Concept of Operations (CONOPS) for Coronavirus Disease (COVID-19) Personal Protection Equipment Shortage
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Approved By:

Scott Bookman, CDPHE COVID-19 Incident Manager
1.0 Purpose
This Concept of Operations plan (CONOPS) provides medical facilities and healthcare professionals recommendations to reduce usage of Personal Protective Equipment (PPE) and establishes guidance for Local Public Health Agencies on the actions required for a coordinated resource request process within Colorado to effectively manage potential PPE shortages that are being exacerbated by the global response to COVID-19. This CONOPS establishes documentation requirements for medical facilities and healthcare providers requesting PPE support; and the procedures Local Public Health Agencies (LPHA) will follow to request the state distribute emergency supplies from the limited inventory contained within the Colorado Medical Cache - Western Slope. As a general rule, emergency PPE cached supplies are reserved for all but the most severe shortages that will significantly impact the ability of Colorado’s healthcare system to provide emergency medical support to Colorado residents and visitors, or actual cases associated with this pandemic response. Emergency cache PPE supplies are not intended for distribution to the general public.

2.0 Scope
The CONOPS is limited to describing operational intent for responding to a confirmed PPE shortage as a result of COVID-19.

3.0 Situation Overview

3.1 PPE Shortage
Hospitals across the country are reporting difficulties in obtaining some PPE items, particularly N95 Filtering Facepiece Respirators. N95 respirators are respiratory protective devices designed to achieve a very close facial fit and very efficient filtration of airborne particles. The ‘N95’ designation means that when subjected to careful testing, the respirator blocks at least 95 percent of very small (0.3 micron) particles. If properly fitted, the filtration capabilities of N95 respirators exceed those of face masks. However, even a properly fitted N95 respirator does not completely eliminate the risk of illness or death.

In addition to the N95 Respirators, other PPE items that may be in short supply due to the on-going response to COVID-19 include: gowns, gloves, masks, eye shields, testing kits, infrared thermometers, and related drugs.

Despite best efforts, of many domestic manufacturers to step-up production of these PPE items, it is anticipated this increased production will take several months before those supplies make a significant impact upon supply availability through normal supply chains.

3.2 Key Stakeholders
- Colorado Department of Public Health and Environment
- Local Public Health Agencies
3.3 CDC PPE Recommendations:

3.3.1 Who needs PPE:
- Patients with confirmed or possible COVID-19 infection should wear a mask when being evaluated medically.
- Healthcare personnel should adhere to standard, contact, and airborne precautions, including the use of eye protection (e.g., goggles or a face shield) when caring for patients with COVID-19 infection. These precautions include the use of PPE, including NIOSH-approved N95 respirators, gowns, gloves, face shield/eye protection.

3.3.2 Who does not need PPE:
- CDC does not currently recommend the general public use facemasks. Instead, CDC recommends following everyday preventive actions, such as washing your hands, covering your cough, and staying home when sick.

4.0 PPE Concept of Operations

4.1 N95 Respirator Reuse/Reduction:

4.1.1 CDC guidance for optimizing supplies of N95 respirators in healthcare settings in response to COVID-19 can be found at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-supply-strategies.html CDPHE encourages healthcare providers to work with Respiratory Protection and Infection Control staff to identify opportunities to reduce use of N95 respirators by using the below Hierarchy of Controls model:

![Hierarchy of Controls Diagram](image)

4.1.2 Should CDC and the National Institute for Occupational Safety and Health (NIOSH) authorize extended use and limited reuse of N95 Filtering Facepiece Respirators in Healthcare Settings, the guidance can be found at: https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html
4.2 Cooperation and mutual support

4.2.1 CDPHE recommends all Hospital Administrators and healthcare providers make themselves familiar with the statewide hospital Memorandum of Understanding (MOU) and provide support when needed in order to maximize supply sharing to support the general health and wellbeing of Colorado’s people. The MOU can be found at: https://www.colorado.gov/pacific/cdphe/state-colorado-hospital-memorandum-understanding

4.2.2 In addition to the MOU, CDPHE also encourages healthcare providers to work with your County/Local Public Health Agency and your regional Healthcare Coalition to help identify alternative sources of needed supplies. To learn more about healthcare coalitions and to locate a coalition in your region, please go to: https://www.colorado.gov/pacific/cdphe/health-care-coalitions

4.3 Request for Assistance - Emergency Operations Center Not Activated:

- Facility follows locally established procedures to contact Local Public Health Agency/ESF-8 lead or county Emergency Management.
- Local Public Health/ESF-8 lead contacts CDPHE-OEPR:
  - Greg.Stasinos@state.co.us and Melanie.Simons@state.co.us
  - 1-877-518-5608 (24/7 Emergency Response and incident Reporting Line)
  - CDPHE-OEPR staff will verify the Resource Request (ICS 213RR) and request justification memo if there is not a COVID-19 patient (see 4.5 below)
- When requesting resources in non-emergent situations please ensure the medical facility senior administrator, your Local Public Health Director and your local emergency manager or office of emergency management is provided with situational awareness regarding the request for material.

4.4 Request for Assistance - State Emergency Operations Center Activated:

- Facility experiencing shortage, use locally established procedures to contact Local Public Health Agency or county Emergency Management.
- Local Public Health/ESF-8 Lead contacts Local Emergency Operations Center or Office of Emergency Management (OEM).
- Local Emergency Operations Center or OEM sends request via WebEOC to State Emergency Operations Center.
- Request is assigned to ESF-8 Desk within the State Emergency Operations Center.
- CDPHE ESF-8 lead at the SEOC or a designee will contact the requester to verify the request.
- The process is reversed when the request is filled, keeping everyone informed and completing the ordering process.

4.5 Request for Assistance by a Medical Facility With a COVID-19 Patient:

4.5.1 If a medical facility does not have a confirmed case of COVID-19 and experiences a shortage of PPE; in order for CDPHE-OEPR to consider providing PPE supplies, a memo should be signed by the requesting hospital/healthcare provider
senior administrator and the LPHA Director for the County in which the Hospital or Healthcare Provider is located, along with a completed Resource Request (ICS 213RR). The memo should contain a brief description detailing the circumstances that led up to the shortage of PPE supplies. Further, identify any alternative solutions that were implemented and describe actions taken to source the requested PPE supplies including working with the regional healthcare coalition, alternative vendors, and alternative models/styles of the requested PPE. CDPHE-OEPR will evaluate the request, may seek additional justification, attempt to find other solutions for the PPE shortage, and may authorize (if available) PPE to support the request from the Colorado Medical Cache – Western Slope.

4.6 Shipping Arrangements/Costs:

4.6.1 Once PPE requests are approved, CDPHE-OEPR will work with Mesa County Public Health and the Northwest Regional Staff to coordinate the expedited shipment of supplies from the Colorado Medical Cache-Western Slope to the receiving medical facility

4.6.2 Approved PPE and shipping for PPE associated with a COVID-19 patient will be provided at no cost to the medical facility. Shipping expenses of PPE for facilities without a COVID-19 patient will be the responsibility of the receiving facility.

4.7 Just in time fit testing:

4.7.1 All facilities are highly encouraged to implement procedures to rapidly conduct just in time fit testing for your staff as emergency cache supplies of N95 respirators most likely will not be the same model/style as your facility is currently using. Local Public Health Agencies may be able to provide assistance with fit testing.

5.0 Organizational Responsibilities and Considerations

5.1 Colorado Department of Public Health and Environment

The Colorado Department of Public Health and Environment will serve as the lead agency for providing approval of the release of PPE supplies from the Colorado Medical Cache - Western Slope. Mesa County Public Health Regional Staff will coordinate the transportation of PPE to approved locations.

5.2 Local Public Health Agencies (LPHA)

Will assist the healthcare providers in their county by coordinating requests for PPE supplies with healthcare coalitions, regional staff and other LPHAs, and CDPHE. LPHAs with Public Health Emergency Preparedness (PHEP) funded PPE stocks are not authorized to provide these resources to healthcare facilities. The PH PPE stocks should be reserved for PH staff protection. PPE purchased with other funds may be distributed with proper documentation/tracking at the LPHA’s discretion.

5.3 Medical Facilities/Healthcare Providers
Will manage their PPE supplies as efficiently as possible to reduce the need to request for emergency PPE assistance. Will notify their LPHA when they have a PUI or confirmed patient and track their PPE usage associated with the patient. If they need PPE support for “normal” operations, will work with the LPHA, other healthcare providers, and Healthcare Coalitions to seek alternative solutions prior to requesting emergency PPE supply support from the Colorado Medical Cache - Western Slope.

Just in time Fit Testing: Medical facilities must be prepared to conduct just in time fit testing to adjust to available respirators.

5.4 Health Care Coalitions (HCCs)

HCCs in the regions where PPE shortages have been identified will coordinate with those facilities to assist in identifying alternative sourcing of supplies and further assist the facility with the development of a management plan for these resources in the future.

5.5 Colorado Division of Homeland Security and Emergency Management

Will coordinate with CDPHE to process and complete resource requests from hospitals ordering PPE Supplies in direct response to the COVID-19 response when the SEOC is activated.