

ROADMAP FOR REOPENING NASHVILLE

Social distancing has slowed the rate at which COVID-19 is spreading in Tennessee. In Nashville and perhaps in certain other parts of the state, the rate of transmission has fallen to the point where the number of new cases may no longer be growing. However, the threat of a return to exponential increases remains.

Epidemiologists and infectious disease experts agree that in the absence of strict social distancing, Tennessee's numbers would once again surge. It's estimated that a single infected person circulating freely could infect more than 4,000 people over the course of a month. COVID-19 will continue to be a serious threat until there is an effective vaccine or more effective therapeutic treatments.* Experts estimate that we will not have a COVID-19 vaccine until 2021 at the earliest. For the foreseeable future, living with COVID-19 is our new "normal."

Living with COVID-19 means finding ways for our city to return to work with COVID-19 still circulating. There is an emerging consensus that America's economy should open in phases, with different parts of the economy and different aspects of public life reopening at different times. President Trump, for instance, has suggested a three-phase reopening. This document will present a framework for a four-phase reopening that reflects the state of the COVID-19 pandemic in Tennessee and the distinctive needs of Nashville.

This memo is intended to start that discussion. It consists of two sections.

Section 1: Rules for reopening. The first section will present a set of metrics that policymakers should consider using to make decisions about when phased reopening should begin.

Section 2: A four-phase plan to reopen our economies. The second section will present a four-phase approach to reopening our economies that addresses the question of when that process should begin and how it might unfold.

Section 1: Rules for Reopening

Recommendation #1: Data driven, not date driven. Data, rather than arbitrarily chosen dates, should guide the decision to reopen.

Recommendation #2: Clear metrics to determine when the economies will reopen and when to reimpose certain limitations.

It is important to develop transparent triggers that will help determine when social distancing measures can be relaxed. Three measures are particularly important:

* A third scenario – protection through so-called herd immunity – would involve accepting large numbers of infections and deaths. The purpose of this memo is to demonstrate that this approach is unnecessary.

- **Sustained reduction or stability in new cases for 14 days.** The first and most important indicator Nashville will monitor is the number of new positive test cases. Public health authorities agree that movement towards reopening should begin only after 14 days of significant declines. Although most cases occur within 5-7 days of exposure, almost all are evident by 14 days. A sustained downward trend in cases over the course of the 14 days is a requirement for proceeding to the first stage of reopening.

Conversely, a significant increase in active cases should prompt policymakers to halt movement toward the next phase, revert to an early phase of opening, or re-impose stricter social distancing guidelines.

- Certain increases, such as an increase in active cases over the course of five days, would clearly be a cause for concern. However, exact judgements should reflect a precise understanding of local trends. If, for instance, public health departments identify a specific outbreak and are able to isolate COVID-positive cases and quarantine people who were in close contact quickly, movement towards greater reopening could continue, even with an increase in positive cases. This illustrates the critical importance of contact tracing and effective public health measures, something this memo will address in a later section.
- **Adequate diagnostic testing capacity and rapid test results.** Nashville is currently able to conduct 5,000 tests a week – consistent with the common benchmark of 1 test per 100-150 residents per week. Adequate testing capacity is necessary to allow employers overseeing vulnerable populations, such as health care facilities, nursing homes and assisted living facilities, and jails to be vigilant in monitoring for COVID-19. Testing should be expanded to include those with mild respiratory illness and people who have been in close contact with people identified as COVID-positive. Close contacts include household members and others who have had at least a 10-minute face-to-face encounter with a case, at a distance of less than 6 feet apart.

It is of the greatest importance that test results be available quickly, ideally within 24 hours so that COVID-positive people can isolate and so that contact tracing to rapidly identify people who have been in close contact and who should thus go into quarantine. Tests should also be administered in a way that clearly captures the names, addresses, and phone numbers of people who have received them so that Public Health departments can follow up effectively during contact tracing.

- **Public health capability to rapidly interview “index” cases, identify close contacts, and ensure that isolation and quarantine are effective.** Health departments need resources to conduct rapid and effective investigations and monitor cases and contacts effectively. Estimates of personnel needs for these tasks range from 4 to 15 per 100,000 population,

That translates to 28-105 investigators for Davidson County, along with similar numbers of case and contact monitors. Public health departments should track efforts to reach “index” cases (i.e., the people identified as positive who need to isolate) and contacts (who need to quarantine). Efforts to monitor cases and contacts should also be tracked. Interviews should capture information about the onset of symptoms and the setting in which the infection may have occurred, so that public health authorities can follow up appropriately and contain “hot spots.”

Authorities should take other measures to ensure that quarantine and isolation are effective. Household members need instruction on how to protect themselves while the a family member is infectious, especially if they are personally caring for said family member. Cases should be contacted daily to measure compliance and to provide the support necessary to ensure it, such as food or access to mental health resources.

- **Health care system capacity.** Nashville will continue to track and share information about the availability of hospital beds, ICU beds, ventilators, and personal protective equipment (PPE) in order to ensure that they are adequately available if cases surge, as modeled under a variety of assumptions. Data on available capacity should be assessed regionally and statewide with reporting to the Healthcare Resource Tracking System (HRTS) at least three times per week. State stockpiles should be used to fill in deficiencies. There should be continuous monitoring of cases statewide to assure that capacity will not be exceeded.

All of these data should be shared with the public on an ongoing basis as part of a larger public education campaign that addresses the public in general and employers in particular.

The table below presents these metrics and recommendations in summary form:

Table 1. Goals prior to re-opening and linked metrics

Goal	Metric
1. Disease transmission under control	Sustained decrease in cases maintained for 14 days
2. Detect every case	1 test per 100-150 residents per week; results within 24 hours
3. Isolate every case	Interview cases within 1 day of test results. Capacity to contact cases daily and support isolation at home or alternate location established.
4. Trace every contact	Close contacts interviewed within 2 days of case report. Capacity to support quarantine at home or alternate location established.

5. Sources of exposure identified and preventive measures instituted	Case interviews identify likely source of exposure, and prevention plan developed for identified “hot spots”
6. Risk of importing new cases can be “managed”	Healthcare facilities have written plans for managing expected patients and sufficient PPE, beds, ventilators based on best available local models. Report to State twice weekly available equipment/facilities.
7. Schools, workplaces, healthcare facilities have established preventive measures	Written plans that specify training, screening, and medical leave policies for employees. Plans should include procedures for interacting safely with customers including maintaining hygiene, minimizing close contact, and screening protocols such as temperature checks.
8. Communities are fully educated, engaged and empowered to live under a new normal	Compliance with new normal monitored by mobility reports and exposure histories of new cases. Cloth masks are to be widely utilized by all citizens outside their residences to reduce spread of disease.

Elected officials should come together to clearly communicate that we will not be returning to a pre-COVID “normal” for some time. Social distancing is not going away. Businesses that can perform work remotely should continue to do so. Persons 65 years and older and those with chronic health conditions should be encouraged to stay at home wherever possible. The risk of a surge in cases that would require a return to safer-at-home or to a statewide shelter-at-home order are very real.

However, we believe the time has also come to take the following steps:

- Inform citizens about the planning to reopen our economies in phased fashion. Communicate clearly that it will only be possible to proceed if social distancing continues and the number of new cases declines.
- Share the metrics/indicators policymakers – the “rules for reopening” – that policymakers will use to begin the reopening. Convey that this decision will be data-driven, not date-driven.
- Announce that Tennessee’s four largest cities are working to put forward a common framework to reopen the economy in four phases.
- Reach out in partnership with health care systems, businesses, and universities, to partner with them in this effort.

Section 2: A Four-Phase Plan to Reopen our Economies

The remainder of this memo lays out the rationale for a four-phase reopening and suggests measures that might be appropriate for each phase.

Preparing to Reopen (current)

This is our current state. This is the time to identify and share critical metrics and explain “the rules for reopening.” The most important message to convey in this period is that the rate of transmission must decline or remain low to make it safe to proceed with plans to reopen local economies. During this process, local governments should engage health care systems, universities and businesses to fine tune plans for a phased reopening and to clearly convey the steps that will be necessary.

Testing capacity should continue to expand; vulnerable populations should be identified and monitored. Businesses, schools, and healthcare facilities should develop written plans for how they will help prevent COVID-19 spread in their facilities.

Policymakers should also examine disincentives to testing and isolation or quarantining, such as the fear that people who test positive or are quarantined could lose their jobs. Providing stipends to people who are isolating and/or working with businesses to create sick leave policies so that ill employees are incentivized to stay home may be important. Travel to and from areas that are experiencing significant disease should be discouraged or prohibited.

This phase should continue for the next two weeks. During this time, monitoring should indicate case numbers are declining. Based on COVID-19 case rate statistics by city and region, healthcare providers and health systems should demonstrate they can manage (with ICU beds, ventilators, PPE, nurse and physician staffing, and other metrics of capacity) no less than 1 week of new cases at the prior week case rate prior to progression between stages or to moving on to the first stage of reopening.

During this planning period, all non-essential businesses should remain closed and the Safer At Home Order remains in place. Except when performing essential services, citizens over age 65 and those with high risk factors need to remain vigilant and to shelter at home.

- Work from home should continue whenever possible, and cloth masks should be worn in public locations.
- Nashville will work to accomplish all specific requirements listed above, including testing, tracking and quarantine strategies to identify cases and prevent transmission. Nashville’s status on each requirement will be confirmed with the TN Dept of Health and the Metro Public Health Department.
- All essential businesses and non-essential businesses should begin preparations for later phases, and should be prepared to certify to the local health department that they have

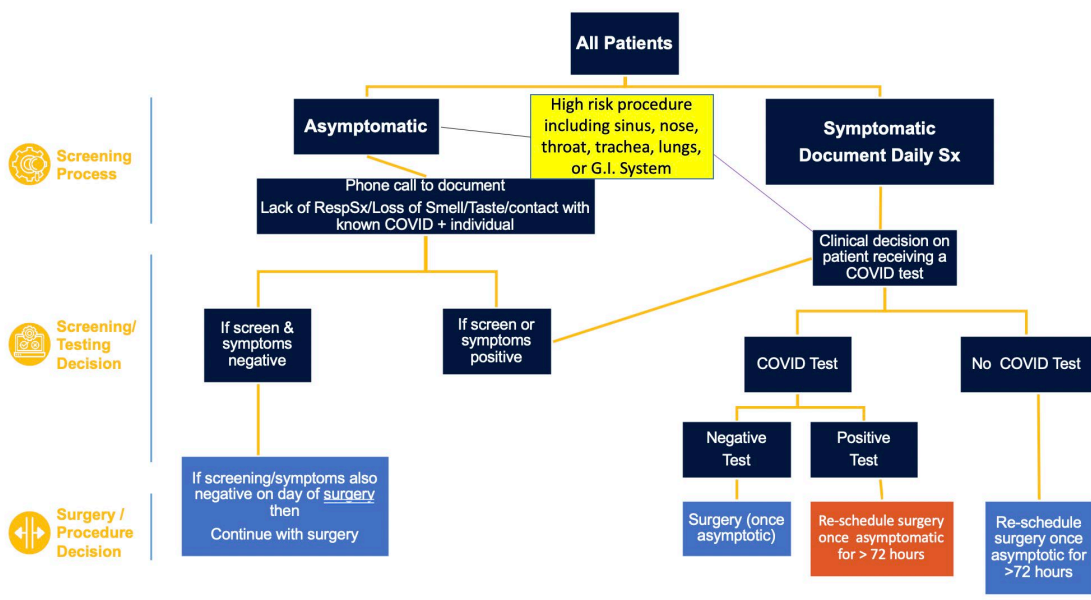
written plans and can reliably perform the following functions before advancing to later phases:

- Screen daily all employees for respiratory symptoms. Workers in close contact with each other should be screened daily with temperature checks as well. Business plans should clearly specify protocols for different categories.
- Advise employees with symptoms to remove themselves from the workplace and to go be tested. Encourage them to quarantine until they receive test results. Establish policies and procedures to help employees who are in isolation or quarantine.
- Set expectations for frequent hand hygiene and wearing of cloth masks by employees where appropriate or able.
- Elevators should limit occupancy to allow 6-foot passenger distances and provide cleaning supplies within each elevator for use on buttons.
- Hand sanitizer should be placed on every floor near elevators.

Health care specific guidance:

- Upon expiration of Governor Lee’s Executive Order postponing elective medical and dental procedures, hospitals, emergency rooms, ambulatory surgery centers and outpatient clinic settings may commence certain scheduled/elective activities in the following fashion:
 - Screen daily all employees and patients with temperature and respiratory symptom checks.
 - Elective outpatient and inpatient surgery and procedures on lower-risk individuals under age 70 may commence. Health care systems/ providers should follow the following algorithm prior to procedure.

Surgical & Procedural Perioperative Safety Algorithm
Elective Non-Urgent



- Prior to a scheduled hospital admission (example – scheduled obstetrical care), confirm by telephone or other means prior that patient is symptom free and have not been exposed prior to admission. Delay admission if possible for all patient who have been exposed to a COVID + person or are symptomatic.
 - Test all emergency room patients on arrival if indicated.
 - Outpatient clinic patients should confirm by telephone or other means prior to the visit patients are symptom free and have not been exposed. All should still be screened with temperature and respiratory symptom checks on arrival. Those exhibiting symptoms, or if exposed to a COVID + person, should be tested, and care moved to telehealth or delayed (if possible) until they are confirmed COVID negative.
- Dental patients should be screened by telephone or other means for symptoms of or exposure to COVID-19 prior to appointment for elective procedures. Screening for symptoms including a temperature check occur upon arrival. Those patients with a temperature of 100.4 degrees Fahrenheit or greater, exposed to a COVID + person within the past 7 days, or exhibiting other symptoms should be tested and care delayed until they are confirmed COVID negative.

Phase One: Reopening

If Nashville experiences an acceptably stable or sustained declining trend in new cases for at least 14 days, Phase One of the reopening of certain economies may begin under the following guidance:

In addition to an acceptably stable or declining trend of active cases, Nashville should ensure that the appropriate benchmarks discussed in Section 1 of this memo have been met. Adequate testing should be available. Hospital capacity should exist to deal with both the existing case load and a potential surge. Nashville should also be able to certify to the local health department or the TN Department of Health that there is at least a 2 week supply of PPE at all hospitals, ambulance services, nursing homes and daycare centers. Comprehensive contact tracing and contact and case monitoring must be in place in order to identify cases and prevent transmission. Only then should Nashville begin to reopen.

The following businesses/industries should reopen in Phase One:

- Retail and other commercial business may open with physical distancing maintained and at ½ capacity, cleaning of carts, explicit expectations for frequent hand hygiene and wearing of cloth masks by employees and patrons.
 - Screen daily all employees with temperature and respiratory symptom checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.

- Post information about health precautions for patrons, employees and staff (such as maintaining an appropriate physical distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
- Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Establish policies that make it possible for employees to isolate and quarantine.
- Restaurants and bars serving food from a menu may open at ½ capacity maintaining strict physical distancing.
 - Screen daily all employees for respiratory symptoms and with temperature checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
 - Physical distancing must be maintained in kitchens and dining rooms.
 - Bar areas must remain closed.
 - Live music shall not be permitted.
 - Self-service food and shared condiments are not permitted.
 - Require that restaurants clean all surfaces after single use by patron.
 - Recommend use of disposable menus.
 - Employees required to wear cloth masks.
 - Take-out alcohol sales will remain. Can serve alcohol at tables.

During this period, other social distancing measures should remain in place:

- Except when performing essential services, those over age 65 and those with high risk factors should remain safer at home.
- Work from home should continue whenever possible.
- Cloth masks should be worn in public

If Nashville experiences a significant and sustained increase in active cases during Phase One, local policymakers should be prepared to reimpose more stringent safer-at-home or social distancing measures.

Phase Two:

If, after a minimum of 14 days in Phase One, the trend of new cases continues to decline or remains flat, Nashville may proceed to Phase Two of reopening.

The following businesses/industries would reopen in Phase Two:

- In hospitals, emergency rooms, ambulatory surgery centers and outpatient clinic settings, scheduled/elective activities may commence as follows:
 - All employee and patients must be screened as indicated in Phase One.
 - Elective outpatient and inpatient surgery and procedures may be performed in all age groups, including those with severe systemic disease, with pre-procedure testing as per earlier phases.
- Retail and other commercial business open with physical distancing maintained and at 3/4 capacity, cleaning of carts, explicit expectations for frequent hand hygiene and wearing of cloth masks by employees and patrons.
 - Screen daily all employees with temperature and respiratory symptom checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
- Restaurants and bars serving food from a menu may open at ¾ capacity maintaining strict physical distancing.
 - Screen daily all employees for respiratory symptoms and with temperature checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
 - Physical distancing must be maintained in kitchens and dining rooms.
 - Bar areas must remain closed.
 - Live music shall not be permitted.
 - Self-service food and shared condiments are not permitted.
 - Require that restaurants clean all surfaces after single use by patron.

- Recommend use of disposable menus.
- Employees required to wear cloth masks.
- Take-out alcohol sales will remain. Can serve alcohol at tables.
- Hair, Nail, Massage and Tattoo Businesses can open but should follow the CDC's guidance for employers including limiting the number of patrons and staff to less than 10, social distancing, no walk-ins, services by appointment only, spacing patrons in waiting areas, and posting signs not to enter and reschedule if ill.
 - Screen daily all employees for respiratory symptoms and with temperature checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
 - Employees required to wear cloth masks.
- Allow small gatherings of 50 or fewer people with strict physical distancing protocols implemented at the gathering.
 - Such gatherings include meetings, religious services, weddings, etc.
- Parks to reopen previously closed elements such as playgrounds and basketball courts.

Social distancing should remain in effect for the following groups:

- Except when performing essential services, those over age 65 and those with high risk factors should remain safer at home.
- Work from home should continue whenever possible, and cloth masks should be worn in public

If there is a significant increase in active cases during Phase Two, Nashville should revert to Phase One.

Phase Three:

If, after a minimum of 14 days in Phase Two, the trend of new cases continues to decline or remains flat, Nashville may proceed to Phase Three of reopening.

The following businesses/industries would reopen in Phase Three:

- All elective outpatient and inpatient healthcare activities may proceed with screening and testing as indicated in Phase Two.
- Retail and other commercial business open with physical distancing maintained and at full capacity with cleaning of carts, explicit expectations for frequent hand hygiene and wearing of cloth masks by employees and patrons.
 - Screen daily all employees with temperature and respiratory symptom checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
- Restaurants and bars serving food from a menu may open at full capacity maintaining strict physical distancing.
 - Screen daily all employees for respiratory symptoms and with temperature checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
 - Physical distancing must be maintained in kitchens and dining rooms.
 - Bar areas may open, but only at 50% of seating capacity. No standing at bars.
 - Live music is now permitted with proper social distancing.
 - Self-service food and shared condiments are not permitted.
 - Require that restaurants clean all surfaces after single use by patron.
 - Recommend use of disposable menus.
 - Employees required to wear cloth masks.
 - Take-out alcohol sales will remain.

- All remaining bars and entertainment and cultural venues are opened at ½ capacity, consistent with proper social distancing. This includes museums, tours, attractions, bowling alleys, movie theaters, etc.
 - Screen daily all employees for respiratory symptoms and with temperature checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
 - Require that bars clean all surfaces after single use by patron.
 - Employees required to wear cloth masks.
- Fitness and personal hygiene businesses may reopen
 - Screen daily all employees for respiratory symptoms and with temperature checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately. Employees required to wear cloth masks.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
 - Require that equipment surfaces be cleaned after single use by patron.
- Allow small gatherings of 100 or fewer people with strict physical distancing protocols implemented at the gathering.
 - Such gatherings include meetings, religious services, weddings, etc.
- Nonresidential K-12 Schools are reopened.
- The following businesses shall continue to operate under previous guidance:
 - Health care
 - Hair, Nail, Massage and Tattoo Businesses

Social distancing measures would remain in effect for the following populations:

- Except when performing essential services, those over age 65 and those with high risk factors should remain safer at home.
- Work from home should continue whenever possible, and cloth masks should be worn in public

If there is a significant increase in active cases during Phase Three, Nashville should revert to Phase Two.

Phase Four:

If, after a minimum of 14 days in Phase Three, the trend of new cases continues to decline or remains flat, Nashville may proceed to Phase Four of reopening.

The following businesses/industries would reopen in Phase Four:

- Elective outpatient and inpatient healthcare activities may continue to proceed with screening and testing as indicated previously.
- Work from home is optional, and the use of cloth masks in public is optional but recommended.
- All bars and entertainment and cultural venues are opened at full capacity. This includes museums, tours, attractions, bowling alleys, movie theaters, etc.
 - Screen daily all employees for respiratory symptoms and with temperature checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
 - Require that bars clean all surfaces after single use by patron.
- Sports and other large live performance venues are reopened for greater than 100 people with appropriate social distancing guidelines
 - Screen daily all employees with temperature and respiratory symptom checks. Employees with temperatures of 100.4 degrees Fahrenheit must leave the premises immediately.
 - Post information about health precautions for patrons, employees and staff (such as maintaining a distance while lining up for checkout). Automate doors, reduce the number of people using elevators, provide hand sanitizer to the extent possible.
 - Advise employees with any symptoms of illness to be tested and to stay home until they receive test results. Create policies that make it possible for employees to isolate and quarantine.
- The following businesses shall continue to operate under previous guidance:
 - Hair, Nail, Massage and Tattoo Businesses
 - Retail and other commercial businesses
 - Fitness and personal hygiene businesses
 - Restaurants and bars serving food from a menu
 - Health care

The following social distancing measures would remain in effect:

- Except when performing essential services, those over age 65 and those with high risk factors should remain safer at home.

Conclusion

The threat of COVID-19 will be with us for the foreseeable future. There is a high probability that Nashville and Tennessee will experience continued outbreaks that will force us to revert to earlier phases at some point during the reopening process. Now is the time to build capacity and create partnerships, across our city and state with employers, nonprofits, and community groups, to respond effectively to this challenge.

This is also the time to provide clear guidance and an evidence-based framework for reopening our economy.