Facing the Invisible Foe Head-On

PROTECTING TENNESSEANS THROUGHOUT THE COVID-19 PANDEMIC AND BEYOND

THE BATTLE HAS JUST BEGUN, BUT WE MOVE FORWARD WITH HOPE.

TwelveStone HEALTH PARTNERS™

As of March 30th the number of COVID-19 cases in the US had risen to more than 161,000 with nearly 3,000 deaths.[1] Over the past weeks we've watched as virus hot spots have migrated from China and Europe to the US. In a single week, from March 24th through March 30th, the number of reported cases in the US tripled from 54,453 to 163,539. And now we watch as it spreads across our own country from states like New York, California and Washington to central states like Illinois, Michigan, and Louisiana. While states and communities have implemented measures to slow the spread, they still struggle to get the personal protective equipment (PPE), medical equipment, and facilities needed to meet the demand. Smaller cities and rural areas around the country are preparing now, as best they can, for the almost certain impact on their own communities.

What does this mean for Tennessee? Where are we in this battle? On March 30th, there were 2,035 reported cases with 14 deaths.[2] That's 298 cases and 2 deaths per 1 million residents. This is only a fraction of what the hardest-hit states have seen. But it also means we are just beginning our upward trajectory. We are fortunate, though, in that our location as a Southern state has bought us time to prepare. And prepare we have.

In addition to the actions of the Tennessee Department of Health, the state has taken other actions to help slow the spread. On March 23rd, Governor Bill Lee signed Executive Order #18 to limit non-emergency healthcare procedures.[4] The order stipulates that dental service providers cease performing all non-emergency procedures, and that hospitals and surgical outpatient facilities cease performing all procedures that are not necessary to "address a medical emergency or to preserve the health and safety of a patient." In addition, the bill requests that non-hospital healthcare providers turn over all PPE not needed for emergency care to the Tennessee Emergency Management Agency. On the same day, the Governor announced the creation of the COVID-19 Unified Command, "a joint effort to be led by Commissioner Stuart McWhorter, to streamline coordination across the Tennessee Emergency Management Agency (TEMA), Tennessee Department of Health and Tennessee Department of Military."[5]

On April 2nd, Governor Lee signed Executive Order 23 requiring all Tennesseans to stay home unless they are engaging in an essential activity or service.[6] On the same day, FEMA approved the state's COVID-19 disaster declaration.[7] This allows the state to work with the US Army Corps of Engineers to build capacity by an additional 7,000 beds across the state. Several sites will be converted to COVID Positive Non-Acute Alternative Healthcare Facilities, including the Music City Center in downtown Nashville, the Gateway Shopping Center in Memphis, the Chattanooga Convention Center, and the Knoxville Expo Center.

Tennessee Department of Health (TDH) COVID-19 Response Activities[3]

- TDH State Health Operations Center (SHOC) activated
- Working closely with CDC, state agencies, and metro/regional health departments
- Investigating cases, tracing contacts, and monitoring close contacts of cases
- Supporting COVID-19 assessments at local health departments
- Maintaining up-to-date list of assessment sites statewide
- Operating information lines for public inquiries
- Maintaining clinician consultation line within the SHOC
- Leveraging social media networks and TDH COVID-19 webpage
- Conducting telebriefings for healthcare providers, hospitals, and partner agencies
- Developing and disseminating guidance documents
- Monitoring PPE inventories and needs
- Supporting state laboratory testing

In an effort to staff the additional care sites, the state is asking displaced or furloughed healthcare personnel to register on the Tennessee Department of Health's website to become COVID-19 Medical Professional Responders.[8] The Governor also announced the launch of the Tennessee Talent Exchange initiative that helps those impacted by COVID-19, especially those in the hospitality industry who have been hard hit, to find employment opportunities in other industries that are hiring.[9]

Many other organizations have stepped up to help mitigate the economic impact to businesses and citizens. On March 26th, The Tennessee Valley Authority (TVA) announced it will provide $1 billion in credit support to allow local power companies to delay or defer payments to the TVA.[10] The goal is to reduce the financial impact of business closures on those power companies while enabling them to help residents who cannot afford their energy bills. The TVA also donated 50,000 respiratory masks to emergency management services in Tennessee, Mississippi and Alabama.[11]

Innovation in Action

You have heard the phrase "Necessity is the mother of invention." That saying takes on extra meaning today. Groups throughout the state are exploring new and innovative solutions to the many challenges presented by this pandemic. For example, colleges throughout the state are using 3D printers to produce a variety of PPE to help alleviate the shortage, especially of masks and face shields. More than 10,000 face shields[12] have been produced thus far.

Vanderbilt University Medical Center is also putting innovation into action by working to fast-track the development of antibody-based treatments for those exposed to the COVID-19 virus.[13] According to an article in the VUMC Reporter, "Researchers from the Vanderbilt Vaccine Center (VVC) have rapidly responded to this outbreak by building a comprehensive 'toolkit' to identify and analyze antibodies isolated from the blood of survivors for their ability to neutralize SARS-CoV-2, the virus that causes COVID-19."

Similar research is taking place at the University of Tennessee Health Science Center in Memphis. There, Dr. Colleen Jonsson, holder of the Van Vleet Chair of Excellence in Virology, and her colleagues are working on the development of antiviral drugs that would stop the virus from reproducing and thereby prevent the spread of the disease.

A Pathway Through the Pandemic and Beyond

The March 31st White House COVID-19 briefing was dire and straightforward, pointing to the likelihood of virus-related deaths to reach 200,000 with more than a million infected.[14] During the briefing Coronavirus Response Coordinator and renowned global health expert v., stated, "There's no magic bullet, there's no magic vaccine or therapy. It's just behaviors. Each of our behaviors translating into something that changes the course of this viral pandemic over the next 30 days." Rarely has the outcome of such a crisis rested so heavily on the shoulders of the public.

In a March 28th article published by The Tennessean, Governor Lee reiterated this sentiment saying, "The urgency of COVID-19 is real, and it's going to require every single Tennessean to step up in the fight. Routines must change and habits like social distancing and increased hand-washing are all basic actions that we can easily embrace to be personally responsible in stopping the spread of the virus."[15]

The American Enterprise Institute (AEI) recently published a report "National Coronavirus Response: A road map to reopening."[16] The report lays out a four-phase plan for navigating the country through the pandemic: Phase I) Slow the Spread; Phase II) State-by-State Reopening; Phase 3) Establish Immune Protection; and Phase IV) Lift Physical Distancing, and Rebuild Our Readiness for the Next Pandemic. Each phase provides guidelines that federal and state governments, public health agencies, and healthcare partners can implement to bring the COVID-19 crisis under control. The report also issues measurable milestones that need to be reached in order to transition back to life as normal.

Aligning with the Governor Lee's directives, along with the AEI's road map, State Senator Shane Reeves, PharmD and CEO of TwelveStone Health Partners, has developed a three-phase approach specific to the state of Tennessee to quickly flatten the curve, transition the state back to normal, and ensure greater readiness for the next pandemic.

PHASE I:
Flatten the Curve

This is the phase that we are currently in and it is crucial to devote all efforts to slowing the exponential spread of COVID-19 so that our state healthcare systems can ramp up capacity. This first phase should continue through the end of April as Governor Lee and our President have encouraged.[17]

Continue social distancing to ensure our most vulnerable Tennesseans—seniors and those with underlying health conditions—stay safe, especially in cities where the virus is rapidly spreading.

Continue providing daily metrics to the public about how many Tennesseans have tested positive on a county-by-county basis, the number of deaths, and how many hospital beds are available across the state.

Ensure we have enough PPE such as masks and face shields and increase the number of ventilators to cover the projected need. Our state has some of the best hospitals in the world and we need to give our healthcare heroes the tools they need to succeed while keeping themselves and their own families safe.

Procure enough COVID-19 tests for all symptomatic or exposed Tennesseans to be tested quickly while ensuring accurate, timely results.

Retrofit all available space in hotels, college dorm rooms, and other applicable facilities with treatment resources to help alleviate overcrowding at hospitals.

Continue urging Tennesseans to stay indoors as much as possible while also supporting our local businesses (i.e., restaurants) and churches (via online services) to help them maintain financial viability during this crisis.

PHASE II:
Selective Relaunching

This phase focuses on slowly reestablishing business and social activities that are currently suspended while not losing ground on the healthcare gains from Phase I. This phase should last from May 1 through August 1.

Continue to protect and support our most vulnerable, high-risk citizens in skilled nursing facilities, assisted living facilities, group homes, and anyone in the state that is immunocompromised.

Keep our hospitals fully staffed and stocked with all supplies needed to meet the daily needs of treatment for acute COVID-19 infections.

Begin a "Ready, Fire, Aim" approach by fast-tracking the use of medications like hydroxychloroquinine and azithromycin. Make the production of a vaccine a moon-launch type national priority with the goal of having this in place by August.

Begin selective reopening on a county-by-county basis following the guidelines below. These guidelines should be reviewed and adjusted weekly based upon the prevalence of the disease and the bandwidth of local hospitals.

- Reopen schools so our young people can finish the semester and participate in end-of-year activities.
- Reopen nonessential businesses that cannot function remotely like restaurants, gyms, and hotels (specifically those that have crowds less than 50).
- Allow dentists and surgeons to begin offering elective procedures.
- Consider fan-less sporting events that can be viewed online.

PHASE III:
Fully Operational

The final phase is about getting back to normal in a post-pandemic world while developing and implementing guardrails so that we never face another such crisis so unprepared. This phase should begin by August 1st and continue through the end of 2021.

Continue tracking all COVID-19 metrics for two years after reopening the country.

Allow citizens and businesses to resume pre-pandemic activities, and supporting them in their efforts to rebuild their lives and businesses.

Reopen all schools from Pre-K through graduate schools in time for the fall semester.

Allow all gatherings of large groups to resume, as well as international travel, concerts, sporting events with fans, conventions, and other entertainment venues.

Never Again

The COVID-19 pandemic has blindsided our country. We have only to look at the situations in places like New York to understand what we're up against. While Tennessee is not New York, we are likely to experience at least some of the same challenges. Statistics predict the worst is yet to come for our state, but we have been given the gift of location and time to prepare. Once we are on the other side, it is critical we take action to stop any future pandemic from devastating our country and our state. We must treat this pandemic the way we did the attacks of 9/11. This was when the Department of Homeland Security and the TSA were formed. The number of deaths from this pandemic have already exceeded those from 9/11.

The good news is the country will get through this. Yet there is no sugar-coating it. The lives of those who have lost loved-ones will be changed forever. Some businesses may not be able to rebuild, but the resilience of our country, and especially Tennesseans, is strong. We are a tenacious people. There is no doubt our resolve will, as it has in the past, help us build an even stronger, healthier, more successful Tennessee.

Sources

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