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## **Unified Command Group Media Primer on Tennessee's COVID-19 Testing Strategy**

Tennessee Governor Bill Lee formed the Unified Command Group (UCG) in March 2020 to spearhead the fight against COVID-19 in Tennessee. The Unified Command Group is a joint partnership between the Tennessee Department of Health (TDH), the Tennessee Department of Military and the Tennessee Emergency Management Agency (TEMA). UCG prepared the following summary of Tennessee's COVID-19 mass and targeted testing plans and strategies.

### **THE BIG PICTURE**

In the month of **April 2020**, Tennessee's Public Health Lab, and the private labs under contract with the Tennessee Department of Health, performed more than 161,000 COVID-19 tests statewide. This total represents a 2.4 percent testing rate based on Tennessee's population of 6.8 million citizens.

From a national perspective, Tennessee has exceeded the federal benchmark indicating states should be able to test at least 2 percent of their populations monthly, in order to make informed decisions regarding re-starting and re-opening their economies.

According to a Harvard Global Health Institute Study, published April 27, 2020, Tennessee is one of only seven states meeting or exceeding the study's testing recommendations. The study set minimum targets for how much testing is needed in each state by May 15 to contain its outbreak, in combination with contact tracing and isolating positive cases and their contacts.

Tennessee is currently averaging 8,365 tests per day, according to the Harvard Institute study, which far exceeds the study's minimum for the state of 3,266 tests per day.

The Harvard Institute study also shows Tennessee with a 6.1 percent result in tests returned as positive, which is well below the study's recommended positive test ratio of 10 percent or lower for the state.

Information about the Harvard Institute study is available at <https://globalepidemics.org/2020/05/07/hghi-projected-tests-needed-may15/>.

## **WHERE WE BEGAN**

Following Tennessee's first confirmed COVID-19 case in **early March**, TDH initiated new case management protocol to include running the State's Public Health Lab seven days a week to assist public health authorities and health care workers in identifying and treating COVID-19 positive individuals. TDH directly oversees 89 county health departments and serves as a partner to Tennessee's six independent, metropolitan health departments in Shelby, Madison, Davidson, Knox, Hamilton, and Sullivan counties.

As Tennessee's COVID-19 cases increased, throughout **March and April**, COVID-19 testing in Tennessee needed to scale up as a result, TDH leaned on a partnership with the Tennessee National Guard to stand-up, support, and operate drive-thru remote assessment sites throughout Tennessee at county health departments, meaning individuals would not have to leave their vehicles to get tested for COVID-19. This effort made COVID-19 testing quick and convenient for those experiencing symptoms and who had been pre-screened and pre-registered to receive testing.

While the State Lab continued to scale to meet testing capacity, TDH also relied on medical providers and private lab partners to maintain a steady efficiency in completing tests, informing patients of their COVID-19 status, and reporting Tennessee's COVID-19 test results publicly.

## **THE POP-UP TESTING STRATEGY**

On **April 15, 2020**, Gov. Lee directed UCG to rapidly expand Tennessee's COVID-19 testing capacity and enable more Tennesseans to have improved access to testing, to help them make informed health care decisions.

The expanded testing effort launched the weekend of **April 18 and April 19** with the Tennessee National Guard and TDH establishing 15 drive-through testing sites across the state.

Over three-consecutive weekends, the pop-up testing effort helped more than 23,000 Tennesseans receive a COVID-19 test. This effort further found only 1-to-2 percent of Tennesseans, who received a test at one of the pop-up sites, as testing positive for COVID-19.

Another strategic shift that came with the weekend pop-up tests, was to remove the requirement for individuals to be pre-screened or pre-registered before receiving a COVID-19 test at their county health departments. As UCG's clinical understanding of COVID-19 rapidly changed, the need presented to UCG was to test every Tennessean not feeling well, even those outside the traditional COVID-19 symptoms of cough, fever, or difficulty breathing.

Now, Tennesseans who feel they need a test can get a test free-of-charge, five-days-a-week at all 89 county health departments in Tennessee.

## **FOCUS ON VULNERABLE POPULATIONS**

Understanding COVID-19's spread among vulnerable populations has become critical in the State's effort to combat and contain the spread of COVID-19.

UCG launched a two-pronged strategy in **May 2020** to increase testing among staff and residents at Tennessee's long-term care facilities, and among staff and inmates at state correctional facilities.

### ***Correctional Facilities***

- Targeted facility testing began **April 10, 2020**
- Mass testing at all State correctional facilities began **May 4, 2020**
- Mass testing of staff and inmates at TDOC-run facilities completed midday on **May 7, 2020**.

As the Tennessee Department of Correction began confirming higher numbers of COVID-19 positive cases among staff and inmates at four correctional facilities in Tennessee – Trousdale Turner Correctional Center, Bledsoe County Correctional Complex, Northwest Correctional Complex, and Turney Center Industrial Complex – Gov. Lee directed UCG and TDOC to implement a plan to test all staff and inmates at TDOC's 10 remaining correctional facilities.

The correctional facility testing effort began the week of May 4, 2020, as a collaborative effort between TDH, Tennessee National Guard, TDOC, and the State's contract prison and medical providers, CoreCivic and Centurion Managed Care.

With the support of TDH and the Tennessee National Guard, TDOC has conducted **20,758** COVID-19 tests on inmates at **17 total facilities**.

Overall inmate test results, on the current total of those tested, show **761** positive cases, **18,072** negative cases, **1,888** recovered cases, and **33** tests pending results.

TDOC testing of correctional facility staff resulted in **74** total positive cases, and half of these staff members returning to work following isolation.

### ***Long-Term Care Facilities***

- Targeted long-term facility testing efforts began **March 29, 2020**.
- First weekly, statewide long-term care home case report released **April 22, 2020**.
- Mass testing at all Tennessee long-term care facilities initiated on **April 29, 2020**.

With an awareness of the need for extra measures to protect Tennessee's most vulnerable population from COVID-19, TDH launched a campaign to provide testing and support for all residents and staff members at long-term care facilities across the state. This effort is expected to reach more than 70,000 residents at 700 long-term care facilities in Tennessee.

TDH and the Tennessee National Guard will provide specimen collection, personal protective equipment for testing procedures, and no-cost laboratory testing, in the overall support

effort as long-term care facilities engage in their responsibility to test all residents and staff for COVID-19. The goal of the long-term care testing effort is to allow those with the highest-risk of severe illness from COVID-19 to be safely tested for COVID-19, and rapidly isolated and treated if necessary.

TDH reports about 200 long-term care facilities have completed testing since the announcement on **April 29, 2020**.

### ***Minority and Special Populations***

- Initiative to test vulnerable populations announced **April 29, 2020**.
- UCG coordinated testing events with housing authorities in Tennessee's major metro areas began **May 14, 2020**.

The next phase in UCG's testing strategy involves expanding COVID-19 testing availability to vulnerable populations in housing authority communities and neighborhoods in Tennessee's major metropolitan areas of Nashville, Knoxville, Memphis, and Chattanooga.

The Tennessee National Guard and UCG coordinated with the:

- Metro Nashville Housing Authority to provide testing to residents in 14 communities, May 14, and May 15, with 512 total tests performed;
- Knoxville Community Development Corporation to test in six communities, May 16, and May 17, with 477 total tests performed;
- Memphis Housing Authority to test in five communities, May 18, and May 19, with 514 total tests performed and,
- Chattanooga Housing Authority to test in four communities, May 21, and May 22, total tested TBD.

The Tennessee National Guard is also supporting the expanded testing strategy with plans to test all 10,000 Guard members in Tennessee before the end of May.

### ***Tennessee Department of Intellectual and Development Disabilities***

- DIDD began tracking of COVID-19 testing for all persons supported in its care as of **March 18, 2020**.
- Completed COVID-19 testing for all persons and staff in Intermediate Care Facilities as of **May 14, 2020**.
- Began scheduling and holding COVID-19 drive-through locations on **May 15, 2020**, in eight cities to provide testing to those individuals in DIDD services, private intermediate care facilities for people with intellectual disabilities and the Employment and CHOICES Program.

Individuals with intellectual and developmental disabilities often have underlying health conditions, which puts them at risk for COVID-19 complications, including serious illness and death. Many are in residential settings with two or more people, supported by multiple direct care staff, and require direct contact for care.

DIDD has made changes to provide in-home services to maintain social distancing and minimize face-to-face, nonessential contact, and has worked with TEMA to acquire PPE for contracted providers to protect persons and staff in cases where COVID-19 is suspected or confirmed.

As of May 14, DIDD has tested 430 persons and 612 staff in the agency's congregant care facilities state-wide and among its provider network, and is scheduling drive-through testing sites over the next 4-to-6 weeks across the state to provide voluntary COVID-19 testing for the more than 12,000 individuals who receive services through the DIDD waiver programs, the Employment and Community First CHOICES Program, and private intermediate care facilities for persons with intellectual disabilities.

Since the expanded testing initiative started on May 15, in Scott County, DIDD has tested an additional 383 people in Scott, Campbell, Morgan, Fentress, Pickett, Davidson, Shelby, White, Warren, Dekalb, and Anderson counties. Currently, DIDD is scheduling providers to bring the individuals they support to certain testing sites on specific dates so DIDD can be sure to have the available testing resources on hand.

### ***Tennessee State Veterans' Homes***

- Tennessee National Guard members completed training of 11 TSVH nurses on **May 8, 2020**, on administering COVID-19 testing and proper PPE use.
- Trained TSVH nursing began deploying on **May 11, 2020**, to test patients and staff at Tennessee's four TSVH facilities, in Clarksville, Humbolt, Knoxville, and Murfreesboro.
- Testing completed at all four TSVH facilities as of **May 21, 2020**.

TSVH's launched its effort to test all staff and residents, who chose to be tested, in early May at its four congregant care facilities in Tennessee.

TSVH has conducted COVID-19 tests on a total of 464 residents and 597 staff members. So far, testing results have indicated 20 residents and two staff overall as positive for COVID-19, with testing results pending for testing at veterans' home in Clarksville.

### **ALTERNATIVE TESTING PLATFORMS**

UCG is being very deliberative in its approach to incorporate emerging technologies, such as COVID-19 antibody testing and COVID-19 rapid testing, into the State's overall testing strategy.

#### ***Rapid COVID-19 Testing***

The U.S. Centers for Disease Control and Prevention has provided Tennessee's State Lab with a rapid, point-of-care testing platform, called ID Now, from Abbot Laboratories that will return a COVID-19 positive test within 5 minutes, and a negative COVID-19 test within 13 minutes.

Rapid testing technology can be a game-changer in COVID-19 testing to provide on-the-spot results to patients and allow health care providers to make quick decisions about next steps at the point-of-care.

TDH is analyzing the rapid test technology and evaluating how to maximize its use for the public.

### ***Antibody, or Serology, Testing***

An antibody test involves taking a blood sample to detect the antibodies made by cells in the body that have previously been exposed to, and fought off, a virus. This is a different process than a nasal swab test which detects whether a patient currently has a viral infection.

The U.S. Food and Drug Administration has only approved six COVID-19 antibody tests for clinical use, and most of these have not been widely distributed. There are many antibody tests in the FDA's pipeline and may ultimately receive approval. However, most of the antibody tests ready for use have not been validated.

The primary issue with these unproven antibody tests is they can give patients false-positive results by detecting other types of coronaviruses, usually the kind that cause the common cold. A false-positive result may lead to a conclusion that a patient has immunity to COVID-19, when what the test really shows is, at some point in time, the patient was exposed to another type of coronavirus and its antibodies are present, not the antibodies for COVID-19.

There is not enough data yet on COVID-19 antibody testing to prove having the antibodies will prevent a person from being re-infected with COVID-19. There are some indications most, maybe not all, people who have been infected with COVID-19 will develop antibodies in their blood that can be detected for a period of time. There isn't enough data to confirm this is true, or if it happens to be true how long the immunity will last.

### **ADDITIONAL RESOURCES**

*What to Expect After Being Tested for COVID-19*, Tennessee Department of Health  
<https://www.tn.gov/content/dam/tn/health/documents/cedep/novel-coronavirus/TestedGuidance.pdf>

*What To Do If Your Test Results are Negative*, Tennessee Department of Health  
<https://www.tn.gov/content/dam/tn/health/documents/cedep/novel-coronavirus/what-to-do-if-you-test-negative.pdf>

*What to Expect After Being Diagnosed with COVID-19*, Tennessee Department of Health  
<https://www.tn.gov/content/dam/tn/health/documents/cedep/novel-coronavirus/CaseGuidance.pdf>

*Testing for COVID-19*, U.S. Centers for Disease Control and Prevention  
<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/testing.html>

*Evaluating and Testing Persons for Coronavirus Disease 2019 (COVID-19)*, CDC, Healthcare Professionals

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-criteria.html>