain Collaboration.

The MEDC provides economic development services and programs to attract and retain talent in Michigan communities. The MEDC also supports Michigan tourism by managing the "Pure Michigan" advertising campaign.

RESPONSE HIGHLIGHTS

The MEDC's role during the pandemic response was to help businesses and communities that were impacted by pandemic-related enforcement measures. Since a State of Emergency was declared in March 2020 in response to COVID-19, the MEDC has launched over 20 economic relief and recovery programs to provide vital economic support to businesses, entrepreneurs, workers, and communities across all Michigan counties. The MEDC also launched a COVID-19-specific website for businesses and communities. The MEDC also participated in a Michigan-wide interagency task force that managed federal funding that was dispersed among businesses and residents in Michigan.

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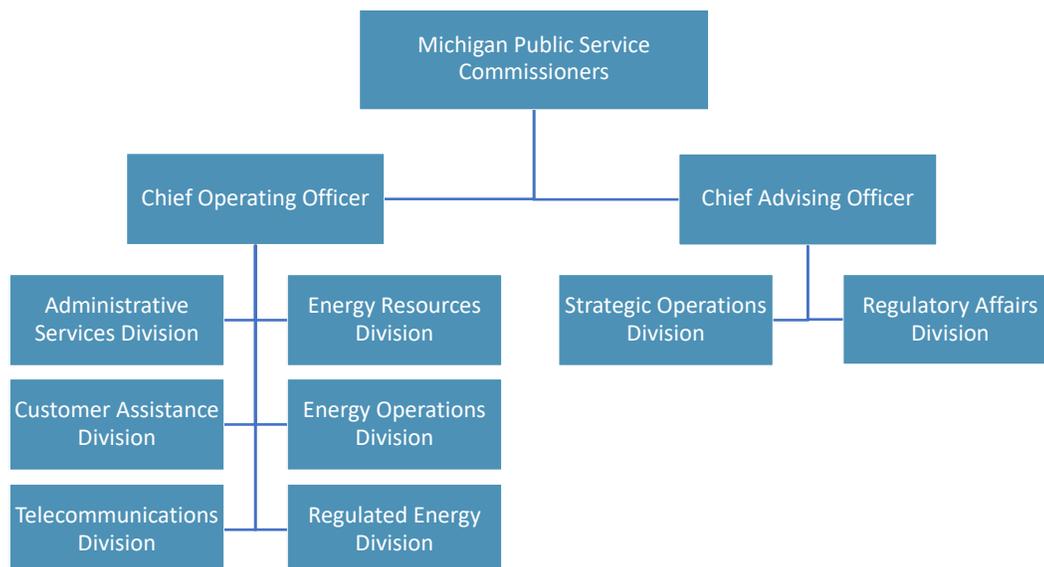
6.1.23 Michigan Public Service Commission (MPSC)

BACKGROUND

The Michigan Public Service Commission (MPSC) ensures safe, reliable, and accessible energy and telecommunications services at reasonable rates. It is committed to developing action-oriented strategies that reinforce the MPSC as a safe, welcoming work environment and as an organization that serves all Michiganders equitably. The MPSC is housed within LARA.

The Commission is composed of three (3) members appointed by the governor to serve staggered six (6)-year terms. No more than two (2) commissioners may represent the same political party. One (1) commissioner is designated as chair by the governor.

Figure 24: MPSC Organizational Chart



The MPSC employs approximately 160 full-time employees and is comprised of eight (8) divisions (see Figure 24), including:

- Administrative Services Division (Admin)
- Customer Assistance Division (CAD)
- Energy Operations Division (EOD)
- Energy Resources Division (ERD)
- Regulated Energy Division (RED)
- Telecommunications Division (Telecom)
- Regulatory Affairs Division (RAD)
- Strategic Operations Division (Strat Ops)

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RESPONSE HIGHLIGHTS

The MPSC's role during the COVID-19 pandemic was to liaise between critical energy (i.e., electric, natural gas, petroleum) and telecommunications infrastructure, and the State of Michigan to ensure the COVID-19 response efforts met the needs of the utilities and the public. To that end, the MPSC hosted weekly check-in calls and facilitated the distribution of PPE to private-sector partners that provide energy/telecommunications services in Michigan. The MPSC also actively participated in the SEOC, where it was represented on the Utilities Task Force and Economic Task Force.

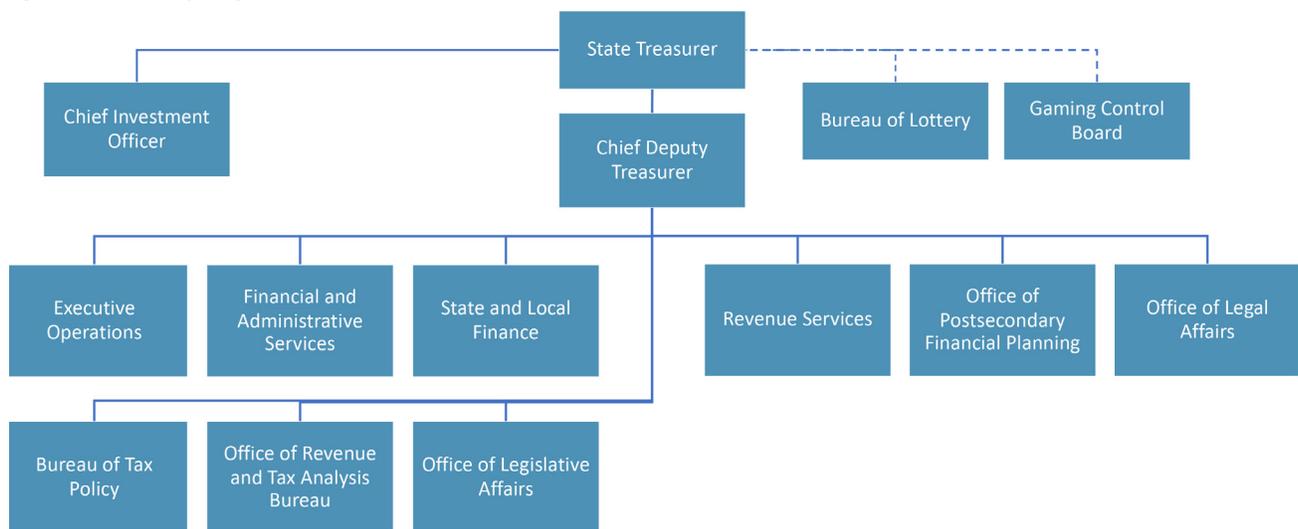
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6.1.24 Michigan Department of Treasury (Treasury)

BACKGROUND

The Michigan Department of Treasury (Treasury) oversees the collection, investment, and disbursement of all state monies and administers major tax laws, safeguards the credit of the state, and distributes revenue sharing monies to local units of government. Treasury's mission is to provide fair and efficient financial services on behalf of taxpayers, governments, students, and all Michiganders, for the long-term fiscal health and stability of the State.

Figure 25: Treasury Organizational Chart



Treasury consists of several sub-agencies that deal with various elements of revenue collections for the State and employs over 1,600 people (see Figure 25), including:

- Investments
- Executive Operations
- Financial and Administrative Services
- State and Local Finance
- Revenue Services
- Office of Postsecondary Financial Planning
- Office of Legal Affairs
- Bureau of Tax Policy
- Office of Revenue and Tax Analysis
- Office of Legislative Affairs
- Bureau of Lottery
- Michigan Gaming Control Board

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RESPONSE HIGHLIGHTS

Treasury supported the State of Michigan's COVID-19 response through participation in several response task forces in the SEOC, especially those regarding economic recovery. Treasury oversaw modifications and special exemptions for the State's income tax filing for tax year 2020 and other key revenue deadlines of interest to residents, businesses, and state departments. Treasury additionally played a large role in the contracting and procurement of resources, such as PPE.

Internally, Treasury focused on the long-term fiscal health of the state, maintained state revenue, conducted economic forecasting, and administering both traditional federal grants and newly available federal grants related to emergency COVID-19 funding. Treasury was also responsible for facilitating funding from the American Rescue Plan Act (ARPA), Treasury Coronavirus Aid, Relief, and Economic Security (CARES) Programs, Growing MI Business Grant, and MI Classroom Heroes Grants, as well as for collecting taxes and raising awareness of tax deadline changes and collections assistance eligibility.

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This report organizes all findings into specific themes (Focus Areas) generated from data collected in response to the pandemic through document analysis, surveys, and interviews. The output is a thorough review of the response, including what was done well, what could be improved, and overall lessons learned to help inform future responses. Table 1 organizes all findings into specific Focus Areas that identify high-level themes for the strengths and areas of improvement described in greater detail throughout this section. Each area for improvement is listed in the Improvement Plan (IP) and accompanied by a course of action to correct it.

Table 1: Michigan Strengths and Areas for Improvement during the COVID-19 Response

FOCUS AREA	STRENGTHS	AREAS FOR IMPROVEMENT
 Business Continuity and Continuity of Operations (COOP)	<ul style="list-style-type: none"> • Shift to remote work • Public access through virtual technology 	<ul style="list-style-type: none"> • Limited existing remote work policies • Remote staff management • Confirming essential government functions
 Communications	<ul style="list-style-type: none"> • Interagency communication • Internal communication to employees • External communication to public and response partners 	<ul style="list-style-type: none"> • Decision-making in operational silos • Delayed messaging approval
 Financial Management	<ul style="list-style-type: none"> • Implementing financial measures 	<ul style="list-style-type: none"> • State spending freeze • Cost reimbursement ambiguity • Expenditure tracking
 Hospitals and Healthcare	<ul style="list-style-type: none"> • Strong healthcare/state relations • Robust data modeling to support resource distribution 	<ul style="list-style-type: none"> • Staffing, financing, and capacity issues
 Incident Management	<ul style="list-style-type: none"> • Adaptive incident management structure • Interagency coordination • Centralized recording keeping software 	<ul style="list-style-type: none"> • Implementation of a Unified Command structure • Inconsistent training • Lack of institutional knowledge • Staffing shortages

(continued on next page)

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Table 1: Michigan Strengths and Areas for Improvement during the COVID-19 Response (continued)

FOCUS AREA	STRENGTHS	AREAS FOR IMPROVEMENT
 <p>Logistics</p>	<ul style="list-style-type: none"> • Essential resource distribution • Defined SEOC responsibilities • Staff ingenuity and creativity 	<ul style="list-style-type: none"> • Supply chain disruptions • State-level distribution management
 <p>Planning and Operations</p>	<ul style="list-style-type: none"> • Pre-emptive coordination with leaders and public health officials • Existing emergency and health plans 	<ul style="list-style-type: none"> • State pandemic plan content, maintenance, socialization, and training
 <p>Public Health</p>	<ul style="list-style-type: none"> • Testing capabilities • Monitoring and surveillance improvements • Implementation of public health policy decisions 	<ul style="list-style-type: none"> • Constrained laboratory resources • Underinvestment in state data management systems
 <p>Public-Private Partnerships</p>	<ul style="list-style-type: none"> • Established public-private partnerships • State's Public/Private Partnership (P3) program 	<ul style="list-style-type: none"> • Challenges with vetting vendors
 <p>State-Local Coordination</p>	<ul style="list-style-type: none"> • Trained emergency management personnel • More frequent interactions between state and local emergency managers 	<ul style="list-style-type: none"> • Inconsistent pandemic mandate implementation • State policy distribution to local stakeholders
 <p>Volunteer Coordination</p>	<ul style="list-style-type: none"> • Established volunteer partners • Increased volunteer interest 	<ul style="list-style-type: none"> • Volunteer registry management process • Limited in-person volunteer opportunities • Siloed volunteer partnerships

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6.2.1 General Observations

As the Michigan COVID-19 After-Action Report/Improvement Plan (AAR/IP) evolved, several general observations were identified that were not unique to Michigan's response but rather were understood to have been experienced at a regional or national scale. The following general observations are neither classified as strengths or areas for improvement as they are not specific or notable recommendations that could be assigned to an agency or department.

- The nature of a pandemic created uncertainty and a changing information landscape as scientific understanding evolved and the pathogen itself mutated. This resulted in both state and federal health recommendations and regulations frequently changing. Adapting to new understandings and adapting strategies to new threats required continuous course correction.
- Opposition to public health interventions such as lockdowns, mask mandates, and vaccination campaigns resulted in public discord directed at public health workers. Public backlash to public health interventions made many public health officials wary of getting involved in enforcement.
- In addition to increasing demand for key resources, the pandemic interrupted global manufacturing and transportation supply chains and increased demand for key resources.
- Legislative appropriations of the pandemic response and recovery funding slowed operations which strained and delayed the response operations.
- Classifications for essential and non-essential workers were not always explicit. In some cases, staff who were originally deemed non-essential ultimately had roles that were essential to the pandemic response. The stress of the Coronavirus Disease (COVID-19) response, combined with the personal impacts of the pandemic, led to high personnel turnover as a result of burnout.
- Frontline health care workers were significantly impacted by the COVID-19 pandemic. Working long hours in hazardous conditions caused high levels of fatigue and stress.
- The risk of infection to personnel both suppressed the number of individuals willing to volunteer and posed a liability risk to the organizations that would traditionally organize efforts.
- Many government employees did not work from home on a regular basis prior to COVID-19. The transition was difficult for some who did not have ideal home-based work environments. Some staff reported issues with available quiet space, which was exacerbated for those whose children were at home because of school and daycare closures. Further, some employees did not have reliable or capacity-sufficient internet connections.
- Unfamiliar federal partnerships were leveraged, presenting challenges in state and federal communications pathways. This unique emergency required coordination with different federal partners than traditionally expected or exercised.
- A surge in private vendors interested to provide resources and services to the COVID-19 response proved challenging as entities worked to verify vendors without expertise in equipment being procured.



6.2.2 Business Continuity and Continuity of Operations

The Business Continuity and Continuity of Operations (COOP) Focus Area of this After-Action Report (AAR) identifies Michigan state agency's/department's strengths relative to their ability to ensure that Mission Essential Functions (MEF) were maintained with minimal interruptions throughout the COVID-19 response. This AAR also captures historic COOP areas for improvement the State of Michigan noted during the COVID-19 evaluation period. An interviewee described the response as "one massive, full-scale continuity exercise." Given the unprecedented scope and scale of the pandemic response, existing COOP plans (required for each state agency) were insufficient.

Strengths

Staff transition to a remote work environment was smooth and did not significantly disrupt or delay service delivery.

- Many state agencies and departments were able to transition their staff to remote work and continue their key functions within a few weeks of being required to close the office. Agencies and departments reported an average of 90% of their staff worked remotely at some time during the pandemic, far exceeding operational histories. Many interviewees reported feeling that their respective agency did a good job providing the resources (e.g., cell phones, laptops, Virtual Private Networks (VPNs), and software) and technical support needed to successfully transition to working from home. Access to printers and laptops remained an issue for some agencies.

95% of survey respondents agreed or strongly agreed that their agency or department "was still able to function well, despite the challenges posed by the pandemic," and 92% agreed or strongly agreed that they were able to adjust to working from home and perform all job functions effectively.

- State agencies and departments were able to successfully leverage virtual tools, such as Microsoft Teams, to transition Michigan's state government workforce of over 47,000 full-time employees to a largely remote work environment. Overall, the transition to remote work was a major success despite initial hurdles.

Some state agencies have already amended their COOP plans to include policies and protocols for a remote work environment.

- Many state agencies and departments had existing COOP plans that included predefined roles inside MEFs. COOP plans designated alternative worksites, which provided a starting point for staff to adapt to pandemic response efforts. Several interviewees noted that their agencies have conducted internal AARs and updated their existing COOP plans to incorporate virtual work aspects, including specific plans and protocols for transitioning to remote operations during future disasters.

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- Prior to the pandemic response, several state agencies had begun to replace desktop computers with laptops, create remote work policies, and allow employees to work from home a few days a week. Interviewees from these agencies reported feeling as if existing remote work resources significantly improved the transition to a fully remote work environment during the pandemic.

Sufficient staffing supported continuity of operations.

- Some interviewees cited strong relationships with their agency's Human Resources (HR) department as instrumental to ensuring they had the staff needed to cover essential operations. This was particularly important when critical staff needed to be exempted from the staff furlough.
- The State of Michigan implemented a COVID-19 screening process for staff that included temperature checks for all individuals entering state buildings and mandated staff working in-person complete and submit a daily COVID-19 screening questionnaire. This ensured staff who were feeling sick remained at home and increased feelings of safety among staff working in person.

Virtual public meetings increased public access to government operations.

- Virtual public meetings and hearings improved accessibility for public stakeholders across Michigan, as they no longer needed to travel to attend these meetings in person. Plans are underway to continue virtual meetings as agencies resume the option for in-person attendance.

New COVID-19 programs were rolled out in response to impacts.

- In addition to performing mission-essential work, many state agencies rolled out new programs to support and assist Michigan residents, businesses, and local governments impacted by COVID-19.
- State of Michigan employees were redistributed across state government to support MEFs. Staff members whose day-to-day responsibilities were reduced or eliminated due to COVID-19 restrictions were re-assigned to support COVID-19 response activities, such as contact tracing. This enabled them to remain employed to support surge response efforts, rather than being furloughed.

Areas for Improvement

Technology was not uniformly available to facilitate the transition to remote work.

- Agency personnel who did not have laptop computers or sufficient workspace at home were challenged to transition to remote work. Accessing restricted information or files stored on local network servers presented additional issues. Access to VPNs had not been implemented by some agencies prior to COVID-19, nor had all staff been trained to use them, resulting in the need for some staff to return to their workplaces to access files and/or print materials.
- Bureaucratic processes and information flows that were reliant on paper forms had to be adapted to electronic options to support remote work. Multiple interviewees expressed that the pandemic tested the prior belief that their organization was paperless.

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Remote work policies that existed pre-pandemic were not comprehensive.

- Prior to the COVID-19 pandemic, limited remote work policies did not reflect long-duration events or allowances for temporarily removing state-owned equipment (e.g., computers) for work-from-home use, nor did policies speak to allowances or restrictions regarding the forwarding of work-related mail to private residential addresses. Additionally, some staff expressed frustration regarding the lack of mailing supplies needed for outgoing postings.

Prioritizing the continuity of essential government functions (and the resources necessary to support them) during the pandemic required many state programs to be redesigned or ceased.

- Staff involved in core response functions had reduced capacity for their normal job duties. Many staff reported the sentiment that “COVID took over everything.” The demands of the pandemic led many agencies and departments to halt less urgent work and table planned project launches.
- Many Michigan state government functions that involved interaction with the public were halted during the pandemic response period evaluated for this AAR.
- Furloughs were not universally impactful. Where furloughs did occur, they presented operational constraints. Members of leadership were furloughed in some cases, causing them to return to work without pay to maintain critical functions.

Managing staff and maintaining information flows were challenging in a digital, remote workspace.

- While some survey respondents indicated they adapted well to the new digital, remote work environment, others found it challenging to manage staff or maintain information flows. Additionally, some staff reported a sense of disconnection from colleagues, along with other mental health impacts associated with remote work and social distancing requirements.



6.2.3 Communications

The Communications Focus Area of this After-Action Report (AAR) refers to the state's ability to deliver timely and accurate written and verbal communications inside state government in support of COVID-19 response, including recovery operations and general situational awareness for state employees as well as through external, public-facing communications.

Strengths

Inter- and intra-agency communications were largely strong, two-way, and enabled situational awareness.

- 78% of state employees surveyed agreed or strongly agreed that leadership clearly communicated their agency's or department's role in the COVID-19 response to them. Only 6% expressed any degree of disagreement.
- 92% of survey respondents agreed or strongly agreed that they understood their agency's or department's workplace health policies as a result of strong internal communications.
- Internal communications staff were integral to agencies involved in core response functions.
- Communication was optimized because of existing relationships among agencies' personnel.
- Almost all inter-agency communication channels were two-way. 91% of survey respondents answering questions about communication partners identified that relationships involved information shared in both directions.
- When asked about interactions with their three (3) most significant communication or collaboration partners, 96% of survey respondents agreed they received the information they needed, and 82% reported it was received in a timely manner most of the time.
- Departments and agencies regularly updated their websites to include new information and answers to frequently asked questions related to COVID-19. Many also leveraged social media channels, hotlines, influencers, and other channels to maximize the availability of crucial information to the public.

External communication channels aimed to provide consistent and timely information to the public and response partners not positioned within the State Emergency Operations Center (SEOC).

- Public health officials set up hotlines to provide information to the public, health care workers, and businesses during the initial phase of the response. Call center operations managed to field thousands of calls per day using a distributed model where operators could take calls from their homes using computers.

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- The Joint Information Center (JIC) effectively centralized the review of public-facing communications, reducing the risk of misinformation and inconsistencies that could damage credibility.
- American Sign Language interpreters were used during press conferences to ensure information accessibility for both deaf and hard-of-hearing populations.
- Designated points of contact provided quick and streamlined answers to critical private-sector partners.

Areas for Improvement

Long-standing operational silos resulted in communications/collaboration challenges.

- Some larger state agencies struggled with internal communications between branches and divisions. Internal silos impacted information flows.
- Lower-level employees not directly engaged in core response functions reportedly felt confused about decision-making processes and the strategic direction of the pandemic response. Some policy changes that directly affected staff were not uniformly accompanied by clear direction or situational context, often resulting in a sense of disconnection.
- Where prior relationships did not exist or where there was staff turnover, it was reported during interviews that it became difficult for mid-level employees to identify appropriate lateral contacts at other agencies or departments.

Slow messaging approval impacted the perception of authorities' response capabilities.

- Complex approval processes meant messaging strategies took time to develop and launch. The messages sometimes debuted as cases had begun rising and vice versa, making authorities and decisions appear insensitive or delayed.



6.2.4 Financial Management

The Financial Management Focus Area of this AAR identifies strengths related to how State of Michigan agencies and departments navigated budgetary or financial constraints, pursued emergency funding opportunities, and implemented cost recovery methods resulting from the COVID-19 pandemic. A large influx of federal funds enabled direct pandemic response operations that would have been impossible using only state-provided funding. Sources included the Centers for Disease Control and Prevention (CDC) and the Federal Emergency Management Agency (FEMA), among others. State employee knowledge of financial and budgetary issues was relatively high during interviews and in the survey responses.

Distribution of federal funds significantly reduced agency budgetary limitations on response operations, but an early state spending freeze and issues with the processes for allocating and managing emergency federal funds for state agency use complicated response efforts. Financial management was a significant challenge throughout the COVID-19 response.

Strengths

New fiscal measures were implemented to assist state employees.

- Through the Michigan Department of Health & Human Services (MDHHS), the State of Michigan oversaw the distribution of hundreds of millions of dollars in federal relief funds to hospitals and health care providers to prevent a catastrophic collapse of the healthcare system during the pandemic.
- As the response evolved, departments and agencies responsible for handling COVID-19 funds developed more robust tracking, sourcing, and approval mechanisms improving the state's ability to expeditiously appropriate funds to recipients within state government, hospitals, long-term care facilities, education, etc.
- Following the shift to remote work for most state employees, many agencies and departments realized significant cost savings, allowing for agency budgets to allocate more funding for COVID-19 response priorities.

Areas for Improvement

The freeze on discretionary spending and hiring inhibited response efforts.

- The state is constitutionally obligated to submit and pass a balanced budget each year. Due to the anticipation of reduced tax revenues from COVID-19's economic impacts, Michigan froze discretionary spending and new hiring in March 2020. Staff who were not involved in the logistical or public health elements of the response expressed that the discretionary funding and hiring freeze made it difficult to build out needed programs aimed at COVID-specific issues.

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Policies and procedures related to COVID-19 cost reimbursements were not uniformly clear.

- Interviewees from multiple agencies expressed confusion about reimbursements for expenditures related to the COVID-19 response. This confusion made understanding the intention of various funding streams difficult because it was unclear whether outlays would be reimbursed in some scenarios. Additionally, there was some ambiguity about the overlapping authorities between traditional budgetary structures and emergency response funding structures.

Expenditure tracking and accountability did not keep pace with demands for services and materials.

- Early in the pandemic response, agencies and departments charged with disbursing COVID-19 funds, procuring materials, and hiring contractors were overwhelmed with requests. As a result of the urgency of the requests, careful expenditure tracking was lacking. After the first few months of the response, expenditure tracking methods and processes were implemented to minimize these issues.



6.2.5 Hospitals and Healthcare

The Hospitals and Healthcare Focus Area of this AAR describes the strengths related to how the state interacted with and expanded partnerships with external partners, such as hospitals, health care providers, healthcare coalitions, and emergency medical services, throughout the COVID-19 response. It also describes the areas for improvement that were experienced during the AAR evaluation period.

Hospitals and health care providers were prominent players in Michigan's COVID-19 response efforts. As a "home rule" state, local health departments are responsible for public health at the local level.

From an emergency preparedness standpoint, the healthcare coalition network proved to be effective at mitigating some of the logistical issues associated with providing resources and funding to local health entities by working with local partners to prepare hospitals, emergency medical services, and other healthcare organizations to deliver effective care. Regional coordinators and medical directors in these coalitions built strong working relationships with state emergency management and public health employees, which fostered effective communication networks. The COVID-19 pandemic also emphasized the impact that underfunding and understaffing has had on the hospital and healthcare industry nationwide.

Strengths

Strong relationships that existed between healthcare industry stakeholders and state government agencies prior to the pandemic resulted in expedited, collaborative response efforts.

- Central to many response efforts, Michigan's eight (8) regional healthcare coalitions facilitated supply distribution networks and communications channels at the regional and local levels.
- State employees closely coordinated with interest groups, such as the Michigan Hospital Association, which represents many types of health care professionals. These relationships helped to align response strategies across the public and private sectors.
- Health care providers and hospital networks have prominent roles in Michigan's emergency response plans and participated in pre-pandemic Incident Command System (ICS) training, which had direct application to pandemic response efforts.
- To combat staffing shortages, the governor's office issued Executive Orders (EOs) temporarily relaxing regulations governing health care staff, including allowing providers licensed out of state to work in Michigan under their existing qualifications.

State staff dedicated to hospital preparedness built robust data models to triage the distribution of scarce resources.

- These robust data models ensured that scarce resources, such as Personal Protective Equipment (PPE), were distributed to hospitals and health care providers in areas where there were infection surges.

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Areas for Improvement

COVID-19 exacerbated staffing, finances, and capacity issues among hospitals and health care providers that pre-dated the pandemic.

- Outside of the partnership between MDHHS and emergency response officials, there was some confusion about the response roles and responsibilities of regional healthcare coalitions in Michigan. State staff who were unfamiliar with the functions of healthcare coalitions were unsure how to best include them in related response efforts.



6.2.6 Incident Management

The Incident Management Focus Area of this AAR identifies successes and areas for improvement encountered by state agencies and departments regarding the implementation of command, control, and coordination structures to stabilize the COVID-19 pandemic and facilitate a transition to recovery.

The COVID-19 pandemic impacted the work of every Michigan state government employee. Incident management strained the state's emergency management infrastructure as state officials strategized innovative ways to adapt to the pandemic demands. The scope, scale, and duration of the pandemic expanded beyond existing emergency plans, resulting in strengths and areas for improvement.

Strengths

The State of Michigan's COVID-19 incident management remained necessarily flexible and adaptive throughout the pandemic.

- The SEOC was central to coordination, information, logistics management, resource request processing, and directing joint operations. The Michigan State Police (MSP), Emergency Management and Homeland Security Division (EMHSD) successfully leveraged emergency management experience to oversee high-level operations.
- The Michigan Critical Incident Management System (MI CIMS) platform, powered by WebEOC, centralized a variety of response-related recordkeeping functions, including the staff assigned to various responsibilities and resource requests.
- Co-location of the Community Health Emergency Coordination Center (CHECC) and the SEOC facilitated the flow of information between these two (2) entities early on during response operations.
- The Executive Office of the Governor (EOG) worked with leadership from all major responding agencies to coordinate information and deliberate on short- and long-term response strategies.
- Mass care facilities were enabled through the intensive, well-coordinated efforts of Michigan agencies and departments working collaboratively under SEOC leadership. Ford Field, TCF Center, Suburban Collection Showplace, and other locations were supported with significant staffing and logistical support arranged by state emergency management authorities.
- State agency and department leadership relied on both formal emergency management structures and ad hoc teams to address emerging response needs. The scale, scope, and duration of the pandemic meant that many challenges (and their solutions) did not fit neatly into the traditional incident management organizational structure, and leadership frequently adapted by identifying those with the closest related competencies to manage a given situation.

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Areas for Improvement

Several decision-making authorities operated in parallel during the COVID-19 response, sometimes resulting in an unclear chain of command.

- While the SEOC had command-and-control responsibility for response operations, major strategic decision-making occurred outside of the SEOC command structure. Responsibility and authority for the different elements of the response were distributed between the SEOC, working groups created by the EOG, and all state departments -- all of which operated outside of formal emergency response structures resulting in inconsistencies such as operating procedures, terminology, communications, and management.
- Subject matter experts in niche areas were frequently situated towards the bottom of the emergency response structure, leading to their exclusion from higher-level decision-making.

ICS training was not uniform among all staff with response duties.

- 31% of pre-interview survey respondents said they were unsure if their organization (agency/department) followed ICS protocols.
- 72% of pre-interview survey respondents indicated they had received ICS training prior to the COVID-19 pandemic. In some cases, staff from the same agency/department offered conflicting answers as to whether ICS was implemented, further demonstrating a lack of uniform ICS training/awareness.

Some institutional knowledge was lost in the change of administrations and leadership turnover.

- Since the initial pandemic response began approximately one (1) year into a new gubernatorial administration, institutional knowledge was not consistently transferred among political appointees. Further, many agency/department leadership positions were vacated during the pandemic response, additionally encumbering knowledge transfer of best practices and lessons learned.

Staff and resource shortages for pandemic response were exacerbated by incident management demands that resulted from social unrest, natural disasters, and a catastrophic dam failure.

- Existing emergency response structures were not designed to support the magnitude, geographic spread, or duration of COVID-19. This led to staffing shortages among the state's public health and emergency management areas. Resources were further stretched by demands that resulted from other emergencies that occurred during this AAR/IP evaluation period, including social unrest, natural disasters, and a catastrophic dam failure.

Traditional incident command authorities assumed control of the response, which required the realignment of entities engaged in various aspects of the crisis early on.

- The MSP/EMHSD personnel who oversee and manage the SEOC have extensive emergency management experience with natural disasters and acts of terrorism. The scope, scale, and duration of the pandemic created unique challenges that required greater involvement by public health subject matter experts, which initially resulted in tensions between emergency management and public health experts regarding the command structure.



6.2.7 Logistics

The Logistics Focus Area of this AAR describes the strengths state agencies/departments demonstrated in the delivery of essential commodities, equipment, and services in COVID-19 response efforts. State government areas for improvement during the AAR evaluation period are also described.

The SEOC effectively centralized all major logistics functions in close coordination with the Department of Technology, Management & Budget (DTMB). The SEOC's responsibilities included sourcing supplies, vetting and fulfilling resource requests, managing donations, and facilitating the distribution of Personal Protective Equipment (PPE).

Strengths

State government managed the distribution of essential resources.

- Representatives from the EOG, DTMB, MDHHS, and the SEOC ensured that mass quantities of PPE, sanitation supplies, and other items critical to public health response to the pandemic, were provided to hospitals and healthcare entities across the state.
- Logistics management responsibilities were well-defined in the SEOC, which enabled rapid scaling up of operations, as needed. For example, response personnel assigned to donations management processed donations (e.g., hand sanitizer from local distilleries and ventilators produced by Michigan's automotive manufacturing industry) in the absence of resources provided from the Strategic National Stockpile. Additionally, ingenuity and relationship-building efforts by state employees proved to be exceptionally important in the procurement of critical resources needed during the pandemic.
- The WebEOC platform centralized resource requests and provided a real-time common operating picture for SEOC staff as well as other federal and state partners.
- The Michigan National Guard significantly supported warehouse operations, PPE delivery, and other key logistical functions such as assisting healthcare coalitions with planning, distributing, and tracking critical medical supplies across the state.

Areas for Improvement

Competition among states for scarce resources was exacerbated by supply chain disruptions internal and external to Michigan.

- Communication between the elements of the logistics chain broke down at times. For instance, a large order could be placed without warehouse staff receiving forewarning, leading to a delivery arriving without sufficient storage space or staff to support receiving.

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- Technical medical issues, such as small differences in ventilator models, were difficult for logistics staff handling procurement to parse without medical training. This issue was mitigated through channels that engaged MDHHS subject matter experts.



6.2.8 Planning and Operations

The Planning and Operations Focus Area of this AAR describes the strengths and areas for improvement associated with the state's ability to implement existing plans, develop new plans, and carry out associated operational actions by agencies/departments throughout the state's COVID-19 response.

Although staff reported that most response actions were developed ad hoc, elements of select planning documents, such as the existing Pandemic Influenza Emergency Response Plan, provided some helpful starting points.

Strengths

Michigan agencies and departments demonstrated significant flexibility in adapting to the evolving crisis even as COVID-19 presented new challenges and revealed the need for additional planning during extended emergency responses.

- The state's COVID-19 response planning began in December 2019, prior to any cases of COVID-19 being confirmed in Michigan. This planning included communicating with leaders and public health officials in other states that were already impacted by COVID-19 (e.g., Washington) to identify potential issues and areas of concern. This preparation enabled Michigan's COVID-19 response to operationalize once the state identified its first confirmed cases.
- The State of Michigan had existing plans that supported its COVID-19 response, including the Michigan Emergency Management Plan (MEMP) with a pandemic annex. Individual departments and agencies also had existing COOP plans, disaster response and recovery plans, and medical surge plans. The State of Michigan had a pandemic planning team composed of partners from multiple state agencies that had assessed how the state would respond if a portion of its staff was unable to work during a pandemic. Since COVID-19 started, select agencies have developed new pandemic and infectious disease plans and updated COOP plans to include pandemic considerations and best practices.
- Many interviewees noted that their experience supporting past disasters, including public health activations for the Flint water crisis, H1N1, and Ebola, helped prepare their agencies/departments to support the COVID-19 pandemic by demonstrating that a more robust response is required to manage pandemics. According to several interviewees, prior to COVID-19, the Flint water crisis is the only public health response that required an extended response period in Michigan.
- Emergency managers and other key staff from Michigan agencies had participated in exercises and drills to prepare to support a disaster response prior to the COVID-19 pandemic. These exercises were most frequently focused on natural disasters and nuclear accidents at Michigan power plants. In 2020, the State completed a pandemic exercise modeled on Ebola, but this exercise was limited to medical response personnel.

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- State government used internal All-Hazards Incident Management Team (AHIMT) resources, including personnel from the Department of Natural Resources (DNR) and MDARD to support its COVID-19 response for field hospital operations at the TCF Center and Suburban Collection Showplace, and mass vaccination clinic at Ford Field. Incident Management Team (IMTs) were deployed by the state when federal Incident Management Assistance Teams (IMATs) were not available.

Areas for Improvement

Existing state government emergency management plans were insufficient in planning, response, recovery, and training scales necessitated by the COVID-19 pandemic.

- The State of Michigan had several plans in place for pandemics and comparable scenarios, but they were insufficient for addressing the COVID-19 pandemic. COVID-19 exceeded all anticipated scenarios in scope, duration, and breadth of impact.
- Information about how the disease was transmitted and potential protection mechanisms were limited during the initial months of the pandemic often shifted quickly and with little warning. This made it challenging for Michigan agencies and departments to plan how to implement federal policies and related operational procedures.
- Many existing emergency management planning documents were focused on natural disasters, such as floods and security threats (e.g., nuclear plant accidents and acts of terrorism), and did not take pandemic-specific concerns into consideration. For example, existing plans did not account for social distancing among SEOC staff who typically work collectively in person. In addition, the scope of the Pandemic Influenza Emergency Response Plan did not sufficiently address a pandemic with the severity, geographic reach, and duration of COVID-19. Interviewees also noted there was a lack of existing agency/department policies for addressing pandemics.
- When the COVID-19 pandemic began, agencies and departments that frequently offered in-person training, such as the MSP and National Guard, were required to cancel sessions. This shutdown impacted general readiness.
- Emergency management training and exercise experience among state employees, particularly those in planning, response, and recovery functions was not universal. No training or exercises were implemented that included a full shift to remote work.

IMT scope and authority were not fully understood.

- There was some confusion regarding the scope of the IMT deployment and the level of operational decision-making authority IMT members had over the testing/vaccination sites.



6.2.9 Public Health

The Public Health Focus Area of this AAR describes successes and areas for improvement encountered by Michigan state agencies/departments regarding the implementation and enforcement of public health mandates. Tracking and combatting the spread of COVID-19 in Michigan was the largest public health undertaking in the state's history. Further areas for improvement ranged from public health enforcement to expanding laboratory capacity.

Strengths

The Executive Office of the Governor used an organizational construct that involved key state government public health officials, among others, which resulted in the timely implementation of public health policy decisions.

- In response to COVID-19, public health officials oversaw a significant overhaul of information technology systems used to monitor disease outbreaks. This resulted in the integration of previously unlinked databases and incorporated data to advance equity initiatives among at-risk populations. The most significant of these Information Technology (IT) initiatives involved the Michigan Disease Surveillance System and the Outbreak Management System.
- MDHHS Bureau of Laboratories, working closely with local stakeholders, outfitted new regional health laboratories around the state. State public health laboratories also added full genetic sequencing capabilities to track COVID-19 variants. This capability allows scientists to classify a virus as a particular variant and determine its lineage.
- Early testing demonstrated effective inter-organizational cooperation across Michigan's medical laboratories that maximized use of available resources. Laboratory equipment and technicians from Michigan Department of Agriculture & Rural Development (MDARD) and MSP forensic labs were leveraged by using a distributed assembly line model to complete portions of testing procedures. As a result, the Bureau of Laboratories maximized test availability during early periods of disease transmission.
- Michigan's laboratories had experience in advanced molecular diagnostics and genome sequencing. The state receives lab funding support through the Center for Disease Control (CDC's) Advanced Molecular Detection (AMD) program which is focused on implementing technologies in public health programs. Specific to COVID-19, funding allocates more staff and resources to collect specimens for COVID-19 testing and identify/track variants in accordance with a multi-year implementation plan.
- Disease surveillance systems were upgraded to handle case data greater than any previously tracked.

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Areas for Improvement

Long-standing underinvestment in state government technology systems initially inhibited efficient data aggregation, tracking, and analysis to inform policy and response decisions.

- In addition to the Michigan Disease Surveillance System and Outbreak Management system, data systems for managing test results and importing crucial hospital capacity metrics had inadequate functionality based on the extent of the need. In the case of laboratory software, database compatibility issues halved the capacity of one (1) machine from 1,000 samples to 500 samples per day.

Laboratory resources were constrained as a direct result of the shuttered regional laboratory system.

- State public health laboratories were funding-strapped and operating near capacity before the pandemic began. Although the previously shuttered regional laboratory system was returned to service during the response, existing staffing and technology resource constraints reduced steady-state capacity.



6.2.10 Public-Private Partnerships

The Public-Private Partnerships Focus Area of this AAR describes successes and areas for improvement encountered by state agencies/departments regarding new and existing partnerships with private entities and non-governmental organizations in response to the COVID-19 crisis.

Existing relationships with private companies proved critical to Michigan's COVID-19 response, especially when resources were scarce and a quick rollout of key services and programs was needed. The state government was able to strengthen these relationships and build new ones throughout the pandemic, establishing structures such as the Protect Michigan Commission and channels for regular communication. However, state agencies did face some challenges identifying new vendor partners, requiring workarounds to funding limitations and delivery issues.

Strengths

Strong public-private partnerships that existed before the pandemic, as well as newly formed partnerships, proved invaluable in response efforts.

- Prior to the COVID-19 pandemic, state agency/department personnel had extensive existing relationships with many private-sector partners.
- Before the pandemic, the MDHHS had existing relationships with the University of Michigan, Wayne State University, Michigan State University, and the Western Michigan's Stryker School of Medicine for everything from crisis standards of care, burn surge capability, and mass fatality planning. Other state agencies had partnerships with utility companies and banks.
- The State of Michigan was able to leverage private sector resources and expertise to strengthen their COVID-19 response. This included working with corporate partners to source and locate critical resources such as PPE from vendors overseas; working with local TV stations, satellite providers, and captioning providers to record, broadcast, and close caption press conferences; using private sector partners' logistics and statistical analysis resources, hosting testing and vaccination clinics using private sector facilities, and working with distilleries to make and distribute hand sanitizer; and developing a stronger distribution model using subject matter expertise from corporations like General Motors (GM) and Dow Chemical.
- Prior to the COVID-19 pandemic, the State of Michigan created the MSP/EMHSD's Public-Private Partnerships (P3) program. This P3 program was led by a state employee dedicated specifically to facilitating public-private partnerships during the COVID-19 response and proved valuable for coordinating the collection and distribution of donations.
- EO 2020-193 established the Protect Michigan Commission in December 2020, which brought together state agencies, non-profit entities, local governments, and private businesses to discuss important

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COVID-19 issues. Among them were challenges associated with vaccination and outreach to at-risk populations. The Commission worked to protect the health and safety of Michigan residents by educating communities about the effectiveness of the COVID-19 vaccine and developed an outreach strategy to work with communities where there was hesitancy toward the vaccine.

- Many state agencies set up regular calls, email distribution lists, and other communications channels for regularly sharing and receiving information as well as identifying where state agencies and private businesses could help each other. The State of Michigan also worked with leaders in the business community to distribute information about state resources for small businesses struggling due to COVID-19.

Areas for Improvement

Vendor vetting for essential supplies and resources was overwhelming and complicated the rapid contracting of providers of products and services that matched appropriate needs.

- Some private-sector partners reached out to provide services they were not already set up to handle, leading state agencies to spend significant time and effort preparing these projects. In addition, interviewees felt that public-private partnerships with major companies were better suited to provide large-scale disaster relief (e.g., truckloads of bottled water or statewide COVID-19 testing support), but state agencies were often fielding requests for private partners to provide smaller quantities of resources that would have been better handled locally.



6.2.11 State-Local Coordination

The State-Local Coordination Focus Area of this AAR identifies strengths and areas for improvement associated with the state's ability to coordinate local jurisdictions for COVID-19 response and recovery. State-local coordination describes the integration of response efforts at the municipal, county, regional, and state levels. Cooperation between state and local responders was crucial to responding to COVID-19.

Much of Michigan's core pandemic response efforts were conducted at the local level or through local entities, which relied on state-level agencies/departments for resources and information. Vertical integration of response efforts enabled the State of Michigan to tailor its response efforts to the needs of different populations.

Strengths

Michigan's COVID-19 response benefited from a large network of well-trained local emergency management personnel.

- ICS training and drills conducted prior to the COVID-19 pandemic proved useful for coordination efforts between state and local entities during the early stages of the pandemic response. The standardized system encouraged the use of common terminology to ensure clear communication as partners worked together.
- MDHHS had strong relationships with the public health sector, including regional healthcare coalitions and local health departments, while the MSP/EMHSD had strong relationships with the emergency management sector, including local emergency management coordinators.
- Coordination during the COVID-19 response created new relationships between local public health and emergency management structures. Partnerships have provided financial support and technical assistance, supported project implementation and delivery, facilitated research, data collection and analytics, and coordinated various response actions.
- Interactions between both state and local emergency managers and emergency coordinators, as well as with district coordinators, significantly increased during the COVID-19 pandemic.

Areas for Improvement

Inconsistencies regarding the implementation of COVID-19 mandates at state and local levels resulted in tension.

- As a "home rule" state, Michigan grants ultimate authority over many aspects of public health to local health departments. It also relies on them to implement and enforce policies. Differences of opinion

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between state and local officials, coupled with public backlash against some regulations, created tensions. The mask and social distancing orders were major flashpoints.

Lack of general awareness by local officials on mandate announcement timing hampered their abilities to comply with new policies in a timely manner.

- After issues with unauthorized publicization of upcoming policy changes, the flow of information from top-level decision-makers to local entities decreased. This meant that the local officials tasked with the implementation of these policies often learned of them without adequate advanced notice and at times learned of them through media reports or press releases, removing the ability to prepare appropriate strategies prior to the announcement.



6.2.12 Volunteer Coordination

The Volunteer Coordination Focus Area of this AAR describes the utilization of available volunteers by state agencies/departments in support of Michigan's response to and recovery from the COVID-19 crisis, particularly in contact tracing and testing and vaccination site support.

Strengths

The existing Michigan Volunteer Registry, which includes a robust, in-depth process for background checking, organizing, and matching prospective volunteers with the appropriate volunteer opportunities, was leveraged for the COVID-19 pandemic.

- Volunteer partners included the Michigan Community Service Commission (MCSC), AmeriCorps, Community Emergency Response Teams (CERTs), and Voluntary Organizations Active in Disasters (VOADs).
- A separate volunteer registry specific to COVID-19 opportunities was established. MDHHS created an entire system for onboarding, training, and managing prospective volunteers that included background checks and identifying which had appropriate skillsets. Additionally, it provided privacy and security training, access to tools, and identified supervision and time accounting. Overall, interviewees noted this program was very successful, although one also felt some volunteers may not have received sufficient emotional support for this type of volunteer work.
- While there reportedly was some hesitance to volunteer in person due to COVID-19 safety concerns, especially among seniors, some interviewees noted that by mid-2020, there was a surge in volunteer interest that outpaced the state's capacity to use them. Unaffiliated volunteer projects occurred outside of state government purview, including food banks and several private companies, such as Walgreens, that organized volunteer projects among its staff.
- There was significant public interest in volunteering at testing and vaccination sites, although citizen volunteers were used mostly as parking attendants and check-in staff, due to the specialized medical nature of most other testing and vaccination site positions.

Areas for Improvement

The Michigan Volunteer Registry system had inadequate functionality based on the extent of the need during COVID-19, creating challenges for both prospective volunteers and those looking for volunteers.

- At the onset of the pandemic, Michigan created a new volunteer registry with a shorter, more streamlined sign-up process to expedite volunteer registration, especially among medical professionals who were

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highly needed for the COVID-19 response. However, this new registry did not have established backend management processes for verifying and background-checking prospective volunteers, organizing them, communicating with them, or matching them with prospective volunteer opportunities. As a result, lists of prospective volunteers had to be manually background checked and few were used. Ultimately, volunteer entries collected using the new registry were integrated back into the Michigan Volunteer Registry.

Concerns about infection associated with volunteer efforts curbed some voluntary organizations and individuals from participating in response efforts.

- Many active volunteers in Michigan are seniors, which are considered a demographic at higher risk to COVID-19 infection complications.

Not all volunteers had the necessary skills or licensed capacity to work in health care.

- There was an initial need for trained medical volunteers, which required specialized licenses, skills, and training. This required positions to be filled with medical professionals with specialized licenses, skills, and training who were willing to commit significant time to the role. It was difficult to find qualified volunteers willing to work 8-to-12-hour shifts, 4-to-6 days a week. As a result, many medical positions initially identified as volunteer positions were ultimately filled by paid, contracted staff.

Siloed partnerships between the state government and numerous volunteer organizations complicated initial volunteer deployment.

- There was some initial siloing of volunteer partnerships and functions. State emergency managers primarily had existing relationships with VOADs, state public health officials predominately had relationships with healthcare coalition partners, and other state agencies had largely worked with the MCSC, which manages AmeriCorps, CERT, and unaffiliated volunteers for the State of Michigan.

APPENDIX A

IMPROVEMENT PLAN (IN PROGRESS)

Please contact EMHSD for the most current version of this document.



APPENDIX B

GENERAL SURVEY RESULTS



During the development of the Michigan COVID-19 After-Action Report (AAR), information was collected from state employees and select external partners through a variety of means and methods outlined in the Methodology Section. The “General Survey” was developed and distributed to assess state employees’ perceptions of Michigan’s COVID-19 (Coronavirus Disease) response and capture first-hand experiences regarding interagency partnerships during the pandemic. Survey responses developed a wider range of insights into State of Michigan organizations’ COVID-19 responses and generated a contact map depicting key interagency relationships during the response.

Survey Structure

Table 2 provides an outline of the survey. It is not visually reflective of the survey as accessed by respondents through the Qualtrics system.

Table 2: General Survey Questions

Survey Question	Question Type	Possible Responses	Notes
0.0 Respondent Agency			
<p>Displayed Text: This survey is part of a larger after-action report covering the State of Michigan’s COVID-19 response from January of 2020 until the end of June 2021. As you answer the following questions, please keep that date range in mind.</p> <p>Your responses are anonymous, and your personal answers will not be shared.</p> <p>We appreciate you taking the time to answer these questions. Your input is essential to building an accurate picture of Michigan’s response to COVID-19.</p>			
0.1	Please select the agency you work for.	Dropdown (Select One)	<ul style="list-style-type: none"> • Aging and Adult Services • Agriculture and Rural Development • American Red Cross • Office of the Attorney General • Bureau of Fire Services • Civil Service • Corrections • Department of Civil Rights • Department of State • Economic Development Corporation and Strategic Fund • Education • Environment, Great Lakes, and Energy • Executive Office • Health and Human Services • Insurance and Financial Services • Labor and Economic Opportunity • Licensing and Regulatory Affairs • Michigan Association of Broadcasters • Michigan Public Service Commission • Michigan State Police • Michigan Supreme Court • Military and Veterans Affairs – Michigan National Guard • Military and Veterans Affairs – MVAA & MVH • Natural Resources • Office of the State Employer • State Budget Office • Technology, Management, and Budget • Transportation • Treasury

1.0 Performance Impressions

Displayed Text: Please choose the option that best describes your agreement with the given statement.

1.1	Overall, I was satisfied with my agency or department's response to the COVID-19 pandemic.	Radio Buttons	<ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree 	
1.2	My agency/ department was still able to function well despite the challenges posed by the COVID-19 pandemic.	Radio Buttons	<ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree 	
1.3	Leadership clearly communicated my agency's role in the COVID-19 response to me.	Radio Buttons	<ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree 	
1.4	Did you receive Emergency Management training prior to the COVID-19 pandemic?	Radio Buttons	<ol style="list-style-type: none"> 1. Yes 2. No --> Skip to 1.6 	Question skip logic.
1.5	The Emergency Management training I received was useful during the COVID-19 response.	Radio Buttons	<ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree 	
1.6	I clearly understood workplace health policies. (Including, but not limited to, social distancing, masking, testing, attendance, and quarantine procedures.)	Radio Buttons	<ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree 	
1.7	Did you work from home during the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. Yes 2. No --> Skip to 1.9 	Question skip logic.
1.8	I was able to adjust to working from home and perform all my job functions on time.	Radio Buttons	<ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree 	

1.9	What were the barriers to working effectively to working from home?	Multi-Line Text Box	Displayed if "Disagree" or "Strongly Disagree" selected in question 1.8	Question skip logic.
1.10	What were the greatest challenges or frustrations you faced at the beginning of the COVID-19 response?	Multi-Line Text Box		
1.11	What changes did your agency/ department make that were most effective in addressing these initial challenges or frustrations?	Multi-Line Text Box		
1.12	What challenges or frustrations remained unresolved throughout the COVID-19 response? What actions do you think would be most effective in addressing them?	Multi-Line Text Box		
1.13	Is there anything else about your agency's COVID-19 response that you think is important to understand?	Multi-Line Text Box		

2.0 Agency Selection

Displayed Text: The following sections ask about your communication and collaboration with outside agencies during the COVID-19 response.

Section Note: The section is divided into two separate questions for data collection and survey mechanics purposes. The first question is intended to capture ALL contacts for the sake of generating a broad contact map. Rankings in the second question are used to generate the looped questions in the remaining sections.

2.1	Please select all outside agencies you communicated or collaborated with during the COVID-19 response.	Checkboxes (Multiple Selection)	<ul style="list-style-type: none"> • I did not communicate with any outside agencies during the COVID-19 response --> End Survey • Aging and Adult Services • Agriculture and Rural Development • American Red Cross • Attorney General • Bureau of Fire Services • Civil Service • Corrections • Department of Civil Rights • Department of State • Economic Development Corporation/ Strategic Fund • Education • Environment, Great Lakes, and Energy • Executive Office • Federal Agencies • Health and Human Services • Insurance and Financial Services • Labor and Economic Opportunity • Licensing and Regulatory Affairs • Michigan Association of Broadcasters • Michigan Public Service Commission • Michigan State Police • Michigan Supreme Court • Military and Veterans Affairs – Michigan National Guard • Military and Veterans Affairs – MVAA & MVH • Natural Resources • Office of the State Employer • State Budget Office • Technology, Management, and Budget • Transportation • Treasury 	<p>Question skip logic.</p> <p>Note: Federal Agencies are included in these response options but not the "What agency do you work for?" list.</p>
2.2	What federal agencies/ departments did you communicate or collaborate with?	Single-Line Text Box	Displayed if "Federal Agencies" selected in PIQ.2.1	Question display logic.
2.3	Please drag and drop to rank the agencies you communicated or collaborated with by their importance to your COVID-19 response.	Ranking	[Selections from PIQ.2.1]	Up to three highest-ranked agencies from this question are the basis of the looped questions and automatically populate any [SELECTED AGENCY] notation in the questions below.

Begin Looped Questions

3.0 Information Sharing

Displayed Text: These questions will ask about the interactions you had with up to three agencies you ranked as the most important to your COVID-19 response.

3.1	How often did you communicate with [SELECTED AGENCY] during the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. Daily 2. Weekly 3. Monthly 4. Less than once per month 	
3.2	How did you communicate with [SELECTED AGENCY] during the COVID-19 response?	Checkboxes (Multiple Selection)	<ol style="list-style-type: none"> 1. Email 2. Phone 3. Video Calls (Zoom, Teams, or Similar) 4. In-Person Meetings 5. Website Contact Function 6. Other [Single-Line Text Box] 	
3.3	Did the channels for information sharing with [SELECTED AGENCY] exist prior to the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. Yes 2. No 	
3.4	Which direction did the information flow between your agency and [SELECTED AGENCY] during the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. We only gave information to them. [Skips to 4.1] 2. We mostly shared Information with them, but we received some too. 3. About equal information was shared. 4. We mostly received information from them, but we shared some too. 5. They only gave information to us. 	Question skip logic.
3.5	Did you get the information you needed from [SELECTED AGENCY] during the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. Yes --> Skip to 3.7 2. No --> Proceed to 3.6 	Question skip logic.
3.6	Please describe the information you needed but did not receive from [SELECTED AGENCY].	Text Box (Multiple Lines)	[Open Entry]	
3.7	Did you receive information you requested from [SELECTED AGENCY] in a timely manner during the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. Always 2. Most of the time 3. Sometimes 4. Rarely 5. Never 	

4.0 Resource Sharing

Displayed Text: These next questions ask about resource sharing. Resource sharing refers to the sharing of a broad range of assets. Resources shared could include staff, information technology (hardware or software), storage or office space, personal protective equipment, office supplies, or vehicles, among others.

4.1	Considering the definition above, did your agency and [SELECTED AGENCY] share any resources during the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. Yes 2. No --> Skip to 5.1 	Question skip logic.
4.2	Did your agency have a formal resource sharing process or agreement with [SELECTED AGENCY] prior to the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. Yes --> Skip to 4.4 2. No 	Question skip logic.
4.3	Was a formal resource sharing process or agreement established with [SELECTED AGENCY] during the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. Yes 2. No --> Skip to 4.5 	Question skip logic.
4.4	The resource-sharing process or agreement with [SELECTED AGENCY] was helpful during the COVID-19 response.	Radio Buttons	<ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither Agree nor Disagree 4. Agree 5. Strongly Agree 	
4.5	What type of resources were shared with [SELECTED AGENCY]?	Selection Matrix	<p>Columns:</p> <ul style="list-style-type: none"> • Mutually Shared • Shared By Us • Shared With Us <p>Rows:</p> <ul style="list-style-type: none"> • Staff • Personal Protective Equipment • Office or Storage Space • Information Technology (Hardware or Software) • Vehicles • Other Resources 	One column option selectable for each row. No answer is required for any given row. This structure allows respondents to select only those resources applicable to their experience.

5.0 Data Sharing

Displayed Text: Data sharing refers specifically to numerical data. Case counts or inventories are two examples of data.

5.1	Did you share data with [SELECTED AGENCY] during the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. Yes 2. No --> Skip to end of looped questions 	Question skip logic.
5.2	How was data shared with [SELECTED AGENCY] during the COVID-19 response?	Checkboxes (Multiple Selection)	<ol style="list-style-type: none"> 1. Email 2. Web-Based File Sharing (Dropbox, OneDrive, or Similar) 3. WebEOC 4. Other [Single-Line Textbox] 	
5.3	In which direction was data shared with [SELECTED AGENCY] during the COVID-19 response?	Radio Buttons	<ol style="list-style-type: none"> 1. We only shared data with them. 2. We mostly shared data with them but received some too. 3. About equal data was shared. 4. We mostly received data from them, but we shared some too. 5. They only shared data with us. 	

End of Looped Questions. If answers submitted for top three agencies selected, end of survey. If not, return to beginning of Looped Questions for next selected agency.

Displayed Text: We thank you for your time spent completing this survey. Your response has been recorded.

Response Characteristics

The survey was open for responses from January 27, 2022, to February 18, 2022. During this period, 137 survey responses were recorded. The four (4) state agencies that provided the majority of responses included:

- Michigan Department of Health and Human Services (MDHHS) – 56
- Michigan State Police (MSP) / Emergency Management and Homeland Security Division (EMHSD) – 29
- Licensing and Regulatory Affairs (LARA) – 17
- Michigan Department of Agriculture and Rural Development (MDARD) – 11

MDHHS and MSP/EMHSD employees accounted for the greatest number of participants from the 26 agencies/departments that were invited to complete the survey. Responses from these two (2) agencies accounted for 62% of total responses. Survey responses peaked on February 10, 2022, with 23 responses received in a single day, accounting for approximately 17% of the total responses. The median completion time for surveys was 13 minutes. Agencies or departments with zero responses were excluded from Figure 26.

Figure 26: Survey Responses by Agency

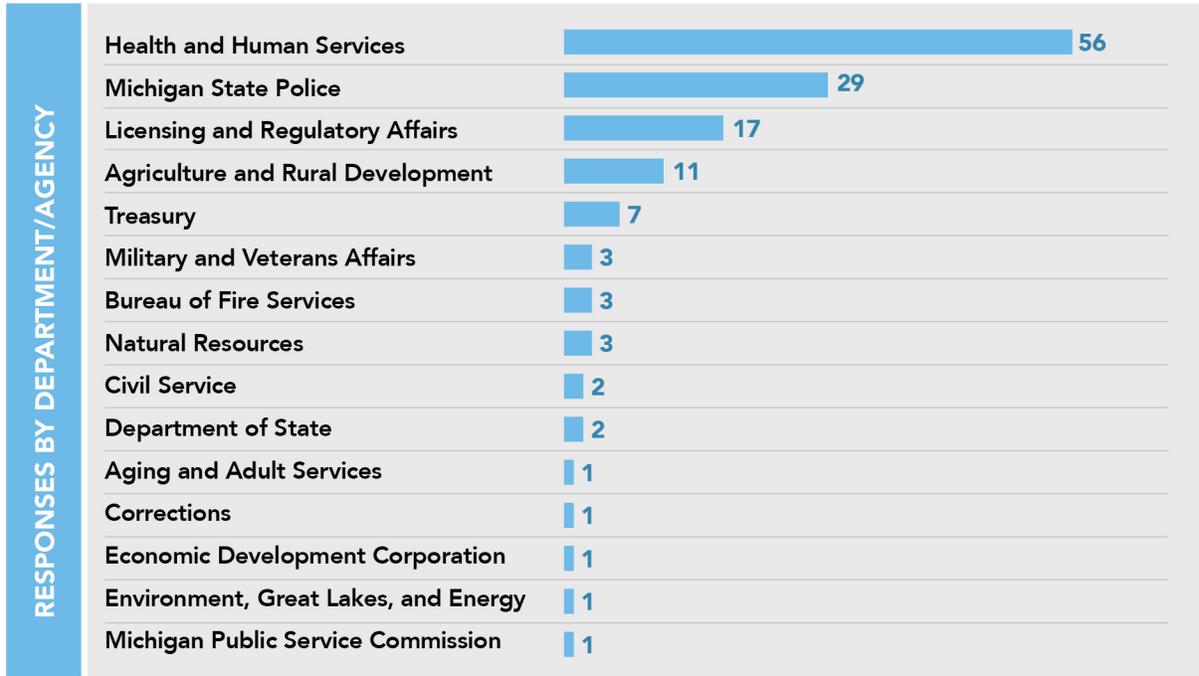
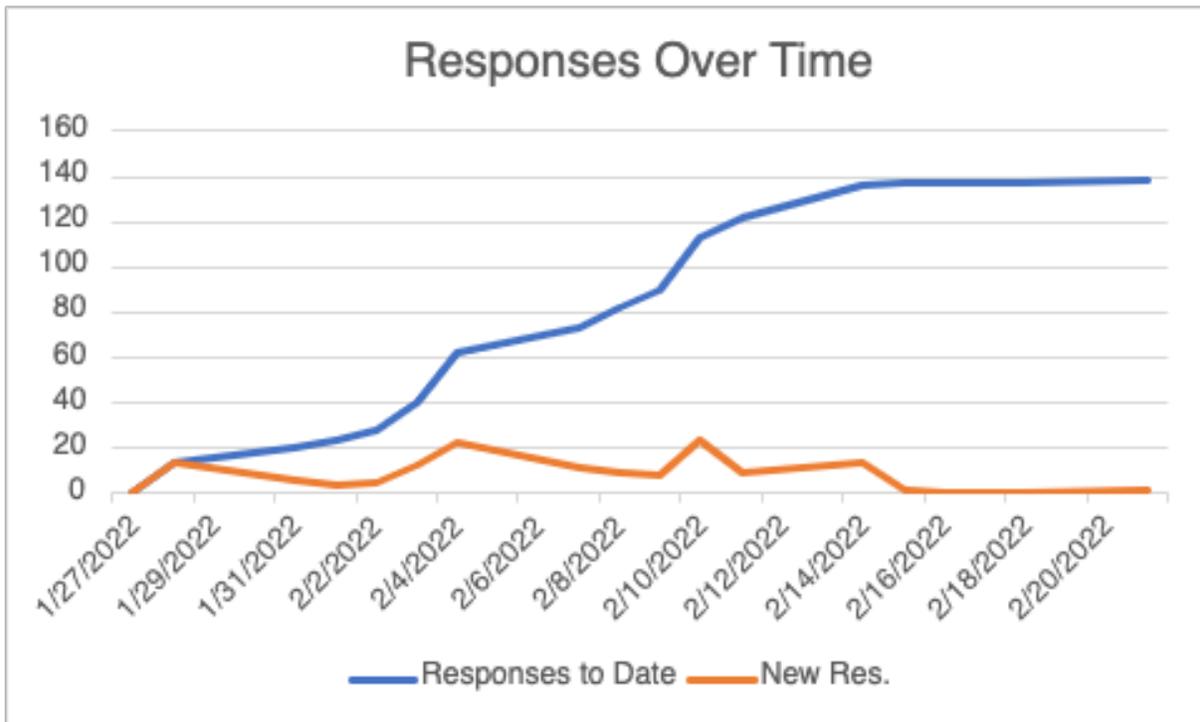


Figure 27: Survey Responses Over Time



Performance Impressions

The multiple-choice section of the survey investigated the general opinions of state employees on key response themes and major issues in addition to basic questions regarding remote work and prior emergency management training. Overall, impressions of the response and leadership were positive. An overwhelming majority of respondents agreed that remote work did not hamper their job functions. Though some agencies received less prior emergency management training than others, the broad consensus among those who had received training was that it was beneficial to their involvement in the COVID-19 response.

1.2 - My agency/department was still able to function well despite the challenges posed by the COVID-19 pandemic.											
Agency/ Department	Strongly Agree		Agree		Neither agree nor disagree		Disagree		Strongly Disagree		Total
Total	48	(48%)	64	(47%)	3	(2%)	3	(2%)	1	(1%)	137
Health and Human Services	24	(43%)	28	(50%)	0	(0%)	3	(5%)	1	(2%)	56
Michigan State Police	10	(36%)	17	(61%)	1	(4%)					28
Licensing and Regulatory Affairs	11	(65%)	6	(35%)							17
Agriculture and Rural Development	7	(64%)	4	(36%)							11
Treasury	5	(71%)	2	(29%)							7
Natural Resources	1	(33%)	2	(67%)							3
Bureau of Fire Services	1	(33%)	1	(33%)	1	(33%)					3
Military and Veterans Affairs	1	(33%)	1	(33%)	1	(33%)					3
Civil Service	2	(100%)									2
Department of State	1	(50%)	1	(50%)							2
Corrections	1	(100%)									1
Economic Development Corporation	1	(100%)									1
Michigan Public Service Commission			1	(100%)							1
Environment, Great Lakes, and Energy			1	(100%)							1
Aging and Adult Services	1	(100%)									1
Total	48	(48%)	64	(47%)	3	(2%)	3	(2%)	1	(1%)	137

1.3 - Leadership clearly communicated my agency/department's role in the COVID-19 response to me.

Agency/Department	Strongly Agree		Agree		Neither agree nor disagree		Disagree		Strongly Disagree		Total
Total	54	(39%)	54	(39%)	21	(15%)	7	(5%)	1	(1%)	137
Health and Human Services	20	(36%)	23	(41%)	10	(18%)	2	(4%)	1	(2%)	56
Michigan State Police	10	(36%)	13	(46%)	3	(11%)	2	(7%)			28
Licensing and Regulatory Affairs	9	(53%)	3	(18%)	3	(18%)	2	(12%)			17
Agriculture and Rural Development	3	(27%)	6	(55%)	2	(18%)					11
Treasury	5	(71%)	1	(14%)			1	(14%)			7
Natural Resources			2	(67%)	1	(33%)					3
Bureau of Fire Services	1	(33%)	1	(33%)	1	(33%)					3
Military and Veterans Affairs			2	(67%)	1	(33%)					3
Civil Service	2	(100%)									2
Department of State	1	(50%)	1	(50%)							2
Corrections	1	(100%)									1
Economic Development Corporation	1	(100%)									1
Michigan Public Service Commission			1	(100%)							1
Environment, Great Lakes, and Energy			1	(100%)							1
Ageing and Adult Services	1	(100%)									1
Total	54	(39%)	54	(39%)	21	(15%)	7	(5%)	1	(1%)	137

1.4 - Did you receive Emergency Management training prior to the COVID-19 pandemic response?					
Agency/Department	Yes		No		Total
Total	70	(51%)	67	(49%)	137
Health and Human Services	16	(29%)	40	(71%)	56
Michigan State Police	24	(86%)	4	(14%)	28
Licensing and Regulatory Affairs	3	(18%)	14	(82%)	17
Agriculture and Rural Development	11	(100%)			11
Treasury	4	(57%)	3	(43%)	7
Natural Resources	3	(100%)			3
Bureau of Fire Services			3	(100%)	3
Military and Veterans Affairs	3	(100%)			3
Civil Service	1	(50%)	1	(50%)	2
Department of State	1	(50%)	1	(50%)	2
Corrections			1	(100%)	1
Economic Development Corporation	1	(100%)			1
Michigan Public Service Commission	1	(100%)			1
Environment, Great Lakes, and Energy	1	(100%)			1
Aging and Adult Services	1	(100%)			1
Total	70	(51%)	67	(49%)	137

Question 1.5 was displayed only if the answer to 1.6 was "Yes."

1.5 - The Emergency Management training I received prior to the pandemic was useful during the COVID-19 response.											
Agency/ Department	Strongly Agree		Agree		Neither agree nor disagree		Disagree		Strongly Disagree		Total
Total	29	(41%)	30	(43%)	8	(11%)	3	(4%)	0	(0%)	70
Michigan State Police	7	(29%)	12	(50%)	5	(21%)					24
Health and Human Services	4	(25%)	9	(56%)	1	(6%)	2	(13%)			16
Agriculture and Rural Development	7	(64%)	4	(36%)							11
Treasury	3	(75%)			1	(25%)					4
Natural Resources	2	(67%)	1	(33%)							3
Military and Veterans Affairs	3	(100%)									3
Licensing and Regulatory Affairs			1	(33%)	1	(33%)	1	(33%)			3
Civil Service	1	(100%)									1
Michigan Public Service Commission			1	(100%)							1
Department of State			1	(100%)							1
Economic Development Corporation	1	(100%)									1
Environment, Great Lakes, and Energy			1	(100%)							1
Aging and Adult Services	1	(100%)									1
Total	29	(41%)	30	(43%)	8	(11%)	3	(4%)	0	(0%)	70

1.6 - I clearly understood my agency/department's workplace health policies. (Including but not limited to social distancing, masking, testing, attendance, and quarantine procedures.)

Agency/ Department	Strongly Agree		Agree		Neither agree nor disagree		Disagree		Strongly Disagree		Total
Total	64	(47%)	61	(45%)	8	(6%)	4	(3%)	0	(0%)	137
Health and Human Services	25	(45%)	24	(43%)	5	(9%)	2	(4%)			56
Michigan State Police	9	(32%)	15	(54%)	3	(11%)	1	(4%)			28
Licensing and Regulatory Affairs	10	(59%)	6	(35%)			1	(6%)			17
Agriculture and Rural Development	6	(55%)	5	(45%)							11
Treasury	5	(71%)	2	(29%)							7
Natural Resources	1	(33%)	2	(67%)							3
Bureau of Fire Services	1	(33%)	2	(67%)							3
Military and Veterans Affairs	2	(67%)	1	(33%)							3
Civil Service	1	(50%)	1	(50%)							2
Department of State	1	(50%)	1	(50%)							2
Corrections	1	(100%)									1
Economic Development Corporation	1	(100%)									1
Michigan Public Service Commission			1	(100%)							1
Environment, Great Lakes, and Energy			1	(100%)							1
Aging and Adult Services	1	(100%)									1
Total	64	(47%)	61	(45%)	8	(6%)	4	(3%)	0	(0%)	137

1.7 - Did you work from home during the COVID-19 response?							
Agency/Department	Yes, fulltime		Yes, part-time		No		Total
Total	102	(74%)	23	(17%)	12	(9%)	137
Health and Human Services	46	(82%)	6	(11%)	4	(7%)	56
Michigan State Police	17	(61%)	9	(32%)	2	(7%)	28
Licensing and Regulatory Affairs	12	(71%)	3	(18%)	2	(12%)	17
Agriculture and Rural Development	8	(73%)	3	(27%)			11
Treasury	6	(86%)	1	(14%)			7
Natural Resources	1	(33%)			2	(67%)	3
Bureau of Fire Services	3	(100%)					3
Military and Veterans Affairs	1	(33%)	1	(33%)	1	(33%)	3
Civil Service	2	(100%)					2
Department of State	2	(100%)					2
Corrections					1	(100%)	1
Economic Development Corporation	1	(100%)					1
Michigan Public Service Commission	1	(100%)					1
Environment, Great Lakes, and Energy	1	(100%)					1
Aging and Adult Services	1	(100%)					1
Total	102	(74%)	23	(17%)	12	(9%)	137

1.8 - I was able to adjust to working from home and perform all my job functions effectively.											
Agency/ Department	Strongly Agree		Agree		Neither agree nor disagree		Disagree		Strongly Disagree		Total
Total	87	(70%)	28	(22%)	5	(4%)	5	(4%)	0	(0%)	125
Health and Human Services	35	(67%)	11	(21%)	3	(6%)	3	(6%)			52
Michigan State Police	16	(62%)	7	(27%)	2	(8%)	1	(4%)			26
Licensing and Regulatory Affairs	14	(93%)	1	(7%)							15
Agriculture and Rural Development	7	(64%)	3	(27%)			1	(9%)			11
Treasury	5	(71%)	2	(29%)							7
Bureau of Fire Services	2	(67%)	1	(33%)							3
Civil Service	2	(100%)									2
Department of State	2	(100%)									2
Military and Veterans Affairs			2	(100%)							2
Natural Resources	1	(100%)									1
Economic Development Corporation	1	(100%)									1
Environment, Great Lakes, and Energy			1	(100%)							1
Michigan Public Service Commission	1	(100%)									1
Aging and Adult Services	1	(100%)									1
Total	87	(70%)	28	(22%)	5	(4%)	5	(4%)	0	(0%)	125 ¹

¹ Displayed only if respondent reported working from home in question 1.7

Communication and Coordination

Tables in this section summarize the frequency with which state agencies/departments were selected by respondents as communication or coordination partners. To account for the uneven distribution of agencies and the fact that respondents were unable to select their own agency from the list, a percentage of respondents who could possibly have selected that agency is used.

The analyses in Table 3 show that survey respondents consistently listed the Department of Technology, Management and Budget as a major communication partner, second only to MDHHS.

Survey respondents were first asked to select all agencies and departments who they communicated or coordinated with during the COVID-19 response, then they were asked to rank those choices by significance. To assess how prominently a given agency or department was involved in the statewide response, the survey assessed how frequently other respondents selected the agency and how frequently other respondents ranked that agency in their top three (3) most significant partners.

Table 2 outlines this analysis using the following columns:

- Agency/Department: the agency that could be chosen as a communication partner.
- Selected: the number of times that agency was selected as a communication partner.
- In-Agency: the number of respondents who were from within that agency, making them ineligible to select themselves.
- Possible: the total number of respondents who could have chosen that agency as a response partner, calculated by taking the 137 total responses and subtracting the number of In-Agency respondents (who could not choose themselves) and the 21 respondents who did not communicate with anyone.
 - $\text{Possible} = (137 \text{ responses}) - (\text{In-Agency}) - (\text{I did not communicate or coordinate...})$
- Selected % Possible: the percentage of possible respondents who selected that agency as a communication partner.
 - $\text{Selected \% Possible} = (\text{Selected}) / (\text{Possible})$
- Selected Top 3: the number of respondents who both selected that agency/department AND ranked them as one of the top 3 most significant partners.
- Top-3 % Possible: the percentage of possible respondents who ranked the agency in their top 3.
 - $\text{Top-3 \% Possible} = (\text{Selected Top 3}) / (\text{Possible})$

Table 3: Communication and Coordination Response Summary

Agency/Department	Selected	In-Agency	Possible	Selected % Possible	Selected Top 3	Top 3 % Possible
I did not communicate or coordinate with any... 21 ²						
Aging and Adult Services	29	1	116	25%	14	12%
Agriculture and Rural Development	25	11	106	24%	1	1%
American Red Cross	16		117	14%	2	2%
Bureau of Fire Services	10	3	114	9%	1	1%
Civil Service	29	2	115	25%	12	10%
Corrections	24	1	116	21%	3	3%
Department of Civil Rights	15		117	13%	0	0%
Department of State	10	2	115	9%	0	0%
Economic Development Corporation and Strategic Fund	2	1	116	2%	0	0%
Education	24		117	21%	2	2%
Environment, Great Lakes, and Energy	23	1	116	20%	1	1%
Executive Office	39		117	33%	30	26%
Federal Agencies	52		117	44%	37	32%
Health and Human Services	48	56	61	79%	43	70%
Insurance and Financial Services	11		117	9%	1	1%
Labor and Economic Opportunity	21		117	18%	5	4%
Licensing and Regulatory Affairs	39	17	100	39%	17	17%
Michigan Association of Broadcasters	2		117	2%	0	0%
Michigan Public Service Commission	9	1	116	8%	1	1%
Michigan State Police	41	29	88	47%	18	20%
Michigan Supreme Court	8		117	7%	1	1%
Military and Veterans Affairs	19	3	114	17%	6	5%
Natural Resources	18	3	114	16%	1	1%

² Skipped to survey end, no looping questions. Subtracted from "Possible".

Agency/Department	Selected	In-Agency	Possible	Selected % Possible	Selected Top 3	Top 3 % Possible
I did not communicate or coordinate with any... 21 ²						
Office of the Attorney General	42		117	36%	24	21%
Office of the State Employer	26		117	22%	11	9%
State Budget Office	19		117	16%	4	3%
Technology, Management, and Budget	63		117	54%	43	37%
Transportation	11		117	9%	0	0%
Treasury	12	7	110	11%	1	1%

Tables 4 and 5 show a simplified set of results from the analysis outlined in Table 3. They represent the frequency with which survey respondents from other agencies reported communicating or coordinating with them during the COVID-19 response. Table 4's ranking shows how often respondents from other agencies reported any communication or coordination during the response, while Table 5 shows how often those respondents listed them as one of their three (3) most important communication or coordination partners.

Table 4: 10 Most Common Communication and Coordination Partners

Rank	Agency/Department	Selected % Possible
1	Health and Human Services	79%
2	Technology, Management, and Budget	54%
3	Michigan State Police	47%
4	Federal Agencies	44%
5	Licensing and Regulatory Affairs	39%
6	Office of the Attorney General	36%
7	Executive Office	33%
8	Civil Service	25%
9	Aging and Adult Services	25%
10	Agriculture and Rural Development	24%

Table 5: 10 Most Common Top 3 Communication and Coordination Partners

Rank	Agency/Department	Top-3 % Possible
1	Health and Human Services	70%
2	Technology, Management, and Budget	37%
3	Federal Agencies	32%
4	Executive Office	26%
5	Office of the Attorney General	21%
6	Michigan State Police	20%
7	Licensing and Regulatory Affairs	17%
8	Aging and Adult Services	12%
9	Civil Service	10%
10	Office of the State Employer	9%

APPENDIX C

INTERVIEW AND PRE-INTERVIEW QUESTIONNAIRE RESULTS



Interviews were a significant source of detailed and technical information for use in this report. In interviewing representatives from agencies and departments, the Michigan Coronavirus Disease (COVID-19) After-Action Report (AAR) portrays a comprehensive view of the state's response by those actively engaged during the effort.

Interviews were conducted virtually and scheduled for one (1) hour. Interviewees were pre-approved by the client. Prior to interviews, interviewees were asked to answer a brief Pre-Interview Questionnaire (PIQ).

Interview Materials

The interviewer began the interview by reading the following script:

"Hi [interviewee], my name is [interviewer name], and I will be conducting today's interview. We really appreciate your time today. My colleague [notetaker name] will be joining us to take notes. [Notetaker should say a quick hello then mute.]

A few quick things to cover before we begin:

Today's interview is to help us understand your organization's role in the state of Michigan's COVID-19 response. We are not evaluating your personal performance in any way.

Some of the questions in this interview have been informed by the pre-interview questionnaire that we asked you to complete prior to today.

This interview should take no longer than one hour. Does this meeting have a hard stop time?

For this After Action we are looking at the period of time beginning January of 2020, and ending July of 2021, so please keep that period in mind when answering questions.

When we say "organization," we are referring to the department, agency, or office that you are here representing. So, in your case [department or agency]

If a question comes up during the interview that you feel is better answered by another person with [department or agency], please feel free to say so, and recommend them as another point of contact for us.

Lastly, today's interview is going to be recorded for reference during our analysis. The recording itself will only be used internally and will not be included in our After-Action Report. Do we have your consent to record the interview?

[If Consent is Not Given] Alright, we understand that decision. We will only take notes and will not be recording this interview.

Thank you. Do you have any questions for me before we begin?"

Introduction

1. Please describe your organization's role in the state of Michigan's COVID-19 response.

Incident Management

2. What was the internal structure of your organization's response?
 - a. How could this have been improved?
3. Had your organization trained or exercised how they would respond to an emergency?
 - a. [If no], What type of training or exercises would have been helpful?
4. In what capacity did your organization engage with the State Emergency Operations Center (SEOC) and Community Health Emergency Coordination Center (CHECC)?
 - a. What were some successes with the SEOC?
 - b. How could the SEOC have been improved?

Continuity of Operations & Planning

5. How did the COVID-19 response impact your organization's normal functions?
6. Did your organization have workers that worked remotely?
 - a. Had this been planned for prior to the pandemic?
 - b. How could this have been improved?
 - c. What was the biggest challenge to remote work?
7. What continuity of operations, or Continuity of Operations (COOP), challenges had the most significant effects on your organization?
 - a. How could this have been improved?

Communications

8. What were your major internal communication strengths and challenges during the COVID-19 response?
 - a. How could internal communications have been improved?
9. What strengths and challenges did your organization face in communicating with other state-level agencies or departments during the COVID-19 response?
 - a. How could communication with other agencies or departments have been improved?
10. What challenges did your organization face in communicating with the public during the COVID-19 response? What were your major strengths in this area?
 - a. How could public-facing communications have been improved?
11. What strengths and challenges did your organization experience with the Joint Information Center (JIC)?
 - a. How could the JIC have been improved?

Financial Management

12. Please describe any budgetary, or financial constraints your organization faced during the COVID-19 response?
 - a. What improvements could have been made?

Hospitals and Healthcare

13. Describe your organization's interactions with hospitals, healthcare coalitions, healthcare providers, and emergency medical services during the COVID-19 response.
 - a. What improvements could have been made?
 - b. Did your organization have a relationship with these healthcare partners prior to January 2020?

Public Private Partnership

14. How were private partnerships utilized during your organization's COVID-19 response?
 - a. Were these pre-existing relationships, or did your organization establish them during the COVID-19 response?
 - b. How could this process, or these interactions be improved?

Personal Protective Equipment, Supplies and Resources

15. Can you describe how your organization obtained personal protective equipment and supplies?
 - a. How could this process have been improved?
16. Describe how your organization processed or received donations, how was this managed, and how were donations used?
 - a. How could this process have been improved?

Public Health

17. Did your organization participate in providing a vaccination or testing site?
 - a. How could this process have been improved?
18. Describe how your organization enforced public health mandates internally, such as social distancing, mandatory masking, alternating shifts, or enhanced sanitizing.
 - a. How could this process have been improved?
19. Did shifting public health guidance pose challenges? Please describe.

Epidemiology

20. Did your organization contribute or receive epidemiology data during the COVID-19 response?
 - a. How could this process have been improved?

Public Health Enforcement

21. Describe how your organization implemented or enforced public health mandates on the public.
 - a. How could this process have been improved?

State-Local Coordination

22. Please describe your organization's coordination with local organizations, or personnel, such as local emergency managers, during the COVID-19 response.
 - a. How could this process have been improved?

Looking for:

- *Communication methods*
- *Was the relationship with the local organization established prior to the pandemic?*

23. Please describe your organization's participation with the joint task force.
 - a. How could this process have been improved?

Volunteer Coordination

24. Please describe how your organization coordinated with volunteers.
 - a. How could this have been improved?

Looking for:

- *How were volunteers utilized?*
- *Was a volunteer registry used, and if so, which one?*
- *Was the relationship with the volunteer organization established prior to the pandemic?*

Closing

Our notetaker is going to now list any data sources, documents, or reports that you mentioned during our interview. (After list is read) Are there any additional documents? How can we get access to those?

Now, our notetaker is going to list any additional contacts that you mentioned during our interview. (After list is read) Are there any additional people we should reach out to? Can you provide contact information?

Participating Organizations

The following agencies, departments, and partners participated in the interview process:

- Michigan State Police (MSP)
- Emergency Management and Homeland Security Division (EMHSD)
- Michigan Department of Health and Human Services (MDHHS)
- Michigan Executive Office of the Governor (EOG)
- Michigan Aging and Adult Services Agency (AASA)

- American Red Cross (ARC)
- Bureau of Fire Services (BFS)
- Michigan Department of Military and Veterans Affairs (DMVA)
- Michigan Department of Natural Resources (DNR)
- Michigan Department of State (DOS)
- Michigan Department of Management, Budget, and Technology (DTMB)
- Michigan Department of Environment, Great Lakes, and Energy (EGLE)
- Michigan Department of Licensing and Regulatory Affairs (LARA)
- Michigan Department of Labor and Economic Opportunity (LEO)
- Michigan Association of Broadcasters (MAB)
- Michigan Civil Service Commission (MCSC)
- Michigan Department of Agriculture and Rural Development (MDARD)
- Michigan Department of Civil Rights (MDCR)
- Michigan Department of Education (MDE)
- Michigan Department of Corrections (MDOC)
- Michigan Department of Transportation (MDOT)
- Michigan Economic Development Corporation (MEDC)
- Michigan Public Service Commission (MPSC)
- Michigan State Housing Development Authority (MSHDA)
- Department of Treasury (Treasury)

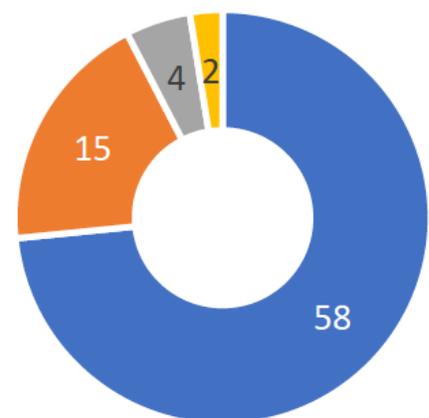
Interview Totals

From January 4, 2022, to February 11, 2022, 79 interviews were conducted with 108 interviewees. More than 25% included multiple interviewees.

- 58 interviews were with a single interviewee
- 15 interviews included two (2) interviewees
- Four (4) interviews included three (3) interviewees
- Two (2) interviews included four (4) interviewees

The 108 interviewees represented 24 state agencies/departments and the Red Cross. Additional agencies were invited to participate in the interview process and AAR/IP development; however, no interviews were conducted.

Interviews



Number of Interviewees

■ 1 ■ 2 ■ 3 ■ 4

Table 6: Interviews Completed by Affiliation

Affiliation	Agency Contacts Provided by EMHSD	Agency Contacts Interviewed	Additional Contacts Interviewed	Total Contacts Interviewed
MSP	2	2	15	17
EMHSD	14	11	5	16
MDHHS	4	4	20	24
EOG	2	2	5	7
AASA	3	2	0	2
Red Cross	2	1	0	1
BFS	2	1	0	1
DMVA	2	2	0	2
DNR	2	2	1	3
DOS	2	2	0	2
DTMB	2	1	3	4
EGLE	2	2	0	2
LARA	2	2	0	2
LEO	2	1	2	3
MAB	2	1	0	1
MCSC	2	1	2	3
MDARD	2	2	0	2
MDCR	2	1	1	2
MDE	2	1	0	1
MDOC	2	1	0	1
MDOT	2	1	0	1
MEDC	2	1	0	1
MPSC	2	2	2	4
MSHDA	0	0	1	1
Treasury	2	2	3	5
Total	63	48	60	108

Interviewees in 68 out of the 79 total interviews agreed to be recorded. The 68 recorded interviews constitute a total of approximately 59 hours and 45 minutes. Interviewees in the remaining 11 interviews declined to be recorded, therefore, the length of those interviews is unknown. However, using the average interview time of 51 minutes and 52 seconds, calculated from the 68 recorded interviews, it estimated that the 11 unrecorded interviews constitute approximately 9 hours and 31 minutes of additional interview time.

Including the estimates for non-recorded interviews, the total runtime of the 79 interviews to be a total of 69 hours and 16 minutes.

Table 7: Interview by Affiliation for Recorded Interviews

Affiliation	Total Interviews	Recorded Interviews	Total Recorded Interview Time (hr:min:sec)	Average Recorded Interview Time (hr:min:sec)
MSP	7*	7*	07:18:40	01:02:40
EMHSD	13*	13*	09:30:41	00:43:54
MDHHS	23	19	17:13:25	00:54:23
EOG	6	3	02:38:12	00:52:44
AASA	2	1	00:56:59	00:56:59
Red Cross	1	1	00:59:02	00:59:02
BFS	1	1	00:22:43	00:22:43
DMVA	2	2	02:57:08	01:28:34
DNR	2	1	00:59:00	00:59:00
DOS	1	1	00:52:21	00:52:21
DTMB	2*	1	00:53:58	00:53:58
EGLE	2	2	01:30:35	00:45:17
LARA	1	1	00:57:23	00:57:23
LEO	2	2	01:28:50	00:44:25
MAB	1	1	00:20:45	00:20:45
MCSC	1	1	00:58:45	00:58:45
MDARD	1	1	00:56:42	00:56:42
MDCR	1	1	00:56:51	00:56:51
MDE	1	1	00:27:39	00:27:39
MDOC	1	1	00:39:07	00:39:07
MDOT	1	0	N/A	N/A
MEDC	1	1	00:52:04	00:52:04
MPSC	3	3	02:42:48	00:54:16
MSHDA	1	1	00:58:38	00:58:38
Treasury	2	2	02:12:49	01:06:25
Total	57	48	59:45:05	---
Average	---	---	---	00:51:52

*One (1) interview included both DTMB and EMHSD/SEOC staff and was not recorded. Another interview included both EMHSD/SEOC and MSP staff and was recorded. In both cases, the interview was only counted once under its' principle organizing agency to avoid duplication.

Pre-Interview Questionnaire

The PIQ helped streamline interviews by collecting basic information and answers to binary yes-or-no screening questions prior to an interview. PIQ screening was used to eliminate questions that were irrelevant to the interviewee, allowing valuable interview time to be spent on the most relevant material. PIQ results were additionally used to generate statistical insights and to create visualizations.

Table 8: PIQ Contents

PIQ Question	Question Type	Possible Responses	Notes
PIQ.0.0 Survey Introduction			
<p>Displayed Text:</p> <p>Welcome to the State of Michigan COVID-19 AAR pre-interview questionnaire. We appreciate you answering these questions thoughtfully, as they will help us make the best use of your time during your upcoming interview.</p> <p>This questionnaire is expected to take between 10 and 20 minutes. We look forward to speaking with you soon!</p>			
PIQ.0.1	First Name	Single-Line Text Box	Freeform text entry
PIQ.0.2	Last Name	Single-Line Text Box	Freeform text entry
PIQ.0.3	Email Address	Single-Line Text Box	Freeform text entry
PIQ.0.4	Which department/agency do you work for?	Dropdown Selection	[29 agency list from survey]
PIQ.0.5	What is your job title?	Single-Line Text Box	Freeform text entry
PIQ.0.6	How long have you served in your current role? Did you have prior experience with the Michigan State Government prior?	Multi-Line Text Box	Freeform text entry
PIQ.1.0 Department/Agency Overview			
PIQ.1.1	Briefly describe your department/agency's mission and overall operations.	Multi-Line Text Box	Freeform text entry
PIQ.1.2	What constituent groups does your department/agency serve?	Multi-Line Text Box	Freeform text entry
PIQ.1.3	Prior to the COVID-19 pandemic, which state-level agencies did your department/agency interact with regularly during normal day-to-day operations?	Check Boxes	[29 agency list from survey]

PIQ.1.4	Did the agencies your department/agency interacted regularly with change during the COVID-19 response?	Check Boxes	Yes No I don't know	
PIQ.2.0 Incident Management				
PIQ.2.1	My department/agency had a clear chain of command and decision-making protocols for issues related to the COVID-19 response.	Likert Scale	Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree	
PIQ.2.2	Did your department/agency participate in or collaborate with the state-wide Emergency Operations Center (EOC) activated for the COVID-19 response?	Radio Buttons	Yes No I don't know	
PIQ.2.3	Did your department/agency work with an Incident Management Action Team (IMAT) during the COVID-19 response?	Radio Buttons	Yes (please provide some details) [Multi-Line Text Box] No I don't know	
PIQ.2.4	Did your department/agency's COVID-19 response follow Incident Command System (ICS) protocols?	Radio Buttons	Yes No I don't know	If the answer is "No" or "I don't know," skip to PIQ.2.5
PIQ.2.4.1	Did your department/agency receive training ahead of time on how to implement ICS?	Radio Buttons	Yes (please describe the training) [Multi-Line Text Box] No I don't know	
PIQ.2.5	Did your department/agency respond to additional emergencies during the COVID-19 response?	Radio Buttons	Yes (please describe the training) [multi-line text box] No I don't know	

PIQ.3.0 Operations and Planning				
PIQ.3.1	Were any services or programs within your department/agency suspended or discontinued as result of the COVID-19 response?	Radio Buttons	Yes (please specify) [multi-line text box] No I don't know	
PIQ.3.2	Did your department/agency create any new services or programs related to COVID-19 during its response?	Radio Buttons	Yes, but they are temporary (please specify) [multi-line text box] Yes, and they are expected to remain long-term (please specify) [multi-line text box] No I don't know	
PIQ.3.3	Did your department/agency identify workers as essential and non-essential?	Radio Buttons	Yes (please specify criteria) [multi-line text box] No I don't know	
PIQ.3.4	Furloughs had a significant impact on my department/agency's ability to respond to COVID-19 during that time.	Likert Scale	Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree	
PIQ.3.5	Did your department/agency require staff augmentation from either contract workers or consultants during the COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
PIQ.3.6	Approximately what percentage of your agency's staff worked remotely at some time during the COVID-19 response?	Slider	0%-100% [Stepped at 10% Intervals]	If the answer is 0%, skip to PIQ.3.7
PIQ.3.6.1	Did a plan for remote work exist prior to the COVID-19 pandemic?	Radio Buttons	Yes, and it was used Yes, but it was not used No I don't know	

PIQ.3.6.2	What tools were provided to employees to enable them to work from home successfully?	Check Boxes	Computers/ laptops Monitors/screens Webcams Cell phones Microsoft Teams software Slack software Zoom software Other [multi-line text box]	
PIQ.3.6.3	Were any Access and Functional Needs (AFN) accommodations made for remote employees?	Radio Buttons	Yes (please elaborate) [multi-line textbox] No I don't know	
PIQ.3.7	Did your department/agency alter any leave policies as a result of the COVID-19 response?	Radio Buttons	No change Temporary change Permanent change We don't have a leave policy I don't know	
PIQ.3.8	Did your department/agency specifically track staff absences or leave resulting from their personal COVID-19 challenges?	Radio Buttons	Not tracked Employee self-report Manager report Other (single-line text box)	
PIQ.3.9	The changing workplace health recommendations our office received were clearly communicated.	Likert Scale	Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree	Displayed if "Yes" to PIQ.3.10 or PIQ.3.11
PIQ.3.10	Did your department/agency have a Continuity of Operations (COOP) plan prior to the COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	

PIQ.3.11	Did your department/agency have any other pre-existing emergency response plans, such as a pandemic response plan, prior to the COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	Displayed if "Yes" to PIQ.3.10 or PIQ.3.11
PIQ. 3.11.1	How did pre-existing plans affect your COVID-19 response?	Radio Buttons	Significantly impaired response Slightly impaired response Made no difference Helped response Significantly helped response	
PIQ.3.12	Were any new internal COVID-19 response plans developed over the course of the pandemic?	Radio Buttons	Yes (please elaborate) [multi-line textbox] No I don't know	
PIQ.3.13	Does your department/agency plan to do an internal after-action review of its COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line textbox] We already conducted a review of this type (please elaborate) [multi-line textbox] No I don't know	
PIQ.3.14	Has your department/agency identified a need for additional planning for future responses?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
PIQ.4.0 Communications				
PIQ.4.1	What channels did your department/agency use to communicate internally during the COVID-19 response?	Check Boxes	Email Slack Teams Zoom Fax Intranet SMS/text Other (single-line text box)	

PIQ.4.2	What channels did your department/agency use to communicate externally during the COVID-19 response?	Check Boxes	Email Slack Teams Zoom Fax Intranet SMS/text Other (single-line text box)	
PIQ.4.3	Did your department/agency's internal communication strategies (message creation, approval, channels, frequency, tracking, audience) change during the COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
PIQ.4.4	Did your department/agency's regular communications with other state-level department/agency's change during the COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
PIQ.4.5	Did your department/agency's method for issuing public-facing communications prior to COVID-19 remain	Radio Buttons	Remained consistent Adapted (please elaborate) [multi-line text box] We did not issue or engage in public-facing communication I don't know	
PIQ.4.6	To what extent was your department/agency involved with the Joint Information Center (JIC)?	Check Boxes	No involvement Contributed information to the JIC (please elaborate) [multi-line text box] Gathered information from the JIC (please elaborate) [multi-line text box] Interacted with and was represented in the JIC (please elaborate) [multi-line text box] I don't know	

PIQ.5.0 Financial Management				
PIQ.5.1	Were you involved in budgetary or financial planning for your department/agency during the COVID-19 response?	Radio Buttons	Yes No I don't know	
PIQ.5.2	Were you involved in your department/agency's purchasing process?	Radio Buttons	Yes No I don't know	
PIQ.5.3	Did your department/agency impose any new constraints on operations due to financial issues arising from COVID-19?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
PIQ.5.4	Did your department/agency receive any additional funds specifically to support its COVID-19 response?	Radio Buttons	Yes (please provide source and use) [multi-line text box] No I don't know	
PIQ.6.0 Hospitals and Healthcare				
PIQ.6.1	Did your department/agency require any sort of interaction with hospital or healthcare agency staff to achieve work objectives during the COVID-19 pandemic?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	If the answer is "No" or "I don't know", skip to PIQ.6.3
PIQ.6.2	Please select any of the following your department/agency had regular interactions with during the COVID-19 response.	Check Boxes	Hospitals Healthcare coalitions Healthcare providers Emergency medical Services Other (please elaborate) [multi-line text box] I don't know	
PIQ.6.3	Was your department/agency involved in relaying any health-related information to the public or to other entities that would release the information to the public?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	

PIQ.7.0 Public-Private Partnerships				
PIQ.7.1	Did your department/agency utilize private partnerships during the COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
PIQ.8.0 Personal Protective Equipment, Supplies and Resources				
PIQ.8.1	Did your department/agency use any of the following Personal Protective Equipment (PPE)?	Check Boxes	Gowns Surgical masks N95 masks KN95 masks Plexiglass or other type of barrier Gloves Hand sanitizer Other None	
PIQ.8.2	How did your department/agency procure PPE?	Check Boxes	Had pre-existing supply Wholesale or retail purchase Submitted resource request to the state EOC Other (multi-line text box)	
PIQ.8.3	Did any staff from your department/agency interact with the public in person during the COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
PIQ.8.4	Did your department/agency receive or process any donations during the COVID-19 response?	Radio Buttons	Yes No I don't know	If the answer is "No" or "I don't know", skip to PIQ.9.1
PIQ.8.4.1	What types of donations did your department/agency receive or process during the COVID-19 response?	Check Boxes	Money Food/Bottled water PPE/Hand sanitizer Clothing Other (multi-line text box)	

PIQ.9.0 Public Health, Epidemiology, Laboratory, and Protective Measures				
Public Health				
PIQ.9.1	To your knowledge, did your department/agency participate in staffing or supporting a Point of Dispensing (POD) or vaccination site?	Check Boxes	Didn't participate Provided a venue Provided materials Provided logistics	If the answer is "Didn't participate", skip to PIQ.9.3
PIQ.9.2	If you received requests for POD supplies, staffing, or venue, from whom did you receive the request?	Multi-Line Text Box	Freeform text entry	
Epidemiology				
PIQ.9.3	Did your department/agency provide any epidemiological data to or receive any epidemiology data from the Department of Health and Human Services, including absenteeism due to COVID-19 infection or quarantine?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
Laboratory				
PIQ.9.4	Did your department/agency interact with public health laboratories in any way, including testing locations, supplies, test results, etc.?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
Public Health Enforcement				
PIQ.9.5	Was your department/agency responsible for enforcing public health measures or other critical response policies on the public?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
PIQ.10.0 State-Local Coordination				
PIQ.10.1	Did your agency coordinate with local agencies and personnel, such as emergency managers, during the COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	

PIQ.10.2	Did your agency create or participate in any joint state and local task forces?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	
PIQ.11.0 Volunteer Coordination				
PIQ.11.1	Did your department/agency utilize volunteers during the COVID-19 response?	Radio Buttons	Yes (please elaborate) [multi-line text box] No I don't know	If the answer is "No" or "I don't know", skip to PIQ.13.1
PIQ.11.2	Which volunteer registry did your department/agency use?	Check Boxes	VolunteerMichigan Other None I don't know	
PIQ.12.0 Closing				
PIQ.12.1	Are there any additional documents you recommend that we review to better understand your department/agency's COVID-19 response?	Radio Buttons	Yes [multi-line text box] No	
PIQ.12.2	Is there anyone else at your department/agency that we should contact regarding any of these topics?	Radio Buttons	Yes [multi-line text box] No	

PIQ Multiple Choice Responses

A total of 69 PIQs for the 78 total interviews with 108 interviewees were received. Two (2) PIQ responses were orphaned, meaning that the surveys were received but the respondent was not interviewed. These were not discarded from the analysis here given that the PIQ generates data points that can be useful outside of the interview context. Respondents were not required to answer each question, which explains variable answer counts.

Table 9 contains PIQ responses received to all questions except those based on text input. Text input questions have been omitted due to length and relevance. Some questions have percentages that do not sum to 100% due to multiple selection and rounding.

PIQ Introduction

PIQ.0.4 - Which department/agency do you work for?

Answer	Count (Percent)
Michigan State Police	17 (25%)
Health and Human Services	13 (19%)
Technology, Management, and Budget	5 (7%)
Civil Service	4 (6%)
Michigan Public Service Commission	3 (4%)
Natural Resources	3 (4%)
Labor and Economic Opportunity	3 (4%)
Executive Office	3 (4%)
Department of Civil Rights	2 (3%)
Licensing and Regulatory Affairs	2 (3%)
Environment, Great Lakes, and Energy	2 (3%)
Agriculture and Rural Development	2 (3%)
Military and Veterans Affairs (Michigan National Guard)	2 (3%)
Treasury	2 (3%)
American Red Cross	1 (1%)
Economic Development Corporation and Strategic Fund	1 (1%)
Michigan Association of Broadcasters	1 (1%)
Corrections	1 (1%)
Education	1 (1%)
Aging and Adult Services	1 (1%)
Total	69

PIQ.0.6 - How long have you served in your current role?

Less than one year	8 (12%)
1-2 years	15 (22%)
3-5 years	21 (30%)
More than 5 years	25 (36%)
Total	69

Department/Agency Overview

PIQ.1.3 - Prior to the COVID-19 pandemic, which state-level agencies did your department/agency interact with regularly during normal day-to-day operations?¹

Michigan State Police	46 (69%)
Technology, Management, and Budget	45 (67%)
Health and Human Services	44 (66%)

Licensing and Regulatory Affairs	38 (57%)
Environment, Great Lakes, and Energy	36 (54%)
Natural Resources	31 (46%)
Civil Service	30 (45%)
Agriculture and Rural Development	30 (45%)
State Budget Office	28 (42%)
Office of the Attorney General	28 (42%)
Office of the State Employer	27 (40%)
Corrections	26 (39%)
Transportation	26 (39%)
Executive Office	26 (39%)
Education	25 (37%)
Labor and Economic Opportunity	24 (36%)
Military and Veterans Affairs (Michigan National Guard)	23 (34%)
Treasury	22 (33%)
Military and Veterans Affairs (MVAA & MVH)	21 (31%)
Aging and Adult Services	20 (30%)
Department of State	19 (28%)
Department of Civil Rights	19 (28%)
Insurance and Financial Services	19 (28%)
Michigan Public Service Commission	18 (27%)
American Red Cross	18 (27%)
Economic Development Corporation and Strategic Fund	15 (22%)
Bureau of Fire Services	15 (22%)
Michigan Supreme Court	11 (16%)
Michigan Association of Broadcasters	8 (12%)
Total	67
PIQ.1.4 - Did the agencies your department/agency interacted regularly with change as a result of the COVID-19 response?	
Yes	36 (54%)
No	27 (40%)
I don't know	4 (6%)
Total	67

Incident Management

PIQ.2.1 - My department/agency had a clear chain of command and decision-making protocols for issues related to the COVID-19 response.

Strongly agree	28 (42%)
Agree	26 (39%)
Neither agree nor disagree	8 (12%)
Disagree	5 (7%)
Strongly disagree	0 (0%)
Total	67

PIQ.2.2 - Did your department/agency participate in or collaborate with the State Emergency Operations Center (SEOC) activated for the COVID-19 response?

Yes	66 (99%)
No	1 (1%)
I don't know	0 (0%)
Total	67

PIQ.2.3 - Did your department/agency work with an Incident Management Team (IMT) during the COVID-19 response?

Yes (please provide some details)	35 (52%)
I don't know	19 (28%)
No	13 (19%)
Total	67

PIQ.2.4 - Did your department/agency's COVID-19 response follow Incident Command System protocols?

Yes	40 (60%)
I don't know	21 (31%)
No	6 (9%)
Total	67

PIQ.2.4.1 - Did your department/agency receive training ahead of time on how to implement ICS?

Yes (please describe the training)	43 (72%)
I don't know	12 (20%)
No	5 (8%)
Total	60

PIQ.2.5 - Did your department/agency respond to additional emergencies during the COVID-19 response?

Yes (please elaborate)	54 (82%)
No	7 (11%)
I don't know	5 (8%)
Total	66

Operations and Planning

PIQ.3.1 - Were any services or programs within your department/agency suspended or discontinued as a result of the COVID-19 response?

Yes (please specify)	41 (63%)
No	18 (28%)
I don't know	6 (9%)
Total	65

PIQ.3.2 - Did your department/agency create any new services or programs related to COVID-19 during its response?

Yes, but they are temporary (please specify)	20 (31%)
Yes, and they are expected to remain long-term (please specify)	19 (29%)
No	15 (23%)
I don't know	11 (17%)
Total	65

PIQ.3.3 - Did your department/agency identify workers as essential and non-essential?

Yes (please specify criteria)	52 (80%)
I don't know	7 (11%)
No	6 (9%)
Total	65

PIQ.3.4 - Furloughs had a significant impact on my department/agency's ability to respond to COVID-19 during that time.

Strongly disagree	6 (9%)
Strongly agree	2 (3%)
Neither agree nor disagree	21 (32%)
Disagree	20 (31%)
Agree	16 (25%)
Total	65

PIQ.3.5 - Did your department/agency require staff augmentation from either contract workers or consultants during the COVID-19 response?

Yes (please elaborate)	25 (38%)
No	31 (48%)
I Don't Know	9 (14%)
Total	65

PIQ.3.6 - Approximately what percentage of your agency's staff worked remotely at some time during the COVID-19 response?

100%	28 (43%)
90%	23 (35%)

80%	7 (11%)
70%	2 (3%)
50%	3 (5%)
20%	1 (2%)
10%	1 (2%)
0%	0 (0%)
Total	65
PIQ.3.6.1 - Did a plan for remote work exist prior to the COVID-19 pandemic?	
Yes, but it was not used	15 (23%)
Yes, and it was used	15 (23%)
No	28 (43%)
I don't know	7 (11%)
Total	65
PIQ.3.6.2 - What tools were provided to employees to enable them to work from home successfully?	
Computers/laptops	62 (95%)
Microsoft Teams software	61 (94%)
Cell phones	56 (86%)
Monitors/screens	54 (83%)
Webcams	23 (35%)
Zoom software	23 (35%)
Other	23 (35%)
Total	65
PIQ.3.6.3 - Were any Access and Functional Needs (AFN) accommodations made for remote work employees?	
Yes (please elaborate)	10 (16%)
No	5 (8%)
I don't know	49 (77%)
Total	64
PIQ.3.7 - Did your department/agency alter any leave policies as a result of the COVID-19 response?	
I don't know	26 (40%)
No change	19 (29%)
Temporary change	19 (29%)
Permanent change	1 (2%)
We don't have a leave policy	0 (0%)
Total	65

PIQ.3.8 - Did your department/agency specifically track staff absences or leave resulting from their personal COVID-19 challenges?	
Employee self-report	25 (38%)
Manager report	7 (11%)
Not tracked	11 (17%)
Other	22 (34%)
Total	65
PIQ.3.9 - The changing workplace health recommendations our office received were clearly communicated.	
Strongly agree	13 (20%)
Agree	28 (43%)
Neither agree nor disagree	13 (20%)
Disagree	11 (17%)
Strongly disagree	0 (0%)
Total	65
PIQ.3.10 - Did your department/agency have a Continuity of Operations (COOP) plan prior to the COVID-19 response?	
Yes (please elaborate)	51 (78%)
No	2 (3%)
I don't know	12 (18%)
Total	65
PIQ.3.11 - Did your department/agency have any other pre-existing emergency response plans, such as a pandemic response plan, prior to the COVID-19 response?	
Yes (please elaborate)	43 (66%)
No	10 (15%)
I don't know	12 (18%)
Total	65
PIQ.3.11.1 - How did pre-existing plans affect your COVID-19 response?	
Significantly impaired response	0 (0%)
Slightly impaired response	0 (0%)
Made no difference	17 (30%)
Helped response	32 (56%)
Significantly helped response	8 (14%)
Total	57
PIQ.3.12 - Were any new internal COVID-19 response plans developed over the course of the pandemic?	
Yes (please elaborate)	47 (73%)
No	4 (6%)

I don't know	13 (20%)
Total	64
PIQ.3.13 - Does your department/agency plan to do an internal after-action review of its COVID-19 response?	
Yes (please elaborate)	30 (47%)
We already conducted a review of this type (please elaborate)	12 (19%)
No	1 (2%)
I don't know	21 (33%)
Total	64
PIQ.3.14 - Has your department/agency identified a need for additional planning for future responses?	
Yes (please elaborate)	36 (56%)
No	8 (13%)
I don't know	20 (31%)
Total	64
Communications	
PIQ.4.1 - What channels did your department/agency use to communicate internally during the COVID-19 response?	
Email	64 (100%)
Teams	63 (98%)
Short Message Service (SMS)/Text	51 (80%)
Intranet	38 (59%)
Zoom	23 (36%)
Other	16 (25%)
Fax	2 (3%)
Slack	1 (2%)
Total	64
PIQ.4.2 - What channels did your department/agency use to communicate externally during the COVID-19 response?	
Zoom	39 (61%)
Teams	55 (86%)
Slack	1 (2%)
SMS/Text	37 (58%)
Other	22 (34%)
Intranet	12 (19%)
Fax	4 (6%)
Email	64 (100%)
Total	64

PIQ.4.3 - Did your department/agency's internal communication strategies (message creation, approval channels, frequency, tracking, audience) change during the COVID-19 response?	
Yes (please elaborate)	40 (63%)
No	15 (23%)
I don't know	9 (14%)
Total	64
PIQ.4.4 - Did your department/agency's regular communications with other state-level organizations change during the COVID-19 response?	
Yes (please elaborate)	47 (73%)
No	11 (17%)
I don't know	6 (9%)
Total	64
PIQ.4.5 - Did your department/agency's method for issuing public-facing communications prior to the pandemic remain consistent during the COVID-19 response?	
Remained Consistent	33 (52%)
Adapted	19 (30%)
I don't know	10 (16%)
We did not issue or engage in public-facing communication	2 (3%)
Total	64
PIQ.4.6 - To what extent was your department/agency involved with the Joint Information Center (JIC)?	
Interacted with and was represented in the JIC	35 (55%)
Contributed information to the JIC	21 (33%)
Gathered information from the JIC	13 (20%)
I don't know	13 (20%)
No involvement	4 (6%)
Total	64
Financial Management	
PIQ.5.1 - Were you involved in budgetary or financial planning for your department/agency during the COVID-19 response?	
Yes	22 (34%)
No	42 (66%)
I don't know	0 (0%)
Total	64
PIQ.5.2 - Were you involved in your department/agency's purchasing process?	
Yes	29 (45%)
No	33 (52%)
I don't know	2 (3%)

Total	64
PIQ.5.3 - Did your department/agency impose any new constraints on operations due to financial issues arising from COVID-19?	
Yes (please elaborate)	35 (55%)
No	13 (20%)
I don't know	16 (25%)
Total	64
PIQ.5.4 - Did your department/agency receive any additional funds specifically to support its COVID-19 response?	
Yes (please provide source and use)	31 (48%)
No	9 (14%)
I don't know	24 (38%)
Total	64
Hospitals and Healthcare	
PIQ.6.1 - Did your department/agency require any sort of interaction with hospital or healthcare agency staff to achieve work objectives during the COVID-19 pandemic?	
Yes (please elaborate)	39 (61%)
No	19 (30%)
I don't know	6 (9%)
Total	64
PIQ.6.2 - Please select any of the following your department/agency had regular interactions with during its COVID-19 response.	
Healthcare coalitions	30 (47%)
Hospitals	27 (42%)
I don't know	27 (42%)
Healthcare providers	22 (34%)
Emergency Medical Services	17 (27%)
Total	64
PIQ.6.3 - Was your department/agency involved in the relay of any health-related information to the public or to other entities that would release the information to the public?	
I don't know	8 (13%)
No	20 (31%)
Yes (please elaborate)	36 (56%)
Total	64
Public-Private Partnerships	
PIQ.7.1 - Did your department/agency utilize private partnerships during the COVID-19 response?	
Yes (please elaborate)	38 (59%)

No	13 (20%)
I don't know	13 (20%)
Total	64
Personal Protective Equipment, Supplies and Resources	
PIQ.8.1 - Did your department/agency use any of the following PPE?	
Hand sanitizer	59 (92%)
Surgical masks	48 (75%)
Gloves	41 (64%)
N95 masks	33 (52%)
KN95 masks	30 (47%)
Plexiglass or other type of barrier	30 (47%)
Other	15 (23%)
Gowns	13 (20%)
My department/agency did not use PPE	4 (6%)
Total	64
PIQ.8.2 - How did your department/agency procure PPE?	
Submitted resource request to the SEOC	45 (75%)
Wholesale or retail purchase	26 (43%)
Other	16 (27%)
Had pre-existing supply	15 (25%)
Total	60
PIQ.8.3 - Did any staff from your department/agency interact with the public in person during the COVID-19 response?	
Yes (please elaborate)	45 (70%)
No	11 (17%)
I don't know	8 (13%)
Total	64
PIQ.8.4 - Did your department/agency receive or process any donations during the COVID-19 response?	
Yes	28 (44%)
No	24 (38%)
I don't know	12 (19%)
Total	64
PIQ.8.4.1 - What types of donations did your department/agency receive or process during the COVID-19 response?	
PPE/hand sanitizer	26 (76%)
Money	10 (29%)

Other	10 (29%)
Food/bottled water	8 (24%)
Clothing	2 (6%)
Total	34
Public Health, Epidemiology, Laboratory, and Protective Measures	
PIQ.9.1 - Did your department/agency participate in staffing or supporting a Point of Dispensing (POD) or vaccination site?	
Provided logistics	33 (52%)
Provided staff	32 (50%)
Didn't participate	25 (39%)
Provided materials	24 (38%)
Provided a venue	13 (20%)
Total	64
PIQ.9.3 - Did your department/agency provide any epidemiological data to or receive any epidemiological data from the Department of Health and Human Service, including absenteeism due to COVID-19 infection or quarantine?	
Yes (please elaborate)	22 (34%)
No	21 (33%)
I don't know	21 (33%)
Total	64
PIQ.9.4 - Did your department/agency interact with public health laboratories in any way, including testing locations, supplies, test results, etc.?	
Yes (please elaborate)	27 (42%)
No	22 (34%)
I don't know	15 (23%)
Total	64
PIQ.9.5 - Was your department/agency responsible for enforcing public health measures or other critical response policies on the public?	
Yes (please elaborate)	17 (27%)
No	39 (61%)
I don't know	8 (13%)
Total	64
State-Local Coordination	
PIQ.10.1 - Did your agency coordinate with local agencies and personnel, such as emergency managers, during the COVID-19 response?	
Yes (please elaborate)	49 (77%)
No	13 (20%)
I don't know	2 (3%)

Total	64
PIQ.10.2 - Did your agency create or participate in any joint state and local task forces?	
Yes (please elaborate)	34 (53%)
No	12 (19%)
I don't know	18 (28%)
Total	64
Volunteer Coordination	
PIQ.11.1 - Did your department/agency utilize volunteers during the COVID-19 response?	
Yes (please elaborate)	23 (36%)
No	28 (44%)
I don't know	13 (20%)
Total	64
PIQ.11.2 - Which volunteer registry did your department/agency use?	
Other	7 (30%)
VolunteerMichigan	6 (26%)
None	6 (26%)
I Don't Know	6 (26%)
Total	23
Closing	
PIQ.12.1 - Are there any additional documents you recommend that we review to better understand your department/agency's COVID-19 response?	
Yes	17 (27%)
No	47 (73%)
Total	64
PIQ.12.2 - Is there anyone else at your department/agency that we should contact regarding any of these topics?	
Yes	20 (31%)
No	44 (69%)
Total	64

APPENDIX D

CORE CAPABILITY CROSSWALK



Core Capability Crosswalk

The National Preparedness Goal defines what it means for the whole community to be prepared for all types of disasters and emergencies. The goal is “A secure and resilient nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.” The National Preparedness Goal describes five (5) mission areas – prevention, protection, mitigation, response, and recovery – and 32 core capabilities that address the greatest risks to the nation. For the purposes of the Michigan Coronavirus Disease (COVID-19) After-Action Report (AAR), the project focus areas have been associated with core capabilities.

Focus Area	Core Capabilities
Business Continuity and Continuity of Operations (COOP)	<ul style="list-style-type: none"> • Cybersecurity • Operational Coordination • Planning • Situational Assessment • Supply Chain Integrity and Security
Communications	<ul style="list-style-type: none"> • Intelligence and Information Sharing • Operational Communications • Operational Coordination • Planning • Public Information and Warning • Risk and Disaster Resilience Assessment • Situation Assessment
Financial Management	<ul style="list-style-type: none"> • Operational Communications • Operational Coordination
Hospitals and Healthcare	<ul style="list-style-type: none"> • Fatality Management Services • Long-term Vulnerability Reduction • Physical Protection Measures • Public Health, Healthcare, and Emergency Services • Response/Health and Safety • Screening, Search and Detention
Incident Management	<ul style="list-style-type: none"> • Operational Communications • Operational Coordination • Planning

Focus Area	Core Capabilities
Logistics	<ul style="list-style-type: none"> • Operational Coordination • Planning • Situational Assessment • Supply Chain Integrity and Security
Public Health	<ul style="list-style-type: none"> • Fatality Management Services • Health and Social Services • Long-term Vulnerability Reduction • Public Information and Warning Environmental • Response/Health and Safety • Screening, Search and Detection
Public-Private Partnerships	<ul style="list-style-type: none"> • Public and Private Services and Resources
State-Local Coordination	<ul style="list-style-type: none"> • Community Resilience • Infrastructure Systems • Long-term Vulnerability Reduction • Mass Care Services • Public Information and Warning Environmental • Response/Health and Safety • Risk and Disaster Resilience Assessment
Planning and Operations	<ul style="list-style-type: none"> • Long-term Vulnerability Reduction • Operational Communications • Operational Communications • Operational Coordination • Planning
Volunteer Coordination	<ul style="list-style-type: none"> • Community Resilience • Operational Communications • Operational Coordination • Planning • Public and Private Services and Resources

APPENDIX E

KEY DECISIONS TIMELINE



Date	Event Description	Source(s)
12/31/19	The government in Wuhan, China confirms that health authorities are treating dozens of cases of pneumonia of unknown cause which surfaced in a Chinese seafood and poultry market in December 2019.	NYT
1/17/20	The United States (U.S.) responds to the outbreak in China by implementing screenings for symptoms at airports in San Francisco, New York, and Los Angeles.	CDC
1/20/20	The World Health Organization's (WHO) release their first situation report, in response to China reporting 139 new cases of Coronavirus Disease COVID-19 and three deaths. The report confirms cases in Japan, South Korea, and Thailand.	WHO
1/20/20	Officials in Washington state confirm the first case on U.S. soil.	CNN
1/20/20	The National Institutes of Health (NIH) announces that it is working on a vaccine against COVID-19. "The NIH is in the process of taking the first steps towards the development of a vaccine," says Dr. Anthony Fauci, director of the National Institutes of Allergy and Infectious Diseases.	CNN
1/24/20	The Centers for Disease Control and Prevention (CDC), Michigan Department of Health and Human Services (MDHHS), local public health departments, and the state's healthcare community monitor the COVID-19 outbreak.	Michigan.gov
1/27/20	Test results on three possible cases of COVID-19 come back negative. A specimen from a fourth possible case, from Washtenaw County, is sent to the CDC for testing.	Michigan.gov
1/29/20	The White House announces the formation of a new task force that will help monitor and contain the spread of the virus and ensure Americans have accurate and up-to-date health and travel information.	CNN
1/29/20	Detroit Metro Airport begins screening some incoming passengers for COVID-19 – one of 20 airports in the U.S. that begin screening programs. At this point, there are no confirmed cases of COVID-19 in Michigan, although patients have begun being tested.	Michigan Radio
1/30/20	The U.S. reports its first confirmed case of person-to-person transmission of COVID-19.	CNN
1/30/20	WHO determines that the outbreak constitutes a Public Health Emergency of International Concern.	CNN
1/31/20	U.S. Health and Human Services (HHS) Secretary issues a Public Health Emergency (PHE) for the U.S.	Michigan WebEOC
2/3/20	MDHHS activates the Community Health Emergency Coordination Center (CHECC) to support local and state response to the COVID-19 outbreak.	Michigan.gov
2/6/20	First COVID-19 death in the U.S.: A person in Santa Clara County, California dies of COVID-19, but the link is not confirmed until April 21.	CNN
2/26/20	CDC officials say that a California patient being treated for COVID-19 is the first U.S. case of unknown origin. The patient, who didn't have any relevant travel history nor exposure to another known patient, is the first possible U.S. case of "community spread."	CNN
2/29/20	The U.S. reports a patient near Seattle has died from COVID-19 in what is believed to be the first COVID-19 death in the U.S. (in fact, two people died of COVID-19 earlier in the U.S., though their diagnoses were not discovered until months later).	NYT

Date	Event Description	Source(s)
2/28/20	State Emergency Operations Center (SEOC) activated to coordinate Michigan's response to COVID-19.	Michigan.gov
2/29/20	MDHHS state lab completes first in-state test for COVID-19. Results come back negative.	Michigan.gov
3/3/20	Governor Whitmer announces the creation of four task forces to combat the spread of COVID- 19 and assess the impact it may have on Michiganders' day-to-day lives. The task forces include the COVID-19 Task Force on State Operations, covering all aspects of state operations, including employment and facilities; the COVID-19 Task Force on Health and Human Services, covering the provision of medical and human services, including protecting the healthcare workforce; the COVID-19 Task Force on Education, covering K-12 public schools and universities and colleges; and the COVID-19 Task Force on Economy/Workforce, covering general economic impact, workforce, supply chain, business continuity, and related issues.	Michigan.gov
3/4/20	The CDC formally removes earlier restrictions that limited COVID-19 testing of the general public to people in the hospital unless they have close contact with confirmed COVID-19 cases. According to the CDC, clinicians should now "use their judgment to determine if a patient has signs and symptoms compatible with COVID-19 and whether the patient should be tested."	CNN
3/6/20	Governor Whitmer announces the Michigan Medicaid Program will waive co-pays and cost-sharing for testing and health care treatment related to COVID-19. Several insurers, including Blue Cross Blue Shield of Michigan, Blue Care Network of Michigan, Priority Health, Consumer Value Stores (CVS) Health, McLaren, and Meridian also announced they will fully cover the cost of medically necessary COVID-19 tests for members.	Michigan.gov
3/10/20	The first two cases of COVID-19 are confirmed in Michigan in Oakland and Wayne Counties in the metro Detroit area. In the following months, a COVID-19 symptoms tracker suggests the disease is already more widespread in the state at this point, with up to 500 people infected.	Bridge Michigan
3/10/20	Governor Whitmer issues Executive Order (EO) 2020-4, declaring a state of emergency in response to COVID-19.	Michigan.gov
3/10/20	The SEOC activates the Michigan Joint Information Center (JIC) to coordinate state agency communications efforts in response to the potential spread of COVID-19.	Michigan.gov
3/10/20	Governor Whitmer issues EO 2020-05 regarding the temporary prohibition on large assemblages and events, temporary school closures (later superseded by EO 2020-11).	Michigan WebEOC
3/11/20	WHO declares COVID-19 a global pandemic.	Michigan WebEOC
3/12/20	Governor Whitmer orders all K-12 schools to close in Michigan. There are 12 cases of COVID-19 in Michigan.	Michigan.gov
3/13/20	President Donald Trump declares a National Emergency under the National Emergencies Act, freeing up \$50 billion in federal resources to combat COVID- 19.	CNN
3/13/20	Governor Whitmer bans all events and gatherings of more than 250 people, except for those for industrial or manufacturing work, mass transit, or the purchase of groceries or consumer goods.	Michigan.gov

Date	Event Description	Source(s)
3/13/20	Governor Whitmer orders temporary restrictions on entry into care facilities and juvenile justice facilities.	Michigan.gov
3/13/20	Michigan Department of Corrections (MDOC) ceases in-person visiting of prisoners effective immediately for the safety of staff, prisoners, and the public.	Michigan.gov
3/13/20	The Michigan Department of Natural Resources (DNR) announces a series of closures for several of its high-traffic facilities.	Michigan.gov
3/13/20	MDHHS announces statewide hotline to address COVID-19 health questions.	Michigan.gov
3/15/20	The CDC recommends no gatherings of 50 or more people in the U.S. The following day, President Trump advises citizens to avoid groups of more than 10.	NYT
3/15/20	Governor Whitmer signs EO 2020-8, which temporarily imposes enhanced restrictions on the excessive pricing of goods, materials, emergency supplies, and consumer food items. Governor Whitmer will extend these restrictions with EO 2020-18 on March 20, EO 2020-53 on April 17, and EO 2020-89 on May 15.	Michigan.gov
3/15/20	Michigan receives the first shipment of commodities from the Strategic National Stockpile (SNS). Additional shipments arrive on March 22 and March 27.	Michigan WebEOC
3/16/20	Governor Whitmer signs EO 2020-9, which temporarily closes theaters, bars, gyms, spas, and casinos, and limits restaurants to carry out and delivery orders.	Michigan.gov
3/16/20	Governor Whitmer signs EO 2020-10, which temporarily expands unemployment eligibility and cost sharing to mitigate the spread of COVID-19. Governor Whitmer will extend expanded eligibility and cost sharing with EO 2020-24 on March 25, EO 2020-57 on April 22, EO 2020-76 on May 6, and EO 2020-100 on May 22.	
3/16/20	Governor Whitmer issues EO 2020-11, banning gatherings of more than 50 people, except for health care facilities, workplaces not open to the public, the state legislature, mass transit, the purchase of groceries or consumer goods, and the performance of agricultural or construction work.	MLive
3/16/20	Governor Whitmer issues EO 2020-12 to provide limited and temporary relief from load and delivery restrictions on motor carriers and drivers engaged in the transportation of essential supplies, equipment, and people. Governor Whitmer will extend this order with EO 2020-44 on April 13 and EO 2020-81 on May 11.	Michigan WebEOC
3/17/20	Governor Whitmer signs EO 2020-13, to temporarily lift regulatory requirements on hospitals and care facilities and ensure an adequate number of health care providers are available to patients during the spread of COVID-19. Governor Whitmer will extend these lifted regulatory requirements with EO 2020-49 on April 14 and EO 2020-82 on May 12 and rescind them with EO 2020-112 on June 3.	Michigan.gov
3/18/20	The U.S. and Canada mutually agree to close their border to non-essential travel.	CNBC
3/18/20	President Trump signs into law a COVID-19 relief package that includes provisions for free testing for COVID-19 and paid emergency leave.	CNN

Date	Event Description	Source(s)
3/18/20	First Michigan resident, a man in his 50's, dies from COVID-19 at Beaumont Hospital in Wayne County. At least 116 people in Michigan have tested positive for COVID-19.	Detroit Free Press
3/18/20	Governor Whitmer calls on the Michigan National Guard (MING) to help with the distribution of COVID-19 Personal Protective Equipment (PPE).	Michigan.gov
3/18/20	Governor Whitmer signs EO 2020-14, extending the deadline for Michigan residents to pay back taxes and avoid foreclosure on their property during the ongoing pandemic. Governor Whitmer will extend this deadline with EO 2020-106 on May 28.	Michigan.gov
3/18/20	Governor Whitmer signs EO 2020-15 to order a temporary change to the Open Meetings Act to allow public bodies to conduct their meetings electronically, while also facilitating public participation, until April 15, 2020, at 11:59 PM. Governor Whitmer will extend this change with EO 2020-48 on April 14, EO 2020-75 on May 6, EO 2020-129 on June 18, and EO 2020-154 on July 17.	Michigan.gov
3/18/20	Governor Whitmer issues EO 2020-16 to expand childcare access for health care workers, first responders, and other members of the essential workforce providing critical infrastructure to Michiganders during the COVID-19 crisis during the COVID-19 Emergency through April 15. Governor Whitmer will extend this expanded childcare access with EO 2020-51 on April 15, EO 2020-83 on May 13, and EO 2020-117 on June 9.	Michigan WebEOC
3/18/20	Pure Michigan Business Connect offers a virtual, statewide matchmaking platform for suppliers and buyers providing a critical response to COVID-19.	Michigan.gov
3/19/20	Governor Whitmer announces Michigan's licensed distilleries are now permitted to produce ethanol-based hand sanitizers to help meet demand as Michigan mitigates the spread of COVID-19.	Michigan.gov
3/20/20	Governor Whitmer issues EO 2020-17, which imposes temporary restrictions on non-essential medical and dental procedures beginning no later than March 21, 2020, at 5:00 pm. Governor Whitmer will extend these restrictions with EO 2020-96 on May 21, EO 2020-100 on May 22, and EO 2020-110 on June 1.	Michigan.gov
3/20/20	Governor Whitmer signs EO 2020-19, which allows tenants and mobile homeowners to remain in their homes during the COVID-19 pandemic even if they are unable to stay current on their rent. The order also relieves courts from certain statutory restrictions to enable them to stay eviction-related proceedings until after the COVID-19 emergency has passed. Governor Whitmer will extend this temporary prohibition on entry to premises for the purpose of removing or excluding a tenant or mobile homeowner from their home with EO 2020-54 on April 17, EO 2020-85 on May 14, EO 2020-118 on June 11, and EO 2020-134 on June 26.	Michigan.gov
3/21/20	Governor Whitmer signs EO 2020-20, which makes clear all facilities that provide non-essential personal care services must temporarily close. These services include hair, nail, tanning, massage, spa, tattoo, body art and piercing services, and similar services that require individuals to be within 6 feet of each other. After the original order expires on April 12, Governor Whitmer will reissue and extend the required closure of these services with EO 2020-43 on April 13, EO 2020-69 on April 30, EO 2020-100 on May 22, and EO 2020-110 on June 1.	Michigan.gov

Date	Event Description	Source(s)
3/27/20	Governor Whitmer and MDHHS announce that 350,000 Michigan families will have access to additional food assistance benefits as a response to the COVID-19 outbreak and about 27,000 individuals will be temporarily exempt from federal work requirements.	Michigan.gov
3/28/20	Governor Whitmer issues EO 2020-28, to restore water service to occupied residences during the COVID-19 pandemic. Governor Whitmer will extend this order with EO 2020-100 on May 22 and EO 2020-144 on July 8.	Michigan WebEOC
3/29/20	Governor Whitmer signs EO 2020-29, which protects vulnerable populations in Michigan's county jails, local lockups, and juvenile detention centers during the ongoing COVID-19 pandemic.	Michigan.gov
3/29/20	Governor Whitmer signs EO 2020-30, which relaxes scope of practice laws to give hospitals and other health care facilities the flexibility needed to successfully deploy qualified physician assistants, nurses, and other health care providers to combat COVID-19. Governor Whitmer will extend this temporary relief with EO 2020-61 on April 26, EO 2020-100 on May 22, and EO 2020-150 on July 13.	Michigan.gov
3/30/20	Governor Whitmer issues EO 2020-31, which provides temporary relief from standard vapor pressure restrictions on gasoline sales. Governor Whitmer will extend this order with EO 2020-102 on May 22.	Michigan WebEOC
3/30/20	Governor Whitmer issues EO 2020-32, which temporarily restricts non-essential veterinary services effective no later than March 31, 2020, at 5 PM. Governor Whitmer will extend this restriction with EO 2020-34 on April 2, EO 2020-96 on May 21, EO 2020-100 on May 22, and EO 2020-110 on June 1.	Michigan WebEOC
3/30/20	Governor Whitmer signs EO 2020-3, temporarily restricting discretionary spending by state departments and agencies while they work to mitigate the spread of COVID-19 in Michigan. The governor also signs Executive Directive 2020-4, temporarily suspending hiring, creating new positions, filling vacant positions, transfers, and promotions within the executive branch of state government.	Michigan.gov
3/30/20	Governor Whitmer announces new programs for workers affected by COVID-19. The governor, under the federal CARES Act, signs an agreement between Michigan and the U.S. Dept. of Labor to implement Pandemic Unemployment Assistance and Compensation programs that grant benefits to workers who do not already qualify for state unemployment benefits.	Michigan.gov
3/30/20	The Mayor of Detroit announces the city has begun offering on-the-spot COVID-19 testing. In addition, the drive-up testing center at the Michigan State Fairgrounds is testing 700 people a day.	Detroit Free Press
3/31/20	Governor Whitmer requests federal government assistance in response to COVID-19. Michigan, and metro Detroit in particular, has emerged as one of the nation's COVID-19 hotspots, recording more than 7,600 cases and at least 259 deaths.	Detroit Free Press
4/1/20	Governor Whitmer issues EO 2020-33, declaring a state of disaster in Michigan and asks the Legislature to extend Michigan's existing state of emergency and new state of disaster by 70 days. Michigan has nearly 10,000 cases of COVID-19 and 337 deaths.	Detroit Free Press

Date	Event Description	Source(s)
4/2/20	MDHHS Director Robert Gordon issues an emergency order Thursday setting a \$1,000 civil fine to go into immediate effect for violating three of Whitmer's recent EOs in response to the COVID-19 pandemic. The fine can be applied for each violation or day the violation continues. Thus, violators of the governor's stay-at-home order could face up to a \$1,000 civil fine, a \$500 criminal fine, and 90 days in jail together. Nonessential businesses still operating, under Whitmer's order can now face forced closure.	Detroit Free Press
4/2/20	Governor Whitmer signs EO 2020-35, which orders all K-12 school buildings to close for the remainder of the school year — unless restrictions are lifted — and ensures continuing of learning by setting guidelines for remote learning. Governor Whitmer will extend and adjust this order with EO 2020-65 on April 30.	Michigan.gov
4/3/20	President Trump says his administration is now recommending Americans wear "non-medical cloth" face coverings, a reversal of previous guidance that suggested were unnecessary for people who weren't sick.	CNN
4/3/20	Governor Whitmer signs EO 2020-36, prohibiting all employers from discharging, disciplining, or otherwise retaliating against an employee for staying home from work if they or one of their close contacts tests positive for COVID-19 or has symptoms of the disease. EO 2020-36 also strengthens the governor's "Stay Home, Stay Safe" EO by declaring that it is the public policy of the state that all Michiganders who test positive or show symptoms, or who live with someone who tests positive or shows symptoms, should not leave their homes unless necessary. Governor Whitmer will extend this order with EO 2020-100 on May 22, EO 2020-166 on August 7, and EO 2020-172 on August 27.	Michigan.gov
4/4/20	MDHHS Director Robert Gordon issues an emergency order for COVID-19 deaths to be reported more quickly by physicians and funeral homes. This will improve the state's response to slowing the spread of the virus.	Michigan.gov
4/5/20	Governor Whitmer issues EO 2020-37, temporarily restricting entry into health care facilities, residential care facilities, congregate care facilities, and juvenile justice facilities. Governor Whitmer will extend these restrictions with EO 2020-72 on May 3, EO 2020-108 on May 29, EO 2020-136 on June 26, EO 2020-156 on July 23, EO 2020-174 on August 28, and EO 2020-188 on September 29.	Michigan WebEOC
4/6/20	Governor Whitmer issues EO 2020-38, temporarily extending certain Freedom of Information Act (FOIA) deadlines to facilitate COVID-19 emergency response efforts. Governor Whitmer will extend this order with EO 2020-112 on June 3.	Michigan WebEOC
4/7/20	Governor Whitmer issues EO 2020-39, regarding temporary relief from certain restrictions and requirements governing the provision of emergency medical services. Governor Whitmer will extend this relief with EO 2020-100 on May 22 and rescind it with EO 2020-112 on June 3.	Michigan WebEOC
4/8/20	Governor Whitmer issues EO 2020-40, regarding temporary relief from certain credentialing requirements for motor carriers transporting essential supplies, equipment, and persons. Governor Whitmer will extend this temporary relief with EO 2020-73 on May 5.	Michigan WebEOC
4/8/20	To provide more information about the COVID-19 pandemic in Michigan, MDHHS begins providing additional and improved statistics on its website.	Michigan.gov

Date	Event Description	Source(s)
4/9/20	Governor Whitmer issues EO 2020-41, encouraging the use of electronic signatures and remote notarization, witnessing, and visitation during the COVID-19 pandemic. Governor Whitmer will extend this order with EO 2020-74 on May 5, EO 2020-131 on June 24, EO 2020-158 on July 27, EO 2020-173 on August 28, and EO 2020-187 on September 29.	Michigan WebEOC
4/9/20	Governor Whitmer signs EO 2020-42, extending her prior “Stay Home, Stay Safe” order through the end of April. As with the prior order, EO 2020-42 limits gatherings and travel and requires all workers who are not needed to sustain or protect life to stay home. This order also imposes more stringent limitations on stores to reduce foot traffic, slow the spread of COVID- 19, and save lives.	Michigan.gov
4/9/20	Michigan becomes the first state in the country to gain federal approval of a program that will provide nutritious food to children who were affected by school closings due to COVID-19.	Michigan.gov
4/9/20	Governor Whitmer announces the creation of the Michigan Coronavirus Task Force on Racial Disparities. The task force, chaired by Lt. Governor Garlin Gilchrist II, consists of leaders across state government and health care professionals from communities most impacted by the spread of COVID- 19.	Michigan.gov
4/10/20	The first “alternate care facility”, the converted TCF center in Detroit, opens after nine days of work setting up the facility. The TCF Regional Care Center includes a triage area, patient support services, pharmacy, administrative space, command center, and staff changing areas, and has 970 bed spaces across two floors for COVID-19 patients.	Detroit Free Press
4/11/20	The second converted field hospital at Suburban Collection Showplace announces they are scaling back from 1000 to 250 beds due to a reduction in hospital demand. Medical professionals suggest they are nearing the peak of the COVID-19 wave.	Detroit Free Press
4/11/20	Governor Whitmer and MDHHS announce COVID-19 testing advances to slow spread of COVID-19, including thirteen new or expanded drive-thru testing sites.	Michigan.gov
4/13/20	Governor Whitmer issues EO 2020-46, mitigating the economic harms of the COVID-19 pandemic through the creation of a spirits buyback program for restaurants and bars throughout the state. Governor Whitmer will amend this order with EO 2020-100 on May 22.	Michigan WebEOC
4/13/20	Governor Whitmer issues EO 2020-47, temporarily extending the validity of certain driver’s licenses, state cards, and vehicle registrations. Governor Whitmer will extend this change with EO 2020-78 on May 8.	Michigan WebEOC
4/14/20	MDHHS announces it is expanding testing criteria for COVID-19 to include individuals with mild symptoms and has published a COVID-19 test site finder at Michigan.gov/Coronavirus to help Michiganders locate a testing site near them.	Michigan.gov
4/15/20	Governor Whitmer issues EO 2020-50, which enhances protections for residents and staff of long-term care facilities during the COVID-19 pandemic. Governor Whitmer will extend these enhanced protections with EO 2020-84 on May 13, EO 2020-95 on May 20, EO 2020-123 on June 15, EO 2020-148 on July 13, EO 2020-169 on August 10, EO 2020-179 on September 5, and EO 2020-191 on September 30.	Michigan WebEOC
4/17/20	Governor Whitmer issues EO 2020-52, temporarily extending certain pesticide applicator certificates. Governor Whitmer will amend this order with EO 2020-100 on May 22.	Michigan WebEOC

Date	Event Description	Source(s)
4/20/20	Governor Whitmer issues EO 2020-55, formalizing the creation of the Michigan Coronavirus Task Force on Racial Disparities with MDHHS. Governor Whitmer will amend this order with EO 2020-100 on May 22.	Michigan WebEOC
4/20/20	The federal government awards two grants to the MDHHS Behavioral Health and Developmental Disabilities Administration (BHDDA). Together, they provide nearly \$2.5 million to address mental health needs during the COVID-19 disaster.	Michigan.gov
4/20/20	MDHHS expands testing criteria to include all essential workers still reporting to work in person, whether they have symptoms or not, and launches a large-scale effort with more than 2,000 volunteers to expand contact tracing capacity.	Michigan.gov
4/20/20	To implement and support the goals of EO 2020-50, MDHHS rolls out a comprehensive strategy to combat the impact of COVID-19 in long-term care settings and ensure residents and employees are protected. This includes an Emergency Order issued by MDHHS Director Robert Gordon regarding transfers and reporting requirements.	Michigan.gov
4/21/20	The Michigan Veterans Affairs Agency (MVAA) begins coordinating the distribution of \$6.4 million in U.S. Department of Veterans Affairs funding via the County Veteran Service Fund that will allow Michigan's 550,000 veterans in participating counties to make vehicle and home repairs, pay medical expenses, buy groceries and personal care items and meet other needs.	DBusiness MLive
4/22/20	Governor Whitmer issues EO 2020-58, which temporarily suspends certain time requirements related to the commencement of civil and probate actions and proceedings. Governor Whitmer will extend and amend this suspension with EO 2020-100 on May 22 and rescinded by EO 2020-122 on June 12.	Michigan WebEOC
4/23/20	Governor Whitmer announces a temporary \$2-per-hour pay raise for direct care workers providing Medicaid-funded in-home behavioral health and long-term care services to Michigan's most vulnerable residents during the continuing COVID-19 pandemic.	Michigan.gov
4/24/20	Governor Whitmer signs EO 2020-59, extending her "Stay Home, Stay Safe" order through May 15. The new order requires people to wear homemade face coverings when they enter enclosed public spaces. It also lifts some restrictions on outdoor activities and allows some workers who perform previously suspended activities to go back to work.	Michigan.gov
4/26/20	The global death toll from COVID-19 surpasses 200,000.	NYT
4/26/20	Governor Whitmer signs EO 2020-60 to establish strategies to reduce exposure to COVID-19 for both customers and employees. The order also provides temporary relief by suspending certain licensing requirements and regulations for food service industries.	Michigan.gov
4/26/20	Governor Whitmer issues EO 2020-62, extending temporary COVID-19 protocols for entry into MDOC facilities and transfers to and from department custody. The order also temporarily recommends COVID-19 protocols and enhanced early release authorization for county jails, local lockups, and juvenile detention centers and rescinds EO 2020-29. Governor Whitmer will extend this order with EO 2020-100 on May 22, EO 2020-119 on June 11, EO 2020-146 on July 9, EO 2020-170 on August 15, and EO 2020-189 on September 29.	Michigan WebEOC
4/27/20	Governor Whitmer issues EO 2020-63, which temporarily suspends the expiration of personal protection orders.	Michigan WebEOC

Date	Event Description	Source(s)
4/28/20	The U.S. passes one million confirmed cases of COVID-19.	CNN
4/29/20	Governor Whitmer issues EO 2020-64, affirming anti-discrimination policies and requiring certain health care providers to develop equitable access to care protocols. Governor Whitmer will extend this order with EO 2020-100 on May 22.	Michigan WebEOC
4/29/20	Michigan activates the Michigan Mortuary Response Team (MI-MORT) to assist local health care facilities and funeral homes with the surge in human remains during the COVID-19 pandemic.	Michigan.gov
4/29/20	A partnership between the state government, Meijer, and the Food Bank Council of Michigan help feed a growing number of residents turning to food banks during the COVID-19 crisis.	Michigan.gov
4/30/20	Major airlines announce all passengers and flight attendants are required to wear masks.	NYT
4/30/20	President Trump launches Operation Warp Speed, an initiative to produce a vaccine for COVID-19 as quickly as possible.	CDC
4/30/20	Governor Whitmer issues EO 2020-66, terminating the states of emergency and disaster declared under the Emergency Management Act in EO 2020-33, and then issues EO 2020-67 and EO 2020-68, declaring a state of emergency under the Emergency Powers of the Governor Act, 1945 PA 302 and Emergency Management Act, 1976 PA 390.	Michigan WebEOC
5/1/20	The U.S. Food and Drug Administration (FDA) issues an emergency-use authorization for remdesivir in hospitalized patients with severe COVID-19. FDA Commissioner Stephen Hahn says remdesivir is the first authorized therapy drug for COVID-19.	CNN
5/1/20	Governor Whitmer signs EO 2020-70 as part of her MI Safe Start plan. The order will allow the resumption of some types of work that present a very low risk of infection, including construction, real-estate activities, and work that is traditionally and primarily performed outdoors on May 7. Governor Whitmer will extend temporary suspension of these activities with EO 2020-77 on May 7, when it becomes clear it is still needed.	Michigan.gov
5/2/20	Governor Whitmer signs EO 2020-71, which extends existing safety measures to protect consumers and employees at grocery stores and pharmacies until May 29 and extends temporary relief from licensing requirements for food sellers and pharmacies. Governor Whitmer will extend this relief with EO 2020-109 on May 29, EO 2020-126 on June 17, EO 2020-149 on July 13, EO 2020-168 on August 10, EO 2020-178 on September 5, and EO 2020-190 on September 29.	Michigan.gov
5/4/20	Governor Whitmer signs EO 2020-5, creating the Michigan COVID-19 Office of Accountability within the State Budget Office. The Accountability Office provides oversight of all spending to address this crisis and must report regularly on its work to the governor and the state budget director.	Michigan.gov
5/4/20	MDHHS Director Robert Gordon issues an Emergency Order that shortens the time frame hospitals and funeral directors must contact individuals with authority over the disposition of the body of a deceased individual and the amount of time that individual must decide on arrangements for the deceased.	Michigan.gov

Date	Event Description	Source(s)
5/6/20	Michigan crosses 45,000 COVID-19 cases; the death toll is now at 4,250. Data also shows 15,659 people have recovered from COVID-19. By race, African Americans — who count for 14 percent of the state’s population — represent 32 percent of the state’s confirmed cases and 41 percent of deaths. Caucasians account for 34 percent of the cases and 49 percent of deaths. Those of unknown race account for 20 percent of the cases and five (5) percent of deaths.	Detroit Free Press
5/7/20	MDHHS and Labor and Economic Opportunity (LEO) launch a new portal on Pure Michigan Talent Connect, the state’s labor exchange system, that makes it easier for health care professionals to apply for jobs providing lifesaving care to COVID-19 patients.	Michigan.gov
5/7/20	After announcing that Michigan’s manufacturing workers will return to work on Monday, May 11, Governor Whitmer details the six phases of her MI Safe Start Plan to re-engage Michigan’s economy. The governor works with health care, business, education, and labor leaders to develop the plan. Michigan is currently in phase 3.	Michigan.gov
5/11/20	The Trump Administration announces that the federal government is sending \$11 billion to states to expand COVID-19 testing capabilities. The relief package signed on April 24, 2020, includes \$25 billion for testing, with \$11 billion for states, localities, territories, and tribes.	CNN
5/11/20	Governor Whitmer issues EO 2020-79, temporarily suspending youth work permit application requirements. Governor Whitmer will extend this suspension with EO 2020-116 on June 5, EO 2020-140 on June 30, and EO 2020-157 on July 27.	Michigan WebEOC
5/14/20	Governor Whitmer issues EO 2020-86, encouraging the use of telehealth services during the COVID-19 emergency. Governor Whitmer will extend this order with EO 2020-138 on June 29.	Michigan WebEOC
5/14/20	Governor Whitmer issues EO 2020-87, temporarily extending deadlines for Boards of Review, County Equalization, and Tax Tribunal Jurisdiction.	Michigan WebEOC
5/15/20	Governor Whitmer issues EO 2020-88, establishing the COVID-19 Return to School Advisory Council.	Michigan WebEOC
5/15/20	Governor Whitmer issues EO 2020-90, directing resumption of some laboratory research activities.	Michigan WebEOC
5/18/20	Governor Whitmer issues EO 2020-91, regarding safeguards to protect Michigan’s workers from COVID-19. Governor Whitmer will extend these safeguards with EO 2020-97 on May 21, EO 2020-114 on June 5, EO 2020-145 on July 9, EO 2020-161 on July 29, EO 2020-175 on September 3, and EO 2020-184 in September 25.	Michigan WebEOC
5/18/20	Governor Whitmer issues EO 2020-92, extending temporary requirements to suspend certain activities that are not necessary to sustain or protect life. This rescinds EO 2020-77 and EO 2020-90 and begins lifting the stay-at-home order, but mandates businesses follow strict safety guidelines and develop a preparedness plan by June 1 or within two (2) weeks of reopening. Governor Whitmer will extend suspension of these activities with EO 2020-96 on May 21, EO 2020-100 on May 22, and EO 2020-110 on June 1.	Detroit Free Press Michigan WebEOC
5/19/20	The Civil Air Patrol partners with the Michigan SEOC to conduct flight operations to deliver and pick up COVID-19 test kits.	Michigan.gov

Date	Event Description	Source(s)
5/20/20	Governor Whitmer issues EO 2020-94, declaring a State of Emergency for the City of Midland and the County of Midland due to the Midland Dam breach. Any emergency order issued in response to the COVID-19 crisis is temporarily suspended to the extent such order impedes the emergency response effort under this declaration.	Michigan WebEOC
5/22/20	Governor Whitmer issues EO 2020-99, extending the declaration of the state of emergency and state of disaster related to the COVID-19 pandemic. Governor Whitmer will extend the declaration of state of emergency and state of disaster with EO 2020-127 and EO 2020-128 on June 18, EO 2020-151 on July 14, EO 2020-165 on August 7, EO 2020-177 on September 3, and EO 2020-186 on September 29.	Michigan WebEOC
5/22/20	Governor Whitmer issues EO 2020-103, providing alternative notice of public hearings under Michigan's tax abatement statutes. Governor Whitmer will extend this order with EO 2020-141 on June 30 and EO 2020-154 on July 17.	Michigan WebEOC
5/22/20	Governor Whitmer issues EO 2020-101, extending the expiration date for watercraft registration.	Michigan WebEOC
5/26/20	Governor Whitmer issues EO 2020-104, increasing COVID-19 testing by expanding the scope of practice for certain professionals and encouraging the establishment of community testing locations.	Michigan WebEOC
5/27/20	Data collected by Johns Hopkins University reports that COVID-19 has killed more than 100,000 people across the U.S., meaning that an average of almost 900 Americans died each day since the first known COVID-19-related death reported nearly four months earlier.	CNN
6/1/20	Governor Whitmer issues EO 2020-111, protecting the food supply and migrant and seasonal agricultural workers from the effects of COVID-19. Governor Whitmer will extend this protection with EO 2020-137 issued June 29.	Michigan WebEOC
6/2/20	Michigan ranks fifth nationally in the number of nursing home resident deaths per capita from COVID-19, according to data released by the Centers for Medicare & Medicaid Services. There have been 1,654 nursing home resident deaths in Michigan and 12 nursing home staff deaths as of May 24, according to the federal data.	Detroit Free Press
6/5/20	Governor Whitmer issues EO 2020-115, dividing the state of Michigan into 8 regions, as well as extending and adjusting temporary restrictions on certain events, gatherings, and businesses.	Michigan WebEOC
6/11/20	The U.S. passes 2 million confirmed cases of the virus.	CNN
6/12/20	Governor Whitmer issues EO 2020-120, which returns overnight camps to operation and lifts suspension of school sports activities and other in-person extracurricular school activities, subject to social distancing rules and the closure of indoor exercise facilities.	Michigan WebEOC
6/17/20	Governor Whitmer issues EO 2020-125, clarifying Workers' Disability Compensation Act (WDCA) eligibility for workplace exposure to COVID-19.	Michigan WebEOC
6/18/20	Occupational Safety and Health Administration (OSHA) issues OSHA 4045-06 2020, Guidance on Returning to Work.	OSHA.gov

Date	Event Description	Source(s)
6/20/20	The National Institutes of Health (NIH) announces that it has halted a clinical trial evaluating the safety and effectiveness of the drug hydroxychloroquine as a treatment for COVID-19. "A data and safety monitoring board met late Friday and determined that while there was no harm, the study drug was very unlikely to be beneficial to hospitalized patients with COVID-19," the NIH says in a statement.	CNN
6/24/20	The number of new COVID-19 cases in Michigan appear to be on the rise once again. The seven-day average of new cases has risen to 223, suggesting that Michigan's COVID-19 curve is scaling up, rather than down. Governor Whitmer had lifted her stay-at-home EO on June 1 as the state's COVID-19 surge began to ease and has been slowly reopening the state's economy since May. So far in the pandemic, Michigan has reported 61,953 total confirmed cases of COVID-19 and 5,868 deaths.	Link
6/25/20	Governor Whitmer issues EO 2020-133, restarting professional sports.	Michigan WebEOC
6/26/20	Governor Whitmer issues EO 2020-135, creating the Michigan Nursing Homes COVID-19 Preparedness Task Force with MDHHS.	Michigan WebEOC
6/30/20	Governor Whitmer issues EO 2020-142, regarding the provision of PreK-12 education for the upcoming 2020-2021 school year. The order requires school districts adopt a COVID-19 Preparedness and Response Plan laying out how they will cope with the disease across various phases of the Michigan Safe Start Plan and provides a Michigan Return to School Roadmap for the types of safety protocols appropriate during each phase. Governor Whitmer will adjust and revise EO 2020-142 with EO 2020-185 on September 25.	Michigan WebEOC
7/1/20	Governor Whitmer issues EO 2020-143, closing indoor service at bars.	Michigan WebEOC
7/7/20	The Trump administration notifies Congress and the UN that the U.S. is formally withdrawing from WHO. The withdrawal goes into effect on July 6, 2021.	CNN
7/10/20	The U.S. sets seven records in 11 days. On July 10, the U.S. reaches 68,000 new cases for the first time, setting a single-day record for the seventh time in 11 days. The infection rate is underscored by alarming growth in the South and West.	NYT
7/10/20	Governor Whitmer issues EO 2020-147 requiring all Michigan residents over the age of 5 to wear masks in indoor public spaces, in public and shared transportation, and when outside and unable to social distance. Governor Whitmer adjusts and reclarifies these mask requirements with EO 2020-153 on July 17.	Michigan WebEOC
7/28/20	The American Red Cross reports an emergency shortage of convalescent blood plasma and calls for donations.	Link
7/29/20	Governor Whitmer issues EO 2020-159, amending the fire code to accommodate new instruction spaces.	Michigan WebEOC

Date	Event Description	Source(s)
7/29/20	Governor Whitmer issues EO 2020-160, which amends the Safe Start Order and rescinds EO 2020-110, EO 2020-115, EO 2020-120, EO 2020-133, and EO 2020-143 to roll these provisions relating to non-essential service and activity suspensions under the newer comprehensive EO 2020-160. Governor Whitmer will amend EO 2020-160 provisions relating to remote work with EO 2020-162 on July 31 and will extend EO 2020-160 and EO 2020-162 with EO 2020-176 on September 3. Governor Whitmer will again amend EO 2020-176 with EO 2020-180 on September 9 to require athletes to wear masks or maintain 6 feet of social distance and with EO 2020-181 on September 11 to adjust indoor social gathering requirements in Regions 6 and 8. Governor Whitmer will reaffirm the Safe Start plan with EO 2020-183 on September 25, which provides new guidelines and rescinds EO 2020-176, EO 2020-180, and EO 2020-181.	Michigan WebEOC
8/1/20	The New York Times reports that the U.S. saw July cases more than double the total of any other month with more than 1.9 million new infections recorded in July, nearly 42 percent of the more than 4.5 million cases reported nationwide since the pandemic began and more than double the number documented in any other month.	NYT
8/5/20	Governor Whitmer issues EO 2020-163, which establishes the Black Leadership Advisory Council with the Department of Labor and Economic Opportunity.	Michigan WebEOC
8/6/20	Governor Whitmer issues EO 2020-164, requiring masks at child-care centers and camps.	Michigan WebEOC
8/7/20	Governor Whitmer issues EO 2020-167, creating a Food Security Council with MDHHS.	Michigan WebEOC
8/16/20	The CDC begins developing a plan to distribute a COVID-19 vaccine.	NYT
8/16/20	Michigan surpasses 100,000 novel COVID-19 cases — when both confirmed and probable cases totaled 100,724 on Friday, five months into the pandemic. At least 6,500 Michiganders have died of COVID-19, the MDHHS reported.	Detroit Free Press
8/22/20	Global COVID-19 deaths surpass 800,000.	NYT
8/23/20	The FDA issues an emergency use authorization for the use of convalescent plasma to treat COVID-19. It is made using the blood of people who have recovered from COVID-19 infections.	CNN
9/13/20	The Midwest sees a surge of new COVID-19 cases.	NYT
9/22/20	The U.S. death toll from COVID-19 surpasses 200,000.	NYT
9/28/20	Global deaths from COVID-19 reach 1 million.	NYT
10/2/20	Governor Whitmer issues Executive Order 2020-192, moving Region 8 to Phase 4 of the MI Safe Start Plan.	Michigan WebEOC
10/2/20	The Michigan Supreme Court issues a split decision late Friday that rules against Governor Whitmer in a battle over her power to extend emergency declarations used to mandate COVID-19 restrictions over the last five months. The court's opinion throws into question dozens of orders issued by Whitmer related to the COVID-19 pandemic, appearing to void them. Governor Whitmer states the ruling will not take effect for at least 21 days, which is the usual length of time a party to a case has to ask the court to reconsider a decision.	Detroit Free Press

Date	Event Description	Source(s)
10/11/20	The world records more than 1 million new COVID-19 cases in three days.	NYT
11/8/20	The U.S. surpasses 10 million infections.	NYT
11/9/20	Michigan rolls out a new app to alert people of COVID-19 exposure called "MI COVID Alert". The MDHHS rolls out the free app for iPhone Operating System (iOS) and Android smart devices in conjunction with the Michigan Department of Technology, Management, and Budget (DTMB). Anyone who downloads and enables the app who has been within six feet of another MI COVID Alert user for at least 15 minutes in the last 10 days will be notified with a push alert if that close contact tests positive for the virus.	Detroit Free Press
11/11/20	Spectrum Health announces its hospitals are nearing capacity as the number of people hospitalized with the virus has tripled in the last 20 days, with one (1) in 10 of those hospitalized due to COVID-19 in Western Michigan currently dying. Spectrum also announces it is canceling nonemergency inpatient medical procedures, moving to virtual health care visits as much as possible, limiting visitors to its hospitals, expanding its intensive care unit capacity, and adding beds.	Detroit Free Press
11/11/20	Governor Whitmer announces in-person classes at high schools and colleges statewide will be suspended for three weeks along with eat-in dining at restaurants and bars under sweeping new restrictions aimed at reining in the exponential growth of COVID-19 in Michigan. The new public health order is to take effect Wednesday and includes the cancellation of organized sports and group exercise classes, though gyms may remain open for individual exercise with strict safety measures, and professional and college athletics may continue. Casinos and movie theaters, indoor ice rinks, bowling alleys, and bingo halls will also have to temporarily shut down, and all businesses are asked to allow employees to work from home if possible. Gatherings inside homes are limited to two households at any time and health officials strongly urge families to pick a single other household to interact with over the next three weeks.	Detroit Free Press
11/11/20	Michigan marks its worst seven-day stretch yet in the pandemic, with 44,019 people newly diagnosed with COVID-19 and 416 dying. The state is now seeing exponential growth that is nearly four times higher than during the peak of the virus surge in early April, and hospitals say they are filling up with COVID-19 patients.	Detroit Free Press
11/17/20	FDA authorizes the first at-home COVID-19 test which requires a prescription from a health care provider and can return results in about 30 minutes.	NYT
11/18/20	The U.S. death toll hits 250,000.	NYT
12/3/20	President-elect Joseph R. Biden Jr. announces that on his first day as president in January 2021, he will ask Americans to wear masks for 100 days.	NYT
12/8/20	Michigan passes the benchmark of 10,000 residents killed by COVID-19. According to the State, more than one out of every 1,000 Michiganders died due to COVID-19 in 2020. The CDC shows that Michigan is ninth in the U.S. for total COVID-19 deaths since January. For deaths in the past seven days, Michigan is fourth in the nation.	Detroit Free Press
12/10/20	Governor Whitmer issues EO 2020-193, establishing the Protect Michigan Commission.	Michigan WebEOC

Date	Event Description	Source(s)
12/11/20	The FDA approves a vaccine by Pfizer for emergency use clearing the way for millions of highly vulnerable people to begin receiving the vaccine within days. The pandemic death toll in the U.S. currently stands at more than 209,000 lives.	NYT
12/11/20	Michigan announces plan for the distribution of COVID-19 vaccines, although receipt of the first shipment is still pending. Michigan is expected to receive 84,825 doses of the COVID-19 Pfizer vaccine as soon as it clears the final regulatory hurdle. The State's announced strategy is to first immunize the people who keep the state's crucial health care infrastructure running, which would include workers in hospitals, critical care units, and emergency medical services, and then expand.	Detroit Free Press
12/13/20	Pfizer begins distributing COVID-19 vaccines in the U.S.	NBC
12/14/20	The U.S. death toll from COVID-19 surpasses 300,000.	NYT
12/15/20	The Aging and Adult Services Agency (AASA) at MDHHS announces the launch of CV19 CheckUp in Michigan – a free, anonymous, personalized online tool that evaluates someone's risks associated with COVID-19.	Michigan.gov
12/18/20	The FDA approves the Moderna COVID vaccine for emergency use, allowing the shipment of millions more doses of COVID-19 vaccines across the nation.	NYT
12/29/20	More than 70,000 Michigan residents receive the first dose of a COVID-19 vaccine, out of the 278,000 doses of Pfizer and Moderna vaccines the state of Michigan has received. Cases are at 279 per one million people, a rate that has declined for more than 38 days. The test positivity rate is at 8.4 percent and is down compared to previous weeks. Both rates are still substantially higher than they were in September 2020.	Detroit Free Press
1/14/21	Michigan receives 831,150 doses of COVID-19 vaccines and administers 332,139 shots — about 39 percent of the total doses received. Compared with other states, the CDC ranks Michigan 33rd nationally in vaccine distribution.	Detroit Free Press
1/16/21	A Washtenaw County woman contracts a COVID-19 variant that is believed to be more contagious. The woman recently traveled to the United Kingdom (UK), where the variant originated. She is currently the only known case of B.1.1.7 in Michigan, although the variant has already been identified in 16 other states.	Detroit Free Press
1/20/21	Newly elected U.S. President Joe Biden halts the U.S. withdrawal from WHO.	CNN
2/14/21	Michigan expands vaccine access to people ages 65 and older through 41 federally qualified health centers. However, supply of the vaccine is extremely limited. For example, Beaumont has the capacity to vaccinate 50,000 people a week but is currently only getting 2,200 doses from the State.	Detroit Free Press
2/22/21	The death toll from COVID-19 exceeds 500,000 in the U.S.	CNN
2/27/21	The FDA grants emergency use authorization to Johnson & Johnson's COVID-19 vaccine, the first single-dose COVID-19 vaccine available in the U.S.	CNN
3/8/21	MDHHS moves forward with vaccination of Michiganders aged 50 and older with medical conditions or disabilities and caregiver family members and guardians who care for children with special health care needs as of today.	Michigan.gov

Date	Event Description	Source(s)
3/9/21	Governor Whitmer signs off on at least \$2.5 billion in COVID-19 relief funding. The legislation supports Governor Whitmer's COVID-19 recovery plan, including a \$2.25 per hour wage increase for direct care workers, \$283 million in federal emergency rental assistance, up to \$110 million for vaccine administration, and up to \$555 million for testing and tracing, state officials said.	Click on Detroit
3/22/21	All Michiganders ages 16 and up with medical conditions and disabilities are now eligible for a COVID-19 vaccine. The state also announces that beginning Monday, April 5, all Michiganders aged 16 and up who were not previously eligible will be eligible to receive a vaccine.	Michigan.gov
4/15/21	MDHHS partners with Area Agencies on Aging (AAAs), Meals on Wheels programs, Medicaid, and local health departments, to identify unvaccinated homebound residents. By early April, more than 21,000 have received their shots.	Second Wave Media
4/17/21	The global tally of deaths from COVID-19 surpasses 3 million, according to data compiled by Johns Hopkins.	CNN
4/23/21	National Guard-run vaccination clinics begin offering vaccinations to any Michigan residents over 18 years of age. The clinics are a collaboration between the MVAA, MING, and the state health department.	Click on Detroit
4/29/21	Governor Whitmer announces a plan that ties specific vaccination levels to rolling back COVID-19 restrictions during a press conference. The announcement mirrors the state's goal of vaccinating 70 percent of all Michiganders 16 and older and identifies what restrictions will be ended once a set of vaccination benchmarks are met.	Detroit Free Press
4/29/21	Michigan is likely to surpass 7 million doses of COVID-19 vaccines administered this week. At least 36 percent of Michiganders 16 and older are now fully vaccinated, and almost half of the state's adult population has gotten at least one dose.	Detroit Free Press
4/29/21	Michigan's numbers remain worst in the U.S. with a seven-day average of 314 cases per 100,000 people — about three times higher than the national per-capita seven-day average of 113.7 cases, according to the CDC.	Detroit Free Press
5/1/21	A month and a half into its vaccination effort, MING has given at least one dose of vaccine to over 323,000 Michiganders.	Army.mil
5/15/21	Governor Whitmer announces that fully vaccinated Michiganders will no longer be required to wear a mask indoors or outdoors.	WXYZ News
5/17/21	FEMA issues COVID-19 Pandemic Operational Guidance to support response and recovery.	FEMA.gov
5/24/21	Governor Whitmer announces that 55 percent of Michigan's population has received their first dose of the COVID-19 vaccine. With the announcement, the state has reached its first milestone in the 'MI Vacc to Normal' plan, which allows for in-person work to resume across all sectors of Michigan's economy beginning today. To date, Michigan has administered 4,455,395 vaccines and 55 percent of Michiganders have received their initial dose of the vaccine.	9 and 10 News

Date	Event Description	Source(s)
6/1/21	COVID-19 restrictions begin loosening. All outdoor capacity limits are lifted, including at stadiums and concert venues. Restaurants and bars can operate indoor dining at 50 percent capacity. The 11 p.m. curfew on restaurants and bars is lifted, and there is no limit on the number of guests allowed to dine at one table at a time.	Click on Detroit
6/22/21	Michigan lifts its COVID-19 restrictions, allowing Michiganders to return to normal life ahead of the July 1 target date. Capacity in both indoor and outdoor settings is expected to increase to 100 percent, and the state no longer requires residents to wear a face mask, vaccinated or not. Despite restrictions being lifted, additional orders remain in effect to protect vulnerable populations in schools, corrections, long-term care, and agriculture settings.	News Channel 3
7/1/21	Governor Whitmer announces a \$5 million sweepstakes as an incentive for Michigan residents to get vaccinated against COVID-19. The "MI Shot To Win" sweepstakes is a lottery-style raffle to give residents a chance to win \$5 million in cash and a combined total of \$500,000 in college scholarships. Residents who are 18 and older and who have received at least one shot are eligible for the drawings.	9 and 10 News
7/21/21	The Republican-controlled state House votes 60-48, largely along party lines, to repeal the Emergency Powers Act of 1945. The vote comes one week after the state Senate also approved the initiative. Governor Whitmer used the law to issue sweeping health and safety restrictions in the early days of the COVID-19 pandemic, moves that eventually garnered pushback from Republicans and other opponents.	Detroit Free Press

APPENDIX F

GLOSSARY



Access and Functional Needs/Disability Access and Functional Needs (AFN/DAFN): Persons who may have additional needs before, during, and after an incident in functional areas, including but not limited to: maintaining independence, communication, transportation, supervision, and medical care. Individuals in need of additional response assistance may include those who have disabilities; live in institutionalized settings; are seniors; are children; are from diverse cultures; have limited English proficiency or are non-English speaking or are transportation disadvantaged.

After-Action Report/Improvement Plan (AAR/IP): An After-Action Report/Improvement Plan (AAR/IP) is the final product of an exercise. The AAR/IP has two components: an AAR, which captures observations and recommendations based on the exercise objectives as associated with the capabilities and tasks; and an IP, which identifies specific corrective actions, assigns them to responsible parties, and establishes targets for their completion. The lead evaluator and the exercise planning team draft the AAR and submit it to conference participants prior to an After-Action Conference.

All-Hazards Incident Management Team (AHIMT): A multi-agency/multi-jurisdiction team for extended incidents formed and managed at the State, regional or metropolitan level. Deployed as a team of 10-20 trained personnel to manage major and/or complex incidents requiring a significant number of local, regional, and state resources, and incidents that extend into multiple operational periods and require a written IAP. May be utilized at incidents such as a tornado touchdown, earthquake, flood, or multi-day hostage/standoff situation, or at planned mass-gathering events. May initially manage larger, more complex incidents prior to arrival of and transition to a Type 2 or Type 1 IMT.

All-Hazards: A classification encompassing all conditions, environmental or human-caused, that have the potential to cause injury, illness, or death; damage to or loss of equipment, infrastructure services, or property; or alternatively causing

functional degradation to social, economic or environmental aspects. These include accidents, technological events, natural disasters, space weather, domestic and foreign-sponsored terrorist attacks, acts of war, weapons of mass destruction and chemical, biological (including pandemic), radiological, nuclear or explosive events.

Alternate Locations: Fixed, mobile or transportable locations, other than the primary operating facility, where leadership and continuity personnel relocate in order to perform essential functions following activation of the continuity plan.

American Red Cross (ARC): The American Red Cross serves as the primary support agency to DHS for coordinating mass care support with other non-government organizations during disaster relief and CM operations. Support may include shelter, feeding, emergency first aid, disaster welfare information, bulk distribution, supportive counseling, blood, and blood products.

Analysis: The comprehensive and systematic examination, assessment and evaluation of collected, processed and exploited information/ data in order to identify significant facts and derive valid conclusions.

Ballot Stuffing: Traditionally, ballot stuffing refers to the illegal practice of a person submitting more than one votes during an election or more votes being cast in an election than there are legitimate voters. In survey research, ballot stuffing refers to a survey participant taking a survey more than once.

Bot: A bot is a software program that is programmed to autonomously complete specific tasks online. Bots are generally used to complete internet tasks normally done by humans faster and on a larger scale than any individuals or groups could accomplish. For example, some bots are programmed to post messages on social media sites to bury or promote certain ideas or to purchase items such as gaming consoles and concert tickets in bulk to resell later at higher prices.

Captcha: Captcha stands for Completely Automated Public Turing test to tell Computers and Humans Apart and is a type of challenge–response test used in computing to determine whether the user is human to weed out bot responses. Types of Captchas include typing in the characters shown in an image or clicking on all of the images in a set of a certain object (e.g., truck or traffic light).

Case Fatality Rate (CFR): An estimate of the risk of mortality from a contagious disease. The CFR is calculated by dividing the number of deaths caused by a disease by the number of cases of that disease in a given time period.

Center for Disease Control (CDC): CDC is the nation’s leading science-based, data-driven, service organization that protects the public’s health.

Chain of Command: The orderly line of authority within the ranks of incident management organizations.

Close Contact: A person who may be at risk of a contagious disease because of their proximity or exposure to a known case. For COVID-19, this was someone who was less than 6 feet away from an infected person for a cumulative total of 15 minutes or more over a 24-hour period

Command Staff: A group of incident personnel that the Incident Commander or Unified Command assigns to support the command function. Command staff often include a PIO, a Safety Officer, and a Liaison Officer, who have assistants as necessary. Additional positions may be needed, depending on the incident that occurred.

Community Lifelines: FEMA’s Community Lifelines includes seven categories that demonstrate essential areas of response and coordination during a disaster. The lifeline categories are Food, Water, and Sheltering; Energy; Health and Medical; Public Safety and Security; Hazardous Materials; Communications; and Transportation.

Community Transmission or Spread: Infections identified in a given geographic area without a history of travel elsewhere and no connection to a known case.

Contact Tracing: The process of identifying, assessing, and managing people who have been exposed to a contagious disease to prevent onward transmission.

Convalescent blood plasma: This is blood collected from people who have recovered from COVID-19. This plasma has antibodies against COVID-19 and may help the newly infected recover from their COVID-19 infection.

COVID-19: COVID-19 is caused by a novel human coronavirus, SARS-COV-2, and was first discovered in Wuhan, China in December 2019. This disease causes respiratory illnesses of varying severity and quickly spread across the world. It is only the fifth pandemic to be documented since the Spanish Flu in 1918. In January 2020, the CDC confirmed the first case of COVID-19 in the United States in a Washington State resident who returned from traveling to Wuhan, China. By February 2021, more than 500,000 people have died of COVID-19 in the US.

Critical Infrastructure: Assets, systems, and networks, physical and virtual, that are so vital to Michigan that incapacitation or destruction of such assets, systems, or networks would have a debilitating impact on security, economic security, public health or safety, or any combination of those matters

C-Suite: A term referring to the highest levels of leadership in a business or agency. Chief Executive Officer, Chief Financial Officer, and Chief Medical Officer are examples of C-Suite titles.

Delegation of Authority: A statement that the agency executive delegating authority and assigning responsibility provides to the Incident Commander. The delegation of authority can include priorities, expectations, constraints, and other considerations or guidelines, as needed.

Demobilization: The orderly, safe, and efficient return of an incident resource to its original location and status.

Dispatch: The ordered movement of a resource or resources to an assigned operational mission, or an administrative move from one location to another.

Drive Through Testing: Individuals remain in their vehicles, and medical staff in protective gear come to administer the swab test and the swabs are sent to a laboratory for testing.

Elective Surgeries: Procedures that are considered non-urgent and non-essential. During periods of community transmission, the CDC recommended postponing elective procedures, surgeries, and non-urgent outpatient visits.

Emergency: Any incident, whether natural, technological, or human-caused, that necessitates responsive action to protect life or property.

Emergency Management Assistance Compact (EMAC): EMAC is a national interstate mutual aid agreement that enables states to share resources during times of disaster.

Emergency Operations Plan (EOP): According to FEMA, an EOP is a document that: Assigns responsibility to organizations and individuals for carrying out specific actions at projected times and places in an emergency that exceeds the capability or routine responsibility of any one agency.

Emergency Support Function (ESF): Emergency Support Functions (ESFs) is the grouping of governmental and certain private sector capabilities into an organizational structure to provide support, resources, program implementation, and services that are most likely needed to save lives, protect property and the environment, restore essential services and critical infrastructure, and help victims and communities return to normal following domestic incidents.

EOC: The physical location where the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility or located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. States like Michigan activate an SEOC to support state-level disaster responses.

Epidemic: An increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area.

Essential Activities: Those activities that are necessary to sustain or protect life, including obtaining medicine or seeing a doctor, getting necessary food and other supplies, caring for family members and vulnerable people, performing work providing an essential business service or government function, and engaging in outdoor exercise activities as long as six feet of social distancing is maintained.

Essential Government Functions: Activities and services needed to ensure continuity of operations for government agencies and protect the welfare, health, and safety of the public.

Essential Records: Information systems and applications, electronic and hardcopy documents, references, and records needed to support essential functions during a continuity event. The two basic categories of essential records are emergency operating records and rights and interest records. Emergency operating records are essential to the continued functioning or reconstitution of an organization. Rights and interest records are critical to carrying out an organization's essential legal and financial functions and vital to the protection of the legal and financial rights of individuals who are directly affected by that organization's activities. The term "vital records" refers to a specific sub-set of essential records relating to birth, death and marriage documents.

Executive Order (EO): a rule or order issued by the president to an executive branch of the government and having the force of law.

General Staff: A group of incident personnel organized according to function and reporting to the Incident Commander or Unified Command at an EOC, SEOC, or other emergency response and coordination site. The ICS General Staff consists of the Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief.

H1N1: Influenza A Virus Subtype H1N1, also known as the Swine Flu. H1N1 was first detected in humans in mid-April 2009 in California. It was declared a public health emergency by the WHO by the end of April 2019 and quickly spread across the world. H1N1 caused the first global flu pandemic in 40 years.

IAP: An IAP formally documents incident goals, operational period objectives, and the response strategy defined by incident command during response planning for an operational period, generally 12 to 24 hours at the beginning of an event. It contains general tactics to achieve goals and objectives within the overall strategy and provides important information on event and response parameters.

ICS: A standardized approach to the command, control, and coordination of on-scene incident management, providing a common hierarchy within which personnel from multiple organizations can be effective. ICS is the combination of procedures, personnel, facilities, equipment, and communications operating within a common organizational structure, designed to aid in the management of on-scene resources during incidents. It is used for all kinds of incidents and is applicable to small, as well as large and complex, incidents, including planned events.

IMT: A rostered group of ICS-qualified personnel consisting of an Incident Commander, Command and General Staff, and personnel assigned to other key ICS positions.

Incident: An occurrence, natural or manmade, that necessitates a response to protect life or property. In NIMS, the word "incident" includes planned events as well as emergencies and/or disasters of all kinds and sizes.

Incident Commander: The individual responsible for on-scene incident activities, including developing incident objectives and ordering and releasing resources. The Incident Commander has overall authority and responsibility for conducting incident operations.

Incident Management: The broad spectrum of activities and organizations providing operations, coordination, and support applied at all levels of government, using both governmental and nongovernmental resources to plan for, respond to, and recover from an incident, regardless of cause, size, or complexity

Incident Objective: A statement of an outcome to be accomplished or achieved. Incident objectives are used to select strategies and tactics. Incident objectives should be realistic, achievable, and measurable, yet flexible enough to allow strategic and tactical alternatives.

Incident Personnel: All individuals who have roles in incident management or support, whether on scene, in an EOC, or participating in a Multiagency Coordination Group.

Information Management: The collection, organization, and control over the structure, processing, and delivery of information from one or more sources and distribution to one or more audiences who have a stake in that information.

Interoperability: The ability of systems, personnel, and equipment to provide and receive functionality, data, information, and/or services to and from other systems, personnel, and equipment, between both public and private agencies, departments, and other organizations, in a manner enabling them to operate effectively together.

Isolation: Separating sick people with a contagious disease from those who are not sick. This may be done at home or at a dedicated isolation facility.

Information Technology: The Information Technology (IT) cadre provides the most efficient, expeditious, and cost saving information services at all incident locations during initial setup, continuation of operations, phase down, and at closure. They are responsible for routine testing, quality assurance, configuration, installation, implementation, and maintenance of networked systems used for the transmission of information in voice, data, and/or video formats. They also provide hands-on technical assistance, perform configurations, and resolve technology related issues.

JIC: A facility in which personnel coordinate incident-related public information activities. The JIC serves as the central point of contact for all news media. Public information officials from all participating agencies co-locate at, or virtually coordinate through, the JIC.

JIS: A system that integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during crisis or incident operations.

Jurisdiction: The common name for the area, with defined political boundaries, which is served by the building department. Jurisdictions are usually incorporated locations, recognized by the U.S. Census Bureau. Jurisdictions include, but are not limited to, cities, towns, townships, boroughs, villages, counties, and parishes.

KN95: A type of PPE respirator that protects wearers from airborne particles and, for surgical KN95s, from liquids such as blood contaminating the face. KN95s are manufactured in China and are the Chinese equivalent of N95s, although N95s are required to meet higher safety standards in the US.

Likert Scale: A Likert Scale is a psychometric scale commonly used in research involving surveys and other types of questionnaires. The term is often used interchangeably with rating scale, as Likert Scales are often used to measure strength of opinions, attitudes, and perceptions. Likert Scales often use response choices such as strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree. It is the most widely used approach to scaling responses in survey research.

LNO: A member of the ICS Command Staff responsible for coordinating with representatives from cooperating and assisting agencies or organizations.

Local Government: Public entities responsible for security and welfare of a designated area as established by law. A county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments, regional or interstate government entity, agency or instrumentality of a local government, or a tribe or authorized tribal entity.

Logistics: The process and procedure for providing resources and other services to support incident management.

Logistics Section: The ICS Section is responsible for providing facilities, services, and material support for the incident.

Memorandum of Agreement/Memorandum of Understanding: Written agreements between organizations that require specific goods or services to be furnished or tasks to be accomplished by one organization in support of the other.

MI CIMS: This website is used to manage, document, and monitor emergency responses and activities, coordinate the State of Michigan's collaboration with local emergency managers and other authorized partners, and track resource requests. MI CIMS is operated and maintained by the MSP/EMHSD.

Microsoft Teams: Microsoft Teams is a proprietary business communication platform developed by Microsoft, as part of the Microsoft 365 family of products. The State of Michigan used Microsoft Teams as their primary internal communications platform after shifting to remote work due to the COVID-19 pandemic.

Mission Area: One of five areas designated in the National Preparedness Goal to group core capabilities. The mission areas are Prevention, Protection, Mitigation, Response, and Recovery.

Mission Essential Functions: The essential functions directly related to accomplishing an organization's mission as set forth in statutory or executive charter. Generally, MEFs are unique to each organization.

Mitigation: The capabilities necessary to reduce the loss of life and property from natural and/or manmade disasters by lessening the impacts of disasters.

Mobilization: The processes and procedures for activating, assembling, and transporting resources that have been requested to respond to or support an incident.

Mutual-Aid Agreement: A prearranged agreement where assisting fire departments are dispatched only when the first-arriving unit on a scene calls for assistance.

N95: A type of PPE respirator that protects wearers from airborne particles and, for surgical N95s, from liquids such as blood contaminating the face. N95 masks must filter out at least 95% of aerosols, have the ability to filter out bacteria and viruses, and be certified by NIOSH, making them highly desirable during the COVID-19 pandemic.

NEOGOV: HR software for the public sector that integrates recruitment, development, and management of staff using three cloud-based modules. The State of Michigan uses NEOGOV.

Nongovernmental Organization (NGO): An entity with an association that is based on interests of its members, individuals, or institutions. It is not created by a government, but it may work cooperatively with government. Such organizations serve a public purpose, not a private benefit. Examples of NGOs include faith-based charity organizations and the American Red Cross. NGOs, including voluntary and faith-based groups, provide relief services to sustain life, reduce physical and emotional distress, and promote the recovery of disaster survivors. Often these groups provide specialized services that help individuals with disabilities. NGOs and voluntary organizations play a major role in assisting emergency managers before, during, and after an emergency.

NIMS: A systematic, proactive approach to guide all levels of government, Non-Governmental Organizations, and the private sector to work together to prevent, protect against, mitigate, respond to, and recover from the effects of incidents. NIMS provides stakeholders across the whole community with the shared vocabulary, systems, and processes to successfully deliver the capabilities described in the National Preparedness System. NIMS provides a consistent foundation for dealing with all incidents, ranging from daily occurrences to incidents requiring a coordinated Federal response.

Nonprofit Organization: A tax-exempt organization that serves the public interest. In general, the purpose of this type of organization must be charitable, educational, scientific, religious or literary. It does not declare a profit and utilizes all revenue available after normal operating expenses in service to the public interest. This organization is a 501(c)(3) or a 501(c)(4) designate.

Normal Operations or Steady State: The activation level that describes routine monitoring of jurisdictional situation (no event or incident anticipated).

Occupational Safety and Health Administration (OSHA): A government agency in the Department of Labor whose responsibility is to assure and maintain a safe and healthy work environment by setting and enforcing standards; providing training, outreach and education; establishing partnerships and encouraging continual improvement in workplace safety and health.

Operational Period: The time scheduled for executing a given set of operation actions, as specified in the IAP. Operational periods can be of various lengths but are typically 12 to 24 hours.

Operations Section: The ICS Section responsible for implementing tactical incident operations described in the IAP.

P3 Program: The MSP/EMHSD Public-Private Partnerships program builds a list of private partner organizations, organized by FEMA's seven community lifeline categories, that can provide assistance in a disaster.

Pandemic: An epidemic that has spread over several countries and continents, usually affecting a large number of people.

Pan-Flu Plan: An existing Michigan Department of Health and Human Services plan for mass immunization against strains of influenza.

PIO: A member of the ICS Command Staff responsible for interfacing with the public and media and/or with other agencies with incident-related information needs.

Planning Section: The ICS Section that collects, evaluates, and disseminates operational information related to the incident and for the preparation and documentation of the IAP. This section also maintains information on the current and forecasted situation and on the status of resources assigned to the incident.

P-Leads: The leads in charge of P-Teams. See "P-Teams" below.

Points of Distribution (POD): Centralized locations in an impacted area where survivors pick up life-sustaining relief supplies following a disaster or emergency.

PPE: PPE is equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses. During the COVID-19 pandemic, PPE included equipment such as respirators, face masks, face shields, goggles, gloves, and gowns.

Preparedness: Actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to and recover from threats and hazards.

Private Sector: Organizations and individuals that are not part of any governmental structure. The private sector includes for-profit and not-for-profit organizations, formal and informal structures, commerce, and industry.

Protection: The capabilities necessary to secure the state against acts of terrorism and manmade or natural disasters, including future pandemics.

P-Teams: A set of working groups comprised of leadership from state agencies and departments working with the governor's office on key response strategies. Teams had areas of focus beginning with the letter P, such as "People" and "Problems."

Public Health Emergency (PHE): The Secretary of the Department of Health and Human Services (HHS) may, under section 319 of the Public Health Service (PHS) Act, determine that: a) a disease or disorder presents a public health emergency (PHE); or b) that a public health emergency, including significant outbreaks of infectious disease or bioterrorist attacks, otherwise exists.

Public Information Officer (PIO): The PIO is the individual responsible for communicating with the public, media, and/or coordinating with other agencies, as necessary, with incident related information requirements.

QBox: Quarantine Boxes were purchased and distributed by the AAA network to seniors in need of shelf-stable food. The QBoxes contained thirty-three well-balanced, high protein, food items and could provide 22 adult meals. Each QBox also contained breakfast, lunch, and dinner recipe options for the contents in the box.

Qualtrics: Qualtrics is a survey tool and customer relations platform that allows users to build, distribute, and manage surveys, analyze generated response data, and produce summary reports, all from the same cloud-based platform.

Quarantine: Separating and restricting the movement of people exposed (or potentially exposed) to a contagious disease. A quarantine may be self-imposed (self-quarantine) or mandated by the authorities. Michigan required citizens self-quarantine if exposed to COVID-19.

Recovery: The capabilities necessary to assist communities affected by an incident to recover effectively.

Recovery Plan: A plan developed to restore the affected area or community.

Resource: Personnel, equipment, teams, supplies, and facilities available or potentially available for assignment to incident operations and for which status is maintained. Resources are described by kind and type and may be used in operational support or supervisory capacities at an incident or at an SEOC.

Resource Management: Systems for identifying available resources at all jurisdictional levels to enable timely, efficient, and unimpeded access to resources needed to prepare for, respond to, or recover from an incident.

Resource Tracking: The process that all incident personnel and staff from associated organizations use to maintain information regarding the location and status of resources ordered for, deployed to, or assigned to an incident.

Response: The capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.

SARA Title III: The Superfund Amendments and Reauthorization Act Title III, also known as the Emergency Planning and Community Right to Know Act, establishes requirements regarding emergency planning and “Community Right-to-Know” reporting on hazardous and toxic chemicals for federal, state, local, and tribal governments, as well as regulated facilities.

SEOC: The Michigan SEOC is where state, local, and federal agencies coordinate the response to a disaster, emergency, or terrorist event within the state. The SEOC is managed and staffed by the MSP/EMHSD and includes representatives from other state agencies and external partners.

SitRep: Confirmed or verified information regarding the specific details relating to an incident.

Span of Control: The number of subordinates for which a supervisor is responsible, usually expressed as the ratio of supervisors to individuals.

Social Distancing: Measures taken to reduce person-to-person contact in a given community, with a goal to stop or slow down the spread of a contagious disease. Measures can include working from home, closing offices and schools, canceling events, and avoiding public transportation.

SOP: A reference document or an operations manual that provides the purpose, authorities, duration, and details for the preferred method of performing a single function or several interrelated functions in a uniform manner.

State Emergency Operations Center (SEOC): SEOC is a central location from which local, state and federal partners can provide interagency coordination and executive decision-making in support of any incidents or planned events in the Commonwealth.

Strategic National Stockpile (SNS): The Strategic National Stockpile, originally called the National Pharmaceutical Stockpile, is the United States' national repository of antibiotics, vaccines, chemical antidotes, antitoxins, and other critical medical supplies.

Strategy: The general plan or direction selected to accomplish incident objectives.

Strike Team: A set number of resources of the same kind and type that have an established minimum number of personnel, common communications, and a leader.

Subject Matter Expert (SME): SME provides the knowledge and expertise in a specific subject, business area, or technical area for a project/program.

Tactics: The deployment and directing of resources on an incident to accomplish the objectives.

Task Force: Any combination of resources of different kinds and/or types assembled to support a specific mission or operational need.

TCF Center: Renamed in December 2021 to Huntington Place, the TCF Center is a convention center in downtown Detroit, Michigan that is owned by the Detroit Regional Convention Facility. During the COVID-19 pandemic, the TCF Center hosted a COVID-19 alternative care site and vaccination site.

Telework: A work flexibility arrangement under which an employee performs the duties and responsibilities of his/her position, and other authorized activities, from an approved worksite other than the location from which the employee would otherwise work.

Threat: A natural or manmade occurrence, an individual, an entity, or an action having or indicating the potential to harm life, information, operations, the environment, and/or property.

Transportation Safety Administration (TSA): TSA is the acronym for the Transportation Security Administration, an American governmental agency that is responsible for travel safety, especially air travel.

Unified Command: An ICS application used when more than one agency has incident jurisdiction or when incidents cross political jurisdictions.

United State Department of Agriculture (USDA): USDA is the federal agency that proposes programs and implements policies and regulations related to American farming, forestry, ranching, food quality, and nutrition.

Unity of Command: A NIMS guiding principle stating that each individual involved in incident management reports to and takes direction from only one person.

Unity of Effort: A NIMS guiding principle that provides coordination through cooperation and common interests and does not interfere with Federal and state department and agency supervisory, command, or statutory authorities.

Vaccine: a substance used to stimulate the production of antibodies and provide immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute, treated to act as an antigen without inducing the disease.

Ventilator: A device that delivers air into the lungs through a tube that is placed into the mouth or nose and down into the windpipe.

Virtual Private Network (VPN): VPN describes the opportunity to establish a protected network connection when using public networks. VPNs encrypt your internet traffic and disguise your online identity.

Voluntary Organizations Active in Disasters

(VOAD): VOADs means one or coalition of (usually not-for-profit) Second Responder organizations in the United States. These groups voluntarily help survivors after a disaster. VOAD members cannot activate, direct, or supervise one another without a special agreement (such as a MOU).

Web Tracking Cookies: Web Tracking Cookies are blocks of data created by a webserver while a user is accessing a website. The webserver stores the cookies on the user's computer hard drive and uses them to create long-term records of the user's browsing history.

Whole Community: A focus on enabling the participation in incident management activities of a wide range of players from the private and nonprofit sectors, in conjunction with the participation of all levels of government, to foster better coordination and working relationships.

World Health Organization (WHO): WHO is a specialized agency of the United Nations responsible for international public health.[2] The WHO Constitution states its main objective as "the attainment by all peoples of the highest possible level of health".[3] Headquartered in Geneva, Switzerland, it has six regional offices and 150 field offices worldwide

Zoom: Zoom is a cloud-based video communications software program that allows you to set up virtual video and audio conferencing for meetings or webinars. The software also includes additional features like live chats, screen-sharing, document sharing, and other collaborative capabilities.

APPENDIX G

ACRONYMS AND ABBREVIATIONS



ABBREVIATION	MEANING
AAA	Area Agency on Aging
AAR	After Action Report
AAR/IP	After Action Report/Improvement Plan
AASA	Aging and Adult Services Agency
ADA	American with Disabilities Act of 1990
AFN/DAFN	Access and Functional Needs/Disability Access and Functional Needs
AgD	Agriculture Development Division
AHIMT	All-Hazards Incident Management Team
AID	Animal Industry Division
ALPACT	Advocates and Leaders for Police and Community Trust
AMD	Advanced Molecular Detection
ANG	Army National Guard
AQD	Air Quality Division
ARC	American Red Cross
ARPA	American Rescue Plan Act
ASL	American Sign Language
ASU	Arizona State University
BEPH	Bureau of Epidemiology and Population Health
BFS	Bureau of Fire Services
BHDDA	MDHHS Behavioral Health and Developmental Disabilities Administration
BIDP	Bureau of Infectious Disease Prevention
BPHASA	Behavioral and Physical Health and Aging Services Agency
CAD	Customer Assistance Division
CAP	Civil Air Patrol
CARES	Coronavirus Aid, Relief, and Economic Security Act
CCP	Crisis Counseling Assistance and Training Program
CDC	Center for Disease Control
CDI	Certified Deaf Interpreter
CDL	Commercial Driver's License
CEO	Chief Executive Officer
CERA	COVID-19 Emergency Rental Assistance
CERT	Community Emergency Response Team
CHECC	Community Health Emergency Coordination Center
CME	Chief Medical Examiner

ABBREVIATION	MEANING
CMH	Community Mental Health Services
CMS	Centers for Medicare and Medicaid Services
CNBC	Consumer News and Business Channel
CNN	Cable News Network
COAD	Community Organizations Active in Disaster
COO	Chief Operating Officer
COOP	Continuity of Operations Plan
COVID-19	Coronavirus Disease 2019
CVS	Consumer Value Stores
CVSF	County Veteran Service Fund
DC	District Coordinator
DCH	Department of Community Health (now MDHHS)
DEI	Diversity, Equity, and Inclusion Division
DEQ	Michigan Department of Environmental Quality (now EGLE)
DHS	Michigan Department of Human Services (now MDHHS)
DHHS	United States Department of Health and Human Services
DIFS	Michigan Department of Insurance and Financial Services
DJJHV	D.J. Jacobetti Home for Veterans
DMVA	Michigan Department of Military and Veterans Affairs
DNR	Michigan Department of Natural Resources
DODDBHH	Division of Deaf, Deafblind, and Hard of Hearing
DOS (or MDOS)	Department of State (or Michigan Department of State)
DTMB	Michigan Department of Technology, Management, and Budget
DWEHD	Drinking Water and Environmental Health Division
EAP	Employee Assistance Program
ECC	Emergency Coordination Center
EEl	Essential Elements of Information
EF	Essential Function
EIS	Environmental Investigation Section
EGLE	Michigan Department of Environment, Great Lakes, and Energy
EM	Emergency Management/Emergency Manager
EMA	Emergency Management Agency
EMAC	Emergency Management Assistance Compact
EMAP	Emergency Management Accreditation Program

ABBREVIATION	MEANING
EMHSD	Emergency Management and Homeland Security Division
EMS	Emergency Medical Services
EO	Executive Order
EOC	Emergency Operations Center
EOD	Energy Operations Division
EOG	Executive Office of the Governor
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPC	Emergency Preparedness Coordinator
ER	Emergency Room
ERD	Energy Resources Division
ESD	Environmental Stewardship Division (MDARD)
ESF	Emergency Support Function
ESD	Environmental Support Division (EGLE)
EUA	Emergency Use Authorization
FAA	Federal Aviation Administration
FD	Fire Department
FDA	US Food and Drug Administration
FDD	Food and Dairy Division
FEMA	Federal Emergency Management Agency
FFTD	Firefighter Training Division
FGS	Full Genomic Sequencing
FOIA	Freedom of Information Act
FSID	Fire Services Inspection Division
FSIS	Field Service Inspection Section
GIS	Geographic Information System
GM	General Motors
GRHV	Grand Rapids Home for Veterans
HASA	Health and Aging Services Administration (same as BPHASA)
HHS	United States Health and Human Services
HIV	Human Immunodeficiency Virus
HPCON	Health Protection Condition
HQ	Headquarters
HR	Human Resources

ABBREVIATION	MEANING
HRTD	Human Resources Training and Development
IA	Individual Assistance
IAP	Incident Action Plan
ICS	Incident Command System
ID	Identity
IHS	Indian Health Services
IMAT	Incident Management Assistance Team
IMD	Information Management Division
IMT	Incident Management Team
iOS	iPhone Operating System
IP	Improvement Plan
IPRAT	Infection Prevention Resource and Assessment Team
ISP	Immediate Services Program
IT	Information Technology
IVR	Interactive Voice Response
JIC	Joint Information Center
JIS	Joint Information System
JIT	Joint Information Taskforce
JOC	Joint Operations Center
JRSOI	Joint Reception, Staging, Onward Movement, and Integration
LARA	Michigan Department of Licensing and Regulatory Affairs
LEO	Michigan Department of Labor and Economic Opportunity
LNO	Liaison Officer
LP	Lower Peninsula
MAB	Michigan Association of Broadcasters
MAC Group	Multiagency Coordination Group
MCSC	Michigan Community Service Commission
MDARD	Michigan Department of Agriculture and Rural Development
MDCR	Michigan Department of Civil Rights
MDE	Michigan Department of Education
MDHHS	Michigan Department of Health and Human Services
MDNR	Michigan Department of Natural Resources
MDOC	Michigan Department of Corrections
MDOT	Michigan Department of Transportation

ABBREVIATION	MEANING
MDSS	Michigan Disease Surveillance System
MEDC	Michigan Economic Development Corporation
MEF	Mission Essential Functions
MEMP	Michigan Emergency Management Plan
MERC	Michigan Employment Relations Commission
MHA	Michigan Health & Hospital Association
MI	Michigan
MIANG	Michigan Air National Guard
MIARNG	Michigan Army National Guard
MI CIMS	Michigan Critical Incident Management System
MING	Michigan National Guard
MI-MORT	Michigan Mortuary Response Team
MIOSHA	Michigan Occupational Safety and Health Administration
MIVOAD	Michigan Volunteer Organizations Active in Disasters
MMD	Materials Management Division
MPH	Master of Public Health
MPSC	Michigan Public Service Commission
MRC	Medical Reserve Corps
MS	Microsoft
MSF	Michigan Strategic Fund
MSHDA	Michigan State Housing Development Authority
MSP	Michigan State Police
MVAA	Michigan Veterans Affairs Agency
MVH	Michigan Veterans Homes
MVMP	Michigan Volunteer Management Plan
MWDB	Michigan Workforce Development Board
MYCA	Michigan Youth Challenge Academy
NBC	National Broadcasting Company
NEMA	National Emergency Management Association
NFIC	National Fire Information Council
NFIRS	National Fire Incident Reporting System
NIH	National Institutes of Health
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health

ABBREVIATION	MEANING
NPI	Non-Pharmaceutical Intervention
NREPA	Natural Resource and Environmental Protection Act
NYT	New York Times
OAG	Office of the Attorney General
OBAS	Michigan Office of Business Applications Support
OEM	Original Equipment Manufacturer
OGMD	Oil, Gas, and Minerals Division
OIG	Office of the Inspector General
OMS	Outbreak Management System
OSE	Michigan Office of the State Employer
OSHA	United States Occupational Safety and Health Administration
P3	Public-Private Partnership Program
PA	Public Act
PAO	Public Affairs Office
PCR	Polymerase Chain Reaction
PEM	Michigan Professional Emergency Manager
PHE	Public Health Emergency
PIHP	Prepaid Inpatient Health Plan
PIO	Public Information Officer
POC	Point of Contact
POD	Point of Dispensing
PIQ	Pre-Interview Questionnaire
PPE	Personal Protective Equipment
PPPMD	Pesticide and Plant Pest Management Division
PRD	Plan Review Division
PRS	Plan Review Section
QBox	Quarantine Box
R&D	Research and Development
RAD	Regulatory Affairs Division
RED	Regulated Energy Division
RRD	Remediation and Redevelopment Division
RFP	Request for Proposal
RSP	Regular Services Program
SAFO	Safety Alert for Operators

ABBREVIATION	MEANING
SAMHSA	Substance Abuse and Mental Health Services Administration
SARA	Superfund Amendments and Reauthorization Act
SARS	Severe Acute Respiratory Syndrome
SARS-CoV-2	Syndrome Coronavirus 2
SBO	State Budget Office
SCAO	State Court Administrative Office
SEMC	State Emergency Management Contact
SEOC	State Emergency Operations Center
SHA	State Health Assessment
SIA	Michigan Strategic Information Administration
SitRep	Situation Report
SME	Subject Matter Expert
SMS	Short Message Service
SNS	Strategic National Stockpile
SOM	State of Michigan
SOP	Standard Operating Procedure
Start Ops	Strategic Operations Division
STD	Storage Tank Division
STI	Sexually Transmitted Infections
STS	Storage Tank Section
SUITE	State Unified Information Technology Environment
TEDF	Transport Economic Development Fund
THIRA	Threat and Hazard Identification Risk Assessment
Treasury	Michigan Department of Treasury
TSA	United States Transportation Security Administration
TV	Television
U of M	University of Michigan
UCD	User-Centered Design
UK	United Kingdom
UN	United Nations
UP	Upper Peninsula
US	United States
USDA	United States Department of Agriculture
USFA	United States Fire Administration

ABBREVIATION	MEANING
VAL	Voluntary Agency Liaison
VFAC	Virtual Family Assistance Center (Red Cross)
VOAD	Voluntary Organizations Active in Disasters
VPN	Virtual Private Network
WDCA	Washington, District of Columbia Area TV Station
WFH	Work from Home
WHO	World Health Organization
WIOA	Workforce Innovation and Opportunity Act
WRD	Water Resources Division
WXYZ	Detroit TV Station