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 an exponential increase in cases 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**

**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, the public health department identifies a specific outbreak and is 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**

<table>
<thead>
<tr>
<th>Goal</th>
<th>Metric</th>
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<tbody>
<tr>
<td>1. Disease transmission under control</td>
<td>Sustained decrease in cases maintained for 14 days</td>
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<tr>
<td>2. Detect every case</td>
<td>1 test per 100-150 residents per week; results within 24 hours</td>
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<tr>
<td>3. Isolate every case</td>
<td>Interview cases within 1 day of test results.</td>
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<td></td>
<td>Capacity to contact cases daily and support isolation at home or alternate location established.</td>
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<tr>
<td>4. Trace every contact</td>
<td>Close contacts interviewed within 2 days of case report.</td>
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<td>Capacity to support quarantine at home or alternate location established.</td>
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<tr>
<td>5. Sources of exposure identified and preventive measures instituted</td>
<td>Case interviews identify likely source of exposure, and prevention plan developed for identified “hot spots”</td>
</tr>
<tr>
<td>6. Risk of importing new cases can be “managed”</td>
<td>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.</td>
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<tr>
<td>7. Schools, workplaces, healthcare facilities have established preventive measures</td>
<td>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.</td>
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<tr>
<td>8. Communities are fully educated, engaged and empowered to live under a new normal</td>
<td>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.</td>
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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 (Through May 10)

Phase One: Reopening (Began May 11)

The following businesses/industries were reopened in Phase One:

- Retail and other commercial business, with social distancing maintained and at 50% capacity. Social distancing can be accomplished through physical barriers between people and groups. Cleaning of carts, explicit expectations for frequent hand hygiene and wearing of cloth masks by employees and patrons are required.
  - Screen daily all employees with symptom checks. Employees with symptoms or a temperature of 100.4 degrees Fahrenheit or greater must leave the premises immediately.
  - Post information about health precautions for patrons, employees, and staff (such as maintaining an appropriate social distance while lining up for checkout). Reduce the number of people using elevators. Provide hand sanitizer at all entrances.
  - Advise employees with any symptoms of illness to be tested and to stay home until they receive medical clearance. Establish policies that make it possible for employees to isolate and quarantine.
- Restaurants and bars serving food from a menu may open at 50% capacity maintaining strict social distancing. Social distancing can be accomplished through physical barriers between people and groups.
  - Screen daily all employees for symptoms. Employees with symptoms or a temperature of 100.4 degrees Fahrenheit or greater must leave the premises immediately.
  - Post information about health precautions for patrons, employees and staff (such as maintaining a safe distance while lining up for checkout). Reduce the number of people using elevators. Provide hand sanitizer at all entrances.
  - Advise employees with any symptoms of illness to be tested and to stay home until they receive medical clearance. Create policies that make it possible for employees to isolate and quarantine.
  - Social distancing must be maintained in kitchens and dining rooms.
  - Bars remain closed. Bars serving food must provide table food and beverage service. No patrons may approach the bar area.
  - Only table service of alcohol is permitted to seated patrons.
  - Live entertainment shall not be permitted.
- Self-service food and shared condiments are not permitted.
- Restaurants are required to clean all surfaces after use by a patron.
- The use of disposable, virtual or no-touch menus is recommended.
- Employees who interact with the public, or who cannot maintain a safe social distance from their co-workers, are required to wear cloth face coverings or masks.
- Take-out alcohol sales will remain.

- Except when performing essential services, those over age 65 and those with high risk factors (including: chronic lung disease or moderate to severe asthma; serious heart conditions; people with compromised immune systems, either through cancer treatment, smoking, bone marrow or organ transplant, or genetic or acquired immune deficiencies; the prolonged use of corticosteroids) should remain safer at home to the extent possible.

- Work from home should continue whenever possible.
- Cloth masks should be worn in public

LINKS TO PHASE ONE GUIDANCE:

- Order 5 – Phase One: Reopening
- Guidance for Restaurants – Phase One
- Guidance for Commercial/Retail Establishments – Phase One
- Phase One – FAQs

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 expand operations in Phase Two:

- Retail and other commercial business, with social distancing maintained and at 75% capacity. Social distancing can be accomplished through physical barriers between people and groups. Cleaning of carts, explicit expectations for frequent hand hygiene and wearing of cloth masks by employees and patrons are required.
- Screen daily all employees with symptom checks. Employees with symptoms or a temperature of 100.4 degrees Fahrenheit or greater must leave the premises immediately.
Post information about health precautions for patrons, employees, and staff (such as maintaining an appropriate social distance while lining up for checkout). Reduce the number of people using elevators. Provide hand sanitizer at all entrances.

Advise employees with any symptoms of illness to be tested and to stay home until they receive medical clearance. Establish policies that make it possible for employees to isolate and quarantine.

- Restaurants and bars serving food from a menu may open at 75% capacity maintaining strict social distancing. Social distancing can be accomplished through physical barriers between people and groups.

- Screen daily all employees for symptoms. Employees with symptoms or a temperature of 100.4 degrees Fahrenheit or greater must leave the premises immediately.

- Post information about health precautions for patrons, employees, and staff (such as maintaining a safe distance while lining up for checkout). Reduce the number of people using elevators. Provide hand sanitizer at all entrances.

- Advise employees with any symptoms of illness to be tested and to stay home until they receive medical clearance. Create policies that make it possible for employees to isolate and quarantine.

- Social distancing must be maintained in kitchens and dining rooms.

- Bars remain closed. Bars serving food must provide table food and beverage service. No patrons may approach the bar area.

- Only table service of alcohol is permitted to seated patrons.

- Self-service food and shared condiments are not permitted.

- Restaurants are required to clean all surfaces after use by a patron.

- The use of disposable, virtual or no-touch menus is recommended.

- Employees who interact with the public, or who cannot maintain a safe social distance from their co-workers, are required to wear cloth face coverings or masks.

- Take-out alcohol sales will remain.

- Live entertainment is permitted. Social distancing protocols should be observed among performers, with a minimum of 15 feet between performers and customers. No dance floors permitted. No shared microphones. All equipment must be sanitized between users.

The following businesses/industries would reopen in Phase Two:

- Close Contact Personal Service Businesses (barber shops, hair salons, waxing salons, threading salons, nail salons or spas, spas providing body treatments, body-art facilities or tattoo services, piercing services, tanning salons, and massage-therapy establishments or massage services) may open but must follow guidance including limiting the number of patrons and staff to the extent that safe social distancing can be maintained, not to exceed 50% of facility capacity. Services by appointment are
encouraged. Patrons should be socially distanced in waiting areas. *Social distancing can be accomplished through physical barriers (such as Plexiglass partitions) between people or groups.* Signs should be posted encouraging patrons to wear masks, and to reschedule if ill.

- Screen daily all employees with symptom checks. Employees with symptoms or a temperature of 100.4 degrees Fahrenheit or greater must leave the premises immediately.
- Post information about health precautions for patrons, employees, and staff (such as maintaining an appropriate social distance while lining up for checkout). Reduce the number of people using elevators. Provide hand sanitizer at all entrances.
- Advise employees with any symptoms of illness to be tested and to stay home until they receive medical clearance. Establish policies that make it possible for employees to isolate and quarantine.
- Employees who interact with the public, or who cannot maintain a safe social distance from their co-workers, are required to wear cloth face coverings or masks. Social distancing can be accomplished through physical barriers between people or groups.

- Exercise Facilities (gyms, swimming pools, personal trainers, exercise classes, martial arts, dance studios, and climbing gyms) will be able to open at up to 50% capacity or to the extent safe social distancing can be maintained, whichever is less. *Social distancing can be accomplished through physical barriers between people or groups.*
  - Screen daily all employees with symptom checks. Employees with symptoms or a temperature of 100.4 degrees Fahrenheit or greater must leave the premises immediately.
  - Post information about health precautions for patrons, employees, and staff (such as maintaining an appropriate social distance while lining up for checkout). Reduce the number of people using elevators. Provide hand sanitizer at all entrances.
  - Advise employees with any symptoms of illness to be tested and to stay home until they receive medical clearance. Establish policies that make it possible for employees to isolate and quarantine.
  - Employees who interact with the public, or who cannot maintain a safe social distance from their co-workers, are required to wear cloth face coverings or masks. Social distancing can be accomplished through physical barriers between people or groups.
  - For all but low intensity aerobic activities, social distancing should be extended to a minimum of 10 feet.

- Day Camps: Check Day Camp guidance for specifics.
  - Camp buses must be at or below 50% capacity.
Camp cafeterias are closed. Campers must bring snacks and lunch or the camp may provide a box lunch.

- Smaller venue, minimal-touch entertainments may operate at 50% capacity. These venues include bowling alleys, miniture golf, go-carts, cinemas, Top Golf, water parks, zip lines, paintball and similar. Entertainments ancillary to the main business (arcade-type games, ping-pong, foosball, pool and similar side entertainments) are to remain closed. All shared implements (bowling balls, golf clubs, steering wheels, etc.) must be sanitized between each group’s usage. Where staff must interact with the public, staff must wear a face covering or mask.
- Community Pools can open at 50% capacity. All deck areas at 50% capacity with social distancing maintained.
- Museums can open at 50% capacity with social distancing maintained. One-way traffic or other traffic control recommended. Exhibits should not be communally touched. Regular cleansing of all commonly touched surfaces. See Guidance for specifics.
- Live entertainment is permitted in Phase Two. Social distancing protocols should be observed between performers. There shall be a minimum of 15 feet between performers and customers. All performance equipment must be sanitized between users.
  - All dance floors and standing-room-only areas shall remain closed during Phase Two;
  - Live entertainment occurring in museum/attraction dining spaces is subject to the guidance for live entertainment in restaurants/bars; and
  - Audiences for live entertainment outside of museum/attraction dining spaces are subject to the guidance for gatherings and should not exceed 25 people during Phase Two.
- Metro Parks may reopen community centers, golf course clubhouses, museums, Sportsplex and nature centers at 50% capacity. Tennis courts are now open. Dog parks, basketball courts, playgrounds, sports and recreations leagues, skate parks and splash pads shall remain closed.
- Social distancing should remain universally in effect.
- Except when performing essential services, those over age 65 and those with high risk factors (including: chronic lung disease or moderate to severe asthma; serious heart conditions; people with compromised immune systems, either through cancer treatment, smoking, bone marrow or organ transplant, or genetic or acquired immune deficiencies; the prolonged use of corticosteroids) should remain safer at home to the extent possible.
- Work from home should continue whenever possible, and cloth face coverings or masks should be worn in public
- Small gatherings of 25 or fewer people with strict physical distancing protocols implemented at the gathering shall be permitted.
Such gatherings include meetings, weddings, parties.

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 or expand operations in Phase Three:

Bars serving food & restaurants, commercial and retail establishments, close contact personal service businesses are permitted to move to 100% capacity or to the maximum occupancy that can maintain social distancing, whichever is less. Social distancing can be accomplished through physical barriers (such as Plexiglass partitions) between people or groups.

Gyms, fitness & exercise facilities, including swimming pools and dance studios are permitted to move to 75% capacity or to the maximum occupancy that can maintain social distancing, whichever is less. Social distancing can be accomplished through physical barriers (such as Plexiglass partitions) between people or groups. Expanded social distancing requirements for more vigorous aerobic activities remain in place.

Museums are permitted to move to 100% capacity or to the maximum occupancy that can maintain social distancing, whichever is less. Foot traffic control measures to remain in place. Social distancing can be accomplished through physical barrier (such as Plexiglass partitions) between people or groups.

Smaller venue, minimal-touch entertainments are permitted to proceed to 100% capacity or to the maximum occupancy that can maintain social distancing, whichever is less. Social distancing can be accomplished through physical barriers (such as Plexiglass partitions) between people or groups. Ancillary activities (arcades, game rooms) may resume operation.

Tours, adult entertainment, transportainment, recreational leagues, bars not serving food, small music venues are permitted to begin operations at 50 % capacity or to the maximum occupancy that can maintain social distancing, whichever is less. Social distancing can be accomplished through physical barriers (such as Plexiglass partitions) between people or groups.

Additional guidance will be forthcoming.

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:

- Provided appropriate social distancing can be maintained, all bars and entertainment and cultural venues are opened at full capacity.
- Gyms, fitness & exercise facilities, including swimming pools and dance studios to 100%.
- Work from home is optional, and the use of cloth masks in public is optional but recommended.
- Large venue sporting events TBD. When large sporting event venues are reopened, gathering size will be re-evaluated.

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, in all or in part, at some point during the reopening process.