



COVID-19: Testing Update

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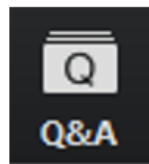
RCC (Relay Conference Captioning)

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<https://www.captionedtext.com/client/event.aspx?EventID=4446001&CustomerID=324>

Logistics for today's COVID-19 Forum

Question during the live webinar



questionsCOVID19webinar@gmail.com

Technical assistance

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Status of COVID-19 Response

- **NC has made progress in flattening the curve and slowing the spread of COVID-19**
- **May 22: State will move to Phase 2 of slowly easing certain COVID-19 restrictions.**
- **Focus will be on increased testing and expanded contact tracing as we look to further ease restrictions.**
- **We will continue to follow our key metrics and assess community and individual level control measures.**

Updated COVID-19 Testing Guidance

- **As we increase testing capacity, NCDHHS issued updated guidance on those recommended for testing (May 15th).**
- **Clinicians should conduct or arrange for diagnostic testing for any patient in whom COVID-19 is suspected.**
- **Providers should consider sample collection strategies that preserve PPE if possible, such as having a dedicated team, practice site, or testing center that performs sample collections.**

Updated COVID-19 Testing Guidance

- **As new test collection sites and modalities are established, need to ensure testing for:**
 - **Anyone with symptoms suggestive of COVID-19**
 - **Close contacts of known positive cases, regardless of symptoms**

Guidance for Testing Those at Higher Risk

- **Regardless of symptoms, anyone at higher risk of exposure or at a higher risk for severe disease including:**
 - **Persons who live in/have regular contact with high-risk settings** (e.g., LTC facility, homeless shelter, correctional facility, migrant farmworker camp)
 - **Persons who are at high risk of severe illness** (e.g., people over 65 years of age, people of any age with underlying health conditions)
 - **Persons who come from historically marginalized populations**
 - **Healthcare workers or first responders** (e.g. EMS, law enforcement, fire department, military)
 - **Front-line and essential workers** (grocery store clerks, gas station attendants, etc.)

COVID-19: Testing Modalities

May 21, 2020



NC DEPARTMENT OF
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Types of Tests



- Shows active infection
- Two types of diagnostic tests
 - molecular (RT-PCR)** tests that detect the virus's genetic material
 - antigen** tests that detect specific proteins on the surface of the virus



- Looks for antibodies made during immune response
- Antibodies can take several days or weeks to develop after infection
- Antibody tests should not be used to diagnose an active coronavirus infection
- Unknown how antibodies correlate to immunity

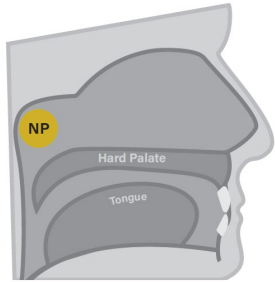


Types of Tests



	Molecular Test	Antigen Test	Antibody Test
Also known as...	Diagnostic test, viral test, molecular test, nucleic acid amplification tests (NAAT), RT-PCR tests	Rapid diagnostic test (Some molecular tests are also rapid tests.)	Serological test, serology, blood test, serology test
How the sample is taken...	Nasal or throat swab (most tests) Saliva (a few tests)	Nasal or throat swab	Finger stick or blood draw
How long it takes to get results...	Same day (some locations) or up to a week	One hour or less	Same day (many locations) or 1-3 days
Is another test needed...	This test is typically highly accurate and usually does not need to be repeated.	Positive results are usually highly accurate but negative results may need to be confirmed with a molecular test.	Sometimes a second antibody test is needed for accurate results.
What it shows...	Diagnoses active coronavirus infection	Diagnoses active coronavirus infection	Shows if you've been infected by coronavirus in the past
What it can't do...	Show if you ever had COVID-19 or were infected with the coronavirus in the past	Definitively rule out active coronavirus infection. Antigen tests are more likely to miss an active coronavirus infection compared to molecular tests. Your health care provider may order a molecular test if your antigen test shows a negative result but you have symptoms of COVID-19.	Diagnose active coronavirus infection at the time of the test or show that you do not have COVID-19

Swab Types & Sample Location



Nasopharyngeal

Ideal sample

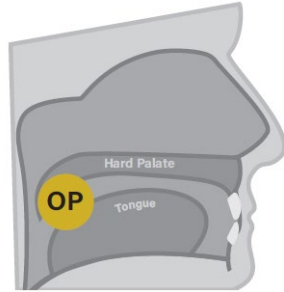
Most sensitive

Special flocked swab

Very limited supply

Collected by provider

Requires most PPE



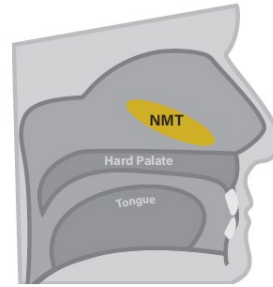
Oropharyngeal

Special flocked swab

Limited supply

Collected by provider

Requires PPE like NP



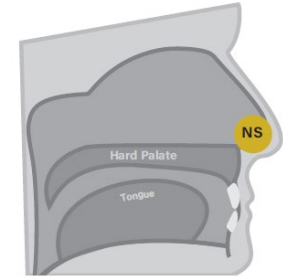
Mid-turbinate

Special flocked swab

Limited supply

Collected by self or provider

Less PPE



Nasal

Foam, flocked, poly swab

Strong supply

Collected by self or provider

Less PPE

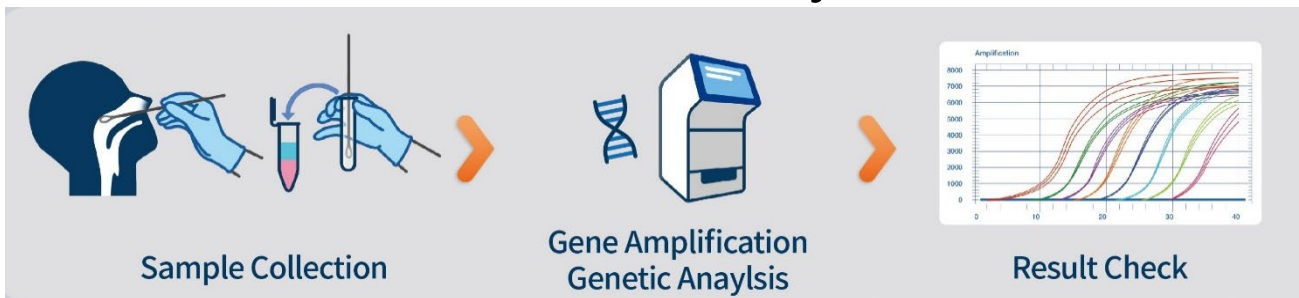
Requesting Collection Supplies - Updated 05/18/2020

- Facilities can now request bulk specimen collection materials through a new online system managed by NCDHHS. Please see the [NCDHHS website](#) for details.
 - [Request Portal](#)
- Local Health Departments may request bulk supplies and NCSLPH Specimen Collection Kits through their Emergency Management. Kits come with the following [Kit Instructions](#) (PDF, 705 KB; updated 04/29/2020), and must be returned to the State Lab for testing.

Diagnostic Tests

Molecular

Laboratory



► Sensitive ► Specific ► Several hours ► High throughput

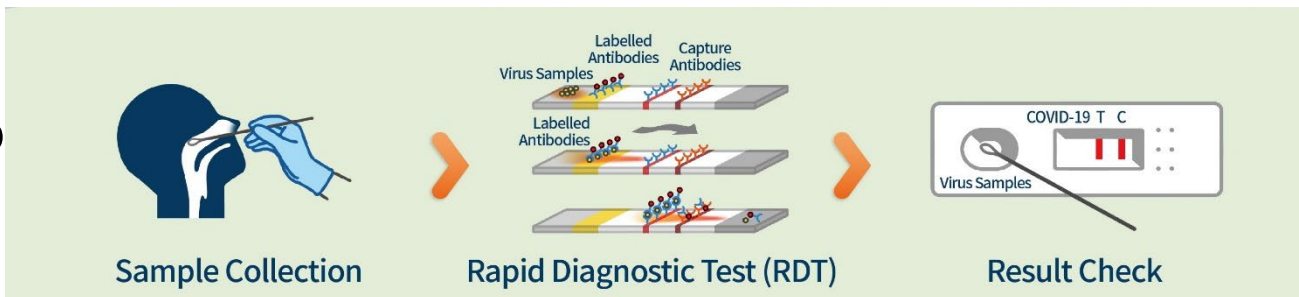
POC/Near-Patient



Less Sensitive
Specific
<1 hour
Low throughput

Antigen

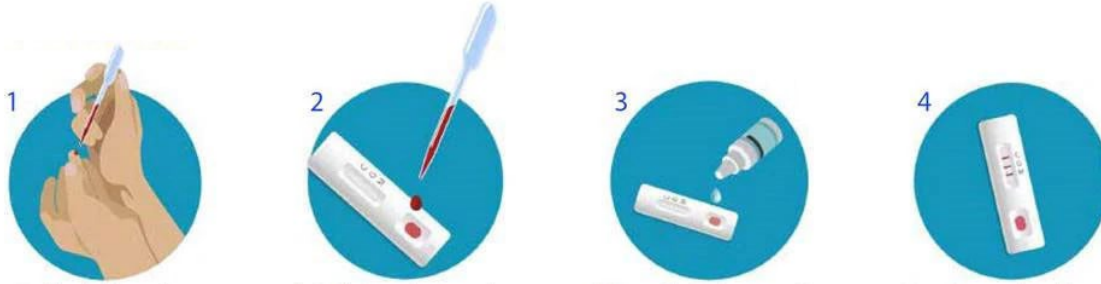
POC/Near-Patient



► Less Sensitive
► Specific
► Minutes
► Low throughput

Antibody Tests

POC/
Near-Patient



- ▶ Less Sensitive
- ▶ Less Specific
- ▶ Minutes to Results
- ▶ Low throughput
- ▶ Regulatory concerns

Laboratory



- ▶ Sensitive
- ▶ More Specific
- ▶ Hours to Results
- ▶ High throughput

Interpreting COVID-19 Test Results

	RESULT	INTERPRETATION	RECOMMENDED ACTION
VIRAL TESTING: (testing for current infection)	Positive	<i>Most likely*</i> you DO currently have an active COVID-19 infection and can give the virus to others.	<u>Stay home*</u> and follow CDC guidance on steps to take if you are sick. *If you are a healthcare or critical infrastructure worker, notify your work of your test result.
	Negative	<i>Most likely*</i> you DO NOT currently have an active COVID-19 infection.	If you have symptoms, you should keep monitoring symptoms and seek medical advice about staying home and if you need to get tested again. If you don't have symptoms, you should get tested again only if your medical provider and/or workplace tells you to. <u>Take steps to protect yourself and others.</u>
ANTIBODY TESTING: (testing for past infection with the virus)	Positive:	You <i>likely*</i> have HAD a COVID-19 infection.	You may be protected from re-infection (have immunity), but this cannot be said with certainty. Scientists are conducting studies now to provide more information. <u>Take steps to protect yourself and others.</u>
	Negative	You <i>likely*</i> NEVER HAD (or have not yet developed antibodies to) COVID-19 infection.	You could still get COVID-19. <u>Take steps to protect yourself and others.</u>
BOTH (antibody and viral testing)	Viral Positive, Antibody Positive:	<i>Most likely*</i> you DO currently have an active COVID-19 infection and can give the virus to others.	<u>Stay home*</u> and follow CDC guidance on steps to take if you are sick. *If you are a healthcare or critical infrastructure worker, notify your work of your test result.
	Viral Positive, Antibody Negative	<i>Most likely*</i> you DO currently have an active COVID-19 infection and can give the virus to others.	<u>Stay home*</u> and follow CDC guidance on steps to take if you are sick. *If you are a healthcare or critical infrastructure worker, notify your work of your test result.
	Viral Negative, Antibody Positive	You <i>likely*</i> have HAD and RECOVERED FROM a COVID-19 infection.	You may be protected from re-infection (have immunity), but this cannot be said with certainty. Scientists are conducting studies now to provide more information. You should get tested again only if your medical provider and/or workplace tells you to. <u>Take steps to protect yourself and others.</u>
	Viral Negative, Antibody Negative	You <i>likely*</i> have NEVER HAD a COVID-19 infection.	You could still get COVID-19. You should get tested again only if your medical provider and/or workplace tells you to. <u>Take steps to protect yourself and others.</u>



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HUMAN SERVICES**
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State Laboratory of Public Health

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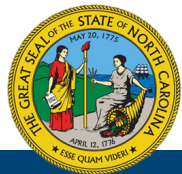
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COVID-19: Priority Populations

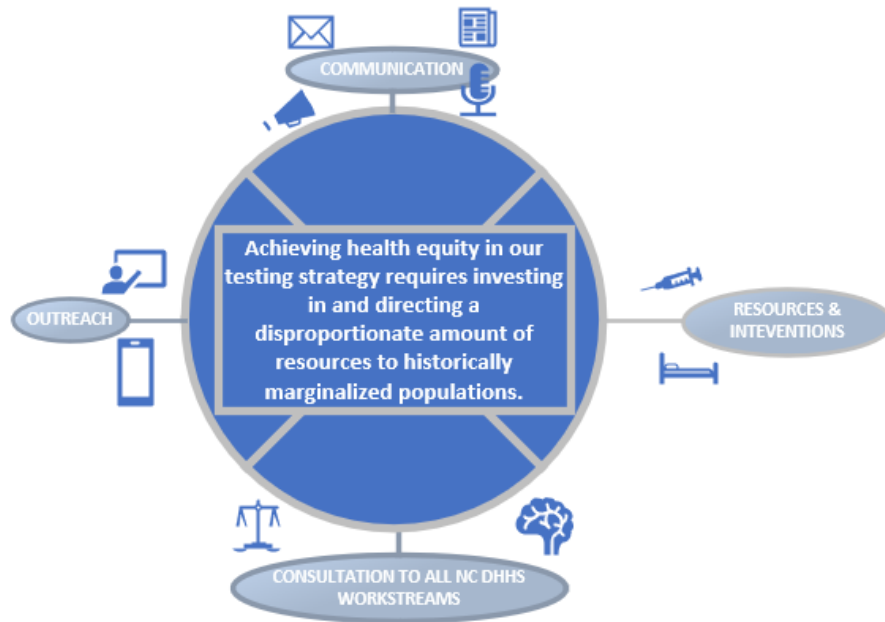
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The history books will tell the stories of the states who use this crisis as a springboard to advance health equity light years ahead. NC plans to be one of them.

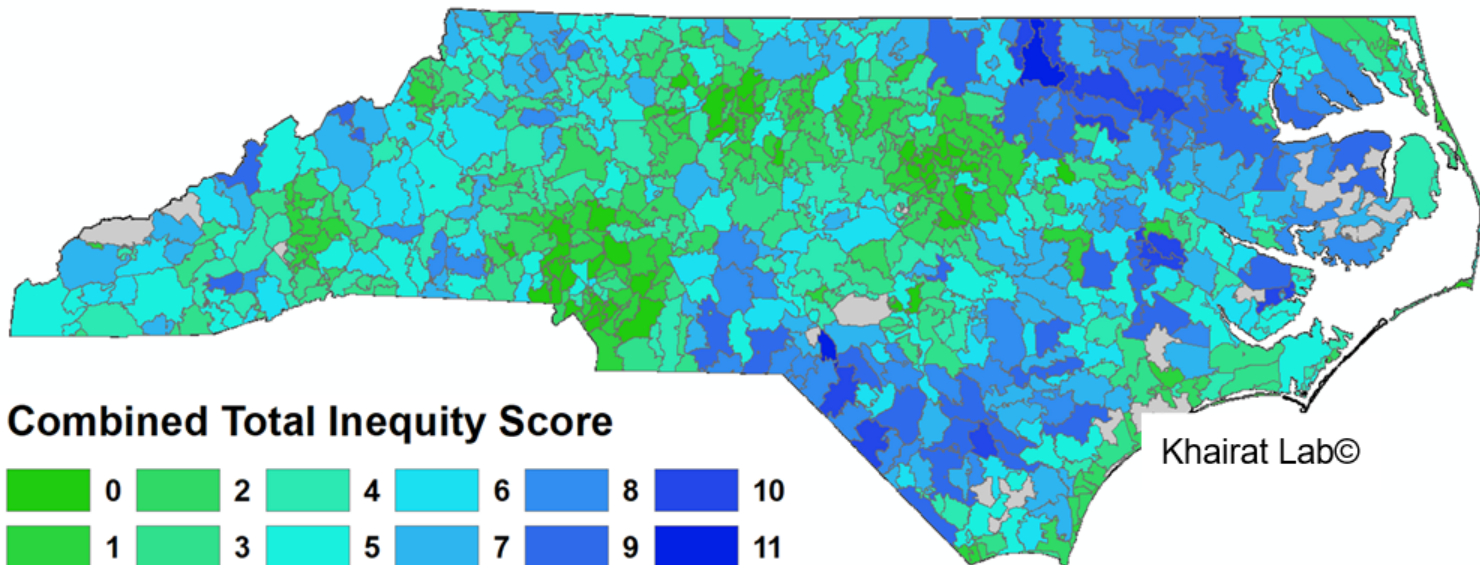
Priority Populations in COVID-9



Fundamental Principles for Historically Marginalized Populations in COVID-19:

- Interventions must be provided with cultural competency and ideally with people of similar backgrounds
- Interventions must create a linkage to identify and address unmet healthcare needs
- Interventions must be provided in geographically accessible and trusted locations with trusted partners

Combined Social and Access Inequity



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Reference: Khairat, S. et al. (2019). Advancing health equity and access using telemedicine: a geospatial assessment. J Am Med Inform Assoc.

Contact: Dr. Saif S. Khairat at UNC at Chapel Hill (Saif@unc.edu)

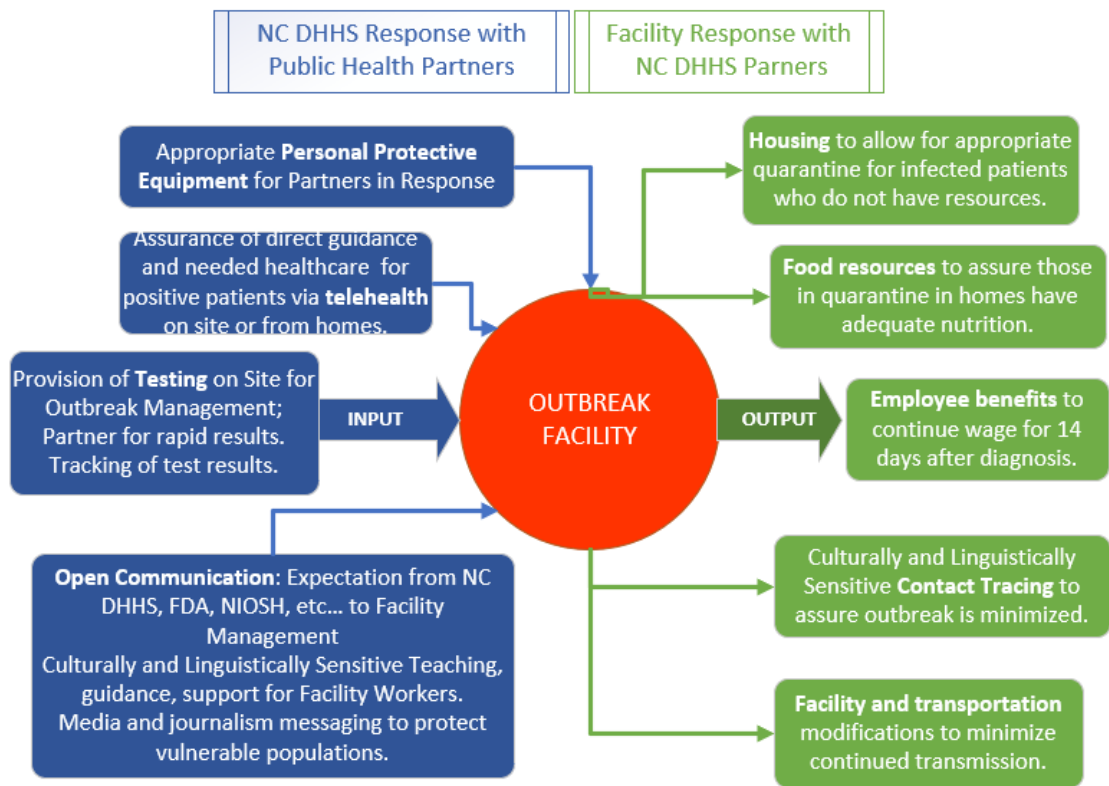
Best Practices: Testing Outreach for Historically Marginalized Populations

- Go into low income communities and offering testing
- Welcome all to a trusted location for testing
- Provide culturally competent education on site
- Host site with a diverse workforce
- Make tests available without a lab order(i.e. provider on site)
- Linkage to a medical home where tests are provided
- Follow up of positive and negative results
- Partner with faith communities and other trusted community partners to sponsor testing event



Toolkit and Resources

<https://files.nc.gov/covid/documents/guidance/mitigation-of-outbreaks-associated-with-food-processing-plants.pdf>





Consider taking advantage of community resources! Create new partnerships to staff your event:

- LHDs
- FQHCs
- Emergency Management
- Residency Programs
- Medical Students
- Community Mobile Clinics
- Health Systems



– Long-Term Care Facilities

NCDHHS Toolkit for Long Term Care Facilities

- [COVID-19 Outbreak Toolkit for Long-Term Care Settings](#) 
- [Long-Term Care Infection Prevention Assessment Tool](#) 
- [Infection Prevention Education Resources for Long-Term Care Facilities](#) 
- [Strategies to Optimize Personal Protective Equipment - Facemask](#) 
- [Strategies to Optimize Personal Protective Equipment - Gowns](#) 
- [IP Staffing Worksheet for Long-Term Care Facilities During COVID-19](#) 
- [What to Expect: Response to New COVID-19 Cases or Outbreaks in Long-Term Care Settings](#)  (April 17, 2020)

Trainings for Long-Term Care Staff

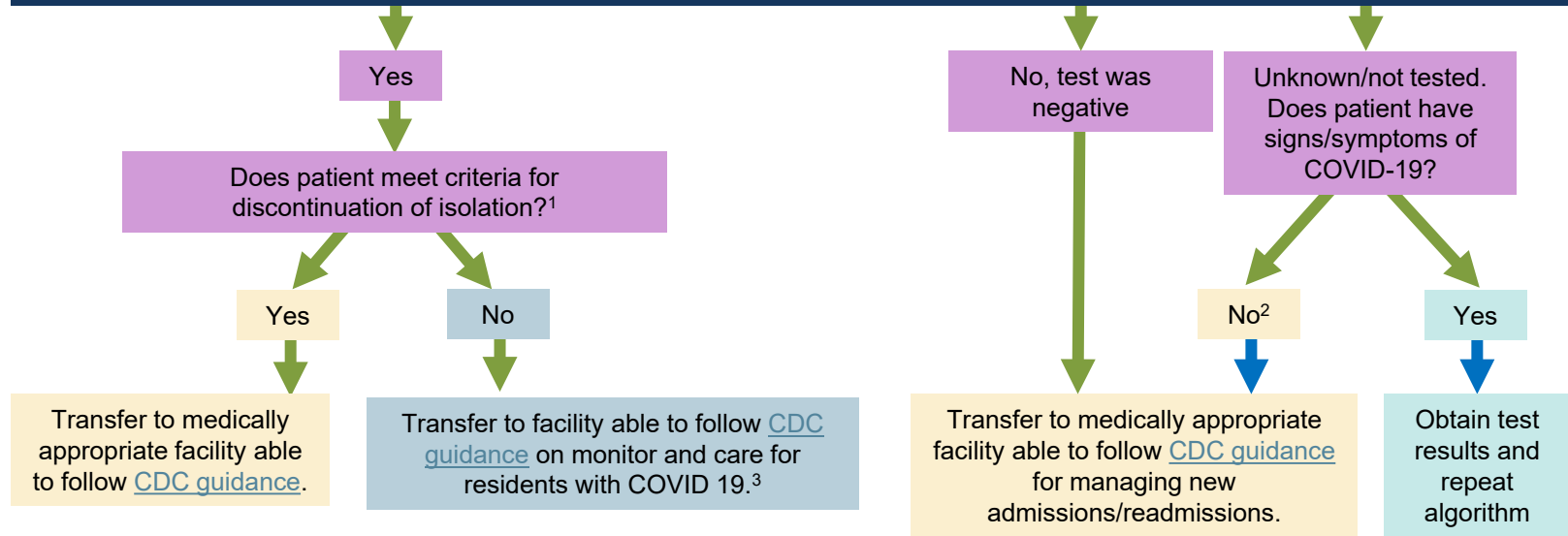
- **Trainings for long-term care facility staff available through our website.**
 - [Best Practices for Congregate Settings: Assisted Living/Adult Care Homes](#)
 - [Best Practices for Congregate Settings: Nursing Facilities & Smaller Congregate Community Care Setting](#)
 - [Best Practices in Congregate Settings – Trainings Supplement](#)

CDC Guidance on Testing in Nursing Homes

- **New** CDC Testing Guidance on Nursing Homes
- **New** Performing Facility-wide SARs-CoV-2 Testing

Flow Diagram for Hospitalized Patients Being Discharged to a Long-term Care Facility

Does the hospital patient have a documented COVID-19 diagnosis/test?



- 1. Criteria for discontinuation of isolation for patients being discharged to long term care facility:** Resolution of fever without the use of fever-reducing medications **and** Improvement in respiratory symptoms (e.g., cough, shortness of breath), **and** Negative results from at least two consecutive nasopharyngeal swab specimens collected ≥ 24 hours apart.
2. CMS states testing can be considered if available. Testing should be considered in non-surge scenarios. Since the ability to detect transmission is limited during the incubation phase, a negative test does not rule out COVID-19 and patients should still be placed on 14-day transmission precautions when transferred to long-term care. Long-term care facilities **should NOT require two tests** – two tests are only indicated to document resolution of symptoms after known COVID-19 diagnosis.
3. Check with facility to determine if patients requiring aerosolizing procedures, e.g. nebulizer treatment, are appropriate for transfer.

Testing Individuals Experiencing Homelessness

- Regardless of symptoms, anyone at higher risk of exposure or at a higher risk for severe disease including **individuals living in homeless shelters or unsheltered camps.**
 - Transportation is a barrier for individuals experiencing homelessness
 - On-site rapid testing
- Plan to connect individuals experiencing homelessness to services, including non-congregate sheltering

Non-Congregate Sheltering (NCS)

- NC approved for NCS in hotels, motels, or dorms for people with no other safe place to quarantine or isolate in response to COVID-19 or are at high-risk for severe illness from COVID-19.
 - **This resource can be used for essential workers and vulnerable populations, including individuals experiencing homelessness**
- Lodging costs + wrap around services (e.g., food, transportation, laundry, security, etc.) reimbursable: 75% FEMA, 25% State
- Counties should make plans to identify and operationalize non-congregate sheltering options or work with eligible non-profits or regional providers to stand up regional NCS options.
- Individuals in need of NCS: Call 2-1-1 to learn of NCS in their county

More information: <https://covid19.ncdhhs.gov/information/housing-sheltering/non-congregate-sheltering>

Breaking Down Barriers: PPE and Testing Supplies



[HTTPS://COVID19.NCDHHS.GOV/INFORMATION/HEALTH-CARE/REQUESTING-PPE](https://COVID19.NCDHHS.GOV/INFORMATION/HEALTH-CARE/REQUESTING-PPE)



[HTTPS://COVID19.NCDHHS.GOV/INFORMATION/HEALTH-CARE/REQUESTING-SPECIMEN-TESTING-SUPPLIES](https://COVID19.NCDHHS.GOV/INFORMATION/HEALTH-CARE/REQUESTING-SPECIMEN-TESTING-SUPPLIES)

Call to Action

- Pandemic has shown spotlight on disparities, need to intentionally address
- Be aware of and share [Provider Guidance](#)
 - Test symptomatic people, close contacts of a known positive (symptomatic and asymptomatic)
 - Intentionality of providing access to high priority populations, potential lower threshold for known exposure
- Coordinate and communicate with LHD and help to facilitate testing for high priority populations
- Know the commercial labs capabilities and contacts and order supplies
- Know of the [testing sites](#) in your area, add or modify them
- Can request [PPE](#)
- Can request [sample collections supplies](#)