COVID-19 Point Prevalence Testing Toolkit

COVID-19 point prevalence testing

A point prevalence survey, or PPS, is an epidemiologic tool to assess the number of people in a group with a disease or condition, such as COVID-19 the infection caused by SARS-CoV-2, at a specific point in time. The New Jersey Department of Health (NJDOH) recommends that when healthcare facilities (HCFs) perform facility-wide COVID-19 point-prevalence testing, they should plan in advance to take quick actions based on the results and to adopt a strategy to re-test patients/residents and staff who were found to be negative on the initial round of testing. A PPS for COVID-19 requires collection and testing of a surveillance specimen from all patients/residents and staff in a facility. During an ongoing outbreak, a PPS of only those with negative A PPS can provide useful information for healthcare facilities to guide infection prevention efforts and identify patients/residents who are at risk of spreading or developing COVID-19 infections.

HCFs that perform a PPS for COVID-19 should use these results to describe the scope and magnitude of the facility outbreak and to help inform allocation of resources and additional interventions to further limit transmission. Because asymptomatic and pre-symptomatic persons likely play an important role in transmission in this high-risk population, additional prevention measures merit consideration, including using PPS to guide work exclusion, isolation, and cohorting strategies. Successful implementation of interventions leads to efficient use of personal protective equipment (PPE), effective infection control strategies and reduces ongoing transmission within a facility. **Testing should not supersede existing infection prevention and control interventions**. Results from testing should help inform and build upon already existing infection prevention and control measures recommended by NJDOH and the Centers for Disease Control and Prevention (CDC).

Early reports from nursing homes impacted by COVID-19 suggest that at the time a confirmed case of COVID-19 is identified in a patient/resident, there are already asymptomatic patients/residents with COVID-19 present in the facility. PPS of all persons in the facility can help further identify asymptomatic or pre-symptomatic infections. When undertaking a facility-wide PPS, facility leadership should be prepared for the potential outcomes, which may include identifying multiple COVID-19 positive persons. When a COVID-19 PPS is conducted the results may be used to:

- Determine the burden of COVID-19 across the facility.
- Inform cohorting of patients/residents and separate those with laboratory confirmed COVID-19 infection from others.
- Inform resource allocation.
- Support discontinuation criteria for Transmission-Based Precautions for those existing patients/residents who are laboratory confirmed COVID-19.
- Identify staff with COVID-19 infection for work exclusion.
- Enable staff to return to work after being excluded for COVID-19 infection.

NOTE: A PPS captures information at a single point in time. Patients/residents who test negative on the day of the testing could be incubating and later test positive for COVID-19. Repeat testing (i.e., serial PPSs) may be recommended if transmission continues in the facility. COVID-19 containment and response is often a rapidly evolving situation in HCFs and therefore those who tests positive/negative for the virus can change day by day. Please note this is a rapidly evolving situation and as more data become available this guidance may change.

Inclusion criteria for COVID-19 PPS

The CDC suggests that facility-wide PPS of all patients/residents should be considered in facilities with suspected or confirmed cases of COVID-19, if testing capacity allows. However, heavily impacted HCFs with widespread transmission of COVID-19, will likely not change infection prevention and control practices based on these results. Additionally, HCFs already facing crisis levels of staffing shortages might not be able to mitigate multiple positive staff being furloughed. Plans should be made in advance of testing to determine strategies to handle a potential large number of positive results. Multiple factors should be considered when performing PPS testing. Criteria should include that the facility:

- Identified as having single or few COVID-19 case(s) or is COVID-19 naïve, particularly those in areas with significant community prevalence.
- Identified with an established outbreak, repeat testing would be beneficial to halt transmission.
- Established a cohorting plan including an implementation plan.
- Developed a staffing plan to allow exclusion of COVID-19 positive staff.
- Established testing capacity to identify COVID-19 infections including a relatively fast (1-2 days) turnaround time for results and additional capacity for repeat testing.
- Established occupational health protocols regarding consent for testing and timely notification and disclosure of results.

Collecting and handling specimens

For providers collecting specimens or within 6 feet of persons under investigation (PUI) or suspected to be infected with COVID-19, maintain proper infection prevention and control measures and use all COVID-19 recommended PPE, which includes an N95 or higher-level respirator (or facemask if unavailable), eye protection, gloves, and a gown.

For providers who are handling specimens but are not directly involved in collection (e.g. self-collection) and not working within 6 feet of the COVID-19 PUI, maintain proper infection prevention and control measures, including source control, and follow Standard Precautions; gloves are recommended. **PPE use can be minimized through self-collection while the healthcare provider maintains at least 6 feet of separation**.

Testing considerations

When a PPS is pursued, and if testing capacity allows, a PPS should include **ALL** patients/residents and staff at the facility. However, when resources are limited alterations may need to be considered. See below for further considerations for testing of staff and patients/residents when resources are not sufficient for facility-wide PPS.

Considerations for limited PPE:

- Refer to CDC Strategies to Optimize the Supply of PPE and Equipment at https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html.

Considerations for limited testing of patients/residents:

- Prioritize PPS testing for all patients/residents with no previously known COVID-19 positive result.

- Prioritize PPS testing on units with symptomatic patients/residents and other high-risk persons. This may include persons admitted from another facility, such as a hospital, or those who leave the facility regularly for dialysis or other services.

Considerations for limited testing of staff:

- Prioritize PPS testing for all staff with no previously known COVID-19 positive result.
- Prioritize PPS testing for symptomatic staff or staff with high-risk exposures.
- If staff are not available the time/day of the PPS testing, it is still recommended that they are tested as soon as possible to be captured in the PPS testing event. It is **not** recommended that staff are excluded from work if they are not available for the facility-wide testing.
- Consider not testing staff who do not work in any patient/resident care areas and limited contact with other staff. This may include kitchen staff, groundskeeping, delivery personnel.

Data collection for PPS

Data collection surrounding the PPS is important to ensure that appropriate actions are implemented when the results of the PPS are available. Information should be collected before, during and after the PPS to help further define the scope and severity of COVID-19 within the facility. Data collection will help summarize the circumstances before the PPS was undertaken, what was found in the initial testing effort, and what impact the testing had on transmission and other factors at the facility. Information gathered is vital to tailor infection prevention and control measures and minimize the scope and severity of COVID-19 at the facility. Refer to **Appendix: HCF PPS Facility Assessment** for data collection tools. In addition to the facility assessment, patient/resident level data should be collected in a line list specific to the PPS. NJDOH has developed template line lists that facilities can use to collect the important data needed to take action on the results.

Patient/resident testing results

Refer to the NJDOH **Considerations for Cohorting COVID-19 Patients in Post-Acute Care Facilities** at https://www.nj.gov/health/cd/documents/topics/NCOV/COVID_Cohorting_PAC.pdf for cohorting and outbreak crisis strategies.

Staff testing results

Refer to the NJDOH **Guidance for COVID-19 Diagnosed and/or Exposed Healthcare Personnel** at https://www.nj.gov/health/cd/documents/topics/NCOV/Guidance_for_COVID19_Diagnosed_andor_Exposed_HCP.pdf for testing result guidance and crisis capacity strategies.

For HCP who are found to be positive for COVID-19 or a PUI, facilities should actively identify patients/residents who were cared for by those HCP. Exposures should be traced back to 48 hours prior to symptom onset or positive test for asymptomatic positive HCP, as the exposed patient/resident may later develop symptoms of COVID-19 or test positive. Patients/residents who were cared for by these HCP should be restricted to their room and be cared for using all recommended COVID-19 PPE until results of the HCP COVID-19 testing are known. If the HCP is diagnosed with COVID-19, patients/residents should be cared for using all recommended COVID-19 PPE until 14 days after last exposure and prioritized for testing if they develop symptoms.

Repeat testing intervals

NJDOH recommends that HCFs adopt a strategy to periodically re-test patients/residents and staff who were found to be negative on the initial round of facility-wide COVID-19 PPS testing. The purpose of this re-testing is to identify additional persons who were negative at the time of the initial testing event and who may now be positive; which could contribute to transmission within the facility. **Repeat testing is not, by itself, an intervention to curb transmission of COVID-19 in HCFs; rather, it should be done in combination with existing infection prevention and control interventions**.

Currently there is no CDC guidance for a specific time interval between the first and subsequent testing. Current data suggest that re-testing patients/residents and staff soon after the initial test (e.g. 3-7 days) and then again at consistent intervals (e.g. weekly) may be beneficial to assess ongoing transmission. **The facility should consider re-testing all negative patients/residents and staff within 3-7 days of their initial negative test and again at an established routine interval (e.g., weekly, bi-weekly) thereafter.**

Consider the following when performing re-testing:

- Implement a consistent testing strategy.
- Establish the need for serial testing (more than one re-test) and duration for which serial tests will be done (e.g., every 7 days until 2 incubation periods have passed with no new cases).
- Identify any symptomatic patients/residents or staff to be re-tested at time of clinical suspicion, regardless of testing interval.

Re-testing considerations

Facilities may consider re-testing known COVID-19 positive patients/resident to inform decisions about when they may meet discontinuation of Transmission-Based Precautions (or TBP) criteria and may be moved out of the COVID-19 positive cohort. For guidance on discontinuation of TBP refer to the NJDOH **Quick Reference: Discontinuation of Transmission-Based Precautions and Home Isolation for Persons Diagnosed with COVID-19** at https://www.nj.gov/health/cd/documents/topics/NCOV/COVID-QuickRef_Discont_Isolation_and_TBP.pdf. When resource limitations are identified consider prioritizing facilities with:

- Low prevalence of COVID-19 based on initial testing.
- Resources to successfully cohort based on newly identified asymptomatic cases.
- Highly vulnerable populations including ventilator skilled nursing facilities or vSNFs.
- Few cases identified but are located in communities with widespread transmission.

Considerations for facilities with limited access to testing:

- Prioritize re-testing of any patient/resident or staff with new symptoms and a previous negative result.
- Prioritize re-testing patients/residents who frequently leave the facility for dialysis or other services.
- Prioritize re-testing patients/residents with known exposures to positive patients/residents or staff, **especially roommates of known positive cases.**
- Prioritize re-testing staff who are known to work at other healthcare facilities with cases of COVID-19.

Note: Any newly identified ill patient/resident or staff who has symptoms consistent with COVID-19 should be tested regardless of interval between initial test and symptoms.

Discontinuation of PPS testing

Information obtained through PPS testing should be used to continuously guide the adjustment of and/or reinforce infection prevention and control measures. If COVID-19 transmission is occurring in the facility, consider repeat PPS testing of patients/residents until the outbreak is over. Additionally, facilities may consider continuing testing of staff while there are high community levels of COVID-19 in the surrounding areas.

Resources

CDC, Testing for Coronavirus (COVID-19) in Nursing Homes
https://www.cdc.gov/coronavirus/2019-ncov/hcp/nursing-homes-testing.html

NJDOH Considerations for Cohorting COVID-19 Patients in Post-Acute Care Facilities at
https://www.nj.gov/health/cd/documents/topics/NCOV/COVID_Cohorting_PAC.pdf

NJDOH Guidance for COVID-19 Diagnosed and/or Exposed Healthcare Personnel at
https://www.nj.gov/health/cd/documents/topics/NCOV/Guidance_for_COVID19_Diagnosed_andor_Exposed_HCP.pdf

Appendix: HCF PPS Facility Assessment

Below is a facility assessment tool intended to assist with collecting baseline data on the prevalence of COVID-19 in the facility. The data elements in Part 1 should be collected at time of PPS testing. These open-ended questions collect information about specific infection prevention and control related processes and capacity in the facility. Part 2 are data elements intended to be completed after the PPS testing has been completed. ***These tools are intended for facilities to complete to the best of their abilities. Facilities with ongoing outbreaks may consult their local health department for assistance.***

Part 1. Answer the questions below to reflect the current status of the facility at <u>PRESENT TIME</u> of undertaking facility-wide PPS testing.

Facility Name: _____ **Date of PPS: _____**

<u>Facility wide</u>

Total beds in the facility	
Total number of patients/residents currently in the facility (total census on the day of PPS)	
Total number of patients/residents hospitalized on the day of the PPS (for any reason, including COVID-19)	
Total number of staff employed at the facility	
Total number of consultants actively working with the facility	
Total number of patients/residents who receive outpatient services (e.g., hemodialysis) or routinely leave the facility	

<u>Patients/residents</u>

Has the facility previously identified any positive COVID-19 cases in a patient/resident?	Choose Item
Date of first positive COVID-19 case in a patient/resident	
Date of symptom onset for first identified case in a patient/resident	
Number of patients/residents ever confirmed to have COVID-19	
Number of patients/residents ever suspected* to have COVID-19	
Number of units ever exposed to known or suspected COVID-19 cases	

<u>Staff</u> (Please include anyone who provides services at the facility, even if not directly employed by the facility)

Has the facility previously identified any positive COVID-19 cases in a staff member?	Choose Item
Date of first positive *COVID-19* case in staff member	
Date of symptom onset for first identified case in a staff member	
Number of staff members ever known to have COVID-19	
Number of staff members ever suspected to have COVID-19	

*Suspected case of COVID can include anyone with symptoms of COVID-19, including fever, cough, shortness of breath. Other manifestations of COVID-19 may include elevated temperature without meeting the threshold for fever (<100.4) sore throat, runny nose, altered mental status, lethargy, loss of taste or smell.

What infection prevention and control interventions have been taken at the facility to address COVID-19 (e.g., stopped visitation, symptom screening of patients/residents, universal source control for all persons, education):

Intervention	Briefly describe	Date implemented

Describe the personal protective equipment (PPE) supply and use at the facility (include alcohol-based hand sanitizer, facemasks, N-95s, eye protection, gown, gloves):

Describe any identified staffing challenges related to COVID-19 and applicable mitigation strategies:

Part 2. Answer the questions below to reflect the situation in the facility AFTER initial PPS testing.

For each test, patients/residents and staff should have their information reflected on the provided line list. The below information is for reporting of aggregate totals and should be completed after the first round of testing:

Patient/resident aggregate results

Number of patients/residents in facility at time of PPS testing	
Number of these patients/residents already known to be positive	
Number of patients/residents **tested** in this PPS	
Total number of patients/residents **positive** from this PPS	
Number of patients/residents who were previously negative and now positive in this PPS (NOTE: may not be applicable for first PPS)	
Number of patients/residents found to be **positive** in semi-private rooms from this PPS (i.e., more than one bed occupied).	
Number of patients/residents **tested** in semi-private rooms (i.e., more than one bed occupied).	
Number of patients/residents found to be **positive** in private rooms	
Number of patients/residents **tested** in private rooms	

	+ SARS-CoV-2 result	- SARS-CoV-2 result
Symptomatic* at time of testing		
Asymptomatic at time of testing		
*Please list all symptoms that were asked about to make this determination:		

If possible, provide a floor plan of the facility denoting the location and status of patients/residents on the map.

Staff aggregate results

Number of staff in facility at time of PPS testing	
Number of staff **tested** during this PPS	
Number of staff **positive** form this PPS	
Number of staff who were previously negative and now positive in this PPS (may not be applicable for first PPS)	

	+ SARS-CoV-2 result	- SARS-CoV-2 result
Symptomatic* at time of testing		
Asymptomatic at time of testing		
*Please list all symptoms that were asked about to make this determination:		