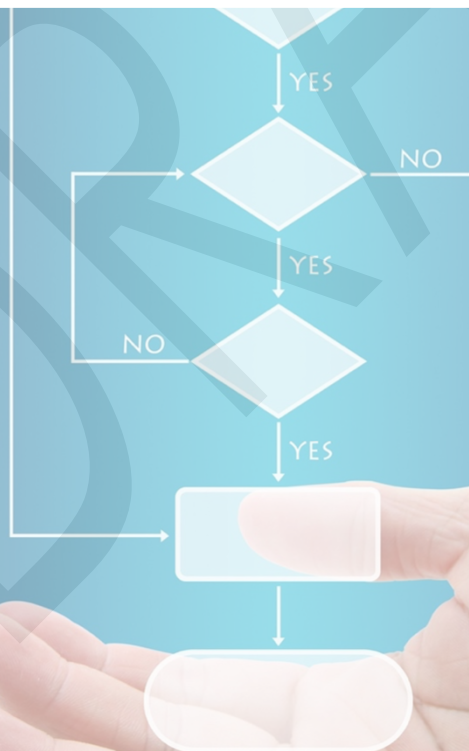


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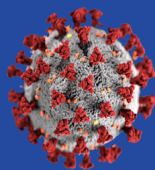
# MAC Group and Scarce Resource Allocation





## Version History

Version #	Date	Notes
0.1	5/4/2023	First Draft submitted to CPR team for review
0.2	5/30/2023	Final Draft submitted incorporating CPR team edits
0.3	6/26/2023	Final Draft submitted incorporating CPR leadership edits
1.0	5/1/2024	Final revised per CDPH Directorate review
1.1	3/3/2025	Final rebranded



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## 2. MAC Group and Scarce Resource Allocation

**Related Public Health Emergency Preparedness and Response Capabilities:** Medical Materiel Management and Distribution.

**Related CDPH AAR Chapters:** Resource Requesting and the Public Health Ordering System.

In this chapter, some abbreviations may be used interchangeably with their respective full spellings for ease of reading.

### Chapter Summary

#### Overview

*This section provides a high-level overview of milestones and activities.*

In early 2020, as the COVID-19 pandemic response accelerated, one of the first challenges CDPH faced was how to manage resource requests from California facilities for resources, especially personal protective equipment (PPE). With a shrinking stockpile and amidst a global supply shortage of N-95 masks, CDPH had to determine how to equitably allocate scarce supplies. To accomplish this, CDPH and its partners convened a Multi-Agency Coordination Group (MAC Group) at the California Governor's Office of Emergency Services (Cal OES) State Operations Center (SOC), which served as the central command and control facility for the statewide response. The MAC Group was comprised of representatives from CDPH, the California Emergency Medical Services Authority (EMSA), and Cal OES who were authorized to make decisions based on formal scoring criteria.

MAC Groups are well-established operating frameworks typically activated in fire and law enforcement emergency responses but not widely used in the public health and medical domains. MAC Groups operate in emergencies when resources are scarce and decision-makers need to allocate assistance equitably. Based on a well-established legal framework California maintains several guides that document MAC Group procedures and protocols, which are intended to maintain the objectivity, neutrality, and confidentiality of these processes.

Initially, the MAC Group team focused solely on adjudicating requests for N-95 masks. However, at various times in the pandemic many other resources



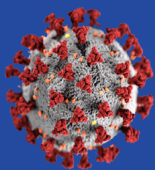
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became scarce. These supplies included gowns, contrast media, gloves, staffing, therapeutics, and durable medical equipment. As a result, different MAC Group teams were established to adjudicate different resources. Members cycled in and out of the group depending on which resources were scarce at a given time. Once a resource was readily available it no longer had to be adjudicated by the MAC Group, and requests were processed through the normal resource requesting process.

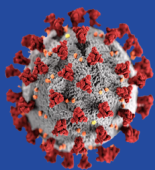
MAC Group team members experienced numerous successes and challenges in their work, which continued through 2020. A belief in their mission and a commitment to the integrity of the process unified the team. Following the rapid implementation of a new technology system, the MAC Group was better informed to handle the large volume of requests from California facilities. Initial challenges included lengthy validation processes that necessitated time consuming back-and-forth discussions with facilities. Later, interferences from contractors and response partners disrupted the Group's operations due to outside influences and pressures.

Especially in its first phase, the MAC Group was effective at allocating scarce, life-saving resources equitably and efficiently, despite the fact that this had never been done before in a public health and medical response. One leader noted, "it was an extremely successful group that should be memorialized and used over and over again in the future."



## Timeline and Key Milestones

	2020
Winter 2020	<ul style="list-style-type: none"><li>• <b>January:</b> First MAC Group team activated at Cal OES SOC to adjudicate N-95 masks</li></ul>
Spring 2020	<ul style="list-style-type: none"><li>• <b>March:</b> Additional MAC Group teams activated to adjudicate various resources, depending on scarcity</li><li>• <b>March – September:</b> MAC Group kept insulated; adjudicated resources effectively</li><li>• <b>April:</b> Cal OES implemented the Public Health Ordering System (PHOS)</li><li>• <b>May:</b> CAL FIRE representative brought in to ensure MAC Group principles were being followed and to negate external influences</li></ul>
Summer 2020	<ul style="list-style-type: none"><li>• <b>July:</b> MAC Group transitioned from in-person work at the SOC to remote operations</li><li>• <b>August:</b> MAC Group briefly returned to in-person work</li></ul>
Fall 2020	<ul style="list-style-type: none"><li>• <b>September:</b> MAC Group went fully remote</li><li>• <b>September – December:</b> MAC Group subjected to increasing external pressure and scrutiny</li></ul>
	2021
Winter 2020/2021	<ul style="list-style-type: none"><li>• <b>December/January:</b> Most members of original MAC Group departed; Cal OES started allocating resources</li><li>• <b>February/March:</b> Most resources no longer scarce; MAC Group demobilized</li></ul>



## Main Strengths and Successes

*This section describes the Main Strengths and Successes, including findings and corrective actions, related to this chapter. Further elaboration and a more detailed discussion of these strengths and successes can be found in the Analysis of Activities section.*

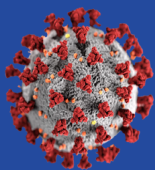
### **1. CDPH and its partners successfully established a MAC Group that adjudicated scarce public health and medical resources equitably and rapidly.**

From March to September 2020, the MAC Group functioned successfully and in alignment with its legal framework—as a highly confidential, independent unit entrusted with making decisions about what entities receive the State's scarce life-saving resources. The Group, including members from CDPH, EMSA, and Cal OES, was initially insulated from external influences and followed an equitable, standardized decision-making process according to scoring criteria. Although this process had never been used in a public health and medical response before, members quickly understood and respected the Group's function and mission. The Group developed reports, templates, tracking mechanisms, and processes that helped streamline its work. Sequestered in a room together for seven days a week, the Group successfully coordinated the rapid adjudication and delivery of scarce resources to local facilities in critical need.

Finding/Corrective Action: In future responses, CDPH and its response partners should follow the documented MAC Group framework and use the templates, reports, and other resources that it developed. (ID: MAC Group – 1)

### **2. The MAC Group used the new Public Health Ordering System (PHOS) to manage resource requests, which replaced manual processes, increased efficiencies, and streamlined coordination between state and local entities.**

Initially, the MAC Group tracked all resource requesting data manually, using a combination of Google Sheets, Excel, PDF, and email. The group quickly faced an overwhelming number of resource requests. In addition to struggling to maintain accurate data, the manual tracking process was time-consuming and detracted from the adjudication process. In



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April 2020, Cal OES used existing contracts to quickly implement a new technology solution, the Public Health Ordering System. PHOS integrated all resource requesting data into one system, enabled the MAC Group to process resource requests more efficiently, and enabled more accurate and timely data reporting. It also provided local and regional entities with instant access to the status of their requests. Leaders and team members expressed that the implementation of PHOS was instrumental to the MAC Group's ability to adjudicate scarce resources quickly.

Finding/Correction Action: In future responses, CDPH should maintain access to PHOS or a similar technology solution that can scale to accommodate large numbers of scarce resource requests. (ID: MAC Group – 2)

See the related finding *Resource Requesting – 1* in the Resource Requesting and Public Health Ordering System chapter in this AAR.





## Main Challenges and Lessons Learned

*This section describes the Main Challenges and Lessons Learned, including findings and corrective actions, related to this chapter. Further elaboration and a more detailed discussion of these challenges and lessons learned can be found in the Analysis of Activities section.*

### **3. The use of multiple informal communication channels led to duplicative efforts, frustration, delays, and lengthy deconfliction processes.**

When the size and scale of the COVID-19 pandemic overwhelmed traditional communication and resource requesting chains, facilities used other, unofficial communication channels to request resources from the State. Field-level entities and facilities had separate lines of communication from the local level to each state entity. Urgent requests came in via phone, email, and reports to different programs and levels within CDPH, EMSA, and Cal OES, and often contained duplicative or out-of-date information. The MAC Group spent a considerable amount of time “de-conflicting” the information it received to identify true need. This was easier when the Group met in-person at the SOC, however, when the Group began working remotely, deconflicting information took up more time. Additional consequences included frustration at the facility level regarding duplicative and inefficient state communication processes, and the bypassing of the Medical Health Operational Area Coordinators (MHOACs) and the Regional Disaster Medical Health Coordinators and Specialists (RDMHSs) in the communication chain.

Finding/Correction Action: CDPH, EMSA, and Cal OES should develop and document an improved communication protocol to handle urgent requests for scarce resources in future emergency responses. (ID: MAC Group – 3)

### **4. The lack of awareness and familiarity with standard MAC Group principles from programs, leadership, and response partners was problematic.**

Most State departments and agencies, including CDPH, have emergency management offices that are familiar with standard emergency response principles, including MAC Groups. However, this knowledge rarely extends beyond these offices or domains into other organizational areas. While the CDPH, EMSA, and Cal OES



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representatives who served on the MAC Group were familiar with emergency management, many staff and leaders from these departments and agencies—who were unfamiliar with and unaware of MAC Group processes—were interested in getting involved in its decisions. As a result, a large part of the MAC Group's time was spent explaining its purpose, justifying decisions, and answering questions instead of adjudicating life-saving resources. Additionally, this lack of familiarity contributed to other response partners regularly bypassing the MAC Group's established chains of communication, which contributed to confusion, delays, and duplicate work. There is a need for improved and more frequent training on MAC Groups and related emergency management systems for all response partners and at all levels of State government, including leadership.

Finding/Corrective Action: CDPH should continue its plan to develop MAC Group and related training for its organization, as well as explore collaborative training opportunities for other response partners. (ID: MAC Group – 4)

See the related finding *Resource Requesting – 6* in the Resource Requesting and Public Health Ordering System chapter in this AAR.

#### **5. While adjudicating requests, the MAC Group spent valuable time collecting data that had not been provided upfront. Once adjudication decisions had been made, the MAC Group was subjected to negotiation and bartering attempts.**

Each resource request that needed to be sent for adjudication by the MAC group required the creation of its own unique questionnaire form and scoring criteria. With so many differences between resources (e.g., therapeutics, PPE, and staffing), it was not possible to standardize forms. While the forms were detailed and designed to collect data points to inform the group's decision, the questions were too difficult for facilities to answer and many were left blank. As a result, the team devoted considerable time and effort coordinating with facilities in order to obtain information. Members noted there was no easy solution to this problem since the information needed for the MAC Group to make decisions is often customized based on the unique circumstances of each resource scarcity. After the MAC Group had made its decisions, unhappy stakeholders sometimes attempted to barter and negotiate to obtain a more favorable outcome. Team members found themselves



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drawn into attempted negotiations, which took up valuable time. SMEs noted the need to have executive leadership set expectations with local, regional, and state response partners at the outset regarding the objective, non-negotiable scoring process.

Finding/Corrective Action: CDPH should explore options to standardize the questionnaire forms to reduce their length and complexity. (ID: MAC Group – 5)

Finding/Corrective Action: In the future, at the outset, CDPH leadership should set expectations with stakeholders regarding MAC processes, emphasizing the objective scoring criteria and that decisions must be non-negotiable until more of the scarce resource becomes available. (ID: MAC Group – 6)



## Analysis of Activities

*This section summarizes and analyzes CDPH's major activities related to this chapter. It elaborates and provides more detail on the findings, corrective actions, and lessons learned that are presented in the Main Strengths and Successes and the Main Challenges and Lessons Learned sections.*

### Multi-Agency Coordination (MAC) System Adapted to Help Allocate Scarce Public Health and Medical Resources

- In normal emergency operations, the State follows SEMS, which is the cornerstone of California's emergency response system and the fundamental structure for the response phase of emergency management. SEMS, listed in [Emergency Services Act, Section 8607](#), is a legal framework that unifies all elements of California's emergency management community into an integrated system and standardizes key elements. Within SEMS, the MAC System provides the structure for multi-agency coordination.
- A key element of the MAC System is a MAC Group, which provides a legal framework for allocating scarce resources, which may include staff, equipment, materials, or other resources. California's processes and procedures for MAC Groups are well-documented in existing guidelines, including the [California Statewide Multi-Agency Coordination System Guide](#) and the [FIRESCOPE California Multi-Agency Coordination System Publication](#). The main responsibility of a MAC Group is to allocate limited resources as fairly and equitably as possible, using a formal legal structure to adjudicate resource requests. This work is often sensitive and controversial. Therefore, the pre-existing MAC Group framework includes procedures and pre-defined roles to protect the independence, objectivity, and neutrality of the adjudication process. The framework also serves to keep the group's work confidential and limited from outside influences. As one leader summarized it, MAC Groups serve a very specific function; by allocating scarce resources (usually life-saving), the group must "decide who lives and dies, and to do it in a process that is objective and fair." Given the high-stakes nature of this work, the MAC Group's formal structures, scoring criteria, and procedures are intended to protect individual members and agencies from litigation.
- MAC Groups have been more prevalent in the fire, emergency response, and law enforcement domains, and have not been historically used in



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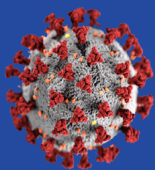
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public health and medical emergency responses. However, at the start of the COVID-19 pandemic, California experienced an enormous demand for PPE, especially N-95 masks, in the midst of a global supply shortage. As facilities began to request more N-95s than the State could supply, the State determined that it was necessary to establish a MAC Group to adjudicate this specific resource.

- To adjudicate decisions, they used the scoring framework that had been developed by the Policy MAC Group, which consisted of executive leadership from CDPH, EMSA, and Cal OES. In a MAC System, the Policy MAC Group is responsible for establishing the criteria that teams will use to judge and score resource requests with neutrality and objectivity. The scoring criteria is usually unique to each resource type. The purpose of the scoring tool was to create objectivity in decision-making by ensuring that allocation was determined based on total score rather than individual opinions. Changes to the form required a consensus from the MAC Group Directors. After the form was finalized, authority to use the form to adjudicate resources was delegated to SMEs.

#### First MAC Group Team Activated to Allocate Scarce N-95 Masks

- The first MAC Group team was established at the SOC and included representatives from CDPH and EMSA, each of whom had delegated authority to commit resources. During this first phase, the MAC Group focused solely on adjudicating requests for N-95 masks. The team worked around the clock, 7 days per week, and were located in a separate room to keep their work discreet; meals were brought to them so they could continue to work uninterrupted.
- The adjudication of N-95 masks was challenging as “quantities were changing all the time,” with companies donating masks to the State irregularly and new suppliers entering the worldwide market to sell masks, which could be faulty, counterfeit, or poor quality. In some cases, the State had to send notices to facilities retracting permission to use N-95 masks that had been distributed upon learning they did not meet the CDC National Institute for Occupational Safety and Health (NIOSH) standards. For further discussion see the Medical Surge chapter in this AAR.
- In late Spring 2020, the CDC extended the expiration date of many N-95 masks, and manufacturers began to produce more masks. Both of these



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factors increased the supply of N-95 masks. No longer a scarce resource, requests for these masks did not need to be adjudicated, and so the first MAC Group team disbanded.

#### Various MAC Group Teams Adjudicated Requests for Different Types of Scarce Resources

- In March 2020, Cal OES began activating additional MAC Group teams at the SOC, and CDPH SMEs were brought on to adjudicate different types of scarce resources. These included various types of PPE (e.g., gowns, gloves, face shields, etc.), durable medical equipment (e.g., ventilators), staffing, testing supplies, medications and therapeutics. Vaccine allocations did not go through the MAC Group. At certain points, each of these resource types were scarce. Given the unique characteristics of each resource type, different teams of SMEs were assigned to adjudicate each resource, all under the umbrella of the MAC Group. The work of these teams varied according to resource availability: during times of scarcity, requests would have to be adjudicated by the MAC Group teams, but when a resource was no longer scarce, the typical resource requesting process was followed.
- During this first phase, which lasted from approximately March 2020 to September 2020, the members agreed that the MAC Group was very successful and functioned as intended—with independence, confidentiality, trust, and discretion. With the work occurring all in one small room, communications were limited and the adjudication processes were protected from external influences and interruption. This contained environment facilitated trust and mutual respect among team members.
- Since the MAC System had not been used by in the public health and medical realm before, CDPH MAC Group team members were quickly brought up to speed on its framework, protocols, and procedures. CDPH team members from programs outside of the Center for Preparedness and Response (CPR) also quickly learned about typical resource requesting process according to SEMS. According to one leader, “we were a well-oiled machine almost right off the bat.” MAC Group team members were dedicated to understanding and fulfilling their specific functions within the group. During this first phase, the general atmosphere was one of trust and respect, as members recognized they were doing life-saving work that required close coordination. According to one





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leader, “folks were putting their egos aside and getting in and getting the work done.”

- The MAC Group did encounter small interferences during this phase in the form of requests for more information about the process from CDPH, EMSA, Cal OES, and State leadership. In May 2020, a CAL FIRE representative with extensive knowledge of MAC Systems, MAC Groups, SEMS, and ICS was brought in. Team members found the presence of CAL FIRE helpful, as this representative acted as a liaison between the MAC Group and State leadership, which enabled the MAC Group to focus solely on allocation work instead of addressing process questions. According to one SME, it is critical for someone “keeping us insulated from those conversations” from the very beginning. “Next time, we need to have someone in that role from the beginning,” another noted.

#### **Initial Manual Processes Replaced by a New Technology System, the Public Health Ordering System**

- In the early days of the COVID-19 response, the MAC Group processed resource requests manually and relied on email, Excel, and Google sheets. In early April 2020, Cal OES rapidly implemented a new technology solution, the Public Health Ordering System, which helped replace and expedite manual processes.
- For more information, see this chapter’s Data and Technology section below. For a discussion of the implementation of PHOS, see the Resource Requesting and Public Health Ordering System chapter in this AAR.

#### **MAC Group Teams Faced Initial Challenges, including Large Volumes of Requests and Lengthy Validation Processes**

- The MAC Group’s primary challenge during this initial phase was the sheer number of resource requests that required rapid allocation. Prior to COVID-19, CDPH Medical and Health Coordination Center (MHCC) operations team, which manages medical and health resource requests, would receive around 20 resource requests throughout the duration of a typical 2 to 4 week response. During COVID-19, the MHCC received hundreds of requests per day, many of which had to be sent to the MAC Group for adjudication. For instance, in April 2020, CDPH received almost 800 unique resource requests; in June 2020, it was over 2,000. In 2020, the MHCC received over 11,000 unique orders made up of 35,583 order line items.



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- In addition to adjudicating the requests it received from the MHCC team, MAC Group team members were also simultaneously responding to inquiries from leadership and other stakeholders about their work. Before the implementation of PHOS, a simple inquiry regarding how many resource requests CDPH received from a county could take hours to determine since it involved manual compilation. It was difficult to provide accurate, consistent data to leadership and local entities; it was also challenging to efficiently allocate resources, as the team frequently relied on the previous day's inventory levels. SMEs reported that they sometimes erroneously distributed resources that they no longer had in supply.
- Additional challenges arose due to the complex scoring forms, which were designed to help MAC group members objectively assess and compare requests. However, each different resource type (e.g., staffing, PPE) had its own unique form, which was often detailed and comprehensive. The forms helped the team determine the allocation of resources based on community and facility impact from COVID-19. Forms included number data points and metrics, such as the 7-day case rate, percent of ICU beds available, population density, and percentage of the population over 65 years. Questions were formulated to understand a facility's core issue so the MAC Group could extend resources as far and creatively as possible.
- However, overwhelmed with the local level COVID-19 response, many facilities and field-level entities left these questions blank. The questions on the form were often too complex and misaligned with the underlying issues. At the county and regional levels, validation processes were not occurring; overwhelmed MHOACs and RDMHSs forwarded the requests directly up to the State instead of first validating the request and attempting to fill it regionally, per the usual process. As a result, the MAC Group team members often had to work directly with facilities to validate the request and determine their true needs. For example, according to one SME, a facility would ask for "100 blue widgets," but the State could only offer "50 yellow widgets," and so the teams would go back-and-forth with the facility to determine if what the State was offering would partially fill the need. Other times, facilities would submit unreasonable requests, such as a request for 1,000 nurses. The State would then need to work individually with the facility to identify its true need, before determining which resources it could offer. "That's where a lot of the time got soaked up – validating those resources," one SME noted.





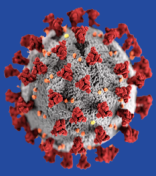
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- To secure resources, requesters used a variety of challenging tactics, including requesting unreasonable amounts of resources that the MAC Group had to respond to. According to one SME, many entities “played the numbers game” by inflating their requests in the hopes of securing more resources—e.g., requesting 5 million with the goal of obtaining 2 million. In general, according to emergency management principles, MAC Groups are not supposed to second-guess requests: “if someone says they need something, we take their word for it,” one SME noted. However, with many unreasonable requests coming in (e.g., for 1 billion masks), the MAC Group devoted considerable time to processing these requests or offering alternatives. Rather than simply denying requests, “we ended up negotiating back and forth, doing our best to spread the resources as evenly as possible,” one SME noted.
- Team members noted that creating the questionnaire forms in collaboration with local stakeholders could have helped somewhat to determine true need and limit time-consuming follow-up communications. Additionally, often the questionnaire forms are so resource-specific that they defy standardization. For instance, the data needed to adjudicate resource requests for staffing, PPE, and contrast media is very different. While team members expressed a desire to create a “blanket” questionnaire form, they also acknowledged this was not realistic. Ultimately, it was critical to staff the MAC Group teams appropriately to handle the workload associated with communicating back-and-forth with facilities regarding their requests.
- Another challenge involved managing the timing of requests. Entities requested resources on a rolling basis, so it was difficult for the MAC Group to forecast supply and demand and allocate equitably. The MAC Group had to adjudicate resources as they came in, while avoiding a “first come, first served” system. According to one SME, “we were trying to be as generous as possible with an eye to the future, which was unknown.”

#### Unique Challenges Arose When Adjudicating Scarce Staffing Resources

- Starting in April 2020, the MAC Group began adjudicating scarce staffing resources, which was a unique resource with unique challenges. During this initial period, the types of staffing resources that were available included the U.S. Navy, the U.S. Army, the California National Guard, EMSA CAL-MAT, and California Health Corps. Due to the urgent nature of



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requests, most of which came from distressed Skilled Nursing Facilities (SNFs), the MAC Group began deploying staff without having a system built to track them. One SME noted, “we were flying the plane, and then we built it.” Many resource requests for staffing were urgent and immediate, with facilities’ needs for help measured in a matter of hours. The MAC Group knew that in some instances, they needed to provide staffing within hours, since “people’s lives were on the line and some were dying in the hallways.”

- Adjudicating, coordinating, and supplying staffing was logistically complex. When deciding where to deploy teams, the MAC Group had to factor in travel time for and determine the most efficient way to get teams to facilities. In their decisions, they also had to consider the current status of individual staffing teams, since teams had to wait and test negative for COVID-19 before they could be re-deployed. The MAC Group tracked staffing resources in real-time using a physical whiteboard at the SOC, which worked well since all team members worked in the room together. Members noted that even though there was no electronic system, “we just knew in our heads” the status, availability, and location of the various staffing teams at all times. The group made allocation decisions using the physical whiteboard and later transferred the information into Excel and PHOS for daily reporting purposes. Contractors assisted with researching, data gathering, and reporting.
- The MAC Group’s intimate knowledge of the real-time location of staffing resources resulted in specific successes. In one instance, the MAC Group was able to divert and redirect a staffing team to a nearby facility in need of immediate assistance. The staffing team, in transit to Sacramento, pulled over on the road, waited for detailed instructions, and then immediately proceeded to the facility. This one instance exemplifies the overall work of the MAC Group staffing team, which was strategic, decisive, and quick-acting.
- In summer 2020, the next phase of staffing resource adjudication began. Instead of deploying all of the federal and State government teams to SNFs, the MAC Group began receiving more staffing requests from hospitals. With government teams depleted, the State began supplying contract staffing (e.g., staff provided by third-party contractors). New logistical challenges arose during this next phase, as some out-of-state contract staffing teams lacked knowledge of California’s geography and



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public health system, which led to delays and unsuccessful deployments. In one case, when a contract staffing team realized they could not take a taxi from San Francisco to a deployment in Ferndale, this caused delays in service delivery. These delays were especially impactful in rural counties that often had only one hospital to rely on.

- Overall, however, the adjudication of scarce staffing resources was successful. When facilities requested resources through the MAC Group, the State was typically able to deploy staffing in 24-48 hours.
- For a discussion of medical surge staffing, including more details on the various staffing pools, see the Medical Surge chapter in this AAR.

#### **Second Phase of the MAC Group Began in Fall 2020 With Additional Scrutiny and Operational Changes**

- Starting in September 2020, the MAC Group moved into its second phase and group members found themselves under more scrutiny from leadership and external partners. This phase marked a significant shift in the MAC Group's operations and effectiveness as its activities became increasingly debated. This was primarily due to the challenges for all of the parties to understand the purpose of the MAC Group and how decisions should be adjudicated. While the system is clear-cut and well documented, in reality many decisions had to be made in an ambiguous and nuanced environment that sometimes exceeded the specifications of the MAC Group operating parameters.
- The MAC Group welcomed assistance from the contractors in data reporting, information-gathering, and research support. Contractors collected and maintained resource allocation data and provided daily reports to leadership. Given the volume and urgency of scarce resource requests, this support enabled the MAC Group to concentrate on its urgent adjudication work without distraction. One SME noted, "it was a tremendous help for us," in part because the contractors understood their role to support the Group's decision-making. SMEs indicated that it was helpful in a MAC Group setting for contractors to help with data reporting, research, and administration tasks.
- Since this was the first time that a MAC System and a MAC Group had been used in a public health and medical emergency response, leadership was not always familiar with the framework and operating norms. The team was committed to keeping the integrity of the MAC



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Group despite its exposure to outside influences. However, the team did not always feel supported on this goal. For future response, team members indicated that an important lesson learned was the need for leadership to better understand a MAC Group's purpose and its formal structures. "They need to understand, enforce, and protect the integrity of the MAC Group and its people," one SME summarized.

#### **MAC Group Transitioned from Scarce Resource Allocation to Fulfilling Resource Requests**

- The final phase of the MAC Group began in January 2021. Since most resources were no longer scarce, the group switched from the formal adjudication process to simply approving resource requests according to normal processes. At this time, most members of the original MAC Group were no longer in their roles. The MAC Group demobilized in March 2021.

#### **CDPH Learned and Utilized a MAC Group System, which was Historically Rarely Used in State Medical/Health Operations**

- Prior to COVID-19, the standardized MAC System, which included MAC Groups, were used primarily by fire, emergency, and law enforcement domains to address adjudicate scarce resources during emergencies. Many CDPH staff had never heard of MAC Groups or their role in emergency response. While EMSA was able to fill this operational gap, leaders reported that CDPH training on the MAC Group process would have streamlined the process of distributing resources. Many maintained that such training should be added to CDPH's emergency operational manual and relevant exercises.
- Despite CDPH having not used these systems before, ultimately the public health and medical response teams successfully used it to respond to COVID-19. One leader noted, "I applaud everyone in the group for that, and MAC Groups should be a part of future playbooks."

#### **Various Task Forces, Leadership Teams, CDPH Programs, and other State Response Partners Were Unfamiliar with the SEMS Process for Resource Requesting**

- Statewide, SEMS provides a clear and consistent communication structure across all government response levels and a standardized framework for resource requesting. In addition, entities are required to comply with SEMs when submitting resource requests in order to be eligible for

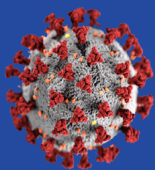


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reimbursement of response-related costs under California's disaster assistance programs. The SEMS chain consists of five consecutive organization levels—Field, Local, Operational Area, Region, and State. Resource requests start at the field level (e.g., dispatch, EMS providers, hospitals, healthcare providers) and moves up the chain through MHOACs and RDHMSs, who first attempt to locate resources regionally before turning to the State for resources. For more information, see the Resource Requesting and Public Health Ordering System chapter in this AAR.

- However, due to a variety of reasons, SEMS was not followed consistently. One of the biggest factors was a lack of knowledge and awareness of its existence by various task forces, other CDPH programs, State leadership teams, and other response partners. Due to the “whole of government” response, many different teams both in and outside of CDPH were quickly stood up to respond to the pandemic. However, these other stakeholders, who did not possess backgrounds in emergency management principles, often communicated directly with field-level entities and each other regarding scarce resource requests. In doing so, they bypassed the MHOAC and RDMHS levels, leading to confusion, delays, and duplication of effort.
- SMEs agreed that one of the biggest lessons learned was educating all response partners at all levels and departments on the SEMS process, including providing refresher training and reminders of the different roles of local, regional, and State partners. “It’s the biggest takeaway: educating everybody at every level on SEMS and ICS,” one leader noted.
- CPR recognized the confusion resulting from other CDPH programs’ lack of education on SEMS and ICS. Plans are currently underway for CPR to develop and provide training to the rest of CDPH on these topics.
- For further discussion, see the Operational Organization chapter in this AAR. For a discussion of these topics from a local perspective, see the MHOAC and RDMHSS chapter in this AAR.

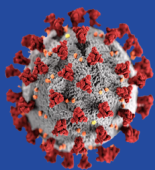


## Equity

*This section discusses equity considerations specific to this chapter.*

- Equity was a guiding principle of the MAC Group, as its mission was to adjudicate scarce resources equitably across California. From the beginning, resources were adjudicated according to standardized criteria that were based on a number of resource-specific variables. Working off a scoring guide developed by leadership in the Policy MAC Group, team members adjudicated resources so that decisions were systematic and objective.

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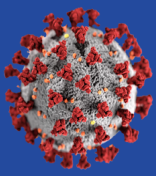


## Data and Technology

*This section discusses data and technology needs specific to this chapter.*

- In the initial stages of the response (in Spring 2020) the MAC Group lacked an electronic system to track resources. Team members used Google sheets to process requests and would transfer them to Excel spreadsheets, where information was aggregated until the team's eventual transition to a more sophisticated system, the Public Health Ordering System
- In April 2020, Cal OES implemented the PHOS system to track all resource requests (both scarce and non-scarce), which provided a real-time dashboard, improved data accuracy and reporting, and more efficient workflows. Various MAC Group scoring tools, forms, and questionnaires were incorporated into PHOS, enabling the State to better communicate with field-level requestors, MHOACs, and RDMHSs. State staff agreed that the implementation of PHOS was an unequivocal success that enabled it to handle the large volume of resource requests and streamline the adjudication process. According to one SME, the PHOS system “really saved us.”
- For more information on PHOS, see the Resource Requesting and Public Health Ordering System chapter in this AAR.





## Communications

*This section discusses communications specific to this chapter.*

- The official SEMS communications chain for resource requesting was fragmented and overwhelmed by the size of the COVID-19 response. At the regional levels, overwhelmed MHOACs and RDMHSs sometimes did not validate resource requests or attempt to fill them regionally (as discussed earlier). Instead of following the SEMS chain of resource requesting, they pushed requests directly up to the State. The State began receiving requests directly from facilities and other field-level entities. The MAC Group was then left to “back-notify” the regional jurisdictions of these requests, according to one SME. “We were doing double-duty trying to notify MHOACs and RDMHSs what was actually taking place in their counties,” another noted. This took valuable time away from allocating scarce resources.
- At the state level, the official requests for resources through PHOS were often preceded by requests that arrived through unofficial communications channels, such as phone calls and emails. CDPH, EMSA, and Cal OES all maintain separate duty officer programs with their own connections to field-level facilities and entities, which provides multiple communication channels. In some instances, each of these programs would reach out to the same facility, speak with different representatives at the facility, and receive three different answers. Ultimately, facilities grew frustrated at having to provide duplicate information, and the MAC Group devoted significant energy to “deconflicting” the information it had received from so many different sources. When the MAC Group was working in person at the SOC, deconflicting information worked smoothly, however when the Group transitioned to remote work, this became much harder and took more time. SMEs reported that valuable time was used trying to figure out whether or not an issue was already being addressed. According to one SME, “70% of my time was calling people making sure that we were on the same page.” This caused frustration at the State and local levels, as facilities were unsure of the best path to escalate issues.
- Team members indicated a need for more efficient and non-duplicative communication channels between CDPH, EMSA, and Cal OES to reduce the time spent deconflicting information, reduce duplication of effort, and improve accuracy.



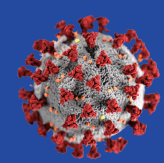


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- Additionally, there was a need for better communication from Directorate-level leadership to set expectations around MAC Group processes, and to help stakeholders understand that their requests were being sent for adjudication and may—or may not be—fulfilled. Some groups, unhappy with MAC Group decisions, would attempt to campaign, negotiate, and broker deals via various channels. The MAC Group “fended off” these protests, which bogged down the Group in weeks-long negotiations. Ultimately, team members felt it was unfair to leave it exposed in this way. It would have been helpful to have communication from executive leadership reinforcing the MAC system objective scoring process and the fact that not all requests would be filled.

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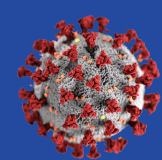
## Workplan

*This section is designed to be used as a workplan for future pandemics.*

Definitions:

- **Phase:** The phase of the response in which the major tasks should be conducted (Planning; Initial start-up, Ongoing operations, or Close-out).
- **Major Tasks:** The tasks and activities that have to be conducted as part of the public health emergency response to a respiratory pandemic.
- **Success Criteria:** Criteria used to assess whether a task has been achieved successfully.
- **Considerations Based on COVID-19 Response:** Things to consider, including pitfalls, risks, and lessons learned, based on the COVID-19 response.
- **Finding ID:** The ID(s) from the related Finding/Corrective Action (where applicable).

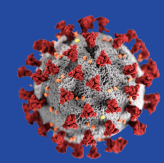
Phase	Major Tasks	Success Criteria	Considerations	Finding ID	Lead
<b>Planning; Initial start-up</b>	Establish a MAC Group to adjudicate scarce public health resources	<ul style="list-style-type: none"><li>• Resources are adjudicated equitably and rapidly based on need and availability</li><li>• MAC Group functions according to established standards</li></ul>	<ul style="list-style-type: none"><li>• Refer to the existing documents and guides on MAC Systems and Groups</li><li>• Create a structure to maintain integrity, neutrality, and confidentiality of the MAC Group</li></ul>	<ul style="list-style-type: none"><li>• MAC Group 1</li></ul>	<ul style="list-style-type: none"><li>•</li></ul>



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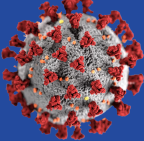
Phase	Major Tasks	Success Criteria	Considerations	Finding ID	Lead
			<ul style="list-style-type: none"><li>• Limit reporting on MAC Group activities to a small circle</li><li>• Ideal set-up for the MAC Group is in person (not remote)</li><li>• Leverage the report templates and resources developed during COVID-19</li></ul>		
<b>Planning; Initial start-up; Ongoing operations</b>	Develop questionnaire forms for different resource types	<ul style="list-style-type: none"><li>• Incoming resource requests contain the information needed for adjudication</li></ul>	<ul style="list-style-type: none"><li>• Facilities found questionnaires complex and hard to complete</li><li>• Consider developing a questionnaire template with some standard elements (if possible)</li><li>• Consider revising staffing questionnaires to better help facilities express their true need</li><li>• Save the COVID-19 questionnaires used for future responses</li></ul>	<ul style="list-style-type: none"><li>• MAC Group 5</li></ul>	<ul style="list-style-type: none"><li>•</li></ul>
<b>Planning; Initial start-up; Ongoing operations</b>	Offer training on SEMS, resource requesting, and MAC Group processes to all levels of stakeholders	<ul style="list-style-type: none"><li>• All response partners have understanding and respect for the critical nature of the work</li><li>• MAC Group is not diverted from its</li></ul>	<ul style="list-style-type: none"><li>• Different types of training will be required for different audiences, including:<ul style="list-style-type: none"><li>– MAC Group team members</li></ul></li></ul>	<ul style="list-style-type: none"><li>• MAC Group 4, Resource Requesting 6</li></ul>	<ul style="list-style-type: none"><li>•</li></ul>



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Phase	Major Tasks	Success Criteria	Considerations	Finding ID	Lead
		<ul style="list-style-type: none"> <li>work by the need to explain or justify its existence</li> <li>MAC Group is insulated from external pressures</li> </ul>	<ul style="list-style-type: none"> <li>Executive leadership (CDPH, EMSA, Cal OES)</li> <li>Other CDPH programs</li> </ul>		
<b>Planning; Initial start-up; Ongoing operations</b>	Maintain an agile technology system with the ability to ramp up quickly	<ul style="list-style-type: none"> <li>System can scale up and down to accommodate changing volumes</li> <li>Data reporting is accurate and timely</li> <li>System is flexible and can integrate with other tools</li> </ul>	<ul style="list-style-type: none"> <li>Note that Cal OES currently owns the Public Health Ordering System</li> <li>CDPH, MHOACs, RDMHSs, and others are users of the system</li> </ul>	<ul style="list-style-type: none"> <li>MAC Group 2, Resource Requesting 1</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Initial start-up; Ongoing operations</b>	Establish and streamline communications according to SEMS	<ul style="list-style-type: none"> <li>Response partners follow established communications chains</li> <li>Communication is timely, accurate, and efficient</li> <li>Communication from executive leadership sets expectations</li> </ul>	<ul style="list-style-type: none"> <li>Discourage unofficial channels</li> <li>Promote the benefits of using SEMS</li> <li>Explore ways for the duty officer programs maintained by CDPH, EMSA, and Cal OES to better communicate</li> <li>Avoid making the MAC Group responsible for communicating and defending its decisions</li> </ul>	<ul style="list-style-type: none"> <li>MAC Group 3, MAC Group 6</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Initial start-up; Ongoing operations</b>	Staff the MAC Group appropriately	<ul style="list-style-type: none"> <li>MAC Group is appropriately staffed to fulfill its mission</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that MAC Group members are 100% dedicated and freed from their regular duties</li> </ul>	<ul style="list-style-type: none"> <li>MAC Group 1</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>



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Phase	Major Tasks	Success Criteria	Considerations	Finding ID	Lead
			<ul style="list-style-type: none"><li>• Ensure members have the proper delegated authority</li><li>• Use contractors in supportive and administrative roles</li></ul>		

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