

# Columbia/Boone County Plan for Response and a Road Map to Reopening

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This framework is built upon the guidance outlined in *National Coronavirus Response: A road map to reopening* by the American Enterprise Institute. Although outlined as a state-level response, the principles and approaches largely apply to community-level decision making. Within the plan, there are four phases. Each phase will be sequential, but may move upward or downward depending upon rate of spread and burden of disease:

Phase 1: Slow the Spread

Phase 2: Reopen, State by State [Community by Community] disease surveillance.

Phase 3: Establish Protection, Then Lift All Restrictions

Phase 4: Rebuild Our Readiness for the Next Pandemic

Throughout each phase, we should be constantly looking to take measured steps toward resuming normal life while preventing steps backward in the fight against COVID-19. As a community, the response of not only our local communities, but that of the region, will determine the course of the disease. As such, the document will address Columbia, Boone County, and our region. This planning document will focus on our state in the pandemic and provide guidance and a framework to move forward throughout each phase.

## Phase 1: Slow the Spread

Over the past month, case counts have steadily climbed throughout Missouri including in rural counties. Most counties within central Missouri now have confirmed cases of COVID-19. As of April 29, 2020, all thirteen counties in Region F have at least one case, and our hospitals serve additional counties outside of the Region F area. These counties served by our healthcare system have at least one case: Adair, Benton, Chariton, Linn, Macon, Maries, Marion, Pettis, Phelps, Pulaski, Randolph, Saline, and Shelby. An updated map of cases is located at <https://health.mo.gov>.

Within Phase 1, there are 8 recommended components:

1. Maintain Social Distancing
2. Increase Testing Capacity and Rapid Results
3. Ensure Functioning of the Health Care System
4. Increase Supply of Personal Protective Equipment

5. Implement Comprehensive COVID-19 Surveillance Systems
6. Massively Scale Contact Tracing and Isolation and Quarantine
7. Offer Voluntary Local Isolation and Quarantine
8. Encourage the Public to Wear Masks where Social Distancing Cannot be Maintained

### **Maintain Social Distancing**

Community leaders in Columbia/Boone County and Cole County took a proactive role in community mitigation strategies by issuing stay-at-home orders on March 25<sup>th</sup> and March 28<sup>th</sup> respectively. Currently, all of Missouri is under a stay-at-home order issued on April 6<sup>th</sup> through May 3<sup>rd</sup> by way of an order from Governor Parson. The stay-at-home orders limit communities to only have businesses deemed essential to operate, residents to stay at home except to obtain essential services, and all community interactions to adopt appropriate social distancing strategies.

### **Increasing Testing Capacity and Rapid Test Results**

Boone County continues to have testing capacity through five alternate testing sites. MU Health Care and Boone Hospital Center report testing over 6,600 tests through April 30<sup>th</sup>. GeneTrait, which now serves as a local laboratory for testing, has increased the local capacity for testing and provides a timely turnaround for results. This significantly increases the ability to isolate cases, reducing the risk of community spread. The number of testing sites within Region F and the hospital catchment area counties is increasing. The Missouri Department of Health and Senior Services maintains a map of sites: <http://mophep.maps.arcgis.com/apps/opsdashboard/index.html#/580bb6a25b5b44859bc73013ebf0235f>. The demand for testing has dropped in Boone County over the past two weeks. Going forward, testing strategies will need to be adjusted to identify cases.

### **Ensure Functioning of the Healthcare System**

Healthcare has taken preventive measures to reduce the risk of infection by placing increasingly more stringent visitor restrictions. This helps to protect medically fragile individuals. MU Health Care, Boone Hospital Center, and the Harry S. Truman Memorial Veterans' Hospital have increased bed and ventilator capacity to bolster response capacity. Additionally, all hospitals are communicating directly and frequently with local public health on new cases to improve the local response to positive cases of COVID-19. Healthcare systems have PPE supply available to treat COVID-19 cases.

### **Increase the Supply of Personal Protective Equipment**

The Region F Health Care Coalition, Office of Emergency Management (OEM) and the Missouri Department of Health and Senior Services (DHSS) are continuing to work to get additional PPE for healthcare, first responders and long-term care facilities. The current understanding is that PPE availability is low but stable for healthcare and long-term care facilities. PPE availability for most first responders is stable, but there are some shortages due to issues with faulty KN-95 masks having to be returned. In an effort to conserve personal protective equipment, hospitals, health care providers, and first responder agencies will have the opportunity to utilize the

Battelle Critical Care Decontamination System (CCDS) to safely decontaminate N95 masks for reuse.

## **Implement Comprehensive COVID-19 Surveillance Systems**

Disease surveillance, which is a key element of combating any infectious disease, is best facilitated by community testing, diagnosis, and epidemiology. Creating streamlined testing locations, with sufficient tests and rapid results are core elements to effective testing. With the anticipated increase of testing availability and 1-2 day processing, comprehensive surveillance can remain in place, unless the spread of disease exceeds the capacity of either testing or public health epidemiology services. Currently, the system is operating within capacity.

## **Significantly Scale Contact Tracing and Isolation and Quarantine**

Local public health agencies are increasing capacity for conducting epidemiological services for COVID-19 cases. Columbia/Boone County Public Health and Human Services has grown the epidemiology team from three people to nine over the past several weeks. If necessary, additional staff could be trained over the coming weeks. This additional staff will increase the ability to effectively investigate an estimated 35-40 cases per day. This will offer vital capacity to conduct these processes locally and throughout the region where local public health agencies are under-resourced and underprepared for the enormity of the task. Public health is currently seeking partnership with healthcare and medical schools to provide additional capacity to the region to ensure all contacts to cases take necessary quarantine precautions to slow the spread of disease.

## **Offer Voluntary Local Isolation and Quarantine**

Columbia/Boone County Public Health and Human Services (PHHS) is examining options for an isolation/quarantine facility for individuals who may not be able to isolate or quarantine in a home. PHHS is working with other local leaders to identify a facility, but has also made a request to the Missouri Department of Health and Senior Services for a statewide or regional Isolation and Quarantine (I/Q) facility(ies) to be established, as we anticipate this to be a need across the state.

## **Encourage the Public to Wear Masks**

The CDC has issued guidance regarding wearing cloth face coverings. The PHHS focus remains on people staying home when symptomatic and using social distancing strategies. Cloth face coverings should be worn in settings where social distancing measures are difficult to maintain.

## **Triggers for Moving to Slow Reopen Phase**

The community should not proceed into the Slow Reopen Phase until the following five elements are achieved:

1. Sustained reduction in cases for at least 14 days
2. Hospitals are able to treat all patients with COVID-19 without crisis standards of care

3. All symptomatic people can be tested
4. Public health can maintain active case and contact isolation and monitoring
5. Planning effective public health interventions for employees and the public is completed by individual businesses, buildings, and indoor public spaces is completed

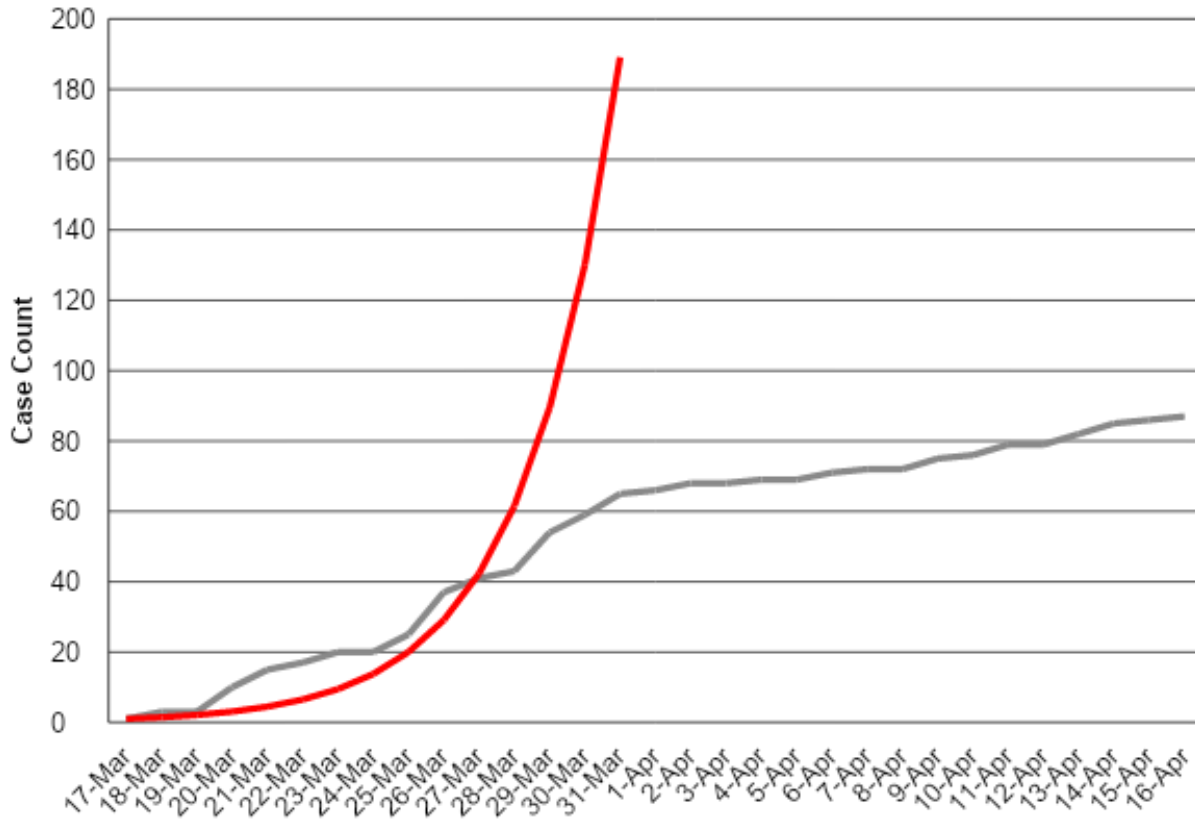
In response to these triggers, public health and healthcare are working to develop metrics to inform community leaders of the current standing regarding each of these elements.

### **Sustained reduction in cases for at least 14 days**

As Boone County has passed the first month of this disease, more data are available to inform our understanding of its spread and progress. In the eight days between the first COVID-19 case in Boone County and implementation of Public Health Order 2020-03 (March 17<sup>th</sup> – March 25<sup>th</sup>), the Boone County doubling time was an alarming 1.85 days. Unmitigated, a doubling time that low indicated an exponential growth of Boone County cases. Projections based on that doubling time indicated as many as 189 cases were possible by the end of March; quickly growing to many thousands by mid-April. That kind of unchecked growth would have overwhelmed local healthcare capacity.

Fortunately, due to strong community response, the progress and spread of disease has begun to slow, and, at the end of March, rather than the projected 189 cases, Boone County had only 65 cases. These data indicate a significant flattening of the curve. Columbia/Boone County Public Health & Human Services will continue to closely monitor the spread of this disease and report relevant metrics on an ongoing basis.

## COVID-19 Doubling Time



### Hospitals are able to treat all patients with COVID-19 without crisis standard of care

With continued growth of total and active cases within the community, comes increasing pressure on the healthcare system. This is a primary concern and focus on the community's response to COVID-19. Exceeding this capacity has a detrimental effect on the community. Currently, hospitals have been able to treat all patients with COVID-19. Columbia/Boone County Public Health & Human Services (PHHS) is working with hospital partners to determine metrics to share that will quantify this element.

### All symptomatic people can be tested

Testing availability has significantly improved since the start of the outbreak in our region. During the first few weeks, testing was extremely limited and the turnaround time for results was exceedingly long (with some test results taking greater than two weeks). More recently, testing capacity has significantly increased and the turnaround time for results has significantly decreased. Using the GeneTrait laboratory, turnaround time for test results is usually 1-2 days. Through the implementation of nine alternate testing facilities in Region F, there is testing available throughout the area. Currently, there is sufficient testing availability to meet the need for all symptomatic people to be tested.

## **Public health can maintain active case and contact isolation and monitoring**

Currently, public health can maintain active case and contact isolation and monitoring. As was previously discussed, PHHS has taken steps to dramatically increase the capacity to conduct epidemiology activities in response to COVID-19. Currently, it is estimated that our department can investigate 15-20 new cases per day. To date in the outbreak, the maximum number of cases reported in Boone County was 12 in one day. For the foreseeable future, case investigation, isolation, and quarantine can be maintained. As mentioned earlier, our department could increase disease investigation staff to the point we could investigate 35-40 cases per day.

## **Regional Considerations**

As Columbia and Boone County move towards reopening the community, the spread of and response to COVID-19 throughout the region must be taken into consideration. There are differing capacities and capabilities throughout the region to effectively respond to the testing, public health, healthcare, and community needs to combat COVID-19. As such, community leaders and policy makers will need to review information beyond Columbia and Boone County. Data on the spread of disease and other key measures will also be developed for Region F and the hospital catchment area as designated by the Missouri Hospital Association.

## **Phase 2: Slow Reopen**

During Phase 2, the community will take steps to reopen and recover, while still implementing multiple measures to check the spread of disease. When reopening the community, it is vital that it occurs with ultimate regard for maintaining life and reducing morbidity while balancing the vital need to restart the economy. If a community is reopened too aggressively, the virus can spread quickly, overwhelming the healthcare and public health systems and nullifying much of the work and community sacrifice that has been made. If reopened too slowly and conservatively, it will become increasingly more challenging for the economy to recover, making the long-term impact of the virus even more devastating. It is also important that individual communities and counties across central Missouri take these steps in a coordinated manner, adjusting as needed.

Throughout the duration of Slow Reopen, vigilant surveillance of available data is required. Using data to drive decision-making in reopening the community will allow for a balanced, responsive approach.

Planning for and implementation of the Slow Reopen Phase includes three key elements:

1. Adjust social distancing strategies
2. Maintain focus on testing, isolation strategies and healthcare
3. Individual and corporate responsibility

## **Adjust Social distancing Strategies**

Prior to the current statewide stay-at-home order, there were multiple phased-in actions taken by the City and County to increase social distancing. A similar, stepwise approach is required as communities are reopened. The following outlines several recommended steps in this continuum. Movement through each step will be determined by the spread or containment of disease. Each step within Slow Reopen will likely be a minimum of three weeks and may be as long as several months. If the rate of daily new cases indicates rapid spread of COVID-19, the recommendation is to move backwards through the steps up to and including resuming a stay at home order. Throughout the steps, social distancing standards must be applied, which includes remaining physically separated by six feet at all times and frequent disinfection of surfaces of common areas. During Slow Reopen, travel outside of the community and region should only occur for essential activities.

### **Special Considerations for Vulnerable Populations during Phase 2: Slow Reopen**

While easing of physical distancing and reopening of businesses is taking place, highly vulnerable populations, such as individuals older than age 65, those with compromised immune systems or compromised lung and heart function, and people with severe obesity, diabetes, liver disease, or chronic kidney disease should continue to engage in physical distancing to the greatest extent possible until a vaccine or effective treatment is available. Long-term care facilities must maintain high levels of infection prevention and control effectors and not allow visitors to prevent outbreaks. Vulnerable individuals are encouraged to not allow visitors and maintain physical distancing to the greatest extent possible.

### **Remote Work during Phase 2: Slow Reopen**

Employees, who are able to work from home, should continue to work from home. Special considerations should be given to employees who fall in the high risk category.

### **Step 1: Reopen business and organizations with occupancy limitations, no mass gatherings**

Step 1 begins to relax the community mitigation strategies to cautiously resume some normal community activities while keeping many measures in place to limit physical interactions and the spread of disease.

Individuals at high risk should continue to stay at home and not interact with others except for vital activities.

Most nonessential businesses can begin to reopen with capacity limitation provided they maintain Social Distancing Requirements.

Large venues, movie theaters, bars, playgrounds, hot tubs, and spraygrounds shall remain closed.

Mass gatherings are not permitted. A mass gathering is any intentional or spontaneous, public or private gathering of more than 10 individuals in a location.

**Step 2: Reduce limitations for businesses and organizations, reintroduce limited mass gatherings**

Step 2 continues the reopening of communities by relaxing the occupancy limitations and begins to resume mass gatherings on a limited basis. All interactions within the community are required to maintain physical distancing strategies.

All nonessential businesses can be open with capacity limitations provided they maintain Social Distancing Requirements.

High risk individuals should continue to limit interactions to those that are considered vital.

Mass gatherings of 50 individuals or less may resume. All mass gatherings are required to apply Social Distancing Requirements.

**Step 3: Remove limitations for business, maintain limited mass gatherings, reopen schools**

Step 3 allows for further reopening of the community, while still limiting mass gatherings, which are a risk for rapid community spread of the virus. Interactions throughout the community need to continue to maintain Social Distancing Requirements. With the increase in physical interactions, individuals and organizations must increase the focus on personal protection through hand hygiene, respiratory etiquette, and self-isolation with symptom onset.

High risk individuals should continue to limit interactions to those that are considered vital.

All occupancy restrictions for businesses are removed. Businesses must continue to apply Social Distancing Requirements in all facilities.

Mass gatherings of 100 individuals or less may resume. All mass gatherings are required to apply Social Distancing Requirements.

**Step 4: Expand mass gatherings**

Step 4 takes a final step in reopening the community with restrictions, relaxing the maximum allowable attendance at mass gatherings to 250. Step 4 will be maintained until a transition to Phase 3 is achievable.

High risk individuals should continue to limit interactions to those that are considered vital.

Mass gatherings expand to have up to 250 individuals. Social Distancing Requirements should be followed in mass gatherings to the greatest extent possible.

**Maintain Focus on Testing, Isolation Strategies and Healthcare**

As the community engages in Step 1 – Step 4 of Slow Reopen to reopen the community, there is an ongoing need to maintain focus on the following:

1. Testing is available to everyone who is symptomatic
2. Individuals with COVID-19 and their contacts are isolated
3. Healthcare has adequate capacity to treat individuals needing care.

Testing supplies and laboratory services must be able to maintain turnaround time of testing of less than 72 hours, with a goal of less than 24-hour turnaround. This will provide public health



and healthcare with information needed to respond to the disease and provide community leaders with accurate and timely information for decision making.

Public health must maintain the increased capacity to conduct epidemiological processes. As efficiency and effectiveness permits, public health and healthcare should implement initiatives to provide targeted and rapid testing and containment strategies with newly identified cases. These approaches may prove beneficial to limit the spread of disease.

During Slow Reopen, healthcare will continue to treat the symptoms and secondary effects of the disease. Therapeutic modalities will be introduced as they become available. Significant progress in treatment may also encourage the reopening of the community.

### **Individual and Corporate Responsibility**

During Phase 2's implementation of reopening the community, individual and corporate responsibility is the most important component, and the most challenging to ensure. The major assumption throughout Slow Reopen is that the success and continued reopening depends on large-scale compliance with Public Health guidance. While community leaders are responsible for determining the timing and implementation of reopening, the full adoption of the spirit behind the steps is incumbent on everyone.

Businesses, associations, churches, and organizations must take responsibility for taking appropriate measures for their employees, members, and patrons. Applying social distancing strategies including the limitations of occupancy, maintaining a six-foot distance, providing remote accessibility, and not allowing anyone with symptoms to be present will greatly affect the community's wellbeing.

It is each of our own individual decisions and actions that will ultimately determine the spread of COVID-19. Diseases are fueled by sick people in contact with healthy people and insufficient hygienic practices. We also know that people can spread COVID-19 up to 48 hours before becoming symptomatic when in close contact with susceptible individuals. Choosing to abide by requirements and recommendations at each step of community reopening will allow communities to more quickly emerge from the impacts of COVID-19. When we focus on the community's response and slow reopen, not just ourselves, we all benefit.

### **Adjusting the Response and Trigger for Phase 3**

The speed and effectiveness with which the community can reopen is directly related to minimizing spread of COVID-19, which depends on the community's willingness to abide by Public Health guidance. Increases in COVID-19 cases will result in slowing or even reversal of the reopening process. The progression of COVID-19 will be monitored by public health officials in cooperation with healthcare and community leaders to attain limited and manageable spread of COVID-19. If the spread of disease is rapid or hits elevated levels that exceed hospital capacity, it is likely that the community will have to regress with reopening the community and may include an additional stay at home order.

When the community has sustained a low level of COVID-19, allowing it to progress through the steps of Slow Reopen, there are three triggers that could prompt movement into Phase 3:

1. Availability of a vaccine
2. Widespread availability of effective treatment
3. Minimal active cases

Phase 3 will introduce long-term solutions to mitigate the spread of disease and lift all restrictions associated with COVID-19. More detailed plans for transitioning into Phase 3 will be developed as the time nears.