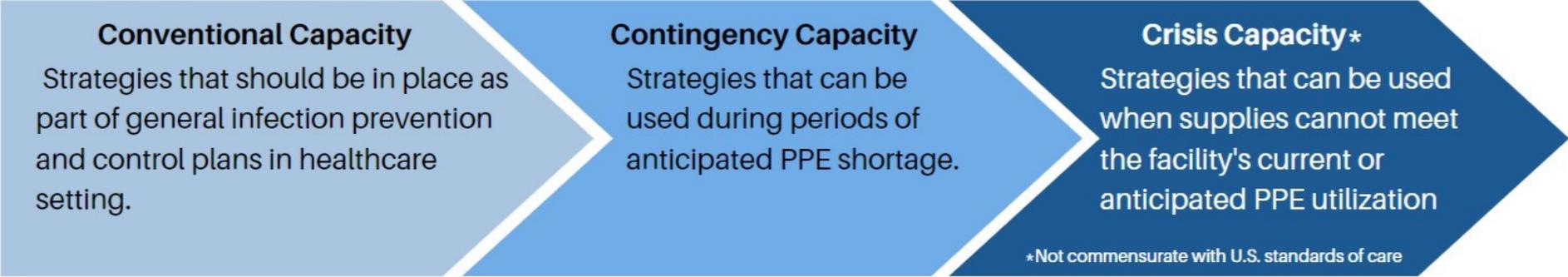


CDC Capacity Strategies for Optimizing Personal Protective Equipment (PPE)

CDC provides [guidance](#) to optimize PPE supplies during the COVID-19 pandemic supply shortages to help health care facilities adapt supply levels in the safest way possible. Three general strata offer a continuum of options for use when PPE supplies are stressed, running low, or exhausted.



Considerations When Identifying PPE Capacity:

- Understand PPE inventory. This should be checked and followed multiple times throughout the week.
 - What is the inventory at the beginning of the week?
 - Were additional supplies received? How much?
 - What is the inventory at the end of the week?
 - Use a simple calculation to determine how much PPE was used ([burn rate](#)) by type: **Number of PPE at beginning of week + New inventory - Number of PPE at end of week = Number of PPE used for the week.**
- Reflect on how each type of PPE is currently being used. Which optimization strategy is being used?
- Are health care personnel (HCP) wearing PPE as source control (only applies to N95s and surgical masks)? If so, include these numbers into the overall usage rate.
- Is there enough supply to allow staff to wear PPE once and discard? Look at factors for determining how much PPE is needed to be in conventional capacity. These are estimated values based on a facility's current status.
 - How many residents are in transmission-based precautions (TBP)?
 - How many HCP are using the PPE to go into TBP rooms?
 - How many times are HCP going into each of these rooms?
 - Use these values to determine need/usage: **Number of residents in TBP x Number of HCPs going into TBP rooms x Number of times the HCP enter TBP rooms.** If using daily values for this calculation, multiply by seven for the overall week's value.

Considerations When Identifying PPE Capacity:

- Keep ordering! The goal is to be operating in conventional capacity to keep HCP safe, and additional supplies will be needed to accommodate this. If all residents are in TBP, this can be taxing on supply levels.
- Facilities may want to create a multidisciplinary team to review and track supply levels and the ordering process. For example, facilities may want to create a supply chain team to review supply levels and ordering on a weekly basis.

Health Care Facilities Should:

- Consider these options and **implement them sequentially** (conventional → contingency → crisis).
 - Contingency capacity may be needed when supplies meet the facility's current or anticipated utilization rate, but there is uncertainty if future supplies will be adequate.
 - Crisis capacity is reserved for when the supply is known to be unable to meet the facility's current or anticipated utilization rate.
- **Train and audit HCP on PPE use and competency** with donning and doffing any PPE used to perform job responsibilities, particularly when changes are made to the type of PPE or process for use.
- **Promptly resume conventional PPE use practices as soon as PPE availability returns.** The goal is to be operating at conventional capacity as long and as often as possible to minimize transmission risks.

PPE capacity determinations should include supplies needed for both universal PPE for source control and PPE for TBP. CDC's National Healthcare Safety Network (NHSN) [Table of Instructions](#) provides reporting guidance for skilled nursing facilities using the "Supplies and PPE Form" within the Surveillance Reporting Pathways to report capacity as part of required weekly CMS reporting.

Refer to table below to identify strategies for how PPE can be optimized for each capacity level. Capacities for each type of PPE are independent of each other.

Type of PPE To minimize infection control (IC) transmission risks	Conventional Capacity Normal IC Transmission Risk	Contingency Capacity Moderate IC Transmission Risk	Crisis Capacity High IC Transmission Risk
N95 Respirators	PPE use: Discard after each patient/resident encounter (single use) Source control use: Extended use	Extended use HCP wear the same N95 for encounters with more than one patient/resident without removing the N95 between encounters for a single shift.	<ul style="list-style-type: none"> • <u>Prioritize use by activity type</u> • Limited reuse HCP wear the same N95 for multiple encounters with patients/residents but remove it (doff) between encounters. PPE is stored between encounters and reused up to 5 donnings. • Extended use combined with limited reuse
Face Masks	PPE use: Discard after each patient/resident encounter (single use) Source control use : Extended use	Extended Use HCP wear the same face mask for encounters with more than one patient/resident without removing the mask between encounters for a single shift.	<ul style="list-style-type: none"> • <u>Prioritize use by activity type</u> • Limited reuse HCP wear the same face mask for multiple encounters with patients/residents but remove it (doff) between encounters. PPE is stored between encounters and reused. • Extended use combined with limited reuse
Gowns	Discard or launder after each patient/resident encounter (single use)	Prioritize gowns for higher-risk activities and discard or launder after each encounter	<ul style="list-style-type: none"> • Extended use HCP wear the same gown for encounters with more than one patient/resident housed in the same location and known to have the same infectious disease (cannot be done on a quarantine unit). • Use gown alternatives These are not considered PPE. • Reuse isolation gowns HCP don/doff their same gown for each encounter with the patient/resident for that shift.
Eye Protection (i.e., face shields or goggles)	<u>Disposable</u> : Discard after each patient/resident encounter (single use) <u>Reusable</u> : Disinfect after each patient/resident encounter	Extended use HCP wear the same eye protection for encounters with more than one patient/resident without removing between encounters for a single shift.	<ul style="list-style-type: none"> • <u>Prioritize use by activity type</u> • Use safety glasses with extensions to cover the side of eyes These likely do not protect from splashes and sprays.
Gloves	Discard after each patient/resident encounter or task (single use)	Use gloves conforming to other US and international standards, discard after each encounter or task	<ul style="list-style-type: none"> • Prioritize disposable gloves based on resident diagnosis and discard after each encounter or task • Consider non-health care alternatives and discard after each encounter or task