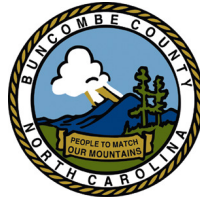


# BUNCOMBE COUNTY EMERGENCY SERVICES

Emergency Medical Services  
828-250-6630  
911 Communications  
828-250-6650  
EMS Training  
828-250-6633

V. Taylor Jones, Director



Emergency Management  
828-250-6600  
Fire Marshal  
828-250-6620  
Training Center  
828-250-4853

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## Buncombe County Emergency Services

### Memo

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**To:** Healthcare Providers

**Date:** March 10, 2020

**From:** Taylor Jones

**Subject:** Resource Needs for COVID-19

As healthcare providers prepare for the potential of emerging cases of COVID-19 most facilities have been experiencing gaps in their normal supply chains for personal protective equipment. Working with the Healthcare Preparedness Coalitions the NC Office of EMS and NC Emergency Management has developed a streamlined process for resource requests.

Any healthcare providers experiencing or anticipating gaps in their inventory of personal protective equipment should route their needs through the County Emergency Management Office.

Please review the following guidance from the Healthcare Preparedness Coalition regarding resource conservation and needs assessment. Please pay attention to page 3 of this document, those six questions will need to be able to be answered as resource requests are evaluated. If you have PPE resource needs please complete the attached resource request form and submit it to our office. **Be sure to complete Sections 2, 4, 5 & 6**

Please send completed resource requests to ALL THREE parties below:

Allen Morgan; [allen.morgan@buncombecounty.org](mailto:allen.morgan@buncombecounty.org) AND  
Brittany Curtis; [brittany.curtis@buncombecounty.org](mailto:brittany.curtis@buncombecounty.org) AND  
Angela Ledford; [angela.ledford@buncombecounty.org](mailto:angela.ledford@buncombecounty.org)

Contact our office with any questions or concerns.

**Mailing Address:** 164 Erwin Hills Road, Asheville, NC 28806  
**Fax:** 828-285-8319 [www.buncombecounty.org](http://www.buncombecounty.org)



## NC Healthcare Supply Conservation Considerations

Supply conservation and related preparedness activities should be considered now for implementation across the healthcare system as part of a coordinated response to COVID-19. The below supply conservation considerations focus around Personal Protective Equipment (PPE) Usage but many of the considerations are multi-purpose strategies.

### Scarce Resource Management

	Considerations	Notes
Preparedness Activities	Determine Normal Burn rate of PPE/Supplies* Look for alternate/substitution for PPE / Supplies ** Provide guidance / training for all employees ***	Should be doing these activities long before concern arises
Engineering Controls	Immediately place persons with respiratory illness in private room	
Administrative Controls	Telemedicine / Nurse Triage Protocols **** Exclude Healthcare Providers not directly involved in patient care Exclude Visitors Provide Facemasks for patients with symptoms	Use strategies for all patients requiring isolation, including those suspected or confirmed to have COVID-19
	Cohort Patients Cohort Healthcare Providers Just-in-time fit testing Limiting Respirators During Training	Useful in the case of higher levels of surge

\*Monitor burn rate of PPE/Supplies to determine if strategies are effective at decreasing burn rate and to inform trigger for adding new strategies to help with conservation of resources

\*\*Consideration of different suppliers/manufacturers or different types (e.g. N99) & obtaining from other partners

\*\*\*Increased and proactive communications help staff feel informed and prepared with the evolving situation

\*\*\*\*Create protocols to help staff feel more comfortable fielding questions to decrease surge on healthcare system



## NC Healthcare Supply Conservation Considerations

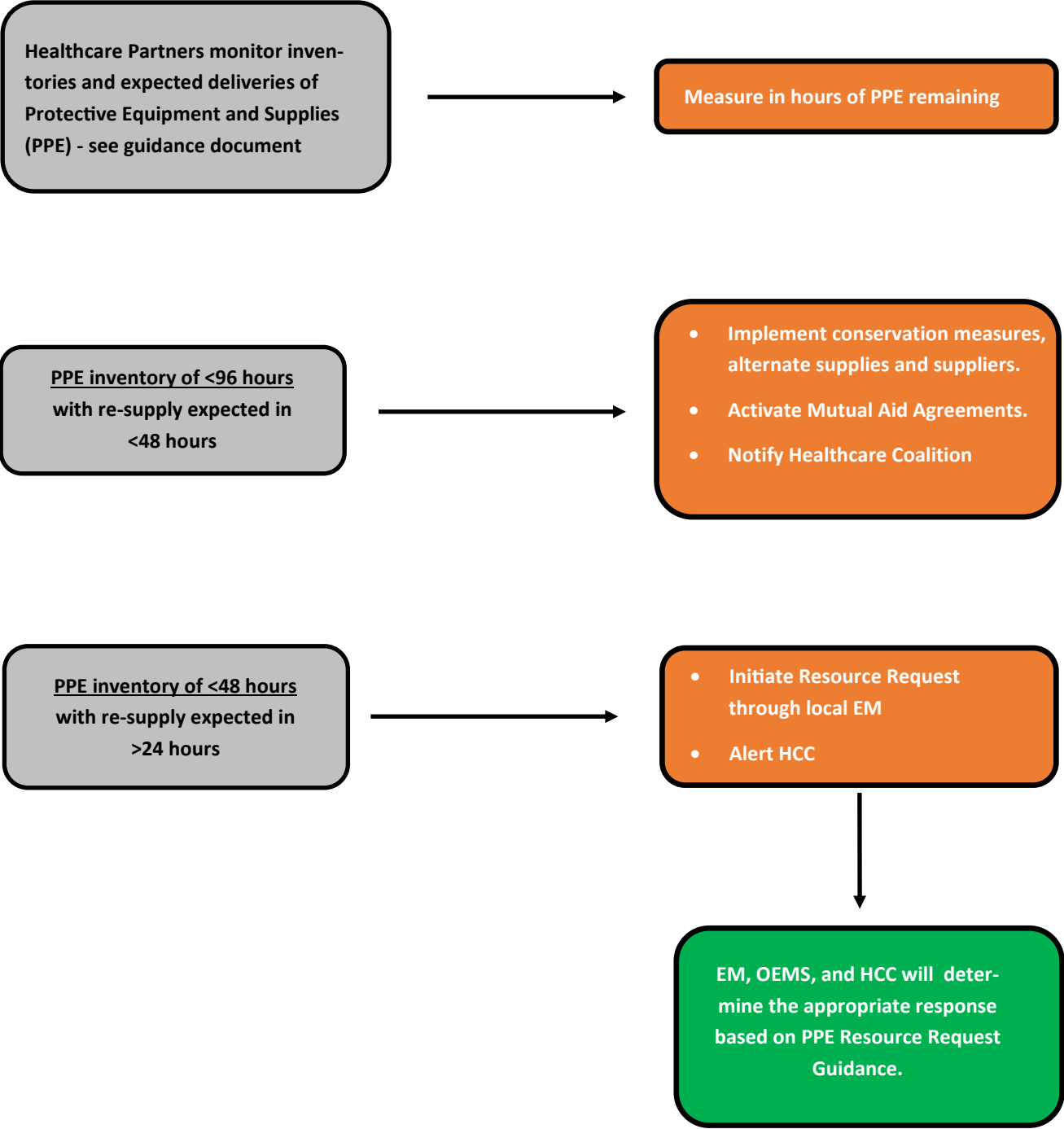
### Personal Protective Equipment Resource Request Guidance:

Healthcare Coalition partners requesting support with PPE resources should be prepared to discuss the considerations and strategies that have been implemented by their agency to conserve PPE resources including but not limited to the following questions:

1. If neighboring agencies/facilities have been contacted to attempt to borrow/purchase additional PPE Supplies?
2. What administrative controls are being utilized to decrease the current burn rate of PPE?
3. When is the next expected delivery of PPE?
4. How many hours of each type of PPE does the agency currently have (e.g. 48 hours of gowns and 96 hours of N95 respirators)?
5. What surge management considerations have been implemented (postponing all elective and outpatient procedures etc.)?
6. How many patients are currently on isolation?

Healthcare Coalition partners should request support for PPE resources through the normal emergency management request and fulfillment process starting with their Local EM (see attached request flow chart). Please note, at this time this PPE resource request process will be *actively monitored during normal business hours*. Additionally, there are no guarantees for resource availability and fulfillment.

**Healthcare Coalition Partners - Personal Protective Equipment (PPE)  
Resource Monitoring and Request Algorithm**



# SPLASH PPE AND PARTICULATE RESPIRATOR USEAGE GUIDANCE

(N95, Elastomeric, PAPR, CAPR)<sup>1</sup>

## STRATEGIES FOR SCARCE RESOURCE SITUATIONS

**Crisis Capacity** – Adaptive spaces, staff, and supplies are not consistent with usual standards of care, but provide sufficiency of care in the setting of a catastrophic disaster (i.e., provide the best possible care to patients given the circumstances and resources available). Crisis capacity activation constitutes a significant and adjustment to standards of care (Hick et al, 2009).

**Contingency Capacity** – The spaces, staff, and supplies used are not consistent with daily practices, but provide care to a standard that is functionally equivalent to usual patient care practices. These spaces or practices may be used temporarily during a major mass casualty incident or on a more sustained basis during a disaster (when the demands of the incident exceed community resources)

**Conventional Capacity** – The spaces, staff, and supplies used are consistent with daily practices within the institution. These spaces and practices are used during a major mass casualty incident that triggers activation of the facility emergency operations plan.

RECOMMENDATIONS	STRATEGY			
<p><b>General Infection Control Procedures</b></p> <ol style="list-style-type: none"> <li>1. Establish procedures for managing ill healthcare personnel (e.g., sick leave policy, work restrictions).</li> <li>2. Establish procedures for managing and restricting visitors.</li> <li>3. Establish triage procedures and separate areas for ill and well patients, or utilize telehealth tools.</li> <li>4. Assign dedicated staff to minimize exposure, limiting the number of staff coming in contact with ill patients</li> <li>5. Require, when possible, or strongly encourage vaccination of primary personnel and first responders, according to vaccine schedule as recommended for existing circumstances by the CDC and the Advisory Committee for Immunization Practices (ACIP).</li> <li>6. Seriously consider creation of a registry to reflect the vaccination status of primary personnel and first responders to aid in decisions regarding service assignments.</li> <li>7. Educate and routinely train all staff regarding use and proper handling of particulate respirators.</li> <li>8. Maintain good hand hygiene procedures including hand washing with soap and water and/or alcohol based hand sanitizers depending on the current recommendations and wearing gloves.</li> <li>9. Conduct annual infection prevention training to include hand hygiene, donning and doffing of PPE and fit-testing/training on appropriate use of particulate respirators.</li> <li>10. Clean/disinfect high-touch surfaces daily with an EPA approved disinfectant effective against the virus/bacteria of concern. Conduct terminal cleaning of the room upon patient discharge.</li> </ol> <p><b>Cache/ Increase Supply Levels<sup>2</sup></b></p> <ol style="list-style-type: none"> <li>9. Clarify current CDC and OSHA guidelines for respirator use; monitor for updates and recommendations.<sup>3</sup></li> <li>10. Cache additional supplies of respirators and their functional components (e.g. fit testing supplies, batteries, cartridges, filters, hood, etc.).</li> </ol>	Prepare			
<ol style="list-style-type: none"> <li>13. Obtain masks and cartridges from alternate sources such as industrial suppliers and companies – welding, manufacturing, etc. – when appropriate.</li> <li>14. Request resource support from local emergency management for respirators with the knowledge that they may be from different manufacturers. They may not be functional in all situations (i.e. surgical use) and they may require additional fit testing before deployment.</li> </ol>	Substitute			
<p><b>Decrease Use of Respirators</b></p> <ol style="list-style-type: none"> <li>15. Clarify current CDC and OSHA guidelines for respirator use; monitor for updates and recommendations.<sup>3</sup></li> <li>16. Patients with respiratory symptoms may continue to use the same medical/surgical mask until the mask is no longer usable due to moisture or damage.</li> </ol>	Substitute & Conserve			
<ol style="list-style-type: none"> <li>17. When Respirators are in short supply, aerosol-generating procedures should only be performed on patients when medically necessary and cannot be postponed.</li> <li>18. Limit the number of healthcare personnel with patient contact to only those essential for patient care and support, especially during aerosol generating procedures.             <ol style="list-style-type: none"> <li>a) Restrict all visitors, utilize technology based resources to facilitate patient and visitor interaction.</li> <li>b) Consider changes in staffing (i.e. unimmunized staff given assignments that would not require significant PPE use)</li> </ol> </li> </ol>	Conserve			
<p><b>Extended Use<sup>4</sup></b></p> <ol style="list-style-type: none"> <li>19. Clarify current CDC and OSHA guidelines for respirator use; monitor for updates and recommendations.<sup>3</sup></li> <li>20. Policies and recommendations around “extended use” or “re-use” of respirators should include input from occupational health, infection control, infectious disease specialists, state and local public health and any national recommendations around the situation at hand.</li> <li>21. For N95, consider wearing a loose-fitting barrier that does not interfere with fit or seal (e.g., surgical mask, face shield) over the respirator to extend its use.</li> <li>23. In general, wearing an N95 respirator over multiple serial patient encounters (while minimizing touching) is favored over removing and re-donning between encounters (i.e. extended use is favored over re-use of N95).<sup>4</sup></li> <li>24. Cleaning and filter replacement procedures and extended use of filters and/or hoods/shields on all other mechanical respirators (i.e. elastomeric respirators, PAPRs , CAPRs etc.) should be done according to manufacturer’s protocols and guidelines.<sup>4</sup></li> </ol>	Re-use			

<p><b>Re-use Respirator After Removal<sup>4</sup></b>  25. Clarify current CDC and OSHA guidelines for respirator use; monitor for updates and recommendations.  26. Policies and recommendations around “extended use” or “re-use” of respirators should include input from occupational health, infection control, infectious disease specialists, state and local public health and any national recommendations around the situation at hand.<sup>2</sup></p>	Re-use allocate	Re-		
<p>27. Use and store used respirators (hood, mask, shield) individually in such a way that the physical integrity and efficacy of the respirator will not be compromised.<sup>4</sup>  28. Label respirator with a user’s name before use to prevent inadvertent use by another individual.<sup>4</sup>  29. Practice appropriate hand hygiene before and after removal of the respirator and, if necessary and possible, appropriately disinfect the object used to store it. Repeat Hand Hygiene<sup>4</sup>  30. Respirators should be discarded if visibly damaged or contaminated.<sup>4</sup>  31. Five (5) is the recommended number of donning of a re-used N95-type respirator.<sup>4</sup>  32. Consider N95 decontamination with ultraviolet germicidal irradiation (UVGI), or other tested method of decontamination to extend the use of respirators.<sup>5</sup></p> <p><b>Re-allocate/ prioritize</b>  33. Respirators use should be prioritized only to those healthcare providers identified as highest risk.  32. Identify medical personnel and caregivers with documented vaccination, immunity after an illness or lower risk of complicated infection to provide direct patient contact without a respirator.</p>	Re-use allocate	Re-		

<sup>1</sup>Refers to any device such as N95, elastomeric respirators, Powered Air Purifying respirators (PAPRs), Controlled Air Purifying Respirator (CAPRs) or equivalent. NIOSH approved particulate respirators can be found at: [https://www.cdc.gov/niosh/npptl/topics/respirators/disp\\_part/RespSource.html](https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/RespSource.html); [https://www.cdc.gov/niosh/npptl/topics/respirators/disp\\_part/default.html](https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/default.html)

<sup>2</sup>CDC: Strategies for Optimizing the Supply of N95 Respirators: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-supply-strategies.html>

<sup>3</sup>CDC and NIOSH overview of respirators: <https://www.cdc.gov/niosh/topics/respirators/default.html>

<sup>4</sup>“Extended use” is defined as wearing the same respirator for repeated close contact encounters with multiple patients without removing the respirator between patients (e.g. triage area, dedicated waiting rooms or wards, etc). “Reuse” is defined as using the same respirator for multiple encounters but removing it after each encounter. <https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>  
[https://www.cdc.gov/niosh/npptl/topics/respirators/disp\\_part/respsource3respreuse.html](https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/respsource3respreuse.html)

<sup>5</sup>Current research on the decontamination of N95 Respirators: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4699414/pdf/nihms747549.pdf>, <https://academic.oup.com/annweh/article/53/8/815/154763>  
<https://academic.oup.com/annweh/article/56/1/92/166111>

<h1>Resource Request Message</h1>			Purpose: The 213RR is used by all incident personnel to request tactical and non-tactical resources.				ICS-213 RR			
1. Incident Name:			2. Date/Time:			3. Resource Request Number:				
4. ORDER Note: Use additional forms when requesting different resource sources of supply										
a. Qty	b. Kind	c. Type	d. Priority <small>Urgent or Routine</small>	e. Detailed item description (vital characteristics, brand, specs, experience, etc.) and, if applicable, purpose/use, diagrams, and other info.			f. Requested Reporting <small>Location:      Date/Time:</small>	g. Order # <small>(LSC)</small>	h. ETA <small>(LSC)</small>	i. Cost
5. Requesting Agency Name, Address and Point of Contact for Delivery						6. Requestor Position and Signature:      Date/Time:				
						7. Section Chief/Command Staff Approval:      Date/Time:				
8. RESL - check box (a) if request is for tactical or personnel resources. Then note availability in box 8.b or 8.c.	a. <input type="checkbox"/>	b. <input type="checkbox"/> Resources available as noted in block 12			9. RESL Review/Signature:      Date/Time:					
c. <input type="checkbox"/> Resources not available on scene										
10. Requisition/Purchase Order #:			11. Supplier Name/Phone/Fax/Email:			12. Notes:			13. Logistics Section Signature:      Date/Time:	
14. Order placed by (check box): <input type="checkbox"/> LOGS <input type="checkbox"/> IC <input type="checkbox"/> OTHER _____						15. Reply/Comments from Finance:      Date/Time:				
16. Finance Section Signature:      Date/Time:										

Requestor fills in blocks 1-5, except # 3 & # 4.g-i (shaded area), signs block 6 (do not forget position), gets appropriate Section Chief or Command Staff approval in block 7, and keeps yellow copy (bottom). RESL checks for resource availability, signs block 9. Logistics fills in block 4.g and h, and blocks 10-13. Orderer (LSC) fills in block 4. Finance fills in blocks 15 - 16 and keeps green copy. Pink copy is returned to RESL for tactical/personnel or requestor for non-tactical. White copy goes to DOCL/PSC.