BAY AREA URBAN AREA SECURITY INITIATIVE

PANDEMIC PREPAREDNESS SCARCE RESOURCE DECISION-MAKING TOOL

May 2023

CONSTANT ASSOCIATES

Record of Changes

Version	Date of Change	Summary of Changes	Name/Title	Agency/Organization

Executive Summary

The Regionwide COVID-19 After Action Report (AAR) completed by the Bay Area Urban Areas Security Initiative (UASI) revealed the scale and impact of scarce resources throughout the region. In contrast, the scarcity of critical resources also revealed the incredible ingenuity and problem-solving exhibited by Bay Area Jurisdictions. There were many factors causing the scarcity: impacted supply chains, rapidly changing health orders, volume of requests, preemptive or over ordering, competition between governments, expired caches, inadequate planning, etc.[1]

To solve these problems, jurisdictions leveraged internal expertise and relationships with partners to fill resource gaps created by the pandemic. Examples include creating new inventory management systems, scarce resource allocation protocols, identifying ad-hoc warehouse space, modifying resource request forms, establishing new partnerships, and securing new procurement pathways. Successfully mitigating scarcity required strong logistics sections, leadership from Emergency Management and Public Health departments, and embracing transparency. Several notable best practices emerged:

- Prior engagement, relationship-building, and training with the Medical Health Operational Area Coordinators (MHOAC) and Regional Disaster Medical and Health Coordinators/Specialists (RDMHC/S) facilitated resource requests and Operational Area (OA) coordination for supply chain and scarce resource issues.
- Resource information sharing, communication, and transparency with local stakeholders and healthcare coalitions was the best tool for scarce resource allocation to manage expectations and forecast future supply needs.
- Tracking scarce resources with a dashboard that visually represented Periodic Automatic Replenishment (PAR) levels of scarce resources aided transparency and coordination across partner entities.

The Scarce Resource Decision-Making Tool represents the compilation of those experiences, lessons learned, and best practices from regional jurisdictions to be used to mitigate the impact of scarce resources in future pandemics. This is accomplished by integrating elements of these processes into the Tool to create more efficient information flows and decision-making at both the jurisdictional and regional level. The Tool maps out the flow of scarce resource requests during pandemics both internally and externally. The visualizations of these processes highlight key decision points followed by details of information needed and options to satisfy the request.

This Tool is not meant to override any State-wide guidance including the Emergency Operation Plan or State-wide Multi-Agency Coordination System (MACS) Guidance. It is intended to complement internal jurisdictional processes and plans, the Mutual Aid Region II Medical & Health Multi-Agency Coordination Guide (2023), MAC Group guidance, the California Standardized Emergency Management System (SEMS), and the California Department of Public Health (CDPH) Emergency Operations Manual (EOM).

[1] Bay Area UASI. Regionwide COVID-19 After Action Report. December 30, 2022.

This document was prepared under a grant from FEMA's Grant Programs Directorate, U.S. Department of Homeland Security, Regional Catastrophic Preparedness Grant Program. Content does not necessarily represent the official position or policies of FEMA's Grant Programs Directorate of the U.S. Department of Homeland Security.

Table of Contents

Introduction

Purpose

The purpose of the Tool is to aid in planning for scarce resource allocation scenarios. It is intended to support responding to pandemics by identifying decision-making points during resource requesting and scarce resource allocation. This Tool does not replace the guidance, plans, process, or procedures from local jurisdictions, Mutual Aid Region II, or the State. In addition, this Tool does not apply to Crisis Standards of Care used in healthcare facilities, Strategic National Stockpile (SNS) assets, or other federal resource allocations.

Scope

The Tool focuses on resource requesting and scarce resource allocation at the Bay Area UASI member jurisdiction level from both the emergency management and public health perspectives during a pandemic in an Emergency Operations Center (EOC) and/or Department Operations Center (DOC) response environment. It will also explore challenges faced by jurisdictions submitting and receiving resource requests and possible solutions.

Intended User

This Tool is intended for the 14-member jurisdictions of the Bay Area UASI and stakeholders who may contribute to the overall preparedness of the region. Much of the content is based on the combined perspectives of public health and emergency management with internal and external resource requests.

Member jurisdictions of the Bay Area UASI include the major cities of Oakland, San Francisco, and San José. Additionally, the Bay Area UASI encompasses the following counties:

- Alameda
- Contra Costa
- Marin
- Monterey
- Napa
- San Benito
- San Francisco
- San Mateo
- Santa Clara
- Santa Cruz
- Solano
- Sonoma

Organization

This Tool is organized into three main sections with accompanying appendices and attachments:

I. Scarce Resource Requests and Allocation Best Practices

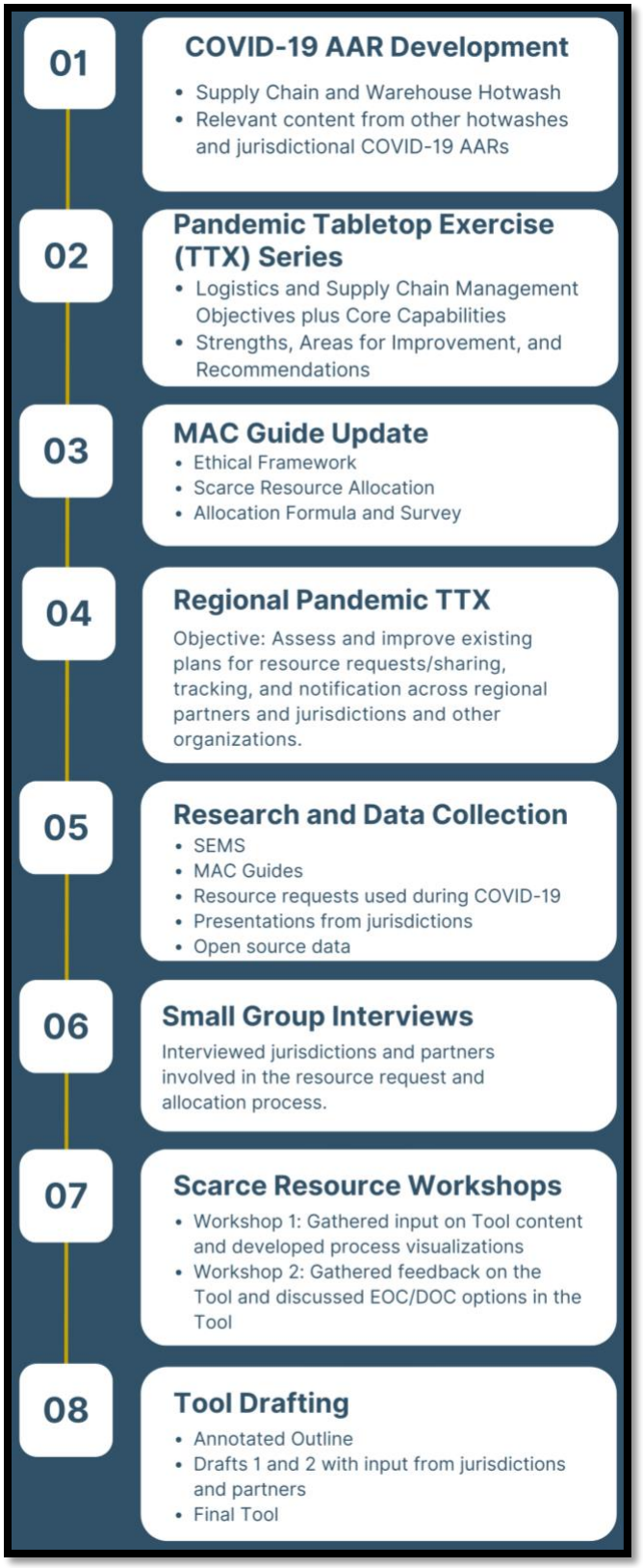
How to Use this Document

To effectively use this Tool, the user should first review the complete document (described above) to obtain a general understanding of the expected scarce resource request and allocation process during a pandemic. Following this review, the user should review their internal processes for additional steps and requirements. Once both reviews are completed, the user can use the Tool to guide planning and decision-making when receiving requests and identifying alternatives to satisfying a request when resources are scarce. The Tool visualizes common internal request processes with the external process for scarce resource allocation. This includes discussion of Essential Elements of Information (EEI) to reduce request delays and options to fulfill a request when it is denied or partially completed.

Tool Development Process

The Tool was part of the Bay Area UASI Regional Pandemic Preparedness Project (2021-2023). As such, it was developed in multiple phases that interwove tasks and outcomes from throughout the project. As the contracted firm to manage the project, Constant Associates (CONSTANT) facilitated the development of the Tool through interviews, research data collection, report creation, and finalization of the Tool. CONSTANT is a third-party, private sector emergency management and public health preparedness consulting firm.

The graphic on the right outlines the development phases or project tasks and the core content that was used to create this Tool. The bullets under each phase or task indicate elements that were included or influenced the content added to this Tool. For example, the TTX Series and Regional TTX included objectives related to logistics and resource requests. The subsequent discussions, including best practices and lessons learned, influenced which best practices were included. During the Small Group Interviews, jurisdictions discussed resource request and allocation processes and experiences during all types of responses, including the COVID-19 pandemic. The included visualizations are an amalgamation of those discussed processes and experiences.



Special Thank You

Members of the below organizations participated in the small group interviews, workshops, and review of the Tool. Bay Area UASI would like to extend a special thank you for their participation in the development of this Tool. By participating and providing their subject matter expertise the Tool was developed to reflect the best of the Bay Area.

- Association of Bay Area Health Officers (ABAHO)
- Alameda County Sheriff's Office - Office of Emergency Services
- California Department of Public Health (CDPH)
- City and County of San Francisco Department of Emergency Management
- City and County of San Francisco Department of Public Health
- City of Berkeley
- City of Oakland Fire Department
- City of Oakland Emergency Services Division
- Contra Costa Health Services
- Marin County Sheriff's Office - Office of Emergency Services
- Marin County Department of Health and Human Services
- San Benito County Office of Emergency Services
- San Mateo County Emergency Medical Services Agency
- Santa Cruz County Emergency Medical Services
- Santa Cruz County Health Services Agency
- Stanford Health
- Watsonville Community Hospital

Document Assumptions

The following assumptions guided the development and review of this document:

- Although there are many similarities among the OAs in the Bay Area, each one is unique with its own emergency management programs and plans. The authority outlined in approved state and local emergency management plans and policies supersedes the processes or guidance in this Tool.
- Susceptibility to a pandemic is universal and requires regional coordination and cooperation to respond effectively.
- Activities to support regional coordination are not reimbursable outside of formal mutual aid agreements.
- Unique circumstances of a pandemic may prevent the implementation of Tool components or require actions that are significantly different from those described.
- All Bay Area jurisdictions align with the systems, concepts, and structures in SEMS.
- A variety of terms are utilized within this document to refer to the populations and/or individuals of focus. This reflects the variety of terms utilized across the sectors, agencies, and experts.
- This Tool is not intended to be utilized for all resources but instead focuses on scarce resources.
- Standard resource requesting procedures are already in place and should be followed. These procedures are in accordance with SEMS and the National Incident Management System (NIMS).
- The requestor may be unable to obtain resources within a reasonable time frame from vendors, contractors, memoranda of understanding (MOU)/ memoranda of understanding (MOA), corporate offices, and other non-traditional sources.
- Attempts at conservation, reutilization, adaptation, and substitution have been performed maximally.
- The first request received does not automatically get the resource.
- Not all available scarce resources may be immediately allocated or distributed in anticipation of how the pandemic may develop.
- Allocation may be impacted by whether more of the resource or alternate resource becomes available, based on pandemic projection and needs.

Scarce Resource Requests and Allocation Best Practices

Scarce Resource Ethical Frameworks

Ethical frameworks, considerations, and guidelines provide the core parameters for the allocation of scarce resources in a fair and just manner. Jurisdictions may have established ethical frameworks associated with the functions of their Policy Groups and/or MACS. Users of this document are encouraged to follow OA established frameworks. Included below are the Region II Medical & Health (MH) MAC Guide and California Governor's Office of Emergency Services (Cal OES) MACS Guidance on ethical frameworks. These are provided to help jurisdictions understand ethical frameworks used for scarce resource allocations once a resource request has been elevated beyond the OA.

Region II Medical & Health MAC Guide

The Region II M/H MAC Guide includes a decision-making framework for scarce resource allocation describing ethical values for MAC Group members. The Region II M/H MAC Group applies these values, with special emphasis on consistency and transparency, in making policy and resource allocation decisions to achieve its mission of doing the **greatest good for the greatest number for those at greatest risk.** The values are listed in the following table.

Ethical Value	Definition
Accountability	Individuals and organizations are responsible for their actions and may be required to explain them to others
Apolitical	Politically neutral; without political attitudes, content, or bias; not concerned or connected with political matters
Beneficence	Literally, doing good; implies acting in the best interest of the population or society as a whole
Consistency	Conformity in the application of something, typically that which is necessary for the sake of logic, accuracy, or fairness
Duty to Care	The responsibility or legal obligation of a person or organization to avoid acts or omissions that could likely cause harm to others
Equity	The absence of unfair, avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically or by other dimensions of inequality (i.e., sex, gender, ethnicity, disability, or sexual orientation)
Fairness	The state, condition, or quality of being fair, or free from bias or injustice
Inclusiveness	The notion that health services should be equally accessible to all regardless of age, sex, sexual orientation, gender identity, or marital status
Justice	The fair distribution in the population of benefits and risks
Proportionality	The idea that responses should be proportional to the good that can be achieved and the harm that may be caused
Reciprocity	Responding to good or to harm in a fitting and proportional manner
Respect for Community Norms	The idea that solutions should be informed by member behavior and rooted in community values, beliefs, and interests

Ethical Value	Definition
Respect for Persons	The idea that individuals should be treated as autonomous agents and that persons with diminished autonomy are entitled to protection
Solidarity	Shared practices reflecting a collective commitment to carry 'costs' (i.e., financial, social, or otherwise) to assist others
Stewardship	The careful and responsible management of the well-being of the population
Transparency	The quality of being done in an open way without secrets
Utility	The obligation to produce the greatest good for the greatest number; the optimization of benefits and harm
Veracity	The principle of telling the truth; enabling meaningful incident response goals and expectations

Guidelines for the COVID-19 MACS

The *Guidelines for the COVID-19 MACS* created by Cal OES and California Health and Human Services Agency (CalHHS) include ethical guidelines for scarce resource allocation.[2] As noted in the document, the criteria described below must be seen as guidelines, not standards.

"More important than the specifics of any tool (which will require modification based on the emergency) is the establishment of a process for making decisions to limit care so that, in a time of crisis, a mechanism is in place to apply as much science as possible to these decisions and the persons involved are prepared for their roles."

Figure 1:CDPH Guidelines for Healthcare Surge during Emergencies – Foundational Knowledge

[2] The guidelines cite the CDPH Standards and Guidelines for Healthcare Surge during Emergencies – Foundational Knowledge, Section 8.4.3.10. That document cites the 2007 New York State Task Force on Life and the Law as an example of guidelines for the scarce resource allocation of ventilators.

Duty to Care – The ethical rationing system for allocation of resources must support the fundamental obligation of healthcare professionals to care for patients. While resource allocation decisions may involve the choice between life and death, to the fullest extent possible, physicians must strive to ensure the survival of each individual patient.

Duty to Steward – During a healthcare surge, clinicians will need to balance the obligation to save the greatest possible number of lives against their longstanding responsibilities to care for each single patient. Government and healthcare providers must embrace this obligation to devise a rationing system and be prepared for the ethical tension that will result.

Duty to Plan – Planning is not a recommendation but an obligation. The absence of guidelines would leave important allocation decisions to be made by exhausted providers, which would result in a failure of responsibility toward both patients and providers.

Distributive Justice – The same allocation guidelines should be used across the State. These allocation guidelines must not vary from private to public sector. They need to remain consistent throughout the community at hand.

Transparency – Any just system of allocating resources will require robust efforts to promote transparency.

Understanding Scarce Resources

Defining Scarce Resources

Aligning scarce resource definitions is a key step to understanding how jurisdictions, OAs, and regional organizations make decisions during the request and allocation process. At a root level, scarcity is when demand exceeds the available supply.

Local Definitions:

Multiple counties in California define a scarce resource as "a resource that is insufficient to meet demand."[3,4] When defining scarce resources at the first Scare Resource Workshop to help develop this Tool, attendees provided the following descriptions:

- Demand for the current resources is greater than the ability of those responsible to service those requests to meet the need.
- Resources are available at the time but there are concerns over continued availability.

Region II M/H MAC Guide Definition:

Resources requested by more than one OA and the request for all OAs cannot be filled to meet the requested deployment time.

Statewide MACS Definition:

A scarce resource is staff, equipment, or materials which are deficient in quantity or number compared with demand. Some products may be commercially available, but still scarce to a particular state agency (e.g., Emergency Medical Services Authority [EMSA]). Instances such as those may require MAC Group adjudication.[5]

The MACS Guide (2013) also provides the definition: "Scarce resources are those in limited or short supply."[6]

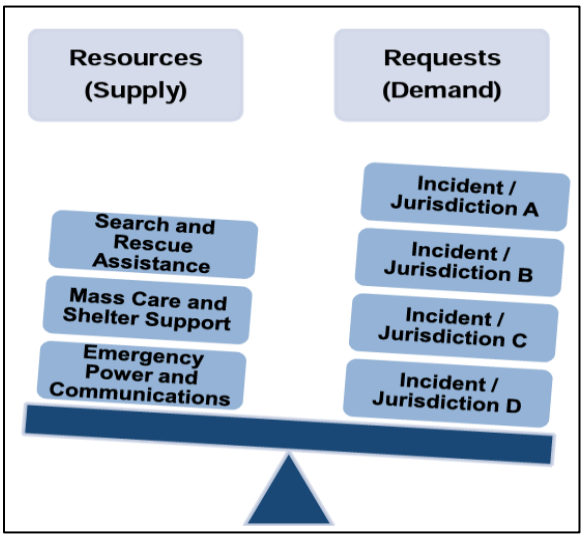


Figure 2: Allocating Scarce Resources, California Multi-Agency Coordination System Guide (2013)

[3] LA County MHOAC. *Allocation of Scarce Resources Guide.* September 26, 2017.
[4] Orange County. MHOAC Program: Allocation of Scarce Resources Guide. March 2020.
[5] Cal OES. *MAC Group Position Guide*. March 2021.
[6] Cal EMA. California Multi-Agency Coordination System Guide. 2013.

Causes of Scarcity:

- **Increased utilization** – More people consuming or an increase in the application of a resource.
  - Example: During a pandemic, people at higher risk may be asked to wear additional personal protective equipment (PPE) causing PPE shortages.[7]
- **Rapid increase in demand that is likely to outpace replenishment** – Demand rises prior to supply chains increasing in capacity.
  - Example: Testing will be critical early stage disease control, therefore quickly increasing demand prior to expansion of supply chain capacity.[8]
- **Low initial on-hand supply** – Supplies in storage are either expired or not an adequate quantity for a pandemic.
  - Example: Pharmaceuticals will be required for mass prophylaxis for an emerging disease but maintaining a large quantity of pharmaceuticals for all possible diseases is not cost effective or reasonable.[9]
- **Damage to initial stockpiles** – Concurrent events that cause the destruction of stockpiles will reduce the availability of supplies.
  - Example: Wildfires can destroy trailers or warehouses containing supplies.[10]
- **Physical barriers** – Concurrent events can block access to supplies or block the distribution of supplies.
  - Example: Flooding blocks major highways required for transportation of heavy materials.[11]
- **Supply chain problems** – Raw materials used in the production of supplies may be impacted.
  - Example: Petroleum refineries were temporarily shut down to enact additional safety measure reducing the availability petrochemicals used in the production of plastics.[12]
- **Unanticipated needs** – Use of certain supplies or quantities was not properly accounted for in planning efforts.
  - Example: During COVID-19, the volume of supplies requested and needed was not accounted for when determining warehouse space for emergency supplies. Cold chain storage for vaccines was another commonly unanticipated need.[13]

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[7] Centers for Disease Control and Prevention. *COVID-19 Risks and Information for Older Adults.* February 22, 2023. Accessed from https://www.cdc.gov/aging/covid19/index.html.

[8] Mohammad Behnam, PhD; Arnav Dey; Tony Gambell; and Vaibhav Talwar. *Overcoming supply shortages for diagnostic testing.* McKinsey & Company. July 15, 2020. Access from https://www.mckinsey.com/industries/life-sciences/our-insights/covid-19-overcoming-supply-shortages-for-diagnostic-testing.

[9] John Hopkins University. *The pandemic and the supply chain: Addressing Gaps in Pharmaceutical Production and Distribution.* No date. Accessed from https://www.jhsph.edu/research/affiliated-programs/johns-hopkins-drug-access-and-affordability-initiative/publications/Pandemic_Supply_Chain.pdf

[10] Rosenthal A, Stover E, Haar RJ. Health and social impacts of California wildfires and the deficiencies in current recovery resources: An exploratory qualitative study of systems-level issues. PLoS One. 2021 Mar 26;16(3): e0248617. doi: 10.1371/journal.pone.0248617. PMID: 33770088; PMCID: PMC7997008.

[11] Chivas Guillote, M.S.N. (2021, August 31). Preparation, response and lessons learned from Hurricane Harvey - Jems: EMS, emergency medical services - training, paramedic, EMT News. JEMS. Retrieved March 23, 2023, from https://www.jems.com/operations/preparing-for-catastrophe/

[12] Divy Malik, Parth Manchanda, Theo Jan Simons, and Jeremy Wallach. *The impact of COVID-19 on the global petrochemical industry.* October 28, 2020. Access from https://www.mckinsey.com/industries/chemicals/our-insights/the-impact-of-covid-19-on-the-global-petrochemical-industry.

[13] Bay Area UASI. *Regional COVID-19 AAR.* December 2022.

- **Jurisdictional competition** – Jurisdictions bidding against each other on pricing and volume.
    - Example: During COVID-19, many states were forced to compete against each other to purchase ventilators in large quantities for their citizens. States with large economies were able to secure ventilator contracts.[14]
- **Utilization of the same vendor** – Emergency contracts or agreements in a region are commonly established with the same vendor and multiple jurisdictions.
    - Example: During COVID-19, jurisdictions realized that many of their emergency staffing agreements were not adequate because neighboring jurisdictions activated the same agreements.[15]
- **Stockpiling** – Organizations being to amass supplies in anticipation of pandemic waves and the impact on supply chains.
    - Example: During COVID-19, larger healthcare facilities were able to stockpile PPE leaving smaller facilities without the necessary PPE.[16]
- **Distributive Inequities** – As noted in the MACS definition of scarcity, perspective matters. When distributing resources jurisdictions may not properly incorporate social vulnerability of various disaster assistance programs.[17]
    - Example: Although most obvious on an international scale, during COVID-19 countries with the highest risk factors were among the last to gain access to the vaccine.[18] In future pandemics this scarcity may be seen at a jurisdictional level.

[14] Public Broadcasting Service. *Louisiana governor: States are competing against each other for ventilators.* March 25, 2020. Accessed from: https://www.pbs.org/newshour/show/louisiana-governor-states-are-competing-against-each-other-for-ventilators

[15] Bay Area UASI. *Regional COVID-19 AAR.* December 2022.

[16] Lauren Weber. *State mask stockpiling orders are hurting nursing homes, small clinics*. Kaiser Health News. October 30, 2020. Accessed from https://www.nbcnews.com/health/health-news/state-mask-stockpiling-orders-are-hurting-nursing-homes-small-clinics-n1245395

[17] Christopher T. Emrich, Sanam K. Aksha, Yao Zhou, *Assessing distributive inequities in FEMA's Disaster recovery assistance fund allocation*, International Journal of Disaster Risk Reduction, Volume 74, 2022, 102855, ISSN 2212-4209, https://doi.org/10.1016/j.ijdrr.2022.102855. (https://www.sciencedirect.com/science/article/pii/S2212420922000747)

[18] Rydland, H.T., Friedman, J., Stringhini, S. et al. *The radically unequal distribution of Covid-19 vaccinations: a predictable yet avoidable symptom of the fundamental causes of inequality.* Humanit Soc Sci Commun 9, 61 (2022). https://doi.org/10.1057/s41599-022-01073-z.

Common and Unique Scarce Resources During a Pandemic:

- **Staffing** – Even with the activation of Disaster Service Workers (DSWs) and volunteer programs, staffing will be scarce because a pandemic will affect the families of responders and impact their ability to do their job safely. In addition, without scope of practice changes, many pandemic response functions will require specific medical personnel.
- **Filtering facepiece respirators (i.e., N95 masks)** – During pandemics involving acute respiratory illnesses, respirators will be a scarce resource. The scarcity levels will vary depending on public health guidance causing supply chain and stockpiling challenges.
- **Testing supplies** – Materials involved in testing for the disease will be in short supply as nations, states, and local jurisdictions compete to mass test or stockpile materials.
- **Vaccine materials** – Materials included in the manufacturing, contents, and distribution of vaccines will be scarce. Vaccines will be the best method for shifting from a pandemic to an endemic. As vaccines are developed, they will be distributed based on need and risk until supplies become adequate for larger populations.
- **Cold chain management equipment** – Vaccines will need to be transported and stored at certain temperatures. This will be critical when vaccines are scarce and only available for high-risk populations.
- **High efficiency particulate air (HEPA) filters** – Depending on the virus transmission method, air filters will be critical for removing contagious particles from air circulation.
- **Fit testing kit** – To evaluate the proper fit of respiratory protection, a compatible kit is needed. The test will need to be Occupational Health and Safety (OSHA) compliant.
- **Ventilators** – Treatment for acute respiratory illnesses will include the use of ventilators which are a limited commodity. During COVID-19 many states and countries were in competition with each other for the devices.
- **Hotels and Lodging** – Due to isolation/quarantine requirements, jurisdictions will be competing for space to house Persons Under Investigation (PUI) and confirmed cases. Traditional congregate shelters will be limited in application.
- Others notable resources:
    - Albuterol
    - Blood collection supplies
    - Personal protective equipment (gloves, gowns, face shields, etc.)
    - Catheters
    - Crash cart medications and supplies
    - Disposable stethoscopes
    - Disinfectant wipes and other sanitation supplies
    - Fuel (diesel or petroleum)
    - Formula
    - Respiratory supplies (Nebulization supplies, air purifiers, tracheostomy supplies, mucus clearance devices, etc.)
    - Steroids
    - Medical oxygen (i.e., cylinders, concentrators, accessories)

Best Practice Category: Planning

Scarce resource policies and response plans should account for distribution of resources to internal departments as well as external partners such as community or faith-based organizations (C/FBOs), schools, healthcare organizations, etc.

Many plans and policies focus on distribution of scarce resources to common response partners.[19] These plans do not always consider partners that would be involved in a pandemic response. It may also be necessary to distinguish between scarce versus non-scarce resources and establish priorities within the plan and policies.

Communication is a key component of any scarce resource plan.

When resource requests are denied or not completely fulfilled, it is necessary to communicate with the requesting entity. In addition, as part of the determination to fulfill or deny a request for scarce resources it may be necessary to gather additional context from the requestor. The communication should include information as to when the resources will be available, alternatives, or alternative channels for acquiring the resource.

Engage partners and open dialogues to better understand the impact of shortages and scarce resources.

Involving key stakeholders in the development of pandemic and other hazard response plans should include identification of their most critical resources and mitigation strategies for scarcity. The outputs of the dialogues will enable better planning and account for unique resources needed to maintain continuity of operations.

As of January 2023, hospitals, skilled nursing facilities, dialysis clinics, and medical practices that are part of an integrated health system are required to build a 45-day surge-level PPE stockpile.

The new law[20] mandates healthcare organizations maintain a stockpile of new and unexpired PPE in the amount equal to three months of normal consumption. The law also includes a provision for the State of California on the creation of a state stockpile of PPE and procurement guidelines that works toward a 90-day pandemic level supply for all essential workers. The law identifies seven specific types of PPE that must be maintained in an amount equal to three months of normal consumption:

- N95 filtering facepiece respirators
- Powered air-purifying respirators with high efficiency particulate air filters
- Elastomeric air-purifying respirators and appropriate particulate filters or cartridges
- Surgical masks

[19] Bay Area UASI COVID-19 Warehouse and Supply Chain Hotwash

[20] Assembly Bill No. 2537. Personal protective equipment: health care employees. Accessed on February 14, 2023 from https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB2537.

- Isolation gowns
- Eye protection
- Shoe coverings

Plan and coordinate for resource and capacity needs for additional waves of a pandemic.[21]

The World Health Organization recommends that resource planning incorporate replenishment strategies and planning for multiple waves of a pandemic. During a pandemic, infection and death rates will ebb and flow. Resource needs will extend beyond the initial increase in cases and should be anticipated to be used to mitigate subsequent waves.

[21] Pandemic Influenza Preparedness and Response: A WHO Guidance Document. Geneva: World Health Organization; 2009. 5, RECOMMENDED ACTIONS BEFORE, DURING AND AFTER A PANDEMIC. Available from: https://www.ncbi.nlm.nih.gov/books/NBK143063/

Best Practice Category: Vendor Management and Procurement

Due diligence is necessary to vet vendors' plans and contingencies for critical supplies and resources.

While this can be part of the bidding process, it is necessary to engage vendors regarding their practices for handling supply chain issues, competing requests, stock rotation, and other issues that may impact their ability to satisfy a contract.

Seek non-traditional manufacturers who can modify operations to produce the scarce resource.

During a pandemic, the normal operations of public, private, and non-profit entities will be impacted. These organizations may be available to assist in fulfilling resource requests. During the COVID-19 pandemic, examples of this included distilleries changing operations to manufacture hand sanitizer and community organizations with 3-D printers creating face shields for hospitals.

Jurisdictions can partner with non-governmental organizations to support the logistics of procuring and/or distributing emergency food.[22]

Emergency feeding will be a common need during a pandemic when supply chains are disrupted, regular sources of food are unavailable (e.g., schools, food banks), and/or distribution lines are impacted. Jurisdictions and territorial governments may enter into formal agreements or contracts with non-governmental organizations, including private businesses and C/FBOs, to purchase and distribute food, when necessary, as an emergency protective measure in response to a pandemic. In these cases, public assistance funding provided to the legally responsible government entity could be used to reimburse private businesses or C/FBOs for the cost of providing those services under the agreement or contract.

Align policies, procedures, and systems used by EOC or DOC Logistics Sections with the jurisdiction's Finance Department/Agency.

Ensuring alignment prior to an activation allows for streamlining of resource purchasing, delivery, and cost recovery. The systems used by each should either share the required information or be the same system. The systems should also contain all the necessary information for cost recovery such as timekeeping, event codes, vendor information, justification, and associated documentation.

[22] FEMA. *Food Bank Logistics During COVID-19.* July 6, 2020. https://www.fema.gov/case-study/food-bank-logistics-during-covid-19.

Best Practice Category: Tracking, Transparency, and Allocation

Resource request systems need to provide visibility to the requestor regarding the status of the request, cost, and other necessary follow-up information.[23]

Many agencies and partner organizations noted that once resource requests were submitted and were being processed, there was a lack of follow-up communication regarding the status of those requests as well as the cost of the resources that were procured. In many instances, requestors did not have visibility on when their requested resources were scheduled for delivery and what the cost of the resources was until they arrived. To mitigate the impact on staff time, this information should be incorporated into the resource request system.

Create a dashboard/tracking system to establish par levels that trigger resource requests.

Jurisdictions within the Bay Area identified several solutions for increasing tracking and transparency of resource requests and inventory levels. One jurisdiction utilized a stoplight system for established PAR levels. Another jurisdiction used an e-commerce system for their partners to see their inventory and place requests.

A robust resource management system provides better data for planning and decision-making.

While spreadsheets are useful for ad-hoc tracking and data analysis, using a robust and easy to use resource management system will improve data monitoring to support planning and decision-making. A comprehensive system can allow for scalability and eliminate manual entry/redundancy. The system should also be able to properly document partial fulfillment of a request.[24] Other key components of a system that will be useful to mitigate scarcity includes:

- Automated routing
- Tracking and monitoring capabilities
- Inclusion of cost recovery information[25]

Utilize data and Geographical Information Systems (GIS) tools to determine the locations of populations with the greatest needs.[26]

San José EOC created a Digital Inclusion Branch, which launched a Priority Index as a GIS tool to determine the zip codes with the greatest need for resources throughout the City. The tool enabled the EOC team to quickly identify and respond to gaps in services to the community. The Digital Inclusion Branch, in partnership with AT&T, also launched the SJ Access Hotspots Program which distributed free Wi-Fi hotspots to the community to provide internet and technology access to marginalized communities.

[23] San Jose OEM. The Development and Maintenance of Sheltering and Housing Efforts. White Paper. 2022.
[24] U.S. DHS Office of Inspector General. *Lessons Learned from FEMA's Initial Response to COVID-19.* September 21, 2021. https://www.oig.dhs.gov/sites/default/files/assets/2021-09/OIG-21-64-Sep21.pdf
[25] CCSF Presentation at NACCHO: Resource Requests Come of Age: Automating the 213RR.
[26] San Jose OEM. Serving Vulnerable and At-Risk Populations During the COVID-19 Response. White Paper. 2022.

San Francisco Department of Public Health Developed an Allocation Toolkit.

The Allocation Toolkit established criteria and included assumptions, priorities, metrics, and a usage summary. It allowed the department to prioritize, track, and speed up processing requests. Included in the Allocation Toolkit was established criteria that would trigger stronger analysis and review of a request. The criteria included if a request was greater than 10% of the inventory, supply levels were already at critical/emergency levels, and at the discretion of the unit/section chiefs.

Best Practice Category: Staffing

Use a skills inventory to identify cataloging skills, certifications, and experiences possessed by the Disaster Service Worker (DSW) workforce.

If unavailable internally, Bay Area UASI has a Skills Inventory Tool[27] as part of the DSW Toolkit. The inventory tool collects information regarding skills, certifications, experience levels, languages spoken, experience with American Sign Language, and certain transportation- and medical-related certifications and licenses that may be requested or needed to provide critical services and assistance to those affected by emergencies.

Identify staffing options beyond DSWs and support from the state.

During a pandemic, DSW and traditional staffing methods will be inadequate. Jurisdictions included alternative staffing plans when staffing requests could not be fulfilled. This often included contracted temporary employees, recruiting retired employees, engaging volunteers from groups like Voluntary Organizations Active in Disaster (VOAD) or Medical Reserve Corps (MRC), etc. Another non-traditional staffing option included part time employees or volunteers from nursing and medical schools.

Human Resources (HR) professionals should review workforce and succession planning challenges through the lens of emergency response and recovery.[28]

Be aware of what capabilities exist locally within the workforce and what might be needed in different disasters at different levels. If jurisdictions have challenges with recruiting, hiring, and retaining people in positions with critical roles in emergency response and recovery, ensure there are plans to fill those roles with contract staff and mutual aid. This may include discussing potential unmet needs with neighboring jurisdictions and drafting MOUs for sharing staff. Jurisdictions may also explore setting up zero-dollar contracts in emergencies for filling critical capabilities (i.e., staffing and equipment) from outside the region. In addition, jurisdictions can pre-script resource requests for specific staff while considering what is on hand and what might be needed.

[27] Bay Area Skills Inventory Tool

[28] Bay Area UASI. *Regional Analysis of DSW Programs: Summary of Lessons Learned and Best Practices.* Accessed January 13, 2023 from http://www.bayareauasi.org/dsw.

Federal Emergency Management Agency (FEMA) provided a Medical Staffing Requests Advisory during the COVID-19 Pandemic that provided several staffing options prior to requesting federal assistance.[29]

The FEMA Advisory provides a valuable starting point for the next pandemic. The advisory includes 13 options to mitigate the impact of medical staffing shortages. The advisory includes links to FEMA guidance to implement each mitigation strategy. The 13 strategies include:

1. Decompressing Hospitals
2. Cross Leveling and Augmenting Staff
3. Expanding the Use of Telemedicine
4. Recalling Retirees and Activating the Medical Reserve Corps
5. Extending Department of Labor Support via State Workforce Agency Coordination
6. Expanding Delivery of Care
7. Implement Pre-Hospital Care to Reduce Demand
8. Utilizing Emergency Management Assistance Compact
9. Executing Contracts:
10. Employing the National Guard
11. Requesting Support from Veterans Affairs
12. Temporary Reassignment of State and Local Personnel
13. Request Extending Support from U.S. Department of Health and Human Services

[29] FEMA. *Medical Staffing Requests Advisory. August 18, 2021.* https://www.fema.gov/fact-sheet/medical-staffing-requests-advisory.

Supply Chain Threats for 2023 and Beyond

This section includes notable supply chain threats for 2023 and beyond to assist in resource planning. The information included was collected through open source research, government reporting, and industry reports.

The U.S. Food and Drug Administration (FDA) Drug Shortages Database[30] lists approximately 125 drugs as currently in shortage and is tracking medical device shortages. This database is valuable for planning pharmaceutical stockpiles and medical countermeasures.

Notable drug shortages listed by the FDA include Pediatric Ibuprofen and Acetaminophen, Atropine Sulfate Injection, Cefazolin Injection, Epinephrine Injection, Lorazepam injection, Midazolam injection, and Sterile Water for Injection. FDA also maintains a medical device shortage list which categorizes products by dialysis-related, personal protective equipment, testing supplies, and ventilation-related.[31,32] Currently listed shortages are primarily due to increased demand and compliance with good manufacturing practices.

The 2022 global semiconductor shortage will have a cascading effect on requested resources, especially medical equipment.[33]

While the 2022 Creating Helpful Incentives to Produce Semiconductors and Science Act seeks to strengthen supply chains and encourage domestic production of semiconductors, tension between China and Taiwan and raw materials shortages will have a cascading effect on devices requiring semiconductors. Medical devices are highly dependent on semiconductors and utilizing older semiconductors will introduce various cybersecurity vulnerabilities.

News Media coverage identifies notable raw material shortages such as plastics,[34] saline,[35] radioisotopes (technetium-99m),[36] and aluminum.[37] These shortages are expected to continue through 2023.

World events, increased demand, and inflation have all created material shortages that impact the public health supply chain. For example, plastics have been impacted by disruptions to oil and natural gas because of the Russian invasion of Ukraine. Technetium-99m is a commonly used isotope in diagnostic

[30] U.S. Food & Drug Administration. *Drug Shortages.* https://www.fda.gov/drugs/drug-safety-and-availability/drug-shortages
[31] https://www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/medical-device-shortages-during-covid-19-public-health-emergency#shortage
[32] U.S. Food & Drug Administration. *Mitigating and Preventing Medical Device Shortages and Prioritizing Public Health*. March 2022. https://www.fda.gov/media/156980/download. December 29, 2022.
[33] CSCMP's Supply Chain Quarterly. Survey: top supply chain risk of 2023 is semiconductor shortage. https://www.supplychainquarterly.com/articles/7521-survey-top-supply-chain-risk-of-2023-is-semiconductor-shortage.
[34] Patrick Beane. *Supply Chain Issues Continue to Burden Hospital.* April 20, 2022. https://indianapublicmedia.org/news/supply-chain-issues-continue-to-burden-hospital.php
[35] Anna Edney. *Medical Saline Shortage Hits U.S. Hospitals Reeling From Omicron.* March 4, 2022. https://www.bloomberg.com/news/articles/2022-03-04/medical-saline-shortage-hits-hospitals-reeling-from-omicron
[36] Science Daily. *New production method promises to end medical radioisotope shortages.* University of Tokyo. April 21, 2022. https://www.sciencedaily.com/releases/2022/04/220421141630.htm
[37] Spectrum News. *Aluminum shortage and global supply chain issues hit local hospitals* November 5, 2021. https://www.baynews9.com/fl/tampa/news/2021/11/05/aluminum-shortage-hits-local-hospitals?web=1&wdLOR=c511A5409-FDEA-4CED-B415-16FD47DD3EE2?cid=share_clip

imaging scans but as nuclear reactors become less common and dated, the supply of Technetium-99m also shrinks. China has reduced its production of aluminum, a common material in medical equipment, to reduce carbon emissions.

So called "tripledemic" of ongoing Covid-19, Influenza, and Respiratory Syncytial Virus (RSV), has resulted in shortages of drugs impacting care in most children.

In December 2022, surges in all but six states in the U.S. experienced "high" or "very high" respiratory virus levels. As a result, there have been shortages in over-the-counter medicines used for symptomatic relief, such as in children's liquid acetaminophen and ibuprofen.[38] Additional drug shortages include Tamiflu, amoxicillin, Augmentin, and others.[39]

[38] Joshua Cohen. *As flu, RSV and Covid-19 Tripledemic Surges, Drug Shortages Are Impacting Children Most*. December 4, 2022. https://www.forbes.com/sites/joshuacohen/2022/12/04/as-flu-rsv-and-covid-19-tripledemic-surges-drug-shortages-are-impacting-children-most/?sh=547535e748db

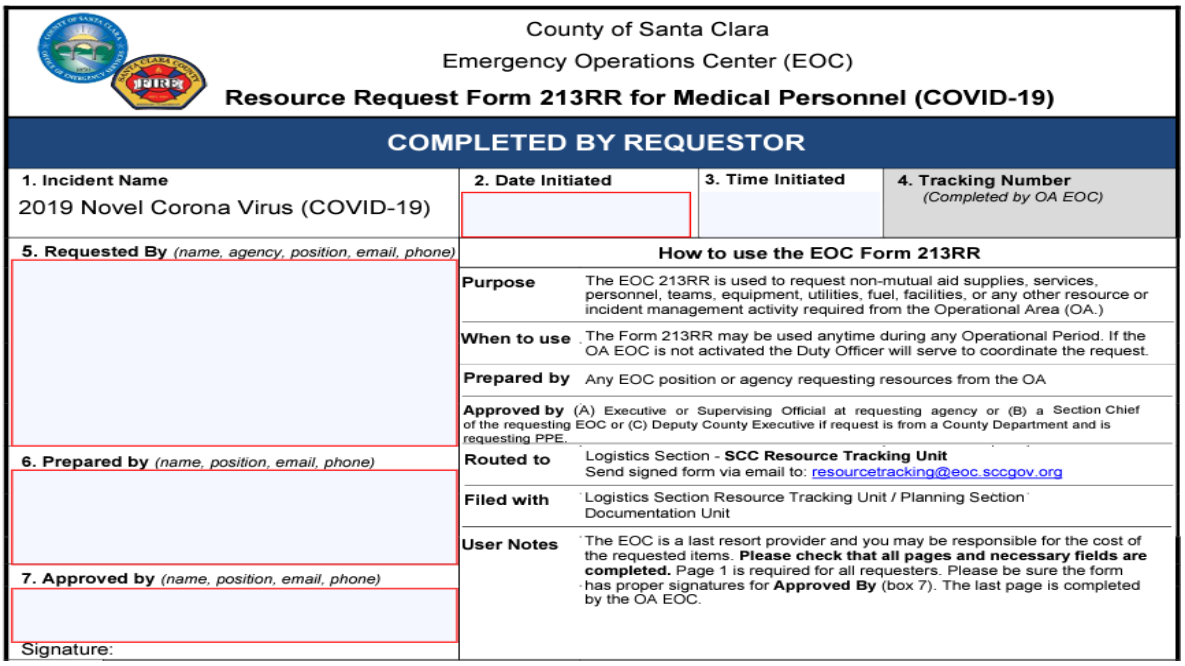
[39] Claire Bugos. *Tamiflu and Amoxicillin Are in Shortage as Flu and RSV Continues to Surge*. December 6, 2022. https://www.verywellhealth.com/tamiflu-amoxicillin-shortage-6835308

Local Scarce Resource Request and Adjudication Process

Process Description

Processes for receiving and allocating resources, even scarce resources, will vary by jurisdiction for numerous reasons. The below process is intended to represent a simplified process for requesting scarce resources. Jurisdictions should modify the below flowchart (Attachment 4) to represent their jurisdiction. The key decision-making points and discussion are written from the perspective of a local jurisdiction.

1. A jurisdiction receives a resource request to their EOC/DOC depending on their response organization. For the purposes of this flowchart, a resource request can originate from several entities. Three categories represent the possible organizations that can submit a request:
    a. Internal governmental agency or department within the jurisdiction (examples: county public works, sheriff's office, social services, school district)
    b. Non-governmental partner (examples: private healthcare facility, food bank, C/FBO that operates a shelter)
    c. External governmental agency (examples: Tribal Government, city police department, national guard unit)
2. The appropriate EOC/DOC section processes the request and inputs the details in the jurisdiction's resource tracking and management system. Processing of a request will vary between jurisdictions but will have the following core functions:
    a. Input into a system
    b. Vetting and validation
    c. Evaluation and prioritization
    d. Assignment and routing
3. Depending on the EOC/DOC response structure, a decision is made about whether the resource is a medical resource.
    a. If it **is a medical resource**, then it is routed to the appropriate health and medical function (branch, MHOAC, DOC).
    b. If it is **not a medical resource**, it is routed to the appropriate non-medical function (branch, EOC).



County of Santa Clara
Emergency Operations Center (EOC)
Resource Request Form 213RR for Medical Personnel (COVID-19)

COMPLETED BY REQUESTOR

1. Incident Name	2. Date Initiated	3. Time Initiated	4. Tracking Number (Completed by OA EOC)
2019 Novel Corona Virus (COVID-19)			

5. Requested By *(name, agency, position, email, phone)*

6. Prepared by *(name, position, email, phone)*

7. Approved by *(name, position, email, phone)*

Signature:

How to use the EOC Form 213RR

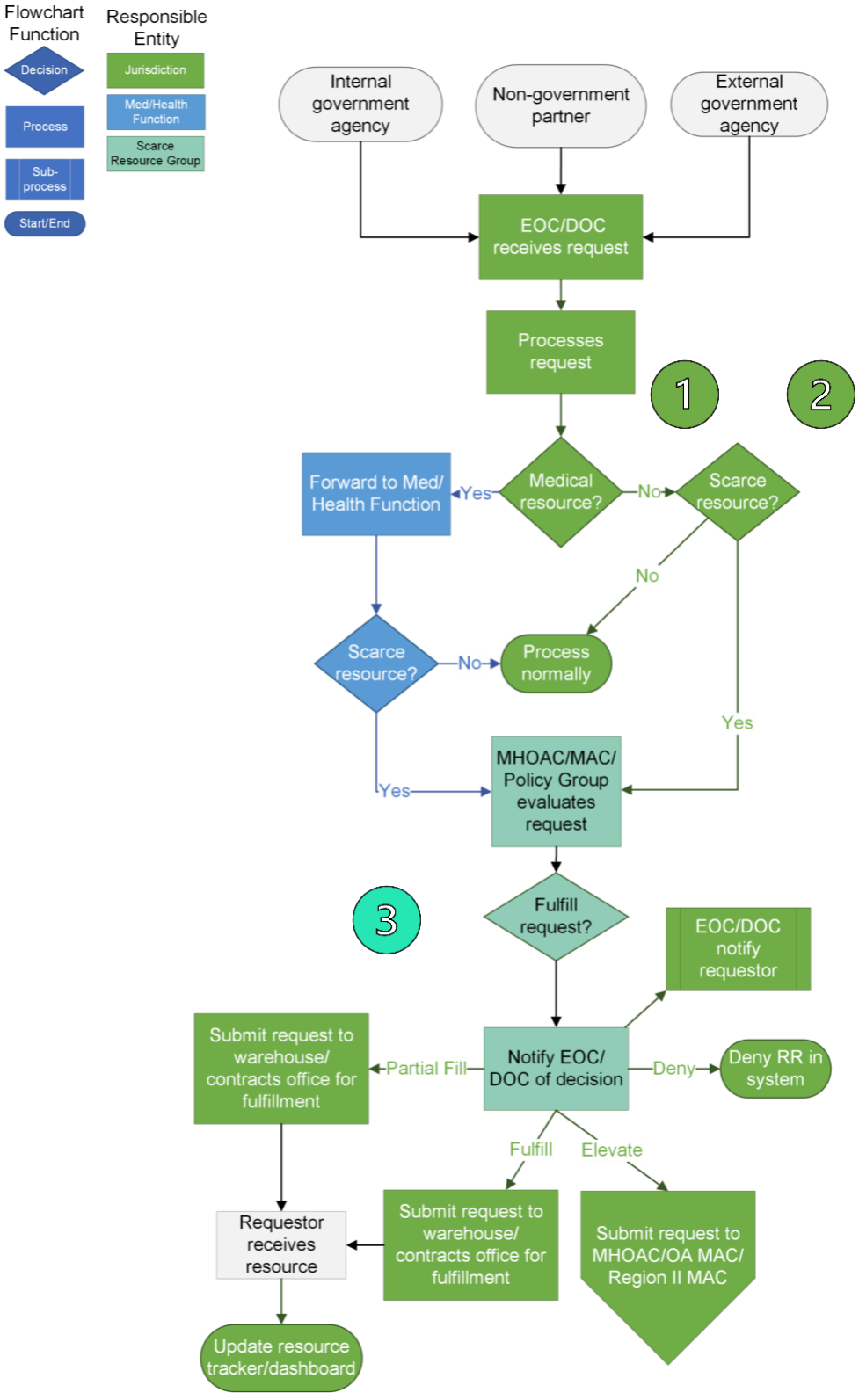
Purpose	The EOC 213RR is used to request non-mutual aid supplies, services, personnel, teams, equipment, utilities, fuel, facilities, or any other resource or incident management activity required from the Operational Area (OA.)
When to use	The Form 213RR may be used anytime during any Operational Period. If the OA EOC is not activated the Duty Officer will serve to coordinate the request.
Prepared by	Any EOC position or agency requesting resources from the OA
Approved by	(A) Executive or Supervising Official at requesting agency or (B) a Section Chief of the requesting EOC or (C) Deputy County Executive if request is from a County Department and is requesting PPE.
Routed to	Logistics Section - **SCC Resource Tracking Unit** Send signed form via email to: resourcetracking@eoc.sccgov.org
Filed with	Logistics Section Resource Tracking Unit / Planning Section Documentation Unit
User Notes	The EOC is a last resort provider and you may be responsible for the cost of the requested items. **Please check that all pages and necessary fields are completed.** Page 1 is required for all requesters. Please be sure the form has proper signatures for **Approved By** (box 7). The last page is completed by the OA EOC.

Image 1: Example modified 213 RR from Santa Clara County

4. After a decision is made regarding the type of resource, then an additional determination is made regarding the resource's scarcity.
    a. If the request **is a scarce resource**, then the request is submitted to the appropriate adjudication group to determine prioritization or further evaluation.
    b. If the resource request is **not a scarce resource**, then the jurisdiction processes the request normally.
5. With the determination that a resource is scarce, the request is submitted to the appropriate group for adjudication. Depending on the jurisdiction and the type of resource, this may be the MHOAC, OA-level MAC, or a Policy Group. Regardless of the decision, the group will **notify the EOC/DOC** of the decision. The EOC/DOC will then **notify the requestor** in accordance with jurisdiction's process**.** There are four outcomes of the group's decision:
    a. **Deny** – The jurisdiction will not elevate or filled a resource request. This may include denying until further information is gathered and a new request is submitted.
    b. **Partial Fill** – The jurisdiction will fill a partial amount of the request. The request may be elevated for complete fulfillment or considered satisfied.
    c. **Fulfill** – The request will be filled entirely by the jurisdiction.
    d. **Elevate** – The request will be elevated for fulfillment by neighboring, regional, state, or federal resources.
6. For requests completed from within the jurisdiction, the EOC/DOC will coordinate with the appropriate agency (warehouse/contracts office) to complete the request and deliver to the requestor.
7. The requestor will assume responsibility of the resource once received including tracking and documentation. Similarly, the EOC/DOC will update their resource tracker to reflect the current location and ownership of the resource. This will include confirmation of receipt and retaining any documentation necessary for reimbursement.

Process Flowchart

Figure 3: Local Scarce Resource Request and Adjudication Process



Key Decision-Making Points

Note: The key decisions are indicated by a number in a circle and color coded by the entity making the decision. Each of the below discussions corresponds to a number included in the flowchart.

1 *Jurisdiction: Is the Resource a Medical Resource?*

Discussion:

The first key decision for scarce resource requests is whether the requested resource is a medical resource. If determined to be a medical resource, then the routing of the request will vary. As written in the CDPH Emergency Operations Manual Chapter on Resource Management, the MHOAC is the resource ordering point for medical and health resources.[40] Notably, the manual includes "in accordance with local policies and procedures." Therefore, where within the EOC/DOC structure the decision is made varies between jurisdictions.

Notably, entities involved in the public health and medical system may require medical and health resources (medical equipment and supplies, medical transportation, healthcare personnel, etc.) and, similarly, those entities may also request non-medical and health resources (power generators, potable water, lights, etc.). As demonstrated during the COVID-19 pandemic, entities *not involved in the public health and medical system* may also require medical and health resources due to health orders, occupational health, and their involvement in response. Non-medical resource requests will need to be coordinated between the EOC and Medical & Health Branch or appropriate agency DOC.

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- Modify 213 Resource Request (RR) Form and resource request system or include an additional form to gather information about medical resources. This will reduce the need for follow-up with the requestor. Attachments 2 and 3 are examples of modifications made during COVID-19.
- Incorporate Subject Matter Experts (SME) into the decision-making process for medical resources.
- Ensure the Medical and Health Branch includes a resource unit.
- Utilize a "medical use" indicator on resource data.
- Require an additional approval, review, or audit to the approval process acknowledging that a resource is/is not medical.

EXAMPLES OF DATA TO GATHER:

- Bed availability
- Infectious disease data (Positive cases/PUIs)
- Current resource quantities
- Burn rate
- Acceptable alternatives
- Validation of attempt to fill through normal vendors
- Vendor constraints
- Ration protocols/mitigation strategies

[40] CDPH. *California Public Health and Medical Emergency Operations Manual*. July 2011.

2 *Jurisdiction: Is the Resource Scarce?*

Discussion:

The decision regarding resource scarcity may come before the decision determining whether it is a medical resource depending on the local policies and procedures. Determining whether a resource is scarce impacts whether the request is elevated to a designated group to review and then appropriately allocate limited resources. The group designated by the jurisdiction to allocate the resource varies by jurisdiction but may include the MHOAC, MAC, or a Policy Group. Notably, this group has delegated authority to make the decision.

Determining whether a resource is scarce is not limited to whether the jurisdiction has the appropriate quantity to fulfill the request. There are several reasons for scarcity discussed in the Best Practices Section. Because of the all-consuming nature of a pandemic, these factors may impact a resource's obtainability and not the quantity of resources available. For example, in-home food distribution may have been requested by the city EOC. However, due to health orders in the county or neighboring jurisdictions limiting travel there could be a shortage of available drivers to deliver the food.

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- Include a Scarce Resource Unit within EOC/DOC structure.
- Maintain a resource information/status dashboard to assist decision-making. The ICS 210 Form (Resource Status Change) can inform the dashboard.
- Use scarce resource models and forecasting to assist in decision-making.
- Modify the 213 RR Form and resource request system or include an additional form to gather information regarding the resource being requested and the current situation. This will reduce the need for follow-up with the requestor. Attachments 2 and 3 are examples of modifications made during COVID-19.
- Establish triggers that require additional analysis and review for severely scarce and large requests.[41] Examples include:
  - Allocation of greater than 10% of inventory
  - Critical supply levels
  - At the discretion of unit lead/section chiefs
- Require an additional approval, review, or audit to the approval process acknowledging that a resource is/is not scarce.
- Include established priorities and scarce resources in EOC/DOC Daily Briefing and/or Status Summary/Situation Report (ICS 209/209A).

[41] San Francisco Department of Public Health. *Collaborative and Equitable Allocation of Scarce Healthcare During a Pandemic.* Presentation from the 2022 NAACHO360 Annual Conference.

3 *Jurisdiction: Will the Request be Filled?*

Discussion:

The most significant decision for a jurisdiction occurs after a resource has been determined to be scarce. That decision triggers the delegated group's process for determining the allocation of the scarce resource. The process, metrics, and parameters will be based on local policies and procedures. The EOC/DOC is responsible for supporting the decision-making process by providing the required data and context to the request.

Once a decision has been made, the EOC/DOC will coordinate the notification, delivery, and tracking of the resource.

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- Identify SMEs available to provide additional context to the group regarding the disease, medical resource, or scarcity.
- Incorporate equity and community information into the decision-making process.
- Provide resource status and tracking information, infectious disease data, and community risk information.
- Review the data gathered via the modified resource request. Compare data with other requests to establish appropriate quantities.
- Identify partners to assist the requestor in fulfillment of the request. For example: community organizations may be able to provide transportation or make PPE.

Regional Scarce Medical Resource Request and Adjudication Process

Process Description

The COVID-19 pandemic response provides a starting point for the next pandemic's response. To understand what might happen, the section below describes the process shared by Cal OES in its Guidelines for the COVID-19 MACS. The key decision-making points and discussion are written from the perspective of a local jurisdiction as their resource request moves through an external approval process.

1. A local jurisdiction can input resource requests via several routes, however once the MHOAC has been notified, the public health and medical resource request is entered into the Salesforce resource request system.
    a. Salesforce, like CalEOC, is utilized to track and fulfill/decline resource requests for public health and medical operations.
2. The resource request should be vetted through the MHOAC for options to fill through OA resources, partnerships with hospitals or other healthcare partners, or contract staff.
    a. If the request **can** be filled by the MHOAC, then it should be marked as filled.
    b. If the request **cannot** be filled by the MHOAC, then it should be sent, through Salesforce, to the RDMHS.
3. The RDMHS will seek to fill the resource request with regional medical health resources.
    a. If the request **can** be filled by the RDMHS, then it should be marked as filled.
    b. If the request **cannot** be filled by the RDMHS, then it should be sent, through Salesforce, to the Medical Health Coordination Center (MHCC). For regional MAC Groups, the MAC Group Coordinator (MACC) will fill a similar role as the MHCC.
4. The MHCC/MACC will determine if the resource request is for a scarce resource.
    a. If the request is **not a scarce resource**, the MHCC/MACC will follow the regular process of filling the request.
    b. If the request **is a scarce resource**, the MHCC/MACC will perform a vetting process in coordination with appropriate stakeholders.

5. If the MHCC/MACC indicates the scarce resource request is not appropriately vetted, then the MHCC/MACC will send back to the RDMHS for further information.
6. If the MHCC/MACC indicates the scarce resource request is appropriately vetted, the MHCC/MACC should forward it to the MACS for adjudication.
    a. The MHCC/MACC will send the vetted resource request to the MAC Group.
7. The resource request is then discussed among all responsible stakeholders to score the resource request on the MACS 429 Scarce Resource Allocation Form.
8. If the resource request **does not** meet the minimum threshold of the MACS 429, then the resource request is not filled. The MHCC/MACC is notified and informs the RDMHS who informs the MHOAC and local requesting entity.
9. If the resource request meets the prioritization threshold of the MACS 429 then **two members** and the coordinator of the MACS group will sign the MACS 429. If the resource requires clinical oversight, there will need to be a signature from the Clinical Oversight Lead.
    a. The MACS group will determine the most logical resource to fulfill the need based on state-wide and local availability of the resource, proximity of resource to the need, timing for fulfilling the need, and other pertinent factors regarding deployment.
    b. For all staff deployments the MACS will consider a deployment end date, necessary PPE, and safety issues with different deployment options.
10. Below are the following mechanisms by entity for deployment:
    a. California Medical Assistance Team (CAL-MAT) resource: EMSA deployment team mobilizes the resource.
    b. National Guard resources are mission tasked through Cal OES Law Branch and signed off on by Cal OES Response Division.
    c. Health Corps resources:
        i. CDPH SME directs the CDPH District Office (DO) to collect a signed MOU from the Skilled Nursing Facility (SNF) and to verify with the SNF that adequate PPE is available.
11. Once the MACS Group fulfils a request, they will track the resource until demobilization of the resource. At which time, the resource will show as available.

Process Flowchart

Figure 5: Regional Scarce Medical Resource Request and Adjudication Process (Cal OES) – Jurisdiction to RDMHS

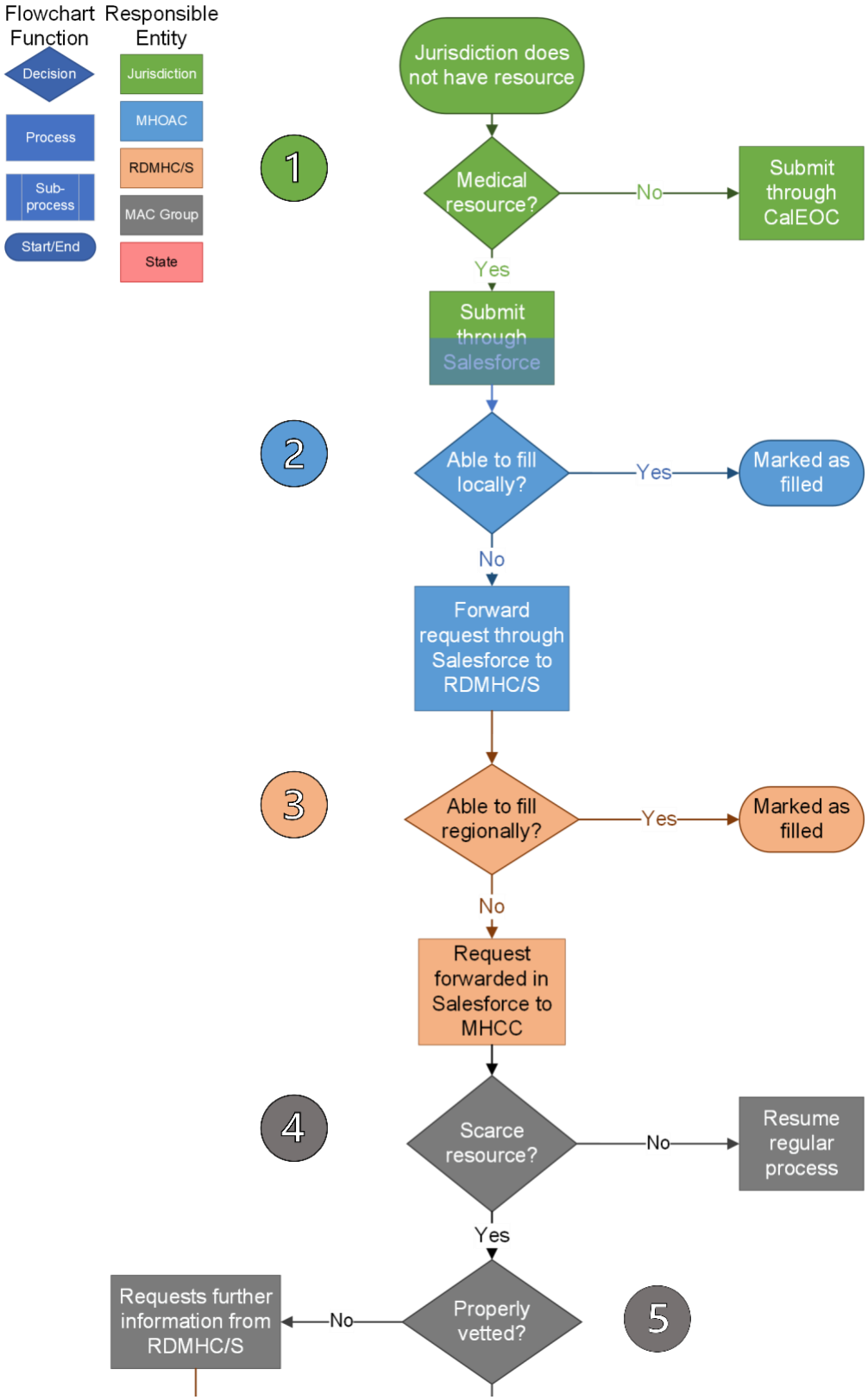
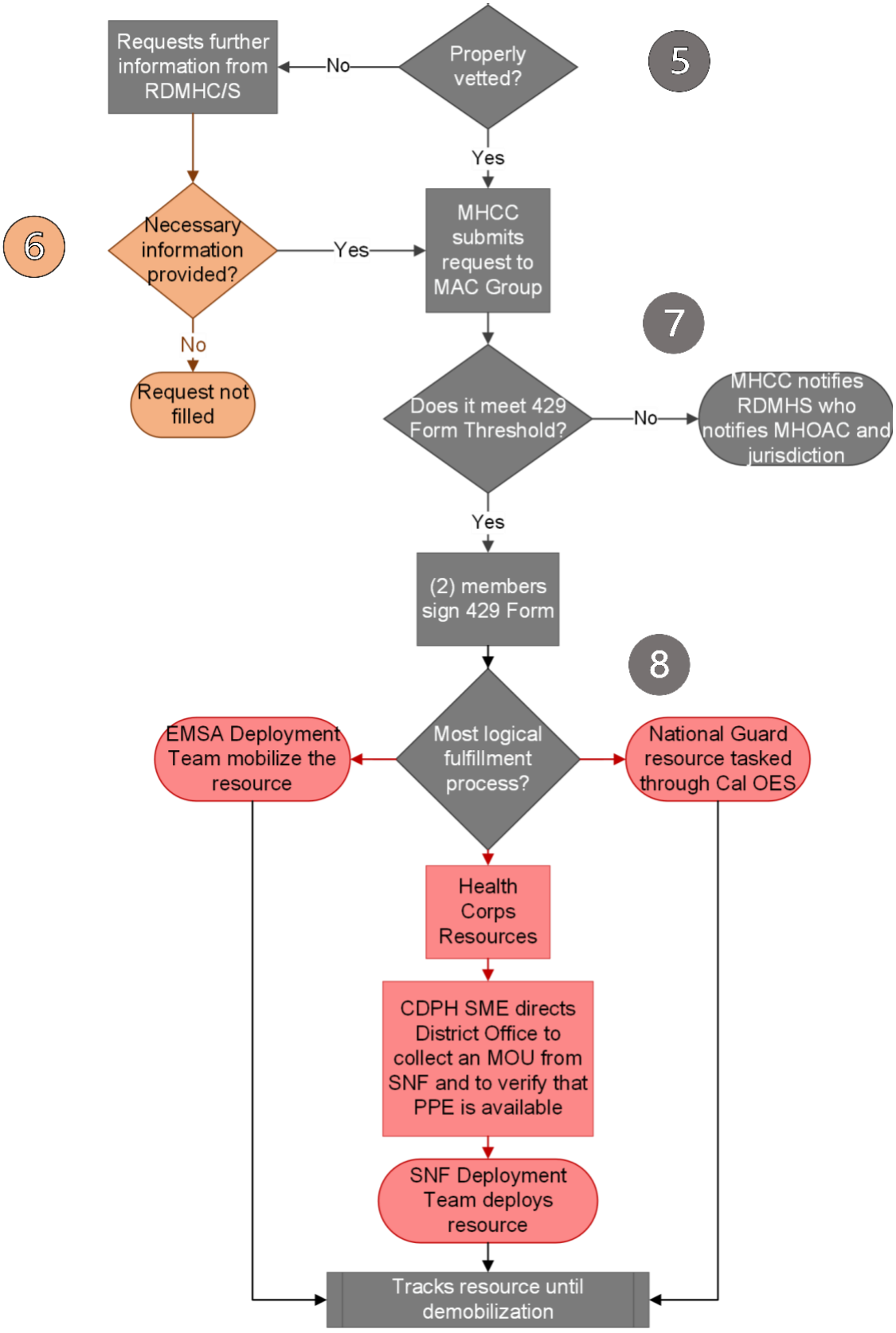


Figure 6: Medical Resource Request and Adjudication Process (Cal OES) – MHCC to State



Key Decision-Making Points

1 *Jurisdiction/MHOAC: Is the Resource a Medical Resource?*

Discussion:

The first key decision happens at the jurisdictional level and determines whether the resource is a medical and health resource. Although discussed in detail in the previous section, that decision facilitates the requests routing in an efficient manner. If a jurisdiction/MHOAC are misaligned with the Regional II MAC Group or State MACS, then the request could be denied or delayed as more information would be required. Once the determination that the resource is a medical resource, it will be submitted through Salesforce. In accordance with local policies and procedures, the MHOAC will be responsible for vetting whether the resource is a medical and health resource.

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- Include or attach information with the request about the resource type and/or justification for the determination from the jurisdiction. This includes information regarding the requestor or the use of the resource.
- Provide the MHOAC information on the impact if the medical resource is not received.
- Assign a point of contact for the MHOAC, Regional MAC Group, or State MAC to address any requests for information.
- Permit access to Salesforce for key health and medical entities with appropriately trained staff to streamline request processing. These entities will be requesting the most medical resources, this would lower the burden on the EOC/DOC to sort through resource requests.

2 *MHOAC: Can the Request be Filled Locally?*

Discussion:

The MHOAC is tasked with attempting to fill the request through local resources, partnerships with hospitals or other healthcare partners, or contract staff. The EOC/DOC can facilitate that decision by providing as much information as possible with the request and limiting the amount of information the MHOAC is required to gather to support the request. If the request can be filled in the OA, the MHOAC will mark the request as completed and provide the required information to the jurisdiction. If it cannot be completed, the MHOAC will elevate the request through Salesforce to the RDMHC/S.

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- Include the MHOAC or a designee within the EOC's Medical and Health Branch or the DOC.
- Ensure the MHOAC has access to accurate jurisdictional resource information.
- Forecast scarce resources using burn rates and utilization data and provide that information to the MHOAC.
- Provide information about the requestor and jurisdiction's attempts to fill the request in the OA.
- If the request is going to be sent to the RDMHC/S, then the request will need to include a Situation Report[42] from the MHOAC.
- Include alternative resource information in the request.

3 *RDMHC/S: Can the Request be Filled Regionally?*

Discussion:

The RDMHC/S will attempt to fill the scarce resource request with regional medical health resources. The RDMHC/S will require the same information the MHOAC needs to make their decision. If the request can be filled regionally, the RDMHC/S will mark the request as completed and provide the required information to the MHOAC. If it cannot be completed, the RDMHC/S will elevate the request through Salesforce to the MHCC/MACC.

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- Because the MHOAC is authorized and expected to work with the RDMHC/S, completing multiple options under Decision 2 will facilitate the RDMHC/S decision.
- Permit the RDMHC/S access to or provide OA and jurisdictional resource data.
- Ensure jurisdiction policies and procedures complement RDMHC/S resource requests processes.

42 https://www.cdph.ca.gov/Programs/EPO/CDPH%20Document%20Library/EOM%20Documents/California_Public_Health_and_Medical_Emergency_Operations_Manual-current.pdf

4 *MHCC/MACC: Is the Resource Scarce?*

Discussion:

Because resource scarcity will vary from the perspective of the state, region, and jurisdiction the MHCC/MACC is responsible for reviewing a request and determining if it is scarce. If the resource is not scarce, the request will be completed normally. If the resource is determined to be scarce, then the MHCC/MACC must vet the request with appropriate stakeholders.

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- When the MAC Group is activated, ensure the MHCC/MACC has access to the latest or live data related to the jurisdiction and resource status.
- Submit the request even if the jurisdiction knows the resource is scarce or unavailable in the region. This will allow the MAC Group/MHCC/MACC to plan for requesting additional resources and seek multiple routes for filling a request.

5 *MHCC/MACC: Was the Request Properly Vetted?*

Discussion:

Vetting is conducted through the RDMHC/S if the MHCC/MACC has determined that further information is required. At a state level MAC, the MHCC is responsible for vetting all medical and health resources other than shelters which are vetted by the state's Emergency Support Function (ESF) #6.

At the Region II M/H MAC Group, the MACC will be responsible for:

- Determining if the resource request is appropriate.
- Collecting and synthesizing relevant information to assist in decision-making.
- Requesting resource status information from Local Health Department DOCs and/or OA EOCs.
- Maintaining current information on the numbers of personnel and major items of equipment committed to incidents and/or available for assignment.
- Documenting all resource allocations made.
- Providing resource summary information to the Situation Assessment Unit/position as requested.
- Collecting and storing all resource-related incident documentation.

The MACC uses the following assumptions when vetting:

Scarce Resource Assumptions	
☐	Attempts at conservation, reutilization, adaption, and substitution have been performed maximally
☐	Despite strategic stockpiling and regional cooperation and allocation, the demand or need for the specific resource (including personnel) exceeds the supply that is available or expected to become available within a specified period of time
☐	Standard resource requesting procedures are already in place and will be followed; these procedures are in accordance with the CDPH EOM
☐	The requestor is unable to obtain resources within a reasonable time frame or at a reasonable price (i.e., price gauging) from vendors, contractors, MOU/MOA corporate offices, and other non-traditional sources

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- When the MAC Group is activated, ensure the MHCC/MACC has access to the latest or live data related to the jurisdiction and resource status.
- Maintain logs regarding resource allocations received from the MAC Group.
- Provide the MHOAC/Medical and Health Branch/DOC with the most current situation report to include a resource summary.

6 *RDMHC/S: Was the information provided?*

Discussion:

If the MHCC/MACC determines that a resource request was not properly vetted, they will redirect the request back to the RDMHC/S to provide additional information. The RDMHC/S will gather the appropriate information from the MHOAC/Medical and Health Branch/DOC.

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- Because the MHOAC is authorized and expected to work with the RDMHC/S, completing multiple options previous decisions will facilitate the RDMHC/S follow up.
- Ensure that the RDMHC/S has the necessary points of contact (POC) to gather any additional details needed. Relevant POCs may include the MHOAC, EOC/DOC Logistics, SMEs, Health Officer, or EOC/DOC Director.

7 *MAC Group: Does the Request Meet the 429 Form Threshold?*

Discussion:

Once an MHCC/MACC has the necessary information and has confirmed vetting, they will facilitate discussion among the identified MAC Group members. The MAC Group will discuss whether the request meets the threshold of the MAC 429 form (Attachment 1) and complete the form. The discussion may be aided by an Issue Prioritization Tool, Ethical Policy Making Tool, and a Decision Support Tool. The discussion will include:

- Identify alternatives and solutions for current issues and/or policy recommendations.
- Review MHOAC and OA Situation Status Reports and unfilled scarce resource requests.
- Review or develop criteria to prioritize scarce resource needs of OAs using the MACS 429 form.

If the determination is made to not fill the request, the MAC Group will notify the RDMHC/S who notifies the MHOAC and local jurisdiction. If it does meet the prioritization requirements, two members of the MAC Group will sign the MAC 429 form.

For the Region II M/H MAC Group, if a MAC 429 form was completed and the resources are available in limited quantities, they will complete a proportional assessment (Image 2) to determine the quantities given to each OA. The OA will distribute the resources based upon the guidance from the MAC Group and in accordance with local policies and procedures.

Proportional Assessment

Resources Needed in the OA / Resources Needed in Region II X Resource Available in Region II = Baseline OA Allocation

Example: Assuming the region only has 3 counties and there are a total of 100 units of resource to distribute.

Total number of resource available in the region:	100

OA	Total Score	Resources Needed	Baseline Allocation of Resource for the OA	Actual Allocation of Resource of OA
OA 1	13	75	75/(75+60+35)*100 = 44	TBD
OA 2	10	60	60/(75+60+35)*100 =35	TBD
OA 3	7	35	35/(75+60+35)*100 =21	TBD

Total Number of Resources Available in Region II:				
OA	**Total Score**	**Resources Needed**	**Baseline Allocation of Resource for the OA**	**Actual Allocation of Resource of OA**
Alameda				
Contra Costa				
Del Notre				
Humboldt				
Lake				
Marin				
Mendocino				
Monterey				
Napa				
San Benito				
San Francisco				
San Mateo				
Santa Clara				
Santa Cruz				
Solano				
Sonoma				
Alameda				
Total				

Image 2: Region II M/H MAC Group Proportional Assessment

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- Ensure the Agency Representatives (ARep) serving on Region II M/H MAC Group have the necessary jurisdictional information and authority to make policy and resource decisions.
- Continue to seek alternative methods for acquiring the resource or alternative resources.
- Ensure ethical distribution of the scarce resource in accordance with local policies and procedures. A jurisdiction should consider discussing the internal allocation of the resource with their MHOAC, MAC, or a Policy Group to determine the distribution based on guidance from the Region II M/H MAC Group.

8 *MAC Group: What is the Most Logical Fulfillment Process?*

Discussion:

With the decision made to fill the resource request, the MAC Group will determine the appropriate method to fulfill the request based on the availability and location of resources. At the state-level, the following agencies deploy these resources:

- CAL MAT resource: EMSA deployment team mobilize the resource.
- National Guard resources are mission tasked through Cal OES Law Branch and signed off on by Cal OES Response Division.
- Health Corps resources: CDPH SME directs the CDPH DO to collect a signed MOU from the SNF and to verify with the SNF that adequate PPE is available.
    - If the above has occurred, the SNF Deployment Team will deploy the asset.

When the Region II M/H MAC Group has made their decision, they will coordinate with AReps that are members of the MAC Group. Those AReps will coordinate with the necessary agencies, EOCs/DOCs, and other responsible personnel to implement the decisions of the MAC Group.

EOC/DOC Options:

To facilitate this decision, the EOC/DOC has the following options:

- Ensure the AReps have the necessary logistical information, POCs, and authority to support the deployment of resources to their jurisdiction.
- Ensure the logistics section tracks the delivery of the resource to the requestor.

Appendix A: Pandemic Resource List

Below is a vetted resource list for jurisdictions to use in pandemic planning. The resources included were identified through interviews, reviewing COVID-19 resource request logs, and data collection. The resources are the most requested and rare/unique resources that may not have been accounted for in previous pandemic planning.

Resource Description	Resource Category	Units of Measure
Alcohol Isopropyl	Cleaning	Boxes
Bleach	Cleaning	Boxes
Disinfecting Wipes/Germicidal Disposable Wipes	Cleaning	Boxes
Spray Bottles	Cleaning	Each
Fuel (Diesel or Petroleum)	Equipment	Gallon
Medical Transport	Equipment	Each
Pop Up Tents	Equipment	Each
Remote Computer Equipment	Equipment	Each
Traffic Cones	Equipment	Each
Warehouse Space	Equipment	Each
20 Ft Refrigerated Trailers	Mass Fatality	Each
Body Bags	Mass Fatality	Each
Albuterol	Medical	Boxes
Antiseptic Foam	Medical	Boxes
Biohazard Boxes	Medical	Boxes
Blood Collection Supplies	Medical	Boxes
Cannula	Medical	Boxes
Catheters	Medical	Boxes
Crash Cart Medications and Supplies	Medical	Boxes
Demand Valves & Aspirators	Medical	Each
Disposable Bag Valve Mask Resuscitators	Medical	Each
Disposable Stethoscopes	Medical	Boxes
Disposable Thermometers	Medical	Boxes
Humidifiers	Medical	Each
Intensive Care Unit Beds	Medical	Each
Nebulizers	Medical	Each
Normal Saline	Medical	Boxes
Oxygen Cylinders	Medical	Each
Resuscitation Masks	Medical	Boxes
Sodium Chloride Flush/Injection	Medical	Each
Sphygmomanometer	Medical	Each

Resource Description	Resource Category	Units of Measure
Steroids (Various)	Medical	Boxes
Tongue Depressors	Medical	Boxes
Touch Free Thermometers	Medical	Each
Ventilators	Medical	Each
Viral Transportation Media	Medical	Boxes
Tamiflu	Medicine	Each
Formula	Pediatric	Boxes
Face Shield	PPE	Each
Filtering Facepiece Respirators	PPE	Boxes
Fit Test Kit (Mask Specific)	PPE	Each
Fit Test Kit Solution	PPE	Each
Gloves - Extended Cuffs (Large)	PPE	Boxes
Gloves - Extended Cuffs (Medium)	PPE	Boxes
Gloves - Extended Cuffs (Small)	PPE	Boxes
Gloves (Large)	PPE	Boxes
Gloves (Medium)	PPE	Boxes
Gloves (Small)	PPE	Boxes
Hand Sanitizer	PPE	Each
Hand Soap	PPE	Boxes
High Efficiency Particulate Air (HEPA) Filters	PPE	Boxes
Masks (Cloth)	PPE	Each
Medical Gowns	PPE	Boxes
Plastic Space Dividers	PPE	Each
Protective Goggles	PPE	Each
Shoe Covers	PPE	Boxes
Surgical Masks	PPE	Boxes
Tyvek Suits	PPE	Each
Cots/Bariatric Cots	Shelter	Each
Handwash Stations	Shelter	Each
Hotel Room/Single Occupancy Rooms	Shelter	Each
Portable Bathrooms	Shelter	Each
Toiletries	Shelter	Each
Case Investigators	Staffing	Each
Epidemiologists	Staffing	Each
Human Services Staff	Staffing	Each
Interpreter	Staffing	Each
Lab Technicians	Staffing	Each
Mental/Behavioral Health Staff	Staffing	Each
Nurses	Staffing	Each
Security Staff	Staffing	Each
Translator	Staffing	Each

Resource Description	Resource Category	Units of Measure
Disposable Transfer Pipettes	Testing	Boxes
Extraction Kits	Testing	Boxes
Reagent	Testing	Boxes
Specimen Collection Swabs: Oropharyngeal/Nasopharyngeal	Testing	Boxes

Appendix B: Acronyms

Acronym	Definition
AAR	After Action Report
ABAHO	Association of Bay Area Health Officers
ARep	Agency Representative
Cal OES	California Governor's Office of Emergency Services
CalHHS	California Health and Human Services Agency
CAL-MAT	California Medical Assistance Team
C/FBO	Community or Faith Based Organizations
CDPH	California Department of Public Health
COVID-19	Coronavirus Disease 2019
DO	District Office
DOC	Department Operations Center
DSW	Disaster Service Worker
EEI	Essential Elements of Information
EMSA	Emergency Medical Services Authority
EOC	Emergency Operations Center
EOM	Emergency Operations Manual
ESF	Emergency Support Function
FDA	U.S. Food and Drug Administration
FEMA	Federal Emergency Management Agency
GIS	Geographical Information Systems
HEPA	High efficiency particulate air
HR	Human Resources
ICS	Incident Command System
M/H	Medical and Health
MACC	MAC Group Coordinator
MACS	Multi-agency Coordination System
MHCC	Medical Health Coordination Center
MHOAC	Medical Health Operational Area Coordinator
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NIMS	National Incident Management System
OA	Operational Area
PAR	Periodic Automatic Replenishment
PPE	Personal Protective Equipment
PUI	Persons Under Investigation
RDMHC/S	Regional Disaster Medical and Health Coordinator/Specialist
RR	Resource Request

Acronym	Definition
SEMS	Standardized Emergency Management System
SME	Subject Matter Expert
SNF	Skilled Nursing Facility
SNS	Strategic National Stockpile
UASI	Urban Areas Security Initiative

Appendix C: Attachments

The following documents are examples of modifications made to resource request forms and the process flowchart files.

Attachment 1: MAC 429 Form – COVID-19 (Cal OES/CHHS)

Blank MAC 429 Form provided by Cal OES/CHHS to MAC Groups to facilitate scarce resource request. The form informs jurisdictions of EEIs collected during the scarce resource adjudication process by MAC Groups.

Attachment 2: Modified Resource Request Form – COVID-19 (Santa Clara County)

Provided courtesy of Santa Clara County EOC, the modified 213RR form is an example of a modified resource request form for requesting medical personnel during COVID-19.

Attachment 3: Resource Request Questions for ReddiNet (San Mateo County)

Provided courtesy of San Mateo County Emergency Medical Services Agency, the example questions can be added to ReddiNet forms that healthcare facilities complete when requesting scarce medical resources during a pandemic.

Attachment 4: Internal Scarce Resource Request Process Flowchart File

Provided for modification by Bay Area UASI jurisdictions.

Attachment 5: Regional Scarce Resource Request Process Flowchart File

Provided for modification by Bay Area UASI jurisdictions.

MAC 429

	Event Name:	Scarce Resource MACS 429	Operational Period: Date: Time:
	Requesting Entity Information:		
	County population:	**Items Requested:**	

Community Impact	CATEGORY A: Total Number of positive cases in the County **(DISREGARD FOR VENTILATORS)**		Rating Score	Comments
	>1000		4	
	501-1000		3	
	101-500		2	
	0-100		1	
	N/A		0	
	CATEGORY B: Total Number of COVID-19 positive cases hospitalized per county		Rating Score	Comments
	>20		4	
	10-20		3	
	5-10		2	
	1-5		1	
	N/A		0	
	CATEGORY C: Population Density		Rating Score	Comments
	> 500 ppl p/sq. mi		4	
	300 to 500 ppl p/sq. mi		3	
	201 to 300 ppl p/sq. mi		2	
	< 200 ppl p/sq. mi		1	
	CATEGORY D: Percentage of population >65 years old in county		Rating Score	Comments
	>15%		4	
	10-15%		3	
	5-9%		2	
	0-4%		1	
	N/A		0	
Facility Impact	CATEGORY E: Number of Available Beds	___ Hospital ___ County	Rating Score	Comments
	0-10		4	
	11-50		3	
	51-150		2	
	151+		1	
	N/A		0	
Personnel	CATEGORY F: Does the site need personnel to open?		Rating Score	Comments
	Yes		4	
	No		0	
	CATEGORY G: Patient capacity	___ Hospital ___ FMS/ACS	Rating Score	Comments
	0-50		4	
	51-100		3	
	101-150		2	
	151+		1	
	N/A		0	
	CATEGORY H: Current Patient Census	___ Hospital ___ FMS/ACS	Rating Score	Comments
	51+		4	
	26-50		3	
	15-Nov		2	

	0-10		1	
	N/A		0	
PPE or Med Requests	CATEGORY I: How many days left of requested item (including cache)?		Rating Score	Comments
	< 4 days remaining		4	
	7 days remaining		3	
	10 days remaining		2	
	>14 day		1	
	N/A		0	
Equipment Requests	CATEGORY J: How many of requested item are left (including cache)?		Rating Score	Comments
			4	
			3	
			2	
			1	
	N/A		0	
Vent	CATEGORY K: Are you out of vents?			Comments
	Yes - **Call the facility**			
	No			
	CATEGORY L: Ventilator Safety Factor = (Total Vents Available) ÷ (ICU Beds Available) ( ) ÷ ( ) = _____	___ Hospital ___ County	Rating Score	Comments
	<2		4	
	2-3		3	
	3-4		2	
	>4		1	
	N/A		0	
	CATEGORY M: Percent Ventilator Use = (Total Vents in Use) / (Total Vents On Site) x 100 ( ) ÷ ( ) X 100 = ____	___ Hospital ___ County	Rating Score	Comments
	71-100		4	
	51-70		3	
	31-50		2	
	10-30		1	
	<10		0	
	TOTAL INCIDENT RATING SCORE:			
	TOTAL APPROVED:			
	Signature: Executive	Signature: Reviewer 1		Signature: Reviewer 2

County of Santa Clara

Emergency Operations Center (EOC)

Resource Request Form 213RR for Medical Personnel (COVID-19)

COMPLETED BY REQUESTOR

1. Incident Name	2. Date Initiated	3. Time Initiated	4. Tracking Number *(Completed by OA EOC)*
2019 Novel Corona Virus (COVID-19)			

5. Requested By *(name, agency, position, email, phone)*

6. Prepared by *(name, position, email, phone)*

7. Approved by *(name, position, email, phone)*

Signature:

How to use the EOC Form 213RR

Purpose	The EOC 213RR is used to request non-mutual aid supplies, services, personnel, teams, equipment, utilities, fuel, facilities, or any other resource or incident management activity required from the Operational Area (OA.)
When to use	The Form 213RR may be used anytime during any Operational Period. If the OA EOC is not activated the Duty Officer will serve to coordinate the request.
Prepared by	Any EOC position or agency requesting resources from the OA
Approved by	(A) Executive or Supervising Official at requesting agency or (B) a Section Chief of the requesting EOC or (C) Deputy County Executive if request is from a County Department and is requesting PPE.
Routed to	Logistics Section - **SCC Resource Tracking Unit** Send signed form via email to: resourcetracking@eoc.sccgov.org
Filed with	Logistics Section Resource Tracking Unit / Planning Section Documentation Unit
User Notes	The EOC is a last resort provider and you may be responsible for the cost of the requested items. **Please check that all pages and necessary fields are completed.** Page 1 is required for all requesters. Please be sure the form has proper signatures for **Approved By** (box 7). The last page is completed by the OA EOC.

Requesting Agency / EOC Section

REQUESTED RESOURCE DETAILS

8. Qty/Unit	9. Resource Description *Note: See pages 2 and 4 - 8 to provide additional information for personnel requets*	10. Arrival *(date/time)*	11. Priority	12. Est'd Cost
			Now ◯ High *(0-4 hours)* ◯ Medium *(5-12 hours)* ◯ Low *(12+ hours)* ◯	

13. Deliver to *(name, agency, position, email, phone)*

14. Location *(address or lat./long., site type)*

15. Substitute/Suggested Sources *(name, phone, website)*

16. Supplemental Requirements *(include details in #17)*

- ☐ **Equipment Operator**
- ☐ **Fuel**
  Fuel Type _____
- ☐ **Meals**
- ☐ **Water**
- ☐ **Lodging**
- ☐ **Power**
- ☐ **Maintenance**
- ☐ **Other** _____

17. Special Instructions

TO BE COMPLETED BY <u>ALL REQUESTORS</u>

Disaster Service Activity	
EOC Tracking #	
Report to	
Contact Number	
Location to report	
Date(s) to report	
Schedule	
Duration	
Duties	
Items to bring with you	
Types of PPE provided	
Amenities (ie break room, lunch provided, etc)	

If you have any questions regarding this request, please email the EOC personnel unit at personnel@eoc.sccgov.org.

Thank you in advance for your help,
EOC Personnel Unit

Resource Request Form 213RR

COMPLETED BY OA EOC or DUTY OFFICER

OA EOC Logistics Section	**18. Order Placed By** *(name, position, agency, phone, radio, email)*	
	19. Method of Procurement (*filled-in house, agreement, purchase, etc.)*	
	20. Supplier Name / Point-of-Contact Information *(name, address, phone, fax, email)*	
	21. Logistics Section Remarks	
	22. Logistics Section Chief Approval *(print and sign)*	
OA EOC Fin/Admin Section	**23. Finance/Admin Section Chief Remarks and Approval** *(print and sign)*	**Date/Time**
OA EOC Management Section	**24. EOC Director/County Executive Remarks and Approval** *(print and sign)*	**Date/Time**
OA EOC Logistics Section	**25. Logistics Section Final/Demobilization Remarks**	**Date/Time**

PART 1. TO BE COMPLETED BY ALL REQUESTORS

Requestor Details	
Date of Request:	
Request Point of Contact:	
Requestor Email:	
Requestor Phone:	
Requesting Facility Details	
Facility Name:	
Facility Type:	
County:	
Total Facility Capacity:	
Number of Free, Patient-Ready Beds:	
Does the Facility Currently Have COVID-19 Positive Patients (yes/no):	

Deployment Details	
Requested Deployment Dates:	
Requested kind of staff and number of each:	
Staff classification (e.g. RN, LVN, CNA)	Number
Total Number of Staff Requested:	

Request Details	
Anticipated duration of staffing need (max = 72 hours)	
Reason for staffing request (Please note that requests to provide staff for performing COVID testing or to cover staff while they get COVID testing are not appropriate).	
If staffing is provided to my facility by the County, I confirm, on behalf of my facility, that I will fully reimburse the County for all costs to the County for ALL staff and goods. I acknowledge that the County may terminate this arrangement at any time.	◯ Yes ◯ No Initial here_____
Maximum hourly rate	$

Previous attempts	
Have you attempted to obtain staffing from parent corporation and sister institutions?	◯Yes ◯No ◯No sister institutions
Have you contacted and attempted to obtain staffing from all 10 agencies listed below? [REQUIRED PRIOR TO REQUEST]	◯Yes ◯No
Agency Name / Contact Date SLS Prolink SnapNurse NuWest Medefis GQR LoyalSource SHC Aya Med Soultions	Reason for Refusal

Requested Coverage						
Shift Days of the Week (check all that apply)						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

AM Shift Hours	From (start time):		To (end time):		Duration (hours):	
Kind of Staff Requested for AM Shift				# of Staff Requested for Shift		
PM Shift Hours	From (start time):		To (end time):		Duration (hours):	
Kind of Staff Requested for PM Shift				# of Staff Requested for Shift		

PART 2. TO BE COMPLETED BY ACUTE CARE HOSPTIALS ONLY [REQUIRED BY STATE OF CA]
PROCEED TO PART 3 FOR ALL OTHER REQUESTORS

Bed Availability	
Number of available beds:	
Number of additional beds if provided staffing:	
Current % Patient Occupancy:	

Mitigation Plan	
Number of available beds:	
Number of additional beds if provided staffing:	
Current % Patient Occupancy:	
Has the hospital cancelled all elective surgeries in order to free up bed space and allow for staffing resources redirection to needed units?	◯ Yes ◯ No
Has the hospital cancelled all outpatient procedures in order to free up bed space and allow for staffing resources redirection to needed units?	◯ Yes ◯ No
Has the hospital activated their previously vetted and approved surge plan?	◯ Yes ◯ No
Does the hospital have other hospitals in their network that could provide additional staffing to the hospital in need?	◯ Yes ◯ No
Does the hospital have a “Program Flex” for staffing approved by California Department of Public Health (CDPH)?	◯ Yes ◯ No
What is the hospital’s long-term strategy to continually staff the facility to provide appropriate level of care for the patients within the hospital?	

PART 3. TO BE COMPLETED BY ALL REQUESTORS

Instructions For Arrival
(eg. instructions for accessing the facility, parking, security, point of contact):

Additional Information
Information not captured in this form or the corresponding Resource Request

Signature _____ Date_____

Click to Attach Any Docs.

Please provide answers to the following questions to aide in the adjudication of your request for staffing. **ALL REQUESTS MUST BE ACCOMPANIED BY A SALESFORCE NUMBER or the request cannot be adjudicated.**

Salesforce RR# (Requester to leave blank. Filled in by MHOAC.): _____
Facility Name: _____
Number of Available Beds: _____
Number of additional beds if provided requested staffing: _____
Current % Patient Occupancy: _____

- Facility Census: _____
  - COVID + residents: _____
  - PUI Residents: _____

- Total Patient Care Staff: _____
  - COVID + Staff: _____
  - Staff Unavailable to work (COVID or other): _____

- Has the facility stopped taking new admissions?

- Is the facility following their mitigation plan?

- Does the facility have sister facilities or a network of facilities that could provide additional staffing to the facility in need?

- Has the facility reached out to private staffing contract agencies to provide additional staffing in the facility?
  - Which agency?
  - Why is this agency unable to provide assistance?
    * Please list each agency separately

- What is the facility's long-term strategy to continually staff the facility to provide appropriate level of care for the patients?

Please provide the answers to your MHOAC and your local CDPH District Office representative. As a reminder, state sourced staffing is meant to fill short term emergency staffing gaps and is not meant as a long term staffing resource.

Below are the list of ten (10) Staffing Agencies that California Department of Public Health and The State of California are in an active agreement with or have been in the past. These 10 reflect being good business partners during the Winter 2020 COVID-19 Surge.

These vendors work and have worked well in communications, allocations, and deployment. All these vendors below have shown to have a higher standard of responsiveness, deployment speed, and clinical competency of their staff.

Staffing Agency	Point of Contact	Email Address	Phone	Roles
SLS	Janna Contorno	jcontorno@sls-health.com	713-880-8419	Leadership
ProLink	Brent Wallace Brendan Tobolski	bwallace@prolinkstaff.com btobolski@prolinkstaff.com	614-558-3599 716-462-3112	Leadership Leadership
SnapNurse	Cherie Kloss Bart Richert Jeff Richards	cherie@snapnurse.com bart.richert@snapnurse.com jeff.richards@snapnurse.com	404-424-9725 863-287-3355 404-849-8297	CEO VP Leadership
NuWest	Mona Veiseh	mveiseh@nuwestgroup.com	425-602-5716	Leadership
Medefis (Medefis/StaffCare/AMN)	Kriti Patel Lauren LoGuercio	Kirti.Patel@shiftwise.com lauren.loguercio@shiftwise.com	971-634-0993 971-634-0996	Leadership Leadership
GQR	Josh Redland Rory Moaddocks	josh.redland@gqrgm.com rory.maddocks@gqrgm.com	424-306-2373 	Leadership Leadership
Loyal Source	Brian Synder	bsnyder@loyalsource.com	407-930-8540	Leadership
Supplemental Health Care (SHC)	Melissa Evans	mevans@shccares.com	469-844-8908	Leadership
Aya	Thomas Lee Sophia Morris	Tlee@ayahealthcare.com smorris@ayahealthcare.com	858-279-2787 866.546.7122*11359	Leadership Leadership
Medical Solutions	Kyle Hoy	kyle.hoy@medicalsolutions.com	402.986.5130	Leadership

Example ReddiNet Questions

The below questions were provided courtesy of San Mateo County Emergency Medical Services Agency. The examples can be added to ReddiNet forms completed by healthcare facilities when requesting scarce medical resources during a pandemic.

- What is the number of occupied beds in your facility?
- How many [insert infectious disease] positive patients do you have?
- How many persons under investigation (PUI) do you have?
- How many of your staff interact with [insert infectious disease] positive/PUI patients?
- What is the current number of this item that you have on hand?
- What is your weekly PPE burn rate for item(s) requested?
- What is the bare minimum amount you need to get you through the week?
- How many days until you are completely exhausted (0) of this supply?
- What is your current ration protocol for PPE?
- Have you tried to procure this item through your normal vendor? What is the reason your normal vendor is unable to provide your item? (ex. Delay, urgent need, etc.)
- Do you have other facilities in other counties that you are sending equipment to?
- Does your facility perform any procedures that carry a risk of spreading [insert infectious disease]? If so, what and how many types?

Flowchart Function

Decision

Process

Sub-process

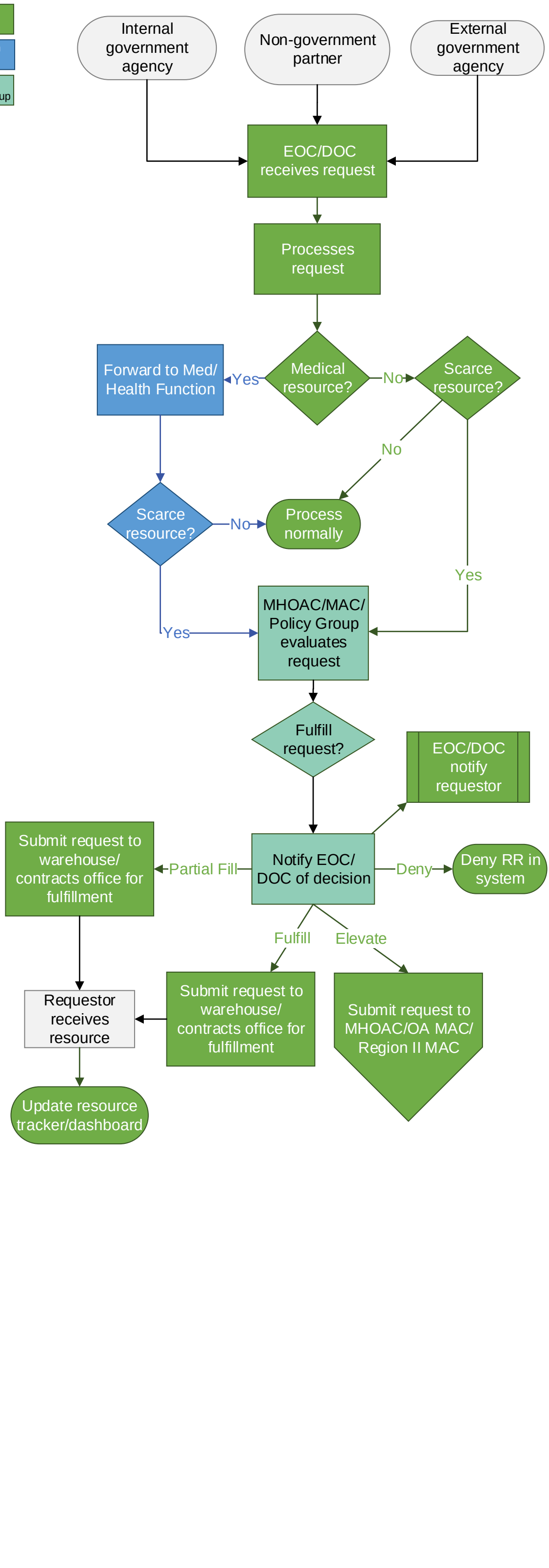
Start/End

Responsible Entity

Jurisdiction

Med/Health Function

Scarce Resource Group



Flowchart Function

Decision

Process

Sub-process

Start/End

Responsible Entity

Jurisdiction

MHOAC

RDMHC/S

MAC Group

State

Jurisdiction does not have resource

Medical resource?

No

Submit through CalEOC

Yes

Submit through Salesforce

MHOAC able to fill?

Yes

Marked as filled

No

Forward request through Salesforce to RDMHC/S

Able to fill regionally?

Yes

Marked as filled

No

Request forwarded in Salesforce to MHCC

Scarce resource?

No

Resume regular process

Yes

Properly vetted?

No

Request further information from RDMHC/S

Yes

Necessary information provided?

Yes

MHCC submits request to MAC Group

No

Request not filled

Does it meet 429 Form Threshold?

No

MHCC notifies RDMHS who notifies MHOAC and jurisdiction

Yes

(2) members sign 429 Form

Most logical fulfillment process?

EMSA Deployment Team mobilize the resource

National Guard resource tasked through Cal OES

Health Corps Resources

CDPH SME directs District Office to collect an MOU from SNF and to verify PPE is available

SNF Deployment Team deploys resource

Tracks resource until demobilization