



COVID-19

TOOLKIT OF RESOURCES FOR LONG TERM CARE FACILITIES

(Version 1, March 23, 2020)

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Summary of updated (March 20, 2020) NJDOH Recommendations for Long-Term Care Facilities during COVID-19 Pandemic

Access full NJDOH LTC Guidance Document

http://state.nj.us/health/cd/documents/topics/NCOV/NJDOH_Recommendations_For_LTC-COVID19_3_20_2020.108137.pdf

All LTCFs should remain vigilant with prompt detection, triage, and isolation of potentially infectious persons to prevent unnecessary exposures among residents, healthcare personnel, and visitors at the facility. Infection prevention measures include:

- Implement active **screening of residents and staff** for fever and respiratory symptoms. Active screening is when someone from the healthcare facility is asking and collecting information from staff and residents about symptoms. Remember that older adults may manifest symptoms of infection differently and that other symptomology should also be. Vital signs should include heart rate, blood pressure, temperature, pain and pulse oximetry. These assessments should happen, **at a minimum, daily**. The facility staff should have a heightened awareness for any change in baseline in their residents.
- **Stop current communal dining and all group activities** such as internal and external group activities.
- **Follow all current CMS guidance** regarding the restriction of visitors and non-essential healthcare personnel, except in certain compassionate-care situations.
- Review the CMS Quality, Safety & Oversight (QSO) Group memo Ref: QSO-20-14-NH at <https://www.cms.gov/files/document/qso-20-14-nh-revised.pdf> for expanded recommendations.

Remember to:

- Connect with your association and monitor NJDOH, CDC, and CMS announcements, at least daily.
- Conserve personal protective equipment (PPE) in accordance with CDC's Strategies for Optimizing the Supply of PPE - <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>.
- Contact your local health department with any questions or concerns. Contact information is available via the local public health directory at <http://www.local-health.nj.gov/>.

- **Report any new cases or persons suspected of COVID-19 occurring in or associated with your facility to your local health department.**

In addition to actions described above and attached, facilities should consider the following immediate actions when there is a confirmed case of COVID-19 to prevent further spread to their residents and staff:

- **Close the unit to new admissions** except as needed to cohort ill individuals or staff.
- Consider closure of the facility to new admissions.
- Consider implementing **universal use of facemask for HCP** while in the facility if your supply chain can support this decision (See Strategies for Optimizing the Supply of PPE based on CDC Guidance later in this toolkit)
- Encourage residents to **remain in their room**. If multiple cases are present restrict residents (to the extent possible) to their rooms except for medically necessary purposes.
- **Mask all residents (who can tolerate masks) who are symptomatic when providing direct care**; if masks are limited or not tolerated use of a tissue to cover the nose and mouth is appropriate.
- Adhere to internal environmental cleaning protocols to ensure appropriate measures are being taken to clean and disinfect where appropriate including high-touch surfaces and all shared medical equipment (e.g., lifts, blood pressure cuffs, medication carts). Consider **increasing the frequency of cleaning** in the facility.
- **Quarantine and monitor exposed contacts** including healthcare workers and roommates

Useful websites for LTC Facilities

New Jersey Hospital Association COVID-19 Resource page:

<http://www.njha.com/healthy-communities/promoting-and-protecting-health/public-health-issues/coronavirus/>

NJDOH: General COVID-19 Information:

<https://www.nj.gov/health/cd/topics/ncov.shtml>

NJDOH: Key Messaging to Long-term Care Facilities (LTCF) for COVID-19:

https://www.nj.gov/health/cd/documents/topics/NCOV/NcOv_LINCS_LTCF_Key%20Messages_03032020.108103.pdf

CMS: Guidance for Infection Control and Prevention of Coronavirus Disease 2019 (COVID-19) in Nursing Homes (REVISED):

<https://www.cms.gov/files/document/3-13-2020-nursing-home-guidance-covid-19.pdf>

CDC: LTC Preparing for COVID-19:

<https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html>

NJDOH: Employee Exposure Tools and COVID-19:

https://www.nj.gov/health/cd/topics/covid2019_healthcare.shtml

EMPLOYEE SCREENING TOOLS

Important Tips from CDC

- Implement procedure for monitoring HCP working within the facility.
- Screen all HCP at the beginning of their shift for fever and other symptoms of COVID-19 (e.g., gastrointestinal (GI) upset, fatigue, sore throat, dry cough, shortness of breath).
- Actively take their temperature and document absence of symptoms. If HCP develop fever or symptoms of respiratory infection while at work, they should immediately put on a facemask, inform their supervisor, and leave the workplace.
- Important: HCP who work in multiple locations may pose higher risk and should be asked about exposure to facilities with recognized COVID-19 cases.
- Identify HCP who may be at higher risk for severe COVID-19 disease and attempt to assign to unaffected units.
- Implement sick leave policies that are non-punitive, flexible, and consistent with public health policies and state law that allow ill HCP to stay home.
- Remind HCP to stay home when they are ill.
- Consult occupational health on decisions about further evaluation and return to work.
- Restrict nonessential healthcare personnel (including consultant personnel) and volunteers from entering the building.
- When transmission in the community is identified, nursing homes and assisted living facilities may face staffing shortages. Facilities should develop (or review existing) plans to mitigate staffing shortages.

NJDOH COVID-19 Fever and Symptom Monitoring Log for HCP

Day	Date	Time	Temperature
1	____/____ MONTH DAY	____ AM	____ °F
		____ PM	____ °F
2	____/____ MONTH DAY	____ AM	____ °F
		____ PM	____ °F
3	____/____ MONTH DAY	____ AM	____ °F
		____ PM	____ °F
4	____/____ MONTH DAY	____ AM	____ °F
		____ PM	____ °F
5	____/____ MONTH DAY	____ AM	____ °F
		____ PM	____ °F
6	____/____ MONTH DAY	____ AM	____ °F
		____ PM	____ °F
7	____/____ MONTH DAY	____ AM	____ °F
		____ PM	____ °F
8	____/____ MONTH DAY	____ AM	____ °F
		____ PM	____ °F

Symptom Monitoring					
Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Sore Throat	<input type="checkbox"/> Yes <input type="checkbox"/> No			Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing			<input type="checkbox"/> Yes <input type="checkbox"/> No
Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache		<input type="checkbox"/> Yes <input type="checkbox"/> No
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No			Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
Sore Throat	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing			<input type="checkbox"/> Yes <input type="checkbox"/> No
Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache		<input type="checkbox"/> Yes <input type="checkbox"/> No
Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No			Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
Sore Throat	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing			<input type="checkbox"/> Yes <input type="checkbox"/> No
Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache		<input type="checkbox"/> Yes <input type="checkbox"/> No
Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No			Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing			<input type="checkbox"/> Yes <input type="checkbox"/> No
Sore Throat	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache		<input type="checkbox"/> Yes <input type="checkbox"/> No
Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No			Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing			<input type="checkbox"/> Yes <input type="checkbox"/> No
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache		<input type="checkbox"/> Yes <input type="checkbox"/> No
Sore Throat	<input type="checkbox"/> Yes <input type="checkbox"/> No			Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing			<input type="checkbox"/> Yes <input type="checkbox"/> No
Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache		<input type="checkbox"/> Yes <input type="checkbox"/> No
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No			Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
Sore Throat	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing			<input type="checkbox"/> Yes <input type="checkbox"/> No
Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache		<input type="checkbox"/> Yes <input type="checkbox"/> No
Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No			Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
Sore Throat	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing			<input type="checkbox"/> Yes <input type="checkbox"/> No
Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache		<input type="checkbox"/> Yes <input type="checkbox"/> No
Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No			Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No

Continue

EMPLOYEE SCREENING TOOLS

Day	Date	Time	Temperature	Symptom Monitoring			
9	____/____/____ MONTH DAY	____ AM	____ °F	Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing	<input type="checkbox"/> Yes <input type="checkbox"/> No
		____ PM	____ °F	Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache
10	____/____/____ MONTH DAY	____ AM	____ °F	Sore Throat	<input type="checkbox"/> Yes <input type="checkbox"/> No	Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
		____ PM	____ °F	Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No		Difficulty-Breathing
11	____/____/____ MONTH DAY	____ AM	____ °F	Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No	Headache	<input type="checkbox"/> Yes <input type="checkbox"/> No
		____ PM	____ °F	Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No		Muscle-Ache
12	____/____/____ MONTH DAY	____ AM	____ °F	Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No	Difficulty-Breathing	<input type="checkbox"/> Yes <input type="checkbox"/> No
		____ PM	____ °F	Sore Throat	<input type="checkbox"/> Yes <input type="checkbox"/> No		Headache
13	____/____/____ MONTH DAY	____ AM	____ °F	Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No	Muscle-Ache	<input type="checkbox"/> Yes <input type="checkbox"/> No
		____ PM	____ °F	Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No		Difficulty-Breathing
14	____/____/____ MONTH DAY	____ AM	____ °F	Fever	<input type="checkbox"/> Yes <input type="checkbox"/> No	Headache	<input type="checkbox"/> Yes <input type="checkbox"/> No
		____ PM	____ °F	Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No		Muscle-Ache

- (1) Name: _____ Age (yrs): _____ Sex: M F
- (2) Street address: _____ City, State: _____ Telephone number: _____
- (3) Exposure Level (High or Medium) _____ Furloughed from work? _____
- (4) Case ID number (from contact listing form): _____ Contact number (from contact listing form): _____
- (5) Facility where the contact occurred case occur: _____
Date of last contact with the case (mm/dd/yyyy): _____

COVID-19 SCREENING TOOLS

Staff or Visitor Screening Tool, shared with permission from CareOne



COVID-19 Screening Questionnaire

Update/Review of Q 1-5:

_____	_____	_____
Date	Initials	Temp
_____	_____	_____
Date	Initials	Temp
_____	_____	_____
Date	Initials	Temp
_____	_____	_____
Date	Initials	Temp

Name: _____ Date: _____

Screening Questions*	Yes	No
1. Do you currently have a fever or symptoms of respiratory illness or infection such as sore throat, coughing or shortness of breath?	<input type="checkbox"/>	<input type="checkbox"/>
2. Have you, or any member of your household visited and returned in the last 14 days from China, Iran, South Korea, Italy, Japan, or Europe? If yes, please provide the location of travel and date of return: Location: _____ Date of Return*: _____	<input type="checkbox"/>	<input type="checkbox"/>
3. Have you or a member of your household had close contact with a person known to have COVID-19 or who is under investigation for COVID-19, or are ill with a respiratory illness?	<input type="checkbox"/>	<input type="checkbox"/>
4. Do you reside in or do you travel to a community where community-based spread of COVID-19 is occurring (community spread means <u>spread</u> of an illness for which the source of infection is unknown)? *If yes, but no direct contact has occurred; mask use is required in the Center.	<input type="checkbox"/>	<input type="checkbox"/>
<p>*If returning from an international location with sustained community transmission within the past 14 days, restrict visitation and advise of CDC self-isolation guidance</p> <p>**NOTE: If exposure and illness are both present use facemask on the person/patient, isolate them in a private room or separate area, and contact the local and state health department.</p>		

If no contraindications above, screen temperature to ensure temp less than 100.4°F for entry

Temp: _____

If visitation is permitted based on above, please also answer the following:

- Have you traveled on a cruise ship or participated in other settings where crowds are confined to a common location? YES (you will need to wear a mask while in the Center) NO
- Is this a compassionate care or end of life exception visit? YES (you will need to wear a mask while in the Center) NO

I certify that the information provided above is true, accurate and complete to the best of my knowledge.

Signature

Date

Facilities may restrict/limit visitation rights for reasonable clinical and safety reasons. This includes, "restrictions placed to prevent community-associated infection or communicable disease transmission to the resident. This is following the CDC, CMS, and local guidance. For more information, visit: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>

Hospital Discharge to SNF Screening Tool, shared with permission from Valley Health System

Demographic History:

1. Has the patient or any member of his/her household had any international travel within the last 14 days to countries with widespread or ongoing community spread of COVID-19? These countries include China, Italy, South Korea, Iran, and all of Europe.

Yes No

If so, where & when _____

2. What town and state does the patient currently reside? _____

3. Is the patient aware of any precautionary quarantine measures in place from direction of his/her town?

4. Does the patient live in a facility such as an Assisted Living Facility, Group Home, or Skilled Nursing Facility?

Yes No

If so, where does the patient live? _____

Symptom History:

1. Is the patient under COVID-19 investigation?

Yes No

If yes, does the patient have a pending test? _____

If yes, does the patient have a positive result? _____

Should the patient self-quarantine? For how long? _____

2. Has the patient had close contact with someone confirmed or under investigation for COVID-19?

Yes No

If yes, does the contact have a pending test? _____

If yes, does the contact have a positive result? _____

3. Has the patient had, in the past 14 days, symptoms of respiratory illness such as sore throat, fever, cough, or shortness of breath?

Yes No

If yes, which symptoms _____

Has the patient had a fever of 100.4 or higher in the past 24 hours?

Yes No

Does the patient currently have a fever?

Yes No Current Temperature _____

Contact History:

1. Has the patient received home care services within the last 14 days?

Yes No If yes, which agency: _____

2. Has the patient received outpatient physical therapy within the last 14 days?

Yes No If yes, which facility? _____

3. Has the patient participated in an adult day care program in the past 14 days?

Yes No If yes, which facility? _____

4. Has the patient received Hemodialysis within the past 14 days?

Yes No If yes, where? _____

COVID-19 SCREENING TOOLS

Patient Admission Screening Tool, shared with permission from CareOne

Client:
Date of Birth:

Effective Date:

Admission:

A. Social History

1. Have you, or any member of your household had any international travel within the last 30 days to countries with widespread or ongoing community spread?

1. Yes 2. No

2. If yes, please provide the location of travel and date of return:

3. What town and state do you currently live in?

4. Do you live in a home or in a facility such as an ALF, Group Home or SNF?

5. Are you aware of any precautionary quarantine measures in place from direction of your town?

1. Yes 2. No

6. Has a family member of your household had close contact with a person known to have COVID-19 OR under investigation for COVID-19?

1. Yes 2. No

7. Has a family member been told to self-quarantine for COVID-19 suspected rule out?

1. Yes 2. No

a. If yes, date of quarantine start date

B. Personal History

1. Are you aware of any precautionary quarantine measures in place from direction of your town?

1. Yes 2. No

2. Are you under COVID-19 investigation?

1. Yes 2. No

2a. If yes, did you test positive for COVID-19?

1. Yes 2. No

2b. If negative, what was the final diagnosis of your illness?

3. Have you been told to self-quarantine for COVID-19 suspected rule out?

1. Yes 2. No

3a. If yes, date of quarantine start date.

4. Have you had any contact with family members or others in the past 30 days who have symptoms of respiratory illness such as sore throat, fever, cough, or shortness of breath?

1. Yes 2. No

5. Do you currently have a fever? (Temperature > 38.0 C or 100.4 F)

1. Yes 2. No

6. Have you had a fever in the past 24 hours?

1. Yes 2. No

7. Current Temperature

8. Do you have any of the following symptoms for >24 hours:

1. Yes 2. No

Client:

8a. Cough if yes, then duration

8b. Shortness of Breath if yes, then duration

8c. Sore Throat, if yes then duration

9. Have you received or currently under home care services in the past 30 days?

1. Yes 2. No

9a. If yes, please provide the name of the agency.

10. Have you participated in an outpatient physical therapy program in the past 30 days?

1. Yes 2. No

10a. If yes, where?

11. Have you participated in an adult day care program in the past 30 days?

1. Yes 2. No

12. Are you on hemodialysis?

1. Yes 2. No

12a. If so, please provide dialysis location?

13. Have you been hospitalized in the past 2 weeks?

1. Yes 2. No

13a. If yes, where and for what?

14. Are you a health care personnel?

1. Yes 2. No

14a. What and where?

If completion of above questionnaire is suggestive of COVID-exposure or possible COVID-19, refer to CDC and DOH for further guidance.

Signature

Date

**Screening Tool for Patients Using Home Health Services
Post Discharge, shared with permission from CareOne**



**COVID-19 Screening Questionnaire
POST DISCHARGE**

Update/Review:		
Date	Initials	Temp
Date	Initials	Temp
Date	Initials	Temp
Date	Initials	Temp
Date	Initials	Temp

Name: _____ Date: _____

Screening Questions*	Yes	No
<p>Thank you for caring for me in my home- please take the time to complete this questionnaire for our safety-</p> <p>If you are unwell please do not continue your visit.</p> <p>Please wash your hands before you start your assessments.</p>		
1. Do you currently have a fever or symptoms of respiratory illness or infection such as sore throat, coughing or shortness of breath?	<input type="checkbox"/>	<input type="checkbox"/>
2. Have you, or any member of your household visited and returned in the last 14 days from China, Iran, South Korea, Italy, Japan, or Europe? If yes, please provide the location of travel and date of return: Location: _____ Date of Return*: _____	<input type="checkbox"/>	<input type="checkbox"/>
3. Have you or a member of your household had close contact with a person known to have COVID-19 or who is under investigation for COVID-19, or are ill with a respiratory illness?	<input type="checkbox"/>	<input type="checkbox"/>
4. Do you reside in or are you adjacent to a community where community-based spread of COVID-19 is occurring (Reference state infectious disease resources or CDC situation summary of US cases) or do you work in a healthcare setting with confirmed case(s) of COVID-19?	<input type="checkbox"/>	<input type="checkbox"/>
<p>*If returning from a location with sustained community transmission within the past 14 days, restrict visitation and advise of CDC self-isolation guidance</p> <p>**NOTE: If both exposure and illness are present use facemask on the person/patient, isolate them in a private room or separate area, and contact the local and state health department.</p>		

If no contraindications above, screen temperature to ensure temp of 100.3°F or less for entry Temp: _____

I certify that the information provided above is true, accurate and complete to the best of my knowledge.

Signature

Date

SAMPLE DISCHARGE INSTRUCTIONS FROM THE NJDOH



New Jersey Department of Health Guidance for COVID-19 Patients Discharged from Healthcare Facilities (UPDATED March 19, 2020)

What to Do When You're Discharged after Being Diagnosed With COVID-19

If you have been diagnosed with COVID-19, follow the guidance below to help prevent the disease from spreading to people in your home and community. New information about COVID-19 is being collected every day, and this guidance is subject to change.

Remain in Home Isolation

Unless instructed otherwise by your healthcare provider, it's currently advised that **people who are diagnosed with COVID-19 should remain on "Home Isolation" until 7 days since the start of symptoms and 72 hours after your fever ends (without the use of fever reducing medication like acetaminophen or ibuprofen) and significant improvement in their other symptoms (including cough). This means that if you still have a fever and symptoms after 7 days you need to wait another 3 days after your fever ends and your symptoms improve before stopping isolation.** Home Isolation means you should remain at home and not attend any social gatherings or events. You should not leave your home except to seek medical care. While at home you should avoid others in your household. See below for steps to take that will help you prevent the spread of COVID-19 to others. **If there are multiple people in the home who are positive for COVID-19, it is okay to isolate together. However, you should separate yourself from persons who do not have symptoms or who have tested negative for COVID-19.** If you tested positive and have no symptoms of COVID-19 you should remain on home isolation for 7 days after your positive test.

How to Prevent the Spread of COVID-19 While on Home Isolation

You may have experienced some of the more common symptoms of COVID-19 including fever, cough and shortness of breath. You may be able to be discharged from the hospital even if you continue to experience these symptoms. While you are on home isolation, it may be possible for you to spread the virus that causes COVID-19 to others. Steps to prevent spreading the virus are outlined below:

- **Stay home until 7 days after symptoms started and 72 hours (3 days) after your fever has resolved and symptoms have significantly improved (whichever period is longer).**
- **Distance yourself from other people and pets in your home:** If you live with others, limit your contact with them as much as possible until you meet the above criteria. Limit your use of common spaces. If you continue to have symptoms, wear a facemask (if you are able) during interactions with household contacts or use of common spaces. Prohibit visitors who do not have an essential need to be in the home.
- **Do not share household items** like utensils, cups, dishes, towels, and bedding. Thoroughly wash these items after use.
- **Clean common spaces frequently with household cleaners:** Use household cleaners to clean and disinfect surfaces that you may have come in contact with. Follow the instructions on the

cleaning product to determine the appropriate use. Clean all “high-touch” surfaces, such as counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables, every day. Also, clean any surfaces that may have blood, stool, or body fluids on them.

- **Household cleaners:** Use a household cleaning product, according to the label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.
- **Cover your cough or sneeze:** Cough into a tissue then throw that tissue in the garbage. Wash your hands immediately. If tissues are not readily available cough into your elbow. This will help prevent the spread of the virus.
- **Wash your hands frequently with soap and water:** If soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry.

Follow-up Visits with Your Healthcare Provider

If you must leave your home during this time, it should only be to seek medical care. If possible, call your provider and ask if you can follow-up by phone. If you are asked to follow-up in person, call ahead to let them know you’re coming. Wear a facemask when entering the facility if you still have symptoms. Drive alone if possible and avoid using public transportation, ride-sharing, or taxis.

What to Do if Symptoms Worsen

Seek prompt medical attention if your illness is worsening (e.g., difficulty breathing). Before seeking care, call your healthcare provider and tell them that you have been diagnosed with COVID-19. Put on a facemask before you enter the facility. These steps will help the healthcare provider’s office to keep other people in the office or waiting room from getting infected or exposed. **If you have a medical emergency and need to call 9-1-1, notify the dispatch personnel that you have COVID-19.** If possible, put on a facemask before emergency medical services arrive.

Discontinuing Home Isolation

You do not need to be cleared from home isolation by your doctor or local health department. However, if you have any questions about whether you can stop your home isolation reach out to the numbers below. Household contacts should follow precautions, quarantine and monitor themselves for signs and symptoms of COVID-19 for 14 days after you end your home isolation.

Healthcare Provider: _____

Local Health Department: _____

Additional information for household members, intimate partners, and caregivers is available at:
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html>

Strategies for Optimizing the Supply of PPE based on CDC Guidance

Source: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>

This document offers a series of strategies or options to optimize supplies of isolation gowns in healthcare settings when there is limited supply. Surge capacity refers to the ability to manage a sudden, unexpected increase in patient volume that would otherwise severely challenge or exceed the present capacity of a facility. While there are no widely accepted measurements or triggers to distinguish surge capacity from daily patient care capacity, surge capacity is a useful framework to approach a decreased supply of isolation gowns during the COVID-19 response. Three general strata have been used to describe surge capacity and can be used to prioritize measures to conserve isolation gown supplies along the continuum of care.

- **CONVENTIONAL CAPACITY:** measures consist of providing patient care without any change in daily contemporary practices. This set of measures, consisting of engineering, administrative, and personal protective equipment (PPE) controls should already be implemented in general infection prevention and control plans in healthcare settings.
- **CONTINGENCY CAPACITY:** measures may change daily standard practices but may not have any significant impact on the care delivered to the patient or the safety of healthcare personnel (HCP). These practices may be used temporarily during periods of expected PPE shortages.
- **CRISIS CAPACITY:** strategies that are not commensurate with U.S. standards of care. These measures, or a combination of these measures, may need to be considered during periods of known PPE shortages.

The following contingency and crisis strategies are based upon these assumptions:

1. Facilities understand their PPE inventory and supply chain
2. Facilities understand their PPE utilization rate
3. Facilities are in communication with local healthcare coalitions, federal, state, and local public health partners (e.g., public health emergency preparedness and response staff) regarding identification of additional supplies
4. Facilities have already implemented other **engineering and administrative control measures** including:
 - Reducing the number of patients going to the hospital or outpatient settings
 - Excluding HCP not essential for patient care from entering their care area
 - Reducing face-to-face HCP encounters with patients
 - Excluding visitors to patients with confirmed or suspected COVID-19
 - Cohorting patients and HCP
 - Maximizing use of telemedicine
5. Facilities have provided HCP with required education and training, including having them demonstrate competency with donning and doffing, with any PPE ensemble that is used to perform job responsibilities, such as provision of patient care.

Strategy Table for Contingency and Crisis Capacity for Eye Protection

Contingency Capacity Strategies: Eye Protection	Considerations
<p>Selectively cancel elective and non-urgent procedures and appointments for which eye protection is typically used by HCP.</p>	
<p>Shift eye protection supplies from disposable to re-usable devices (i.e., goggles and reusable face shields).</p>	<p>Consider preferential use of powered air purifying respirators (PAPRs) or full-face elastomeric respirators which have built-in eye protection AND</p> <p>Ensure appropriate cleaning and disinfection between users if goggles or reusable face shields are used.</p>
<p>Implement extended use of eye protection (practice of wearing the same eye protection for repeated close contact encounters with several different patients, without removing eye protection between patient encounters. Extended use of eye protection can be applied to disposable and reusable devices)</p>	
<p>Eye protection should be removed and reprocessed if it becomes visibly soiled or difficult to see through.</p>	<p>If a disposable face shield is reprocessed, it should be dedicated to one HCP and reprocessed whenever it is visibly soiled or removed (e.g., when leaving the isolation area) prior to putting it back on. See protocol for removing and reprocessing eye protection below AND</p> <p>Eye protection should be discarded if damaged (e.g., face shield can no longer fasten securely to the provider, if visibility is obscured and reprocessing does not restore visibility) AND</p> <p>HCP should take care not to touch their eye protection. If they touch or adjust their eye protection they must immediately perform hand hygiene AND</p> <p>HCP should leave patient care area if they need to remove their eye protection. See protocol for removing and reprocessing eye protection below.</p>

Strategy Table for Contingency and Crisis Capacity for Eye Protection *Continued*

Crisis Capacity Strategies: Eyewear	Considerations
Cancel all elective and non-urgent procedures and appointments for which eye protection is typically used by HCP.	
Use eye protection devices beyond the manufacturer-designated shelf life during patient care activities.	If there is no date available on the eye protection device label or packaging, facilities should contact the manufacturer. The user should visually inspect the product prior to use and, if there are concerns (such as degraded materials), discard the product.
<p>Prioritize eye protection for selected activities such as:</p> <p>During care activities where splashes and sprays are anticipated, which typically includes aerosol generating procedures.</p> <p>During activities where prolonged face-to-face or close contact with a potentially infectious patient is unavoidable.</p>	
Consider using safety glasses (e.g., trauma glasses) that have extensions to cover the side of the eyes.	
Exclude HCP at higher risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients.	During severe resource limitations, consider excluding HCP who may be at higher risk for severe illness from COVID-19, such as those of older age, those with chronic medical conditions, or those who may be pregnant, from caring for patients with confirmed or suspected COVID-19 infection.
Designate convalescent HCP for provision of care to known or suspected COVID-19 patients.	It may be possible to designate HCP who have clinically recovered from COVID-19 to preferentially provide care for additional patients with COVID-19. Individuals who have recovered from COVID-19 infection may have developed some protective immunity, but this has not yet been confirmed.

Selected Options for Reprocessing Eye Protection

Adhere to recommended manufacturer instructions for cleaning and disinfection.

When manufacturer instructions for cleaning and disinfection are unavailable, such as for single use disposable face shields, consider:

- While wearing gloves, carefully wipe the inside, followed by the outside of the face shield or goggles using a clean cloth saturated with neutral detergent solution or cleaner wipe.
- Carefully wipe the outside of the face shield or goggles using a wipe or clean cloth saturated with EPA-registered hospital disinfectant solution.
- Wipe the outside of face shield or goggles with clean water or alcohol to remove residue.
- Fully dry (air dry or use clean absorbent towels).
- Remove gloves and perform hand hygiene.

Strategy Table for Contingency and Crisis Capacity for Isolation Gowns

Contingency Capacity Strategies: Isolation Gowns	Considerations
Selectively cancel elective and non-urgent procedures and appointments for which isolation gown is typically used by HCP.	
Shift gown use towards cloth isolation gowns. Reusable (i.e., washable) gowns are typically made of polyester or polyester-cotton fabrics. Gowns made of these fabrics can be safely laundered according to routine procedures and reused.	<p>Care should be taken to ensure that HCP do not touch outer surfaces of the gown during care.</p> <p>Laundry operations and personnel may need to be augmented to facilitate additional washing loads and cycles</p> <p>Systems are established to routinely inspect, maintain (e.g., mend a small hole in a gown, replace missing fastening ties), and replace reusable gowns when needed (e.g., when they are thin or ripped)</p>
Consider the use of coveralls.	Coveralls, typically provide 360-degree protection because they are designed to cover the whole body, including the back and lower legs, and sometimes the head and feet as well. While the material and seam barrier properties are essential for defining the protective level, the coverage provided by the material used in the garment design, as well as certain features including closures, will greatly affect the protective level. HCP unfamiliar with the use of coveralls must be trained and practiced in their use, prior to using during patient care.
Use of expired gowns beyond the manufacturer-designated shelf life for training.	The majority of isolation gowns do not have a manufacturer-designated shelf life. However, consideration can be made to using gowns that do and are past their manufacturer-designated shelf life. If there is no date available on the gown label or packaging, facilities should contact the manufacturer.
Use gowns or coveralls conforming to international standards.	Current guidelines do not require use of gowns that conform to any standards. In times of shortages, healthcare facilities can consider using international gowns and coveralls. Gowns and coveralls that conform to international standards, including with EN 13795 and EN14126, could be reserved for activities that may involve moderate to high amounts of body fluids.

Crisis Capacity Strategies: Isolation Gowns	Considerations
Cancel all elective and non-urgent procedures and appointments for which a gown is typically used by HCP.	
Extended use of isolation gowns.	Consideration can be made to extend the use of isolation gowns (disposable or cloth) such that the same gown is worn by the same HCP when interacting with more than one patient known to be infected with the same infectious disease when these patients housed in the same location (i.e., COVID-19 patients residing in an isolation cohort). This can be considered only if there are no additional co-infectious diagnoses transmitted by contact (such as <i>Clostridioides difficile</i>) among patients. If the gown becomes visibly soiled, it must be removed and discarded as per usual practices.

Crisis Capacity Strategies: Isolation Gowns	Considerations
<p>Re-use of cloth isolation gowns.</p> <p>Disposable gowns are not typically amenable to being doffed and re-used because the ties and fasteners typically break during doffing. Cloth isolation gowns could potentially be untied and retied and could be considered for re-use without laundering in between.</p>	<p>In a situation where the gown is being used as part of standard precautions to protect HCP from a splash, the risk of re-using a non-visibly soiled cloth isolation gown may be lower. However, for care of patients with suspected or confirmed COVID-19, HCP risk from re-use of cloth isolation gowns without laundering among (1) single HCP caring for multiple patients using one gown or (2) among multiple HCP sharing one gown is unclear. The goal of this strategy is to minimize exposures to HCP and not necessarily prevent transmission between patients. Any gown that becomes visibly soiled during patient care should be disposed of and cleaned.</p>
<p>Prioritize gowns. Gowns should be prioritized for the following activities:</p> <ul style="list-style-type: none"> • During care activities where splashes and sprays are anticipated, which typically includes aerosol generating procedures • During the following high-contact patient care activities that provide opportunities for transfer of pathogens to the hands and clothing of healthcare providers, such as: dressing, bathing/showering, transferring, providing hygiene, changing linens, changing briefs or assisting with toileting, device care or use, wound care 	<p>Surgical gowns should be prioritized for surgical and other sterile procedures. Facilities may consider suspending use of gowns for endemic multidrug resistant organisms (e.g., MRSA, VRE, ESBL-producing organisms).</p>
<p>When No Gowns Are Available</p> <p>In situation of severely limited or no available isolation gowns, the following pieces of clothing can be considered as a last resort for care of COVID-19 patients as single use. However, none of these options can be considered PPE, since their capability to protect HCP is unknown. Preferable features include long sleeves and closures (snaps, buttons) that can be fastened and secured.</p> <ul style="list-style-type: none"> • Disposable laboratory coats • Reusable (washable) patient gowns • Reusable (washable) laboratory coats • Disposable aprons • Combinations of clothing: Combinations of pieces of clothing can be considered for activities that may involve body fluids and when there are no gowns available: Long sleeve aprons in combination with long sleeve patient gowns or laboratory coats, open back gowns with long sleeve patient gowns or laboratory coats, sleeve covers in combination with aprons and long sleeve patient gowns or laboratory coats 	<p>Reusable patient gowns and lab coats can be safely laundered according to routine procedures.</p> <p>Laundry operations and personnel may need to be augmented to facilitate additional washing loads and cycles</p> <p>Systems are established to routinely inspect, maintain (e.g., mend a small hole in a gown, replace missing fastening ties) and replace reusable gowns when needed (e.g., when they are thin or ripped).</p>

Strategy Table for Contingency and Crisis Capacity for Face Masks

Contingency Capacity Strategies: Face Masks	Considerations
Selectively cancel elective and non-urgent procedures and appointments for which a facemask is typically used by HCP.	
Remove facemasks for visitors in public areas.	Healthcare facilities can consider removing all facemasks from public areas. Facemasks can be available to provide to symptomatic patients upon check in at entry points. All facemasks should be placed in a secure and monitored site. This is especially important in high-traffic areas like emergency departments.
Implement extended use of facemasks. Extended use of facemasks is the practice of wearing the same facemask for repeated close contact encounters with several different patients, without removing the facemask between patient encounters.	The facemask should be removed and discarded if soiled, damaged, or hard to breathe through. HCP must take care not to touch their facemask. If they touch or adjust their facemask they must immediately perform hand hygiene. HCP should leave the patient care area if they need to remove the facemask.
Have patients with symptoms of respiratory infection use tissues or other barriers to cover their mouth and nose.	

Crisis Capacity Strategies: Face Masks	Considerations
Cancel all elective and non-urgent procedures and appointments for which a facemask is typically used by HCP.	
Use facemasks beyond the manufacturer-designated shelf life during patient care activities.	If there is no date available on the facemask label or packaging, facilities should contact the manufacturer. The user should visually inspect the product prior to use and, if there are concerns (such as degraded materials or visible tears), discard the product.
Implement limited re-use of facemasks. Limited re-use of facemasks is the practice of using the same facemask by one HCP for multiple encounters with different patients but removing it after each encounter. As it is unknown what the potential contribution of contact transmission is for SARS-CoV-2, care should be taken to ensure that HCP do not touch outer surfaces of the mask during care, and that mask removal and replacement be done in a careful and deliberate manner.	The facemask should be removed and discarded if soiled, damaged, or hard to breathe through. Not all facemasks can be re-used. Facemasks that fasten to the provider via ties may not be able to be undone without tearing and should be considered only for extended use, rather than re-use. Facemasks with elastic ear hooks may be more suitable for re-use. HCP should leave patient care area if they need to remove the facemask. Facemasks should be carefully folded so that the outer surface is held inward and against itself to reduce contact with the outer surface during storage. The folded mask can be stored between uses in a clean sealable paper bag or breathable container.

Crisis Capacity Strategies: Face Masks	Considerations
<p>Prioritize facemasks for selected activities such as:</p> <ul style="list-style-type: none"> • For provision of essential surgeries and procedures • During care activities where splashes and sprays are anticipated • During activities where prolonged face-to-face or close contact with a potentially infectious patient is unavoidable • For performing aerosol generating procedures, if respirators are no longer available 	
<p>When No Facemasks Are Available, Options Include:</p> <p>Exclude HCP at higher risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients.</p> <p>Designate convalescent HCP for provision of care to known or suspected COVID-19 patients.</p> <p>Use a face shield that covers the entire front (that extends to the chin or below) and sides of the face with no facemask.</p> <p>Consider use of expedient patient isolation rooms for risk reduction.</p> <p>Consider use of ventilated headboards.</p> <p>HCP use of homemade masks:</p> <p>In settings where facemasks are not available, HCP might use homemade masks (e.g., bandana, scarf) for care of patients with COVID-19 as a last resort. However, homemade masks are not considered PPE, since their capability to protect HCP is unknown. Caution should be exercised when considering this option. Homemade masks should ideally be used in combination with a face shield that covers the entire front (that extends to the chin or below) and sides of the face.</p>	<p>During severe resource limitations, consider excluding HCP who may be at higher risk for severe illness from COVID-19, such as those of older age, those with chronic medical conditions, or those who may be pregnant, from caring for patients with confirmed or suspected COVID-19 infection.</p> <p>It may be possible to designate HCP who have clinically recovered from COVID-19 to preferentially provide care for additional patients with COVID-19. Individuals who have recovered from COVID-19 infection may have developed some protective immunity, but this has not yet been confirmed.</p> <p>Portable fan devices with high-efficiency particulate air (HEPA) filtration that are carefully placed can increase the effective air changes per hour of clean air to the patient room, reducing risk to individuals entering the room without respiratory protection. NIOSH has developed guidance for using portable HEPA filtration systems to create expedient patient isolation rooms. The expedient patient isolation room approach involves establishing a high-ventilation-rate, negative pressure, inner isolation zone that sits within a “clean” larger ventilated zone.</p> <p>NIOSH has developed the ventilated headboard that draws exhaled air from a patient in bed into a HEPA filter, decreasing risk of HCP exposure to patient-generated aerosol. This technology consists of lightweight, sturdy, and adjustable aluminum framing with a retractable plastic canopy. The ventilated headboard can be deployed in combination with HEPA fan/filter units to provide surge isolation capacity within a variety of environments, from traditional patient rooms to triage stations, and emergency medical shelters.</p>

Strategy Table for Contingency and Crisis Capacity for N95 Respirators

In the continuum of care, the following measures can be categorized as contingency capacity, which may change daily practices but may not have any significant impact on the care delivered to the patient or the safety of the HCP. The following measures may be considered in the setting of a potential impending shortage of N95 respirators. The decision to implement these practices should be made on a case by case basis taking into account known characteristics of the SARS-CoV-2 and local conditions (e.g., number of disposable N95 respirators available, current respirator usage rate, success of other respirator conservation strategies, etc.).

Contingency Capacity Strategies: N95 Respirator	Considerations
Decrease length of hospital stay for medically stable patients with COVID-19	Currently, CDC recommends discharge of patients with confirmed COVID-19 when they are medically stable and have an appropriate home environment to which to return. If patients cannot be discharged to home for social rather than medical reasons, public health officials might need to identify alternative non-hospital housing where those patients can convalesce.
Use of N95 respirators beyond the manufacturer-designated shelf life for training and fit testing.	In times of shortage, consideration can be made to use N95 respirators beyond the manufacturer-designated shelf life. However, expired respirators might not perform to the requirements for which they were certified. Over time, components such as the strap and material may degrade, which can affect the quality of the fit and seal. Because of this, use of expired respirators could be prioritized for situations where HCP are NOT exposed to pathogens, such as training and fit testing. As expired respirators can still serve an important purpose, healthcare facilities should retain all N95 respirators during the early phases of this outbreak.
<p>Extended use of N95 respirators</p> <p>Practices allowing extended use of N95 respirators, when acceptable, can also be considered. The decision to implement policies that permit extended use of N95 respirators should be made by the professionals who manage the institution's respiratory protection program, in consultation with their occupational health and infection control departments with input from the state/local public health departments.</p>	<p>CDC has recommended guidance on implementation of extended use of N95 respirators in healthcare settings. Extended use has been recommended and widely used as an option for conserving respirators during previous respiratory pathogen outbreaks and pandemics.</p> <p>Extended use refers to the practice of wearing the same N95 respirator for repeated close contact encounters with several different patients, without removing the respirator between patient encounters. Extended use is well suited to situations wherein multiple patients with the same infectious disease diagnosis, whose care requires use of a respirator, are cohorted (e.g., housed on the same hospital unit). It can also be considered to be used for care of patients with tuberculosis, varicella, and measles.</p>

Contingency Capacity Strategies: N95 Respirator	Considerations
<p>Limited re-use of N95 respirators for tuberculosis</p> <p>Re-use refers to the practice of using the same N95 respirator by one HCP for multiple encounters with different patients but removing it (i.e. doffing) after each encounter. This practice is often referred to as “limited reuse” because restrictions are in place to limit the number of times the same respirator is reused.</p>	<p>It is important to consult with the respirator manufacturer regarding the maximum number of donnings or uses they recommend for the N95 respirator model. If no manufacturer guidance is available, data suggests limiting the number of reuses to no more than five uses per device to ensure an adequate safety margin. N95 and other disposable respirators should not be shared by multiple HCP. CDC has recommended guidance on implementation of limited re-use of N95 respirators in healthcare settings.</p> <p>For pathogens for which contact transmission is not a concern, routine limited reuse of single-use disposable respirators has been practiced for decades. For example, for tuberculosis prevention, a respirator classified as disposable can be reused by the same provider as long as the respirator maintains its structural and functional integrity. To extend the supply of N95 respirators during an anticipated dwindling supply, HCP could be encouraged to reuse their N95 respirators when caring for patients with tuberculosis disease.</p> <p>To maintain the integrity of the respirator, it is important for HCP to hang used respirators in a designated storage area or keep them in a clean, breathable container such as a paper bag between uses. It is not recommended to modify the N95 respirator by placing any material within the respirator or over the respirator. Modification may negatively affect the performance of the respirator and could void the NIOSH approval.</p>

CRISIS/ALTERNATE STRATEGIES

These crisis capacity or alternate strategies accompany and build on the conventional and contingency capacity strategies. The following measures are not commensurate with current U.S. standards of care. However, individual measures or a combination of these measures may need to be considered during periods of expected or known N95 respirator shortages. It is important to consult with entities that include some combination of: local healthcare coalitions, federal, state, or local public health officials, appropriate state agencies that are managing the overall emergency response related to COVID-19, and state crisis standards of care committees (if applicable). Even when state/local healthcare coalitions or public health authorities can shift resources between health care facilities, these strategies may still be necessary.

Crisis Capacity Strategies: N95 Respirator	Considerations
<p>When N95 Supplies are Running Low</p> <p>Use of respirators beyond the manufacturer-designated shelf life for healthcare delivery</p>	<p>Consideration can be made to use N95 respirators beyond the manufacturer-designated shelf life for care of patients with COVID-19, tuberculosis, measles, and varicella. However, respirators beyond the manufacturer-designated shelf life may not perform to the requirements for which they were certified. Over time, components such as the straps and nose bridge material may degrade, which can affect the quality of the fit and seal. Many models found in U.S. stockpiles and stockpiles of healthcare facilities have been found to continue to perform in accordance with NIOSH performance standards. However, fluid resistance and flammability were not assessed. Use of the N95 respirators recommended in Release of Stockpiled N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life: Considerations for the COVID-19 Response can be considered. It is optimal to use these respirators in the context of a respiratory protection program that includes medical evaluation, training, and fit testing. If used in healthcare delivery, it is particularly important that HCP perform the expected seal check, prior to entering a patient care area. CDC does not recommend using N95s beyond the manufacturer-designated shelf life in surgical settings.</p>
<p>Use of respirators approved under standards used in other countries that are similar to NIOSH-approved N95 respirators</p>	<p>Other countries approve respirators for occupational use and approve respirators to these standards. These products are evaluated using some methods similar to those used by NIOSH, and some methods that are different, but are expected to protect HCPs. These respirators are expected to provide protection to workers. Those with equivalent or similar protection to NIOSH-approved respirators may be available to provide respiratory protection to workers exposed to harmful airborne particulate matter. These devices are expected to be suitable alternatives to provide protection during the COVID-19 response when supplies are short.</p>

Strategy Table for Contingency and Crisis Capacity for N95 Respirators *Continued*

Crisis Capacity Strategies: N95 Respirator	Considerations
<p>Limited re-use of N95 respirators for COVID-19 patients</p>	<p>Limited re-use of N95 respirators when caring for patients with COVID-19 might become necessary. However, it is unknown what the potential contribution of contact transmission is for SARS-CoV-2, and caution should be used. Re-use should be implemented according to CDC guidance. Re-use has been recommended as an option for conserving respirators during previous respiratory pathogen outbreaks and pandemics. It may also be necessary to re-use N95 respirators when caring for patients with varicella or measles, although contact transmission poses a risk to HCP who implement this practice.</p>
<p>Use of additional respirators beyond the manufacturer-designated shelf life for healthcare delivery</p>	<p>Use of additional N95 respirators beyond the manufacturer-designated shelf life for care of patients with COVID-19, tuberculosis, measles, and varicella can be considered. However, respirators beyond the manufacturer-designated shelf life may not perform to the requirements for which they were certified. Over time, components such as the straps and nose bridge material may degrade, which can affect the quality of the fit and seal. Some models have been found NOT to perform in accordance with NIOSH performance standards, and consideration may be given to use these respirators as identified in Release of Stockpiled N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life: Considerations for the COVID-19 Response. In addition, consideration can be given to use N95 respirators beyond the manufacturer-designated shelf life that have not been evaluated by NIOSH. It is optimal to use these respirators in the context of a respiratory protection program that includes medical evaluation, training, and fit testing. It is particularly important that HCP perform the expected seal check, prior to entering a patient care area.</p>
<p>Prioritize the use of N95 respirators and facemasks by activity type</p> <p>The number of infectious particles required to cause an infection (infectious dose) is often uncertain or unknown for respiratory pathogens. Further, there is often uncertainty about the influence of factors such as exposure duration and nature of clinical symptoms on the likelihood of infection transmission from person-to-person. When facemasks must be used by HCP entering a patient care area, source control (i.e. masking of symptomatic patients) and maintaining distance from the patient are particularly important to reduce the risk of transmission.</p>	<p>This prioritization approach to conservation is intended to be used when N95 respirators are so limited that routinely practiced standards of care for all HCP wearing N95 respirators when caring for a COVID-19 patient are no longer possible. N95 respirators beyond their manufacture-designated shelf life, when available, are preferable to use of facemasks. The use of N95s or elastomeric respirators or PAPRs should be prioritized for HCP with the highest potential exposures including being present in the room during aerosol generating procedures performed on symptomatic persons. See Table below for “Suggested facemask or respirator use, based upon distance from a patient with suspected or known COVID-19 and use of source control”.</p>

Strategy Table for Contingency and Crisis Capacity for N95 Respirators *Continued*

Crisis Capacity Strategies: N95 Respirator	Considerations
<p>When No Respirators are Left</p> <p>Exclude HCP at higher risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients</p> <p>Designate convalescent HCP for provision of care to known or suspected COVID-19 patients</p> <p>Expedient patient isolation rooms for risk-reduction</p> <p>Ventilated Headboards</p>	<p>During severe resource limitations, consider excluding HCP who may be at higher risk for severe illness from COVID-19, such as those of older age, those with chronic medical conditions, or those who may be pregnant, from caring for patients with confirmed or suspected COVID-19 infection.</p> <p>It may be possible to designate HCP who have clinically recovered from COVID-19 to preferentially provide care for additional patients with COVID-19. Individuals who have recovered from COVID-19 infection may have developed some protective immunity, but this has not yet been confirmed.</p> <p>Portable fan devices with high-efficiency particulate air (HEPA) filtration that are carefully placed can increase the effective air changes per hour of clean air to the patient room, reducing risk to individuals entering the room without respiratory protection. NIOSH has developed guidance for using portable HEPA filtration systems to create expedient patient isolation rooms. The expedient patient isolation room approach involves establishing a high-ventilation-rate, negative pressure, inner isolation zone that sits within a “clean” larger ventilated zone. In the absence of any remaining supply of N95 respirators, it may be possible to use this technology in conjunction with HCP wearing facemasks.</p> <p>NIOSH has developed the ventilated headboard that draws exhaled air from a patient in bed into a HEPA filter, decreasing risk of HCP exposure to patient-generated aerosol. This technology consists of lightweight, sturdy, and adjustable aluminum framing with a retractable plastic canopy. The ventilated headboard can be deployed in combination with HEPA fan/filter units to provide surge isolation capacity within a variety of environments, from traditional patient rooms to triage stations, and emergency medical shelters. In the absence of any remaining supply of N95 respirators, it may be possible to use this technology in conjunction with HCP and/or patients wearing facemasks.</p>
<p>HCP use of non-NIOSH approved masks or homemade masks</p>	<p>In settings where N95 respirators are so limited that routinely practiced standards of care for wearing N95 respirators and equivalent or higher level of protection respirators are no longer possible, and surgical masks are not available, as a last resort, it may be necessary for HCP to use masks that have never been evaluated or approved by NIOSH or homemade masks. It may be considered to use these masks for care of patients with COVID-19, tuberculosis, measles, and varicella. However, caution should be exercised when considering this option.</p>

Resources:

Checklist for Healthcare Facilities: Strategies for Optimizing the Supply of N95 Respirators during the COVID-19 Response: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/checklist-n95-strategy.html>

Release of Stockpiled N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life: Considerations for the COVID-19 Response: <https://www.cdc.gov/coronavirus/2019-ncov/release-stockpiled-N95.html>

NIOSH Approved N95 Particulate Filtering Facepiece Respirators: Manufacturers Listed Alphabetically: https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/n95list1.html

Suggested facemask or respirator use, based upon distance from a patient with suspected/known COVID-19 and use of source control

HCP planned proximity to the case patient during encounter	Facemask or respirator determination	
	Patient masked for entire encounter (i.e., with source control)	Unmasked patient or mask needs to be removed for any period of time during the patient encounter
HCP will remain at greater than 6 feet from symptomatic patient	HCP remaining at this distance from the patient should not need to enter the patient care area; if entry required: no facemask or respirator	HCP remaining at this distance from the patient should not need to enter the patient care area; if entry required: no facemask or respirator
HCP will be within 3 to 6 feet of symptomatic patient	HCP remaining at this distance from the patient should not need to enter the patient care area; if entry required: facemask	HCP remaining at this distance from the patient should not need to enter the patient care area; if entry required: facemask
HCP will be within 3 feet of symptomatic patient, including providing direct patient care	Facemask	N95 respirator/ elastomeric /PAPR, based on availability
HCP will be present in the room during aerosol generating procedures performed on symptomatic persons	N95 respirator/ elastomeric /PAPR, based on availability	N95 respirator/ elastomeric /PAPR, based on availability