



SAN MATEO COUNTY  
**COVID-19 PANDEMIC RESPONSE**  
AFTER ACTION REPORT CHAPTER TWO

August 30, 2023



# EXECUTIVE SUMMARY

The completion of the initial COVID-19 After Action Report (AAR) by San Mateo County (SMC) in 2022, henceforth referred to as Chapter One, marked a significant milestone in the County's efforts to assess and learn from its pandemic response. However, with the ongoing impact of the pandemic on residents and response workers evident, the SMC Department of Emergency Management (SMC DEM) foresaw the need for further evaluation and reflection to enhance their preparedness for the future. In May of 2023, SMC DEM initiated an addendum to their COVID-19 AAR covering the incident period from September 2021 to February 2023, henceforth referred to as Chapter Two. To accomplish this, SMC DEM contracted a third-party public health and crisis management consultancy, Constant and Associates, Inc. (CONSTANT), to assess their response to COVID-19 thus far and document those findings in an AAR and Improvement Plan (IP). This forward-thinking approach ensures that the County's response efforts remain current and relevant, with the report acting as a dynamic and evolving resource to address the ever-changing challenges posed by the prolonged health crisis.

Chapter Two of the COVID-19 AAR offers a unique opportunity to assess the County's response strategies in light of new challenges, best practices, and innovations that emerged during this critical time frame. Stakeholder interviews and response documents provided primary sources for developing the findings herein. Analyzing the strengths and areas for improvement in the later response will provide the County with a comprehensive understanding of the effectiveness of their interventions and of the important progress made since the initial AAR. These new findings build on the hard work SMC DEM has done to identify specific areas for refinement and foster a more resilient and efficient pandemic response.

By highlighting the importance of maintaining adaptable and robust pandemic preparedness plans, the updated report emphasizes the County's dedication to ensuring their response strategies remain effective even amidst unforeseen challenges. This emphasis on continuous improvement not only strengthens the County's ability to respond effectively to future health emergencies but also nurtures a culture of learning and agility within the organization. Through the diligent efforts of SMC DEM and their continued pursuit of excellence, Chapter Two stands as a testament to the County's ongoing dedication to protecting the community's health and safety.



## Progress Chart

The Progress Chart in Appendix B serves as a valuable supplement to the extensive efforts made in Chapter One. It offers a comprehensive illustration of the tangible actions undertaken in response to the recommendations outlined in Chapter One. The progress chart showcases the County's dedication to addressing the identified areas for enhancement, ensuring that the valuable insights from the AAR translate into concrete actions and positive changes in their pandemic response strategies.

## Data Collection and Assessment Development Methodology

The findings in Chapter Two were developed through interviews with key stakeholders active in the COVID-19 response. Following the methodology implemented in Chapter One, this report's "Analysis of Findings" section consists of a summary, strengths, areas for improvement, and recommendations. The report's recommendations are further organized in a separate IP.

## Findings Overview

A sampling of the most significant strengths and areas for improvement within each report theme that SMC exhibited during the response to COVID-19 is provided below. Further explanation of each finding and additional strengths and areas for improvement can be found in the Analysis of Findings section.

**Table 1: List of Key Findings**

Theme	Strength	Area for Improvement
<b><i>EOC Operations and Internal Communications</i></b>	Key personnel were properly aligned in their response roles based on previous experience and response capabilities.	Redirected staff lacked training in and understanding of ICS principles, causing delays with internal communications.
<b><i>External Coordination and Communication</i></b>	SMC's commitment to an equitable and inclusive approach throughout the ongoing response efforts resulted in tailored messaging and reduced infection rates.	Municipalities heavily relied on SMC for their resources, such as Personal Protective Equipment (PPE) and Vaccine Clinics, straining County capabilities.
<b><i>Medical and Health Operations</i></b>	SMC took swift and innovative action to ensure equitable access to countywide pediatric vaccine clinics.	Daily operations at mass vaccination clinics were heavily influenced by personnel resources leading to unpredictable daily output due to lack of healthcare personnel in Bay Area and throughout the nation.



<i>Theme</i>	<i>Strength</i>	<i>Area for Improvement</i>
<b>Resource Management</b>	Pre-staging of critical resources on-site enhanced SMC's ability to quickly activate vaccination clinics at the SMC Event Center.	Some physical resources, including PPE, were damaged during inclement weather resulting in a monetary loss and negative media attention.
<b>Procurement and Documentation Management</b>	SMC's decision to waive requirements early in the response enhanced its ability to make procurement purchases and establish contracts for critical response resources throughout the prolonged response.	The EOC lacked a solid web-based emergency management platform to support the emergency response operating with a paper-based system resulting in a slower process for forms and resource requesting.



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# INTRODUCTION

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## Thanks and Acknowledgements

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The commendable dedication of SMC staff throughout the ongoing COVID-19 pandemic remains pivotal to our organization, and we express our gratitude for their unwavering commitment. Embracing a Whole Community Approach, we engaged diverse sectors such as private enterprises, non-profits, healthcare institutions, social services, faith-based communities, businesses, academia, and residents of the County. This collaborative network played a critical role in curtailing the virus's spread and facilitating the recovery process in SMC.

Our sincere appreciation extends to all contributors who participated in shaping this Chapter of the report. Their involvement in identifying potential interviewees, conducting interviews, documenting incidents, and validating inputs has yielded a comprehensive and accurate account. A special acknowledgment is reserved for the Project Planning Team, whose oversight and insights have significantly enriched the report's content. These acknowledgments, including the Project Planning Team and other key contributors, have been duly acknowledged in the appendices, ensuring transparent recognition of their integral roles in this endeavor.

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## Scope

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Chapter Two was written to identify best practices and lessons learned exhibited by SMC DEM during the COVID-19 response period of September 2021 to February 2023. This Chapter supplements Chapter One, covering January 2020 to August 2021, to provide a comprehensive AAR that covers the duration of the County's response to COVID-19.

The purpose of the AAR is to strengthen the County's capabilities and address key challenges faced during this timeframe to situate the organization to better respond to future surges of COVID-19 and other public health emergencies.

The authors of this document hope that this AAR and the associated IP will provide a roadmap for further improvement of pandemic and All-Hazard response efforts by SMC DEM.

### Data Collection Methods

This AAR assesses the capabilities of the County's response efforts through a comprehensive and data-driven process that allowed relevant partners and stakeholders to share their observations and experiences.

### Documentation Review

CONSTANT collected and reviewed EOC Incident Action Plans (IAPs) along with web-based press releases and response documents as part of the documentation review.



### Stakeholder Interviews

Small group interviews were conducted to review major response actions and determine critical strengths and areas for improvement related to the response and recovery efforts. The County identified interviewees as key stakeholders during the COVID-19 pandemic response. Interviews allowed participants to identify key strengths and areas for improvement relating to response efforts and recommendations for future implementation.

Members of County staff and leadership were contacted for additional individual interviews. In total, eight interviews were conducted engaging mass vaccination clinic staff, Emergency Operations Center (EOC) staff, Joint Information Center (JIC) staff, Health Department Operations Center (DOC) staff, Human Services Agency (HSA) staff, and other internal partners.



# INCIDENT OVERVIEW

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## The COVID-19 Pandemic

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Chapter One provides a detailed incident overview covering January 2020 to August 2021. To broadly recap, in December 2019 health officials in Wuhan, a metropolitan city in the Hubei Province of the People's Republic of China, identified cases of unknown viral pneumonia. Symptoms manifested most commonly in the upper respiratory system, including fever, dry cough, and trouble breathing. As cases began to cluster, the World Health Organization (WHO) launched an investigation confirming the existence of a novel coronavirus known as SARS-CoV-2. The virus causes a disease now known as COVID-19. As China instituted public health measures to contain the virus, officials found evidence of communal spread in surrounding countries.

By the end of January 2020, the WHO declared a Public Health Emergency of International Concern. The first case of COVID-19 in California was identified on January 25, 2020. Throughout 2020, countries implemented travel restrictions, stay-at-home orders, and controlled screenings for the virus. Challenges for emergency management, public health agencies, healthcare facilities, and other responding entities included supply shortages, patient surges, socioeconomic impacts of shutdowns, unanticipated health, mental health, and safety concerns, and accurate public information dissemination.

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## Overview of the Continued COVID-19 Pandemic

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As of August 31, 2021, there had been a total of 39,215,006 confirmed cases of COVID-19 in the United States and 637,765 fatalities<sup>1</sup> associated with these cases. By February 28, 2023, this number had risen to 103,443,454 reported cases and 1,119,971 fatalities<sup>2</sup> attributed to COVID-19. As federal, state, and local officials continued to battle the ever-changing landscape of the pandemic from the end of the summer of 2021 through the winter of 2023, challenges and positive developments emerged amidst the continued response and recovery.

Even as many jurisdictions moved into a recovery phase of this public health emergency, federal, state, and local public health and safety officials continued to work tirelessly to promote the COVID-19 vaccine, social distancing, and good hygiene practices to reduce the spread of COVID-19.

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<sup>1</sup> Coronavirus Resource Center. *COVID-19 Dashboard*. Johns Hopkins University. <https://coronavirus.jhu.edu/region/united-states>

<sup>2</sup> Coronavirus Resource Center. *COVID-19 Dashboard*. Johns Hopkins University. <https://coronavirus.jhu.edu/region/united-states>





## The Impact of COVID-19 on State and Local Levels

Efforts at the state level persisted in combating the disease, focusing on promoting personal hygiene practices, advocating for social distancing, and providing services to vulnerable populations. California also launched campaigns to boost vaccination rates as the vaccine eligibility expanded to include all residents above the age of five. By September 1, 2021, around 69% of Californians had received at least one vaccine dose.<sup>3</sup>

From early summer to fall 2021, the Delta variant surged causing daily spikes across the state. Measures were taken to contain the spread, bolster herd immunity, and safeguard frontline workers. Vaccination mandates were enforced for healthcare workers, while State employees and educators were required to either get vaccinated or undergo weekly testing.<sup>4</sup> In the fall of 2021, proof of vaccination or negative tests were mandated for large indoor events and school-aged children return to school.

By February 2023, SMC had administered 85,000 vaccines since September 2021. When the COVID-19 vaccine became available to children aged 5 to 11, SMC focused on pediatric vaccination rates by curating an innovative approach with a "Playland" style mass vaccination clinic for pediatric residents. By February 2023, 11,570 children aged 5 to 11 years had been vaccinated in SMC.

As February 2022 began, COVID-19 cases continued to decline, prompting new guidance that reduced quarantine time and facilitated quicker return to work.<sup>5</sup> While both the State and County experienced diminishing COVID-19 cases, the State and SMC's Health Officer lifted the mask mandate by mid-February, except for high-risk and healthcare settings.

Although the Winter of 2022/2023 included a triple epidemic, including Respiratory Syncytial Virus (RSV), influenza, and COVID-19, the County gradually demobilized emergency operations due to high vaccination rates and testing availability. On February 28, 2023, both the State and County concluded their COVID-19 emergency orders, signaling the end of the "State of Emergency." By this time, California had documented a total of 12,097,613 COVID-19 cases and 100,954 fatalities.<sup>6</sup>

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<sup>3</sup> California COVID-19 Vaccine Tracker. Springfield News-Leader. <https://data.news-leader.com/covid-19-vaccine-tracker/California/06/>

<sup>4</sup> Office of Governor Newsom. California Implements First-in-the-Nation Measures to Encourage State Employees and Health Care Workers to Get Vaccinated, July 26, 2021. <https://www.gov.ca.gov/2021/07/26/california-implements-first-in-the-nation-measures-to-encourage-state-employees-and-health-care-workers-to-get-vaccinated/>

<sup>5</sup>San Mateo County Health. Message from the Chief, February 2, 2022 <https://www.smchealth.org/health-officer-updates/february-2-2022-message-chief>

<sup>6</sup> Coronavirus Resource Center. COVID-19 Dashboard. Johns Hopkins University. <https://coronavirus.jhu.edu/region/us/california>



## COVID-19 Summary Timeline

**Table 2: SMC DEM COVID-19 Response Timeline**

Date	Event
<b>September 2021</b>	<ul style="list-style-type: none"> <li>• COVID-19 care and shelter hotel operations began</li> <li>• PPE was moved outside and fenced in adjacent to SMC Event Center</li> <li>• EMS contracted with Corovan in San Jose for new warehousing solution</li> </ul>
<b>October 25, 2021</b>	<ul style="list-style-type: none"> <li>• Fall and winter rainstorms destroyed packaging and some pallets of PPE and cleaning supplies staged outside SMC Event Center</li> </ul>
<b>October 21, 2021</b>	<ul style="list-style-type: none"> <li>• First booster clinic began</li> </ul>
<b>October 29, 2021</b>	<ul style="list-style-type: none"> <li>• FDA expanded vaccine eligibility to individuals ages 5-11</li> </ul>
<b>November 2021</b>	<ul style="list-style-type: none"> <li>• Planning began for pediatric vaccination shots for young children.</li> </ul>
<b>December 1, 2021</b>	<ul style="list-style-type: none"> <li>• First case of the Omicron variant in the U.S. was detected by the California and San Francisco Departments of Public Health</li> </ul>
<b>January 2022</b>	<ul style="list-style-type: none"> <li>• SMC CEO tasked SMC Event Center clinic staff and leadership with reconciliation efforts for damaged PPE</li> </ul>
<b>February 15, 2022</b>	<ul style="list-style-type: none"> <li>• Statewide requirement for masking for fully vaccinated residents in indoor settings ended</li> </ul>
<b>February 16, 2022</b>	<ul style="list-style-type: none"> <li>• SMC Health Officer rescinded Health Order for wearing face coverings in workplaces and public settings</li> </ul>
<b>February 2022</b>	<ul style="list-style-type: none"> <li>• Demobilization plan was executed, and Event Pavilion and Expo Hall were completely cleared</li> </ul>
<b>March 2022</b>	<ul style="list-style-type: none"> <li>• The County finalized a new contract with Corovan for additional PPE storage</li> <li>• Repackaged PPE was transferred to three different warehouse locations</li> </ul>
<b>May 2022</b>	<ul style="list-style-type: none"> <li>• SMC purchased 27,000 Covid tests with the intent to combat the next wave or new variant</li> </ul>
<b>February 28, 2023</b>	<ul style="list-style-type: none"> <li>• California issued a proclamation terminating the state's COVID-19 State of Emergency</li> <li>• SMC ceased all COVID-19 operations</li> </ul>



# ANALYSIS OF FINDINGS

## EOC Operations and Internal Communications

### Summary

The SMC EOC was active for 1,093 days, from March 2, 2020 to February 28, 2023<sup>7</sup>, rigorously testing response personnel and prompting proactive improvements in operations. This involved strategically placing key personnel in response areas that aligned with their expertise and experience and fostering smooth internal communications across different departments. The County's response showcased several strengths that played a pivotal role in lessening the pandemic's impact. The County's ability to adapt its response strategies quickly and efficiently allowed effective responses to emerging issues. Furthermore, the EOC exhibited resilience in its ability to withstand the pressures and complexities of managing a prolonged emergency.

Despite facing unexpected challenges, particularly in relation to staff members lacking adequate training, the County demonstrated resilience and maintained the delivery of essential services to the community. However, the response also highlighted areas that need improvement to strengthen future emergency efforts. Building upon the lessons learned and strengths identified in Chapter One, SMC DEM made the implementation of recommendations a top priority. By doing so, the County significantly enhanced its emergency management capabilities, ensuring a more prepared and effective response in the face of potential future emergencies.

### Strengths

**Strength #1: Key personnel were properly aligned in their response roles based on previous experience and response capabilities.**

The strategic alignment of personnel in their roles based on previous experience and response capabilities contributed to successful EOC operations. The County recognized the importance of leveraging the expertise and skills of its workforce to ensure an efficient and effective response. By matching individuals to positions that capitalized on their strengths, the County fostered a sense of confidence and competence among the emergency response team. Transparency within the EOC played a pivotal role in maintaining a synchronized operating picture. The open and candid communication environment allowed staff members to speak freely, share critical information, and voice concerns without fear of retribution.<sup>8</sup> This level of transparency helped identify challenges and potential bottlenecks early on, allowing for swift

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<sup>7</sup> San Mateo County Executive's Office. Board of Supervisors Ends the COVID-19 State of Emergency, February 28, 2023. <https://www.smcgov.org/ceo/news/board-supervisors-ends-covid-19-state-emergency#:~:text=The%205%2D0%20vote%20aligns,Mateo%20County%20Board%20of%20Supervisors.>

<sup>8</sup> Stakeholder Interview



adjustments and course corrections during the response. As a result, decision-making processes were well-informed, and the team was able to adapt rapidly to evolving circumstances.

One of the key strengths of the County's emergency response was its ability to combine different organizations within the EOC effectively. This collaborative approach brought together representatives from various agencies, departments, and partner organizations, enabling a more holistic and streamlined response. The pooling of resources, expertise, and knowledge created a synergistic effect, facilitating a comprehensive view of the situation and enhancing the overall response capabilities. For example, the placement of a representative from the Controller's Office within the EOC allowed for a quick response to needs.<sup>9</sup>

The Incident Command System (ICS) structure played a vital role in orchestrating the County's emergency response efforts. When properly utilized, the ICS structure proved to be an asset in managing the complexity of the situation. It provided a clear and standardized framework for organizing resources, defining roles and responsibilities, and facilitating communication among different functional areas. This structured approach enhanced coordination, minimized confusion, and improved overall efficiency within the EOC.

## Areas for Improvement

**Area for Improvement #1: Redirected staff lacked training in and understanding of ICS principles, causing delays with internal communications.**

Throughout the response, the County encountered several issues related to the adherence to ICS principles among its staff. One of the most prevalent problems was the failure of some staff members to follow the established chain of command within the EOC structure. Instead of following the proper channels for communication and decision-making, they would contact other staff members directly, leading to confusion, inefficiency, and potential breakdowns in coordination.

Bypassing the EOC chain of command can have serious consequences. It disrupts the established flow of information, which is crucial for effective decision-making during emergency response operations. When staff members communicate directly with others outside their designated chain of command, critical updates might not reach the right people or might be misinterpreted along the way. This breakdown in communications can lead to delays in responses, conflicting orders, and a lack of centralized situational awareness.

Another significant issue was inadequate training on ICS principles before EOC activation. County staff members were not uniformly trained on incident command principles, which led to a lack of understanding about how the system works and how to effectively operate within it. This lack of understanding further contributed to staff members bypassing communication channels and not fully grasping their roles and responsibilities during the response.

## Recommendations

**Recommendation #1: Provide continuous ICS training and invest in the County's Integrated Preparedness Plan (IPP) to ensure training and exercises for all County staff.**

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<sup>9</sup> Stakeholder Interview



- Develop and implement required ICS training for all County staff who may assist with EOC activations. Consider holding training courses on a regular basis to ensure new staff are trained quickly, and all County staff understand what is expected.
- Consider just-in-time training (JITT) to supplement knowledge before or during an EOC activation.
- Set aside training budget for DEM.
- Conduct ICS exercises to ensure County staff are prepared for future incidents.
- Expand the IPP Workshop to appropriate County Staff to ensure their inclusion in the IPP process.
- Ensure adherence to the ICS structure during activation to ensure staff can be rotated out and prevent burnout.
- Provide resiliency training to DSWs.



## External Coordination and Communication

### Summary

The County faced considerable challenges in coordinating and communicating externally during the COVID-19 pandemic. However, one of the key strengths of the County's communication strategy was its effective use of news media and community-based organizations to support public messaging. By leveraging these channels, the County was able to tailor its messaging to specific communities' needs and cultural contexts, fostering a more inclusive and responsive approach to communication. The success of this approach was driven by the JIC, which worked closely with city and agency Public Information Officers (PIOs) and coordinated with the Bay Area Joint Information System. This ensured consistent messaging across the region on topics like shelter orders and masking guidelines. The lead PIO also appointed city PIO colleagues as liaisons to maintain regular information sharing through frequent calls, fostering collaboration and widespread information dissemination.

The JIC also played a crucial role in promoting regular virtual meetings with partners, which facilitated direct communication of reliable information. This collaboration bolstered the credibility of the County's messaging, improved its overall response efforts, and ensured that the community received clear and consistent information throughout the response. In addition, partnerships developed through the COVID-19 response became beneficial during other responses, such as the monkeypox outbreak. The County also focused on equity and census data to target its messaging more effectively. This approach was crucial in promoting public health measures and increasing vaccine uptake in vulnerable communities. Equity efforts were so successful during the response that the County implemented a permanent chief equity officer position.

While the County showcased various strengths, it also encountered challenges in handling its responsibilities as municipalities and partners heavily depended on County resources. This strained the County's ability to respond effectively to the crisis, necessitating better collaboration and resource-sharing mechanisms in future emergency responses. Delays in sharing important information with the public hindered the timely and accurate communication of crucial updates. This affected the ability to provide prompt and precise information, potentially leading to misunderstandings, misinformation, and missed chances for informed decision-making. Challenges with resource allocation and information sharing indicate areas for improvement to ensure a more effective and cohesive emergency response in the future. By building on its strengths and addressing areas of concern, the County can further enhance its communication strategies and better serve its community during times of crisis.

### Strengths

**Strength #1:** SMC's commitment to an equitable and inclusive approach throughout the ongoing response efforts resulted in tailored messaging and reduced infection rates.

The County's commitment to an equitable and inclusive approach to the pandemic response was a crucial step in addressing health disparities that surfaced during the crisis. Recognizing that certain communities were disproportionately affected by the pandemic, the County took proactive measures to ensure that its response efforts were fair, just, and accessible to all





residents. Equity and inclusion were at the forefront of decision-making processes, aiming to reduce the disparities in healthcare access and outcomes. The County implemented targeted interventions and outreach strategies to reach vulnerable populations. Efforts were geared towards providing essential information, resources, and support, improving opportunities for all County residents to stay safe and healthy during the pandemic.

The County worked in collaboration with various community-based organizations and stakeholders to gain a better understanding of the specific challenges faced by marginalized groups. The partnerships allowed for more tailored responses that accounted for diverse needs and cultural sensitivities. Recognizing that a regional and state-level approach was essential to combat a pandemic that knew no geographical boundaries, the County actively aligned its efforts through the Association of Bay Area Health Officials and other relevant organizations. This collaboration promoted robust coordination between different jurisdictions, enabling the sharing of best practices, resources, and data. Working together at this level helped create a unified front against the pandemic, allowing for a more efficient and comprehensive response.

The County's commitment to equity and inclusion, coupled with regional and state-level coordination, yielded several positive outcomes. By focusing on reducing health disparities, the County was able to better allocate resources to areas with the greatest need, ensuring that vulnerable populations received the support they required. The effectiveness of the targeted approach was evident, especially when considering the County's advantage of historically high vaccination rates, extensive healthcare coverage, and strong political unity. Moreover, this precise approach played a pivotal role in lowering COVID-19 transmission rates within historically underserved communities. This combination led to a 72% uptake in COVID vaccination rates by February 2023 within underserved communities.<sup>10</sup> In the end, this not only benefited these communities but also had a positive ripple effect on the overall population, significantly containing the virus's spread. The emphasis on equity and inclusion fostered trust and cooperation among the County's residents. This sense of inclusion encouraged active participation in public health measures, such as testing, vaccination drives, and adherence to safety guidelines.

### Strength #2: SMC leveraged news media and community-based organizations as an interactive way to support public messaging to alleviate mis/disinformation.

The County implemented successful strategies to support public messaging efforts during the pandemic response. This involved leveraging news media and community-based organizations as key partners in disseminating information effectively and quickly. The County's collaboration with news media enabled it to reach a broad audience through various outlets, including newspapers, television, radio, and online platforms. In addition, the media collaboration facilitated an effective distribution of repackaged PPE to multiple organizations and residents. This approach helped increase public awareness and understanding of important updates, guidelines, and available resources.

A notable asset of the communication strategy was the proactive involvement of community-based organizations. Recognizing the importance of empowering these organizations, the

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<sup>10</sup> County HEQ Status. As of February 2023



County provided them with necessary resources and messaging, enabling them to become self-sufficient in supporting public messaging within their respective communities. This expanded the reach of critical information to diverse communities and ensured that the messaging was culturally relevant and sensitive to the specific needs of each group. To further enhance communication and facilitate ease of access to information, the County provided one-page summaries of clinic information. These concise documents contained essential details about vaccine clinics, including dates, locations, eligibility criteria, and any other pertinent information. Disseminating these summaries to communities and community-based organizations streamlined the process of accessing information, making it more accessible and user-friendly.

The County's establishment of pre- and post-clinic outreach meetings with communities demonstrated a proactive commitment to understanding community needs and feedback. Engaging with residents before and after clinics provided valuable insights into what information was required and how the clinics' operations could be improved to better serve the community. This feedback loop allowed the County to continuously refine its communication strategies and tailor messaging to the unique needs of different populations.

**Strength #3: The JIC promoted regular communication and meetings to effectively develop and disseminate reliable information to residents and county leaders.**

The County implemented several successful communication strategies through the JIC during the COVID-19 pandemic response. These strategies facilitated reliable information dissemination, fostered strong partnerships with various stakeholders, and ensured cohesive messaging throughout the crisis.

One key strength was the JIC leadership's promotion of regular virtual meetings with physicians and other partners. These meetings served as a platform for sharing reliable information directly with medical professionals and other key stakeholders. By engaging with these partners, JIC personnel could address any emerging challenges quickly and efficiently, ensuring that accurate information was disseminated promptly to relevant parties. And by proactively placing communication representatives in relevant meetings, the County could obtain real-time updates and insights from various departments and partners. Access to timely information allowed JIC personnel to craft accurate messages tailored to the current situation.

Close collaboration between the County and health department PIOs played a vital role in effective messaging. Working in sync, the PIOs ensured that communication efforts were appropriate, timely, and cohesive. This alignment in messaging presented a unified front to the public and increased the credibility of the information being shared. The JIC's establishment of a network with cities, other offices, and healthcare partners was instrumental in promoting information and dispelling rumors. By actively engaging with these entities, the JIC maintained a pulse on the community and gained insights into prevalent concerns and understanding of what was being seen in the community. This two-way communication allowed the County to identify areas where assistance was needed and respond accordingly. Discussions during these meetings focused on informational updates, community observations, and how the County could provide support. This collaborative approach strengthened the County's response efforts by addressing real-time needs and providing targeted assistance where required.



The County's commitment to fostering positive relationships with community partners was evident in the actions of the JIC. This involved ensuring equitable and inclusive emergency response efforts, with a particular focus on reaching marginalized communities and addressing their unique needs. This approach played a pivotal role in building trust and fostering a more resilient and united community during the crisis.

**Strength #4:** SMC focused on equity and census data for targeted messaging in the True North Campaign, successfully reaching individuals across the county.

SMC partnered with ad agency True North Inc. to create an advertising campaign that would bring residents together while enforcing preventive measures with residents such as handwashing, wearing a face covering, and practicing social distancing. Phase 1 of this campaign was successful with over 20.8 million impressions, 5,000 TV spots aired, and over 10,000 engagements on social media.<sup>11</sup> Despite these achievements, there was still a need to improve vaccine acceptance and communication of health orders in hard-to-reach communities. Phase 2 of the campaign began in February 2021 and tailored messaging toward Chinese- and Spanish-speaking communities. True North partnered with health officers, equity team members, and County managers to determine how the campaign was received and how best to move forward in Phase 2. Throughout the whole campaign, True North used multiple channels and print publications to promote residents' independence as well as a whole community approach to recovery from COVID-19.



Figure 1- True North Campaign Materials in San Mateo County Source: <https://truenorthinc.com/work/the-covid-comeback/>

### Areas for Improvement

**Area for Improvement #1:** Municipalities heavily relied on SMC for their resources, such as Personal Protective Equipment (PPE) and Vaccine Clinics, straining County capabilities.

The County encountered challenges in taking on significant responsibilities with limited resources and without adequate collaboration and support from municipalities. The County's pandemic response required a coordinated effort involving all jurisdictions within its boundaries. However, the County encountered reluctance or inability from some municipalities to actively engage and cooperate in the response efforts. This lack of collaboration, combined with the County's constrained resources, resulted in fragmented efforts and a less effective overall response.

<sup>11</sup> San Mateo County. The COVID Comeback. True North Inc. <https://truenorthinc.com/work/the-covid-comeback/>



To alleviate some of the burden, the County attempted to delegate certain vaccination and testing responsibilities to vendors. Although the County had high expectations for these arrangements, the vendors made commitments that they ultimately couldn't fulfill adequately. Often, these vendors were understaffed, leading to insufficient support for critical services like traffic management and security. Consequently, the County had to step in to fill the gaps in staffing and resources left by the vendors, which strained its capacity to address other urgent issues.

Another challenge arose when attempting to establish localized vaccine clinics within municipalities. Despite the County's efforts to collaborate with municipalities for the creation of these clinics, their involvement was limited due to their minimal engagement in advertising and endorsing the clinics. As a result, the outreach endeavors of the clinics did not yield the optimal outcomes, potentially resulting in missed opportunities to vaccinate a greater number of residents.

To address these challenges, it is crucial for the County to foster better communication, cooperation, and collaboration, and foster independence within municipalities and County departments allowing a focus on broader emergency response coordination.

#### Area for Improvement #2: Communications staff reported delays in information sharing between leadership and the JIC resulting in delays in public information dissemination.

The County encountered various difficulties concerning information sharing and public information management throughout the COVID-19 response. These challenges had repercussions on the efficiency and promptness of information distribution, resulting in delays and the potential for inaccurate information to circulate. Most delays typically occurred due to internal failure to adhere to the ICS chain of command.<sup>12</sup>

The considerable staff turnover within DEM and the EOC and posed additional communication hurdles and contributed to a lack of consistency in procedure. Staff would occasionally bypass ICS protocols to share critical information with outreach workers and community groups directly without it first being routed through the JIC. This introduced potential inconsistencies and confusion in information dissemination. For instance, the absence of a designated PIO from the HSA within the JIC or even available in the DOC or department itself hindered the information exchange process. The lack of a designated PIO meant that the JIC had to directly contact the department for updates and data requests, leading to inefficiencies and breakdowns in communication.

Furthermore, relying on external vendors and community groups for translation services led to extended turnaround times. As a result, translated information intended for diverse communities was occasionally delayed. The involvement of community groups in altering the information or data disseminated by the County further complicated the accuracy and consistency of messaging. The absence of dedicated health spokespeople for non-English media requests also posed challenges during the response. Without designated individuals to address media inquiries, many were turned down, creating communication gaps and missed opportunities for

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<sup>12</sup> Stakeholder Feedback



providing important information to the public. Changing regulations from the State and federal governments also impacted communication efforts. Keeping up with evolving guidelines required prompt updates, and any delays in doing so might have resulted in misalignment with the latest requirements.

Additionally, there were concerns regarding the information provided to the 211 service, which aims to aid residents in accessing resources and support. Information provided to 211 was rarely vetted through the JIC, so it was unclear how it was being decided or updated. Unfortunately, due to the lack of regular information updates, the full potential of 211 was not realized and it was not as widely advertised and utilized as it could have been. Ensuring timely updates to the 211 service is crucial to ensure that residents receive accurate and current information about the available services and resources during the crisis.

## Recommendations

**Recommendation #1: Engage SMC preparedness partners, including municipalities, during SMC's regularly scheduled Preparedness Coalition to improve their emergency preparedness and promote independence.**

- Socialize regularly scheduled meetings to maintain relationships and improve situational awareness among municipalities.
- Continue to develop a municipality contact list to implement quick messaging during an incident or EOC activation.

**Recommendation #2: Ensure the proper flow of information through the JIC is maintained throughout response efforts.**

- Ensure all information is sent to the JIC first before vetting and dissemination.
- Ensure all response staff are educated on the importance of the JIC vetting all information before dissemination into the community.

**Recommendation #3: Provide communications training to County staff and elected officials.**

- Ensure elected officials, and county leadership are provided with recurring training on ICS, EOC, and JIC training and protocols, as they play a crucial role as the public face of the emergency response.
- Provide communications-based training to all departments and staff assigned to the JIC to build capacity.

**Recommendation #4: Assign or task communications personnel to each County department.**

- Ensure each County department has personnel that are designated and trained in communications to serve as a point of contact.
- Assign department communications personnel to the JIC to ensure representation of all necessary County departments, as needed.
- Assign personnel that will be responsible for continuous updates to 211 or other communications vendors.





## Medical and Health Operations

### Summary

SMC built on demonstrated successes around vaccine operations during the initial stages of the pandemic to create innovative, approachable, and accessible vaccine experiences for the entire community. Collaborations with the private sector played a pivotal role in establishing a welcoming and stress-free environment for families seeking vaccines at the mass vaccination clinics, contributing to the County's efforts to ensure an equitable distribution of vaccines. Notably, partnerships such as the one with the SMC Event Center facilitated the administration of vaccinations to over 85,000 people from October 2021 through January 2022.<sup>13</sup> Additionally, the County adapted and refined the mass vaccination clinic model based on input, feedback, and surveys, demonstrating its commitment to real-time process improvements.

Despite these strengths, the limited personnel resources at mass vaccination clinics posed challenges for daily output, warranting a need to involve more healthcare facilities and partners to enhance efficiency and stability.

### Strengths

**Strength #1:** SMC took swift and innovative action to ensure equitable access to countywide pediatric vaccine clinics.

On October 29, 2021, the Food and Drug Administration (FDA) authorized the Emergency Use Authorization (EUA) for the COVID-19 vaccine for children 5 to 11 years of age.<sup>14</sup> SMC immediately took action to offer the vaccine at the SMC Event Center, in coordination with the Drive-thru mass vaccination clinic, with an interactive, fun approach for children ages 5 to 11. The pediatric clinic was socialized as a "Playland"-themed clinic offering a kid-friendly setting that invokes Candy Land along with superheroes and other entertainment.<sup>15</sup>



Figure 2- SMC Staff at the entrance to the pediatrics vaccination clinic. Source: SMC

The specialized pediatric response took the stress off the pediatric offices while providing children with a low-anxiety way of receiving vaccination against COVID-19. Playland's

<sup>13</sup> San Mateo County Health. Message from the Chief. February 2, 2022, <https://www.smchealth.org/health-officer-updates/february-2-2022-message-chief>

<sup>14</sup> Health and Human Services. *Secretarial Directive on Availability of COVID-19 Vaccines for Children Ages 5 through 11*, November 3, 2021, <https://www.hhs.gov/sites/default/files/secretarial-directive-availability-covid-19-vaccines-children-ages-5-11.pdf>

<sup>15</sup> San Mateo County Executive's Office. *COVID-19 Booster Shots Available at County Event Center; New Times Available for Children's "Playland" Clinic*. November 17, 2021, <https://www.smcgov.org/ceo/news/covid-19-booster-shots-available-county-event-center-new-times-available-childrens>





Command Staff ensured a comfortable experience for the kids and parents by choosing nurses who had experience or enjoyed working with kids and ensuring availability of a medical provider to answer parents' questions.<sup>16</sup>

The County received financial support from established partnerships for the pediatric clinic, including Google, Kaiser, and the San Mateo County Economic Development Association. Pediatric vaccine clinics were also offered by healthcare providers, local pharmacies, and in coordination with the SMC Office of Education and school districts. SMC Health supported school-based vaccine clinics to expand the catchment area and provide outreach equitably.

**Strength #2: SMC adapted mass vaccination clinic models as lessons were learned through the continued response, including pre-identified daily staffing and assignments.**

The San Mateo Event Center opened on January 12, 2021, to expand access to the COVID-19 vaccine. It operated intermittently throughout the response period. MassVax 1 consistently processed higher volumes of vaccines daily compared to MassVax 2, primarily due to improvements in the pharmacy's effective and safe management of three different vaccines. The second iteration of the mass vaccination program ran much more smoothly, thanks to staff leveraging their knowledge of staffing models and layout.<sup>17</sup> These improvements were supported by feedback from an anonymous survey provided during the waiting period immediately after vaccination. Command Staff received constructive feedback immediately to build into their operations the following day.



Figure 3- Cars line up to enter Event Center Drive Through Vaccine Clinic. Source: <https://www.smcgov.org/ceo/news/covid-19-two-years-later-what-have-we-learned>

Each morning before the clinic opened, the command team discussed process improvements over coffee while the staff attended a safety briefing. This provided transparency into the day's operations. Additionally, the command team prioritized the well-being of their staff by providing catered food during shifts, eliminating the need for them to procure lunch.

**Strength #3: SMC employed various strategies to guarantee the availability of vaccines within the whole community.**

While SMC leveraged the SMC Event Center for mass vaccination clinics, their commitment to equity and inclusivity led to the implementation of supplementary vaccination and booster clinics throughout the community. This approach ensured that vaccine accessibility remained a central focus.

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<sup>16</sup> Stakeholder Interview

<sup>17</sup> Stakeholder Interview



SMC implemented numerous strategically located vaccination clinics throughout the community. These clinics were thoughtfully established in locations such as East Palo Alto, San Bruno, Half Moon Bay, Pescadero, and other municipalities in collaboration with city authorities and SMC Health Medical Centers.<sup>18</sup> Recognizing the importance of convenience, SMC introduced innovative measures to ensure vulnerable populations were not excluded. In addition to community clinics, SMC implemented “radically convenient” vaccination clinics and mobile clinics to reach populations known to experience challenges with access. Through these targeted clinics, SMC was able to vaccinate remote farm workers, homebound residents, congregate living populations, and even school-based programs to cater to parents’ schedules and reduce stress.<sup>19</sup>

SMC utilized their resources efficiently and effectively to provide multifaceted vaccination strategies ensuring their commitment to equity and providing vaccinations in every segment of the community. Their approach not only achieved an equitable distribution of vaccinations but also propelled the County’s overall vaccination rate. This success was evident in February 2023 as local and State COVID-19 emergencies came to an end. In February 2023, SMC proudly reported a County COVID vaccination rate of 94%<sup>20</sup> in its population, a remarkable achievement compared to the State of California’s rate of 73%.<sup>21</sup>

## Areas for Improvement

**Area for Improvement #1: Daily operations at mass vaccination clinics were heavily influenced by personnel resources leading to unpredictable daily output.**

The COVID-19 pandemic posed an unprecedented challenge for the county, as there was a surge in demand for healthcare personnel and volunteers to address the escalating crisis. The rapid proliferation of the virus led to a severe shortage of skilled professionals who could administer vaccinations on a national scale. Mass Vax 1 was heavily dependent on volunteers to maintain operations due to the scarcity of medical personnel in both SMC and neighboring counties. However, the available pool of volunteers at that time was constrained by health risks, scheduling uncertainties, and the volatile nature of the pandemic, all of which jeopardized daily operations. Additionally, many members of the vaccine clinic support staff had other commitments, and the risk of contracting the virus further strained the already limited personnel.

To prepare for Mass Vax 2 and the booster clinics, the county acknowledged the limitations on its own personnel and volunteer resources. As a result, external vendors were hired to supplement the workforce. to handle clinical operations.<sup>22</sup> However, the vendors presented

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<sup>18</sup> Stakeholder Feedback

<sup>19</sup> Stakeholder Interview

<sup>20</sup> San Mateo County Executive’s Office. Board of Supervisors Ends the COVID-19 State of Emergency, February 28, 2023. <https://www.smcgov.org/ceo/news/board-supervisors-ends-covid-19-state-emergency#:~:text=The%20%2D0%20vote%20aligns,Mateo%20County%20Board%20of%20Supervisors>

<sup>21</sup> California Office of the Governor. Governor Newsom Marks End of California’s COVID-19 State of Emergency, February 28, 2023. <https://www.gov.ca.gov/2023/02/28/governor-newsom-marks-end-of-californias-covid-19-state-of-emergency/>

<sup>22</sup> Stakeholder Interview



additional issues that impacted clinical operations. For example, vendors who were hired showed a lack of line management and safety at clinic sites, which caused traffic backup and safety concerns.<sup>23</sup> In addition, there were multiple occasions where vendor support did not arrive at the clinics.<sup>24</sup>

During the Event Center activation, daily operations relied heavily on how many vaccinators and logistics staff were available. When personnel were unable to show up with little or no notice, planned clinic lanes were forced to close, resulting in longer wait times for those seeking vaccination and slowed daily output. Additionally, efforts to secure adequate vaccinator support from local hospitals and medical clinics within the County were met with challenges, prompting the involvement of Emergency Medical Services (EMS) and local firefighters in supporting clinical operations. However, these constraints primarily stemmed from limited personnel availability at a national level rather than the County's inability to manage the situation effectively.<sup>25</sup>

## Recommendations

### Recommendation 1: Explore options for diversifying staffing sources.

- Establish standing partnerships with local healthcare facilities, colleges, and providers, with commitments for surge events.
- Create a reserve pool of external vaccinators and logistics staff who can be called upon when needed through standing partnerships and agreements.
- Develop standing contracts for additional external healthcare personnel when County personnel and volunteers cannot fulfill response requirements.

### Recommendation 2: Enhance staff capacity with cross-training and appropriate systems.

- Implement a robust communication system for County vaccinators and support staff to ensure a smoother scheduling process.
- Offer training sessions and cross-training opportunities to enhance the skill set of existing County staff and volunteers as well as external partners. This will create a more versatile workforce capable of handling various tasks and roles, increasing operational efficiency.
- Crosstrain within multiple departments to help build healthcare personnel capacity within the whole County (e.g., mimic Emergency Medical Services' local model which was adopted as best practice statewide that provided vaccinator training to EMT and Paramedic personnel across all local provider agencies).

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<sup>23</sup> Stakeholder Interview

<sup>24</sup> Stakeholder Interview

<sup>25</sup> Stakeholder Interview



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## Resource Management

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### Summary

SMC demonstrated a proactive approach in several aspects of resource management. The County's capacity to store essential resources either on-site or in close proximity to operations significantly bolstered their logistical capabilities. This endeavor proved particularly valuable when setting up vaccination and booster clinics at the SMC Event Center.

However, the pandemic presented significant obstacles to resource management, and staffing emerged as one of the most demanding resources to navigate. The lack of bandwidth to provide healthcare personnel, volunteers, and vendor support negatively impacted the County's ability to conduct clinical operations at certain times throughout the response. While the SMC Event Center was a critical asset in the deployment of mass vaccination clinics during the pandemic, the County lacked predetermined alternate locations to host these events creating challenges when the event center was unavailable.

A notable episode that garnered attention from local media was an incident in which PPE was left outside the SMC Event Center warehouse and subsequently damaged by rainstorms in the area. While the County did respond effectively, the resultant damage incurred several hundred thousand dollars in costs, coupled with unfavorable press coverage. By building on its strengths and addressing areas of concern, the County can further enhance its resource management skills and better serve its community and personnel during future emergencies.

### Strengths

**Strength #1: Pre-staging of critical resources on-site enhanced SMC's ability to quickly activate vaccination clinics at the SMC Event Center.**

Throughout the response, the SMC Event Center was utilized by the County to conduct two separate continuous mass vaccination clinics from January until October 2021.<sup>26</sup> By the end of October 2021, the demand for testing had decreased, with very little throughput at the testing site.<sup>27</sup> Due to this low demand for testing, SMC DEM decided to demobilize the testing site and focus their efforts on the mass vaccination clinics and soon-to-open "Playland" pediatric vaccination Clinic. The County was able to store critical resources, such as cones, barricades, and many other supplies, to operate the drive-through clinic in the SMC Event Center's warehouse.

By January 2022, local Public Health officials were seeing the emergence of a new variant, Omicron, spread through the state.<sup>28</sup> With the news of Omicron spreading, residents began to rush to the SMC Event Center to get tested. Since supplies already stored on-site, the County was able to activate the testing clinic swiftly and efficiently, promptly escalating operations. This

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<sup>26</sup> Stakeholder Interview

<sup>27</sup> Stakeholder Interview

<sup>28</sup> San Mateo County Executive's Office, *COVID-19: What You Need to Know Today*, January 6, 2022.  
<https://www.smcgov.org/ceo/news/covid-19-what-you-need-know-today>



limited the County's need to pull resources from multiple locations across the County to host the clinics at the SMC Event Center.<sup>29</sup>

## Areas for Improvement

Area for Improvement #1: Some physical resources, including PPE, were damaged during inclement weather resulting in monetary loss and negative media attention.

In October 2021, the SMC Event Center warehouse had to temporarily store surplus PPE and cleaning supplies outdoors due to an event occurring on its premises.<sup>30</sup> It's crucial to highlight that by this point, PPE had been procured early in the response, and supply chains had returned to normal. However, hospitals and SNFs were already well-stocked with PPE, leading to limited demand for additional supplies.<sup>31</sup>



Figure 4– Damaged PPE and Supplies. Source: [https://www.upi.com/Top\\_News/US/2022/01/15/7-million-ppe-damaged-rain-california/9771642275272/](https://www.upi.com/Top_News/US/2022/01/15/7-million-ppe-damaged-rain-california/9771642275272/)

While the items were staged outside, the County experienced multiple rainstorms during the fall and winter months. This incident was further impacted by incorrect initial reports from the media that the County lost close to \$7 million in PPE and supplies.<sup>32</sup> While those initial reports were later revised, as more information became available, the incident did create several hundred thousand dollars of damages.<sup>33</sup>

The County reported the losses were minimal as most of the PPE being wrapped in specific units (e.g., vacuum sealed), but had to provide additional resources to mitigate future losses to the equipment.<sup>34</sup> This included hiring additional staff to assess damages as well as contracting a vendor, Corovan, to store the PPE and supplies in their own warehouses in the Bay Area. In response, the undamaged PPE and supplies were repackaged and stored in three separate warehouses, located in Richmond, San José, and San Leandro.<sup>35</sup> Even though the County was able to respond quickly, the incident and ensuing media attention could have been prevented altogether with proper preparedness efforts, such as identifying additional storage space within the County or the Bay Area beforehand.

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<sup>29</sup> Stakeholder Interview

<sup>30</sup> Stakeholder Interview

<sup>31</sup> Stakeholder Feedback

<sup>32</sup> The Associated Press. "San Mateo County's 7M in PPE Left Outside, Damaged by Rain." *NBC Bay Area*, January 15, 2022, <https://www.nbcbayarea.com/news/coronavirus/san-mateo-countys-7m-in-ppe-left-outside-damaged-by-california-rain/2778937/>

<sup>33</sup> Stakeholder Interview

<sup>34</sup> Stakeholder Interview

<sup>35</sup> Stakeholder Interview





## Area for Improvement #2: Lack of clear roles and responsibilities for Disaster Service Workers (DSWs) led to staffing challenges during the response.

The County faced persistent challenges in terms of staff members' comprehension and acceptance of their roles and responsibilities as DSWs.<sup>36</sup> While the County was fortunate enough to have enough personnel to support EOC activities, multiple stakeholders mentioned some staff members displayed hesitancy in carrying out job tasks connected to their designation as DSWs. This raised concerns about a potential lack of equitable distribution in terms of work contributions, as certain employees appeared to be shouldering greater responsibilities than their peers across the County.<sup>37</sup>

Revealingly, the situation highlighted that the County lacked a streamlined and effective mechanism to activate staff members as DSWs and, at the same time, to seamlessly integrate them into the overall response structure. This underscores a critical gap in the County's approach to utilizing its workforce during emergencies. Proper activation and integration are pivotal not only for ensuring a harmonious distribution of responsibilities but also for maximizing the collective efforts of all staff members involved in the response. Addressing this challenge is crucial for achieving a more balanced and efficient emergency response framework.<sup>38</sup>

## Area for Improvement #3: Lack of alternate locations and appropriate staffing resources for Vaccination Clinics negatively impacted clinical operations during response.

While the SMC Event Center was utilized for mass vaccination clinics during the response, the County was limited in the number of alternate locations to operate them.<sup>39</sup> On multiple occasions, the County needed to work around the Center's recreational schedule (e.g., volleyball tournaments, fairs, etc.) to conduct the mass vaccination clinics.<sup>40</sup> While the County was able to conduct the clinics alongside many scheduled events at the Center, there were a few occasions where an alternate location was necessary. However, the County struggled to find adequate additional locations outside of the SMC Event Center. The absence of pre-identified alternate locations for the mass vaccination clinics impacted the County's ability to activate and manage mass vaccination and booster clinics quickly.<sup>41</sup>

The lack of effective staffing support put more stress on already limited internal staffing.<sup>42</sup> The County had to manage these clinics and take on roles that were originally designed as the vendors' responsibilities. Adding this to their limited ability to quickly hire, educate, and train new personnel created major challenges to fully operate and manage clinics.<sup>43</sup> Without sufficient and vetted staff and vendors to support these clinics, the County faced challenges in achieving optimal clinical operations during its pandemic response.

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<sup>36</sup> Stakeholder Interview

<sup>37</sup> Stakeholder Interview

<sup>38</sup> Stakeholder Interview

<sup>39</sup> Stakeholder Interview

<sup>40</sup> Stakeholder Interview

<sup>41</sup> Stakeholder Interview

<sup>42</sup> Stakeholder Interview

<sup>43</sup> Stakeholder Interview





## Recommendations

**Recommendation #1:** Identify alternate storage locations for County emergency supplies, such as PPE.

- Develop mutual aid agreements (MAA) / memorandums of understanding (MOU) with vendors for logistical support during emergencies, such as providing storage facilities.

**Recommendation #2:** Revise the onboarding process for DSWs to educate and train County personnel on their roles and responsibilities during disasters.

- Develop and/or revise training events (e.g., workshops, tabletop exercises, etc.) and materials (e.g., DSW guidelines) that adequately identify the roles and responsibilities of a DSW as well as highlight County personnel's obligations as a DSW during emergencies.
- Discuss re-establishing a swearing-in service for County personnel to acknowledge and commit to their role as a DSW.
- Develop and maintain a list of trained County DSWs that can be utilized during declared emergencies or disasters.

**Recommendation #3:** Develop a list of potential locations to host County events during emergencies.

- Develop a list of County facilities (e.g., schools, libraries, etc.) that could be utilized for emergency events (e.g., clinics).
- Develop MAAs/MOUs with local facilities that will provide the County with the ability to utilize their space to conduct emergency events/operations.

**Recommendation #4:** Identify potential staffing support contracts that can be utilized to support County emergency operations.

- Develop emergency contracts with vetted vendors that can provide specific roles during an emergency.



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## Procurement and Documentation Management

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### Summary

The prolonged COVID-19 pandemic posed significant challenges to documentation management and financial recovery efforts in the County. However, the County continually demonstrated its adaptability to the ever-changing response environment. The County took early measures by waiving specific contract and procurement requirements. This facilitated departments in procuring in-demand supplies even during the later stages of the response, enhancing their management capabilities. In addition, the County adapted its resource request process from completely paper-based to electronic fillable forms, improving workflows and aiding in the successful implementation of ICS. The County's Medical Health Branch successfully utilized ReddiNet to bolster its efforts to coordinate and track resource requests received via the Medical Health Operational Area Coordinator (MHOAC), including their fulfillment from the Medical Health warehouse. In collaboration with the state, the County's Medical Health Branch piloted and ultimately implemented stable connectivity of Reddinet to the state's new Public Health Ordering System (PHOS) via API. The integration of Reddinet with PHOS enhanced the efficiency and effectiveness of the MHOAC in obtaining resources via the Statewide Medical Health Mutual Aid system to meet local needs.

However, after discontinuing the use of the WebEOC Emergency Management Platform, the EOC faced challenges with its paper-based forms system. This lack of a digital platform led to delays in fulfilling resource requests and in processing other forms.

### Strengths

**Strength #1:** SMC's decision to waive requirements early in the response enhanced its ability to make procurement purchases and establish contracts for critical response resources throughout the prolonged response.

The County made it easier to establish contracts and procurement opportunities to enhance its response capabilities during the pandemic.<sup>44</sup> For example, the County granted the EOC the authority to approve contracts with higher monetary values compared to normal operation limits.<sup>45</sup> The County Board approved an emergency threshold increase from \$200,000 to \$500,000 for contracts.<sup>46</sup> In addition, the County waived requirements regarding competitive procurements to expedite purchasing critical items. These decisions positively impacted the County's response as they made it possible for personnel to act quickly and get the necessary supplies and technology to conduct response operations. In addition, stakeholders reported that lifting these procedures and requirements allowed the County to acquire services and/or resources from vendors that would typically be challenging to acquire during normal operational periods.<sup>47</sup>

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<sup>44</sup> Stakeholder Interview

<sup>45</sup> Stakeholder Interview

<sup>46</sup> Stakeholder Interview

<sup>47</sup> Stakeholder Interview



**Strength #2:** The EOC demonstrated a smooth workflow for resource requests to the Procurement Unit, aided by the successful implementation of ICS, including the Resource Request Form 213 (213-RR).

At the beginning of the response, the development and submission of 213-RR was a handwritten process.<sup>48</sup> However, the County transitioned 213-RRs into a writable PDF that County personnel would be able to complete electronically and submit via a County email address. This provided the County EOC the ability to access all resource requests from a centralized location and upload them to an Excel spreadsheet for future reference.<sup>49</sup>

In an effort to track resource requests, the County shared a copy of the Resource Request Spreadsheet on one of the screens in the EOC.<sup>50</sup> This provided the opportunity to inform EOC personnel on all active and closed resource requests coming into the center. It also provided easy access for the County's Incident Commander to track the number of outstanding resource requests during the response.<sup>51</sup>

**Strength #3:** ReddiNet's resource requesting module was expanded and accessible through a mobile app allowing MHOAC requests to be managed in a centralized location.

ReddiNet is an electronic system that facilitates information exchange among hospitals, EMS, paramedics, law enforcement, and other healthcare system professionals over a secure network.<sup>52</sup> During the response, the Medical Health Branch of the EOC utilized ReddiNet to support the requesting and tracking of resources.<sup>53</sup> The system proved to be effective in documenting and managing resource requests. In addition, any healthcare stakeholder was able to make resource requests directly into ReddiNet, which was then sent to the EOC to adjudicate and assign resources where possible.<sup>54</sup>

ReddiNet was also beneficial as it provided the County with the ability to place controls for inventory at Medical Health warehouses. For example, if a requestor was allocated warehoused resources, ReddiNet was utilized to inform the requestor of which warehouse to arrive at and at what time to receive the resources, as well as provide an authorization form that the requestor would present to the warehouse, confirming they were a County approved recipient and the items the warehouse was to release to them. The system was also particularly useful in inventory control to ensure the County was releasing the appropriate quantities of resources to the appropriate County personnel.<sup>55</sup>

The County also recognized that there was potential to enhance the coordination capabilities surrounding resource requests, particularly within the ReddiNet system. In response, the County made a strategic decision to expand the functionality of ReddiNet by introducing it as a phone

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<sup>48</sup> Stakeholder Interview

<sup>49</sup> Stakeholder Interview

<sup>50</sup> Stakeholder Interview

<sup>51</sup> Stakeholder Interview

<sup>52</sup> ReddiNet. Retrieved 27 July 2023, from <https://www.reddinet.com/>

<sup>53</sup> Stakeholder Interview

<sup>54</sup> Stakeholder Interview

<sup>55</sup> Stakeholder Interview



application.<sup>56</sup> Through the mobile application, personnel were able to not only review and track resource requests but also exchange messages with others to ensure seamless confirmation of resource receipt and distribution. This evolution in functionality brought greater efficiency and responsiveness to the resource management process during critical situations.<sup>57</sup>

While the system was only used by the Medical Health Branch, ReddiNet proved to be an effective upgrade in the documenting and tracking of resource requests during the pandemic response.

## Areas for Improvement

**Area for Improvement #1:** The EOC lacked a solid web-based emergency management platform to support the emergency response operating with a paper-based system resulting in a slower process for forms and resource requesting.

As the County grappled with COVID-19 challenges, it became evident that a virtual emergency platform would be an essential tool. The initial use of WebEOC during the early stages of the pandemic seemed promising, but the platform's limitations became apparent and led to its eventual abandonment. Challenges with WebEOC included technical issues, scalability to handle the workload, and difficulties in user adoption and training.

The lack of a backup platform left the County with no choice but to resort to traditional methods. Relying on physical copies of documentation and ICS forms might have seemed like a viable option, but it soon became apparent that it was not sufficient for managing such a complex and fast-moving crisis. As identified in the SMC DEM 2022 COVID-19 AAR, the County confirmed the difficulty of tracking 213-RRs, invoices, and packing slips because it was done on paper.<sup>58</sup> The reliance on physical documents and a paper-based system led to significant delays in information dissemination and decision-making processes. As the pandemic evolved rapidly, timely access to critical data and updates was of utmost importance, and manual paperwork simply could not keep up with the pace. In addition, the hard copy approach and lack of electronic processes caused frustration among emergency response staff. Dealing with paperwork not only consumed valuable time but also added unnecessary stress to an already demanding and high-pressure situation.

A robust virtual emergency management platform could have provided real-time data sharing, streamlined workflows, and enhanced collaboration among different response teams and agencies. The platform would have facilitated more effective communication and coordination, allowing for quicker responses to emerging challenges and a better allocation of resources where they are needed most.

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<sup>56</sup> Stakeholder Interview

<sup>57</sup> Stakeholder Interview

<sup>58</sup> San Mateo County 2022 COVID-19 AAR



## Recommendations

Recommendation #1: Implement an appropriate virtual emergency management platform that meets the needs of County EOC operation systems.

- To prepare for future crises, it is imperative that the County invests in a suitable virtual emergency management platform. Implementing a new platform should also involve comprehensive training and support for staff members to ensure smooth adoption and effective utilization.
- Establish training programs for current and new County personnel to enhance their knowledge of the new management system.
- Develop regular exercises to test staff's ability to effectively use the platform.
- Ensure a robust platform contingency plan that includes redundant systems is developed and maintained.





## LONG-TERM CONCERNS

As the COVID-19 pandemic stretched into a third year, cities, counties, states, and countries across the world reflected on the immensity of the work they had accomplished and strived to identify the important lessons they had learned. As responders made every effort to mitigate the immediate impacts of the virus and undertook historic vaccination efforts, it became increasingly important to assess the lasting effects and implications on every community. Of primary and continuing concern is ensuring that the “lessons learned” are not relegated to a file and forgotten but acted upon to improve the health, economic security, and well-being of all.

San Mateo County has taken commendable action on recommendations previously identified in its first AAR. Chapter Two suggests ongoing opportunities to invest in the response personnel and infrastructure that will mitigate the impacts of future emergencies. Workforce preparedness remains vital to ensuring skilled personnel that can support major public health and response efforts, such as vaccination campaigns. Addressing issues related to staff fully understanding and accepting roles and responsibilities during emergencies is critical. Adherence to the principles and common language of ICS ensures effective coordination and communication among all response personnel, an especially important aspect when responses require surge support from those less familiar with these protocols. This standardized approach streamlines decision-making processes and fosters a more organized and efficient response to emergencies. All of this can be made easier with a consistent adoption of electronic documentation management, contributing to a common operating picture that elevates efforts and saves valuable time.

Resource management is an ongoing process that demands constant assessment and innovation. For SMC, it is imperative to prioritize meticulous planning and protection of its physical assets to ensure resilience in the face of various challenges and emergencies. Regular assessments of existing resources must be conducted to measure their effectiveness and relevance in the ever-changing landscape of hazards and risks.

Finally, engaging in partnerships with local organizations, businesses, and neighboring areas can lead to the discovery of untapped resources and novel solutions that might otherwise go unnoticed. Addressing these concerns will help SMC build resilience, enhance response capabilities, and ensure effective preparedness for potential future emergencies beyond the COVID-19 pandemic.



## FINAL THOUGHTS

In May of 2023, the United States ended its public health emergency, and began to treat COVID-19 as any other infectious respiratory infection. This report and its predecessor are attempts to understand the lessons learned and evaluate the effectiveness of San Mateo County's response to an unprecedented pandemic. However, the full impacts of the pandemic on the residents and responders of SMC may not be known for years to come.

Nonetheless, SMC DEM acknowledges that examining the challenges faced, the successes achieved, and the strategies employed during these three years provides valuable insights into areas for investment and growth. As illustrated in the progress chart, SMC DEM has already taken concrete steps toward addressing recommendations identified in the initial COVID-19 AAR. Demonstrating a commitment to continuous improvement, SMC DEM will integrate these new findings and recommendations into their operations. These combined efforts serve as a crucial foundation for shaping future public health policies, improving emergency response plans, and strengthening healthcare infrastructure.



# APPENDICES

## Appendix A: Summary by Theme

Strengths and areas for improvement within each report theme that SMC exhibited during the response to COVID-19 are provided below. Further explanation of each finding and additional strengths and areas for improvement can be found in the Analysis of Findings section.

**Table 3: Summary of Strengths and Area for Improvements**

<i>Theme</i>	<i>Strengths</i>	<i>Area for Improvements</i>
<b><i>EOC Operations and Internal Communications</i></b>	<b>Strength # 1:</b> Key personnel were properly aligned in their response roles based on previous experience and response capabilities.	<b>Improvement # 1:</b> Redirected staff lacked training in and understanding of ICS principles, causing delays with internal communications.
<b><i>External Coordination and Communication</i></b>	<p><b>Strength #1:</b> SMC’s commitment to an equitable and inclusive approach throughout the ongoing response efforts resulted in tailored messaging and reduced infection rates.</p> <p><b>Strength #2:</b> SMC leveraged news media and community-based organizations as an interactive way to support public messaging to alleviate mis/disinformation.</p> <p><b>Strength #3:</b> The JIC promoted regular communication and meetings to effectively develop and disseminate reliable information to residents and county leaders.</p> <p><b>Strength #4:</b> SMC focused on equity and census data for targeted messaging in the True North Campaign, successfully reaching individuals across the county.</p>	<p><b>Improvement #1:</b> Municipalities heavily relied on SMC for their resources, such as Personal Protective Equipment (PPE) and Vaccine Clinics, straining County capabilities.</p> <p><b>Improvement #2:</b> Communications staff reported delays in information sharing between leadership and the JIC resulting in delays in public information dissemination.</p>



Theme	Strengths	Area for Improvements
<p><b>Medical and Health Operations</b></p>	<p><b>Strength #1:</b> SMC took swift and innovative action to ensure equitable access to countywide pediatric vaccine clinics.</p> <p><b>Strength #2:</b> SMC adapted mass vaccination clinic models as lessons were learned through the continued response, including pre-identified daily staffing and assignments.</p> <p><b>Strength #3:</b> SMC employed various strategies to guarantee the availability of vaccines within the whole community.</p>	<p><b>Improvement #1:</b> Daily operations at mass vaccination clinics were heavily influenced by nationwide constraints in personnel resource availability leading to unpredictable daily output.</p>
<p><b>Resource Management</b></p>	<p><b>Strength #1:</b> Pre-staging of critical resources on-site enhanced SMC's ability to quickly activate vaccination clinics at the SMC Event Center.</p>	<p><b>Improvement #1:</b> Some physical resources, including PPE, were damaged during inclement weather resulting in a monetary loss and negative media attention.</p> <p><b>Improvement #2:</b> Lack of clear roles and responsibilities for Disaster Service Workers (DSWs) led to staffing challenges during the response.</p> <p><b>Improvement #3:</b> Lack of alternate locations and appropriate staffing resources for Vaccination Clinics negatively impacted clinical operations during response.</p>
<p><b>Procurement and Documentation Management</b></p>	<p><b>Strength #1:</b> SMC's decision to waive requirements early in the response enhanced its ability to make procurement purchases and establish contracts for critical response resources throughout the prolonged response.</p> <p><b>Strength #2:</b> The EOC demonstrated a smooth workflow for resource requests to the Procurement Unit, aided by the</p>	<p><b>Improvement #1:</b> The EOC lacked a solid web-based emergency management platform to support the emergency response operating with a paper-based system resulting in a slower process for forms and resource requesting.</p>



<i>Theme</i>	<i>Strengths</i>	<i>Area for Improvements</i>
	<p>successful implementation of ICS, including the Resource Request Form 213 (213-RR).</p> <p><b>Strength #3:</b> ReddiNet's resource requesting module was expanded and accessible through a mobile app allowing MHOAC requests to be managed in a centralized location.</p>	





## Appendix B: Progress Chart

**Table 4: Progress Chart**

Chapter One Theme	Recommended Improvement	Deliverables Progress	Future Planning
<b>EOC OPERATIONS AND COMMUNICATIONS</b>	<b>Improvement 1:</b> Develop a formal activation process to alert staff of Emergency Operations Center (EOC) activation status and of assignments to EOC positions.	EOC Alerting System has 112 SMC employees registered as of 8/2023.	SMC has a target of adding 300+ fully trained SMC employees into the EOC Alerting System by [date].  Activation procedures will be developed for the utilization and maintenance of the EOC Alerting System.
<b>EOC OPERATIONS AND COMMUNICATIONS</b>	<b>Improvement 2:</b> Begin to develop “depth of bench” within EOC staffing by rolling out Incident Command System (ICS) training to all County employees.	A training schedule has been developed, including 17 EOC specific trainings. [insert #] trainings have been provided to SMC employees as of 8/2023.	SMC has a target to provide [insert #] trainings to SMC employees by [date].
<b>EOC OPERATIONS AND COMMUNICATIONS</b>	<b>Improvement 3:</b> Explore system upgrades and further customization of WebEOC or vendors to support the appropriate crisis management software that meets the needs of a large-scale incident and integrations with other critical County operation systems.	SMC DEM has purchased and begun implementation of VEOCI, a web-based emergency management system.	SMC DEM has a target date for full implementation, including a rollout to local municipalities by [date]. This process includes socialization, agreements, training, and full implementation in up to 20 cities and 37 special districts.
<b>EOC OPERATIONS AND COMMUNICATIONS</b>	<b>Improvement 4:</b> Document IT processes and expand technological infrastructure which was established as part of the EOC response to support telework and	SMC has expanded technological infrastructure out of necessity during COVID-	As part of the VEOCI implementation, workflow processes will be developed to support emergency



Chapter One Theme	Recommended Improvement	Deliverables Progress	Future Planning
	<p>virtual operations in the future. Ensure these systems and processes are secure and socialized with County staff.</p>	<p>19 restrictions, including the regular day-to-day operations in SharePoint and Teams.</p> <p>SMC DEM fully operationalized the electronic submission of the 213-RR.</p> <p>VEOCI and DocuSign are utilized in the implementation stage.</p>	<p>management processes that include a digital signature authority.</p>
<p><b>EOC OPERATIONS AND COMMUNICATIONS</b></p>	<p><b>Improvement 5:</b> Document procedures, such as distancing worktables, sanitization, Personal Protective Equipment (PPE) policies, etc. for implementation within the physical EOC that can be easily implemented during infectious disease events in which in-person operations remain feasible.</p>	<p>During the COVID-19 response, Social Distancing Policies were developed.</p>	<p>SMC DEM will partner with SMC Health to develop general Social Distancing Policies for the EOC during use in future infectious disease responses.</p>
<p><b>EOC OPERATIONS AND COMMUNICATIONS</b></p>	<p><b>Improvement 6:</b> Develop triggers for the activation of a formal Policy Group and ensure the roles, responsibilities, and expectations of this group are clearly defined in policies and procedures. Ensure that a fundamental task of this group is long-term, strategic thinking within an emergency response.</p>	<p>Since 9/2021, SMC DEM had an informal conversation about Policy Group Structure during a response.</p> <p>Informal Policy Groups were practiced during the 22/23 Winter Storms and Half Moon Bay emergency incidents.</p>	<p>[List future planning efforts here]</p>



Chapter One Theme	Recommended Improvement	Deliverables Progress	Future Planning
		California Region II developed a MAC Guide to formalize a regional medical health MAC group.	
<b>EOC OPERATIONS AND COMMUNICATIONS</b>	<b>Improvement 7:</b> Make a concerted effort to integrate finance components into training and exercises to build capability and refine processes. Ensure finance best practices developed during the response are documented and incorporated into relevant plans and procedures.	SMC DEM completed the following trainings that included financial components and/or recovery. [insert list of trainings]  The EOC Finance/ Administration Section staff list has been expanded and includes [insert #] SMC employees who are trained to fill this role.	SMC DEM has regular and reoccurring trainings scheduled for SMC employees and OA partners that include financial components and/or recovery.
<b>EOC OPERATIONS AND COMMUNICATIONS</b>	<b>Improvement 8:</b> Create visual process charts and workflows illustrating how resource requests and information should flow through the EOC. Share these graphics with partner entities, Department Operations Centers (DOCs), and within the EOC. Resources could be added as Job Aids for each EOC position.	[List deliverables progress here]	SMC DEM will add visual process charts and workflows to the SMC EOP once Cal OES completes its EOP crosswalk review.
<b>EOC OPERATIONS AND COMMUNICATIONS</b>	<b>Improvement 9:</b> Convene EOC, Health DOC, and other relevant Incident Command staff from countywide departments to workshop ICS	SMC DEM has participated in the following exercises that included an ICS	SMC DEM will continue to invite all County Department leadership to regularly scheduled trainings and



<b>Chapter One Theme</b>	<b>Recommended Improvement</b>	<b>Deliverables Progress</b>	<b>Future Planning</b>
	organization structure and coordination and for all-hazard emergency events.	organization structure and coordination component: Rising Phoenix Exercise; BayEx; SMC Evacuation TTX; plus real-world incidents, including Half Moon Bay Shooting.	exercises. SMC DEM will improve County level partnerships by attending training and exercises facilitated by County Departments when invited.
<b>EOC OPERATIONS AND COMMUNICATIONS</b>	<b>Improvement 10:</b> Consider engaging primary Continuity of Operations Plan (COOP) and Council of Government (COG) representatives to ensure inter-agency infrastructure aligns with essential functions and roles/responsibilities of departments from across the County.	SMC DEM has selected a vendor through the RFI process to update SMC's COOP & COG	SMC DEM will have updated COOP and COG plans by [date]
<b>LOCAL, COUNTY, AND STATE COMMUNICATIONS</b>	<b>Improvement 1:</b> Expand ICS position training requirements and participation in regular intergovernmental exercises to positions across SMC, rolling up strategies to other County and state partners.	A training schedule has been developed, including 17 EOC specific trainings. [insert #] trainings have been provided to SMC employees as of 8/2023.  SMC DEM has participated in the following exercises that included an ICS organization structure	SMC has a target to provide [insert #] trainings to SMC employees by [date].  SMC DEM will continue to invite SMC Health and other SMC employees to regularly scheduled trainings and exercises.



Chapter One Theme	Recommended Improvement	Deliverables Progress	Future Planning
		and coordination component: Rising Phoenix Exercise; BayEx; SMC Evacuation TTX; plus real-world incidents, including Half Moon Bay Shooting.	
<b>LOCAL, COUNTY, AND STATE COMMUNICATIONS</b>	<b>Improvement 2:</b> Continue to exercise (e.g., tabletops, drills) regularly and often, focusing on themes of information sharing and reporting with intergovernmental partners for all-hazard incidents to strengthen communications and understanding of priorities for threats within the response continuum.	A training schedule has been developed, including 17 EOC specific trainings that all include a component of information sharing.  SMC has engaged Communications Team in recent exercises, including a JIC component with intergovernmental partners during the Rising Phoenix Exercise in 4/2023.	SMC DEM has regular and reoccurring trainings scheduled for SMC employees and OA partners that include information sharing and reporting with intergovernmental partners.
<b>LOCAL, COUNTY, AND STATE COMMUNICATIONS</b>	<b>Improvement 3:</b> Codify contact lists used for pandemic response and maintain these contact lists using a primary and secondary method for continuity purposes. This can be implemented for all-hazard emergencies and other high-likelihood threats for the County.	SMC DEM is in the process of updating internal and external partner lists.	SMC DEM will have updated internal and external contact lists by [date] that will be updated on a reoccurring schedule.



Chapter One Theme	Recommended Improvement	Deliverables Progress	Future Planning
<p><b>PUBLIC INFORMATION AND MESSAGING</b></p>	<p><b>Improvement 1:</b> Ensure information sharing is aligned with the EOC utilizing the proper chain of command outside of the EOC. Incorporate a tool to maintain situational awareness of regularly scheduled meetings. Include these in SMC Communication Plans, as appropriate.</p>	<p>The EOC was activated for real-world incidents, the 22/23 Winter Storms and Half Moon Bay Shooting.</p> <p>SMC DEM hired a staff member who will be responsible for engaging PIOs and supporting the Crisis &amp; Emergency Communications Response Planning.</p> <p>SMC's Communications Plan has components that directly relate to maintaining situation awareness during regularly scheduled meetings.</p>	<p>The VEOCI implementation will include contact lists for internal and external partners.</p> <p>SMC DEM will continue to train and exercise with SMC employees on information sharing and regularly scheduled meetings during EOC activation.</p>
<p><b>PUBLIC INFORMATION AND MESSAGING</b></p>	<p><b>Improvement 2:</b> Provide trained health educators to the Joint Information Center (JIC) during activation to provide public information and messaging health expertise.</p>	<p>A training schedule has been developed, including 17 EOC specific trainings.</p> <p>For each training, SMC Health has or will be invited through their Department Head.</p>	<p>SMC DEM will recommend to SMC Health that trained health educators be assigned to the JIC when public health or medical information is required in an incident.</p>





<i>Chapter One Theme</i>	<i>Recommended Improvement</i>	<i>Deliverables Progress</i>	<i>Future Planning</i>
<b>PUBLIC INFORMATION AND MESSAGING</b>	<b>Improvement 3:</b> When the JIC is activated, agree upon a standard vetting process for materials considering elements, such as type of document, timeline, hazard-threat, language, and publication resource/location.	[List deliverables progress here]	[List future planning efforts here]
<b>MEDICAL AND HEALTH OPERATIONS</b>	<b>Improvement 1:</b> Develop and implement required ICS training among staff throughout SMC.	A training schedule has been developed, including 17 EOC specific trainings. [insert #] trainings have been provided to SMC employees as of 8/2023.	SMC has a target to provide [insert #] trainings to SMC employees by [date].
<b>MEDICAL AND HEALTH OPERATIONS</b>	<b>Improvement 2:</b> Implement ICS to support the early establishment of chain of command, unified command, and organizational structures within any SMC established EOC/DOC.	A training schedule has been developed, including 17 EOC specific trainings that all include a component of the chain of command, unified command, and organizational structures.	[List future planning efforts here]
<b>MEDICAL AND HEALTH OPERATIONS</b>	<b>Improvement 3:</b> Identify robust health metrics that qualify and build upon existing epidemiological datasets to provide a holistic outlook on the effects of an infectious disease outbreak. Potential metrics may include unemployment, homelessness, chronic disease morbidities, and behavioral	SMC Health has begun to identify robust health metrics that qualify and build upon existing epidemiological datasets to provide a holistic outlook on the effects of an infectious disease outbreak.	[List future planning efforts here]



<i>Chapter One Theme</i>	<i>Recommended Improvement</i>	<i>Deliverables Progress</i>	<i>Future Planning</i>
	health outcomes, in addition to non-reporting statistics to identify gaps.		
<b>MEDICAL AND HEALTH OPERATIONS</b>	<b>Improvement 4:</b> Provide resources, facilitate training, or source personnel with data communication skills to reduce the gap between data interpretation and raw data.	[List deliverables progress here]	SMC DEM partner with SMC Health to provide resources, facilitate training, or source personnel with data communication skills to reduce the gap between data interpretation and raw data.
<b>MEDICAL AND HEALTH OPERATIONS</b>	<b>Improvement 5:</b> Incorporate health equity into the decision-making process and EOC structure and implement systematic health equity training in preparation for future crises.	SMC DEM has a project open to engage CBOs for MOU/MOAs to support the Whole Community Approach to All-Hazard social and economic impacts.	SMC DEM is seeking funding to support a dedicated FTE as a SMC DEM Equity Officer. SMC DEM will incorporate AFN into all planning needs.
<b>MEDICAL AND HEALTH OPERATIONS</b>	<b>Improvement 6:</b> Implement a MAC Group responsible for managing scarce resources into All-Hazard Emergency Operations Plan (EOP).	California's Medical Health Region II completed a Regionwide MAC Guide for All-Hazard events.	[List future planning efforts here]
<b>VACCINE MANAGEMENT AND DISTRIBUTION</b>	<b>Improvement 1:</b> Develop a deeper pool of reliable and identifiable clinical personnel who could consistently staff vaccination clinics and events. This may include incorporating consistent, non-volunteer staffing within vaccination and/or medical countermeasure planning.	A training schedule has been developed, including 17 EOC specific trainings. For each training, SMC Health has or will be invited through their Department Head.	[List future planning efforts here]



<i>Chapter One Theme</i>	<i>Recommended Improvement</i>	<i>Deliverables Progress</i>	<i>Future Planning</i>
<b>VACCINE MANAGEMENT AND DISTRIBUTION</b>	<b>Improvement 2:</b> Support the Health Department in mass vaccination training and exercise plan development and participate in mass vaccination exercises as they become available.	SMC DEM introduced ICS during COVID-19 Booster Clinics.  A training schedule has been developed, including 17 EOC specific trainings for SMC employees.	[List future planning efforts here]
<b>VACCINE MANAGEMENT AND DISTRIBUTION</b>	<b>Improvement 3:</b> Advocate for the identification of equity neighborhoods through the Health Department for planning and deployment in future emergency responses.	SMC DEM has assigned a single point of contact to engage CBOs to support this initiative.	SMC DEM is seeking funding to support a dedicated FTE as a SMC DEM Equity Officer.
<b>TESTING OPERATIONS</b>	<b>Improvement 1:</b> Establish a formal agreement with Verily to provide testing services and operation support for testing sites for future public health emergencies.	[List deliverables progress here]	[List future planning efforts here]
<b>TESTING OPERATIONS</b>	<b>Improvement 2:</b> Develop a deeper pool of ICS-trained personnel, which can be supported by volunteers in addition to public health staff who would be assigned roles to consistently staff testing sites. This may include incorporating non-volunteer staffing from across departments within the jurisdictions.	A training schedule has been developed, including 17 EOC specific trainings for SMC employees and partners, including volunteers.	SMC DEM has regular and reoccurring trainings scheduled for SMC employees and OA partners, including volunteers.



<i>Chapter One Theme</i>	<i>Recommended Improvement</i>	<i>Deliverables Progress</i>	<i>Future Planning</i>
<b>TESTING OPERATIONS</b>	<b>Improvement 3:</b> Establish a mass testing training and exercise plan to further develop capability within the jurisdiction.	SMC DEM has 250 pre-identified DSWs to support mass testing efforts for future incidents.	[List future planning efforts here]
<b>TESTING OPERATIONS</b>	<b>Improvement 4:</b> Develop a staffing and inclement weather contingency plan for testing operations that can quickly adapt to a future response based on all-hazard threats/hazards identified in the jurisdictional Threat and Hazard Identification and Risk Assessment (THIRA).	SMC has identified sites that are enclosed, including the SMC Event Center and Cow Palace.	SMC to work with CBOs/NGOs to expand the list of sites that can be used in mass testing/vaccination efforts.
<b>RESOURCE MANAGEMENT</b>	<b>Improvement 1:</b> Develop a resource catalogue of all internal and external resources ordered that includes the type and number of resources ordered during the pandemic. Use this as a reference for future public health and other emergencies to better predict resource needs.	[List deliverables progress here]	[List future planning efforts here]
<b>RESOURCE MANAGEMENT</b>	<b>Improvement 2:</b> Develop a master list of vendors engaged throughout the pandemic response, noting their services/product type, contact information, and other useful data. Review and update this master list yearly or as necessary.	[List deliverables progress here]	[List future planning efforts here]
<b>RESOURCE MANAGEMENT</b>	<b>Improvement 3:</b> Develop templates for vendor contracts for use in emergency	[List deliverables progress here]	[List future planning efforts here]



<i>Chapter One Theme</i>	<i>Recommended Improvement</i>	<i>Deliverables Progress</i>	<i>Future Planning</i>
	responses which include all documentation and other requirements.		
<b>RESOURCE MANAGEMENT</b>	<b>Improvement 4:</b> Maintain relationships formed during COVID-19 with partners who assisted in the resource management process through frequent communications and engagement in trainings and exercises. For example, integrate the Event Center into emergency exercises. Look for opportunities to integrate partner capability into steady-state operations to solidify partnerships and strengthen relationships. For instance, examine how 4Cs can support normal public health programming.	[List deliverables progress here]	[List future planning efforts here]
<b>RESOURCE MANAGEMENT</b>	<b>Improvement 5:</b> Meet with the Health Department to better integrate the EOC's and Health DOC's resource management processes to align expectations and better coordinate in future emergencies.	SMC DEM has met with SMC Health to support All-Hazard events.	SMC DEM will continue to meet regularly with SMC Health to support resource management during future emergencies.
<b>RESOURCE MANAGEMENT</b>	<b>Improvement 6:</b> Develop a countywide, comprehensive Distribution Management Plan in compliance with FEMA's Distribution Management Plan Guide 2.0 and as required by the Emergency Management Performance Grant (EMPG).	[List deliverables progress here]	[List future planning efforts here]



<i>Chapter One Theme</i>	<i>Recommended Improvement</i>	<i>Deliverables Progress</i>	<i>Future Planning</i>
<b>RESOURCE MANAGEMENT</b>	<b>Improvement 7:</b> Hold additional or incorporate into pre-planned exercises a greater emphasis on resource management and finance. Emphasize the documentation element of resource management to underscore the importance of this task moving forward and to establish documentation for financial reimbursement as a main priority in future incidents.	A training schedule has been developed, including 17 EOC specific trainings for SMC employees and partners, including components of documentation and financial reimbursement.	SMC DEM has regular and reoccurring trainings scheduled for SMC employees and OA partners, including components of documentation and financial reimbursement.
<b>CONTINUITY OF OPERATIONS</b>	<b>Improvement 1:</b> Establish a protocol for activating Disaster Service Workers (DSWs) to increase depth when managing an emergency.	[List deliverables progress here]	[List future planning efforts here]
<b>CONTINUITY OF OPERATIONS</b>	<b>Improvement 2:</b> For all responses, proactively discuss and implement a staffing structure where individuals are rotated out of response operations at regular, sustainable intervals appropriately supporting the incident and integrating continuity aspects to reduce burnout and allow staff to address steady-state responsibilities.	[List deliverables progress here]	[List future planning efforts here]
<b>CONTINUITY OF OPERATIONS</b>	<b>Improvement 3:</b> Attempt to develop a cadre of staff for reach-back support at least three individuals deep per EOC position, especially for the Finance and Admin positions, and rotate these individuals into response operations. This	A training schedule has been developed including 17 EOC specific trainings. [insert #] trainings have been provided to SMC employees as of 8/2023.	SMC has a target to provide [insert #] trainings to SMC employees by [date].





<i>Chapter One Theme</i>	<i>Recommended Improvement</i>	<i>Deliverables Progress</i>	<i>Future Planning</i>
	<p>may entail continued hiring and recruitment efforts.</p>		
<p><b>CONTINUITY OF OPERATIONS</b></p>	<p><b>Improvement 4:</b> Convene a team of subject matter experts to review the physical security of the EOC and identify possible vulnerabilities of the facility submitting a final assessment report for review by senior leaders of countywide departments to decide next steps for improvements.</p>	<p>[List deliverables progress here]</p>	<p>[List future planning efforts here]</p>



## Appendix C: Acronym List

**Table 5: Glossary of Acronyms**

<i>Acronym</i>	<i>Definition</i>
213-RR	Resource Request Form 213
AAR	After Action Report
DOC	Department Operations Center
DSW	Disaster Service Workers
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EUA	Emergency Use Authorization
HSA	Human Services Agency
ICS	Incident Command System
IP	Improvement Plan
IPP	Integrated Preparedness Plan
JIC	Joint Information Center
JITT	Just-in-Time Training
MAA	Mutual Aid Agreement
MOU	Memorandum of Understanding
PPE	Personal Protective Equipment
RSV	Respiratory Syncytial Virus
SMC	San Mateo County
SMC DEM	San Mateo County Department of Emergency Management
WHO	World Health Organization



## Appendix D: References

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## Appendix E: Key Contributors

Special thanks to the many individuals who contributed to the production of this report, many of whom lent their time and knowledge.

**Table 6: Key Contributors**

Name	Project Role
Kevin Foiles	SMC DEM Project Manager
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