Prioritizing Case Investigations and Contact Tracing for COVID-19 in Missouri

Introduction
The United States and Missouri continue to have waves of COVID-19 infections as different variants of interest and concern emerge in the United States and around the world. DHSS is committed to a data-driven and practical approach to managing Missouri’s response to the COVID-19 pandemic and will continue to partner with Local Public Health Authorities (LPHAs) to contend with the current conditions, utilizing all available tools to mitigate negative health outcomes within communities.

Critical public health tools include promoting COVID-19 vaccinations, limiting the attendance of public and private gatherings, encouraging the use of masks and face coverings in public, at work, and at private gatherings, encouraging physical distancing of at least six feet, encouraging regular hand-washing and hand-sanitizing, employing contact tracing and case investigation, and notifying positive individuals of the need to isolate.

DHSS is committed to contact tracing and case investigation as crucial components of a robust public health response, but also acknowledges that prioritization of such activities is necessary at times based upon case rate and resources available. As case rates increase, activities must focus on ensuring the safety of those citizens most at-risk for serious complications from COVID-19 infections and also in settings where infections can spread rapidly. Gathering data through case investigations is also vital to making sound public health decisions and guiding future mitigation strategies especially when different COVID-19 variants emerge as a concern.

Contact Tracing Guidance
In Operational Considerations for Adapting a Contact Tracing Program to Respond to the COVID-19 Pandemic, the Centers for Disease Control and Prevention (CDC) recommend that contact tracing programs “prioritize activities to ensure that human and financial resources are utilized most effectively,” and that workforce, epidemiologic, system, and financial, logistical and operational adaptations are advised when the “the number of cases and contacts has outpaced the capacity of the public health system to quickly notify and quarantine all contacts.”

In addition, CDC released Prioritizing Case Investigations and Contact Tracing for COVID-19 in High Burden Jurisdictions on November 23, 2020, that recommends prioritizing case investigations based on risk factors for severe disease. The guidance below was developed in alignment with the CDC guidance, and sets expectations of LPHAs in regards to contact tracing and case investigations based on local conditions of case growth. Specifically, the categories below define what actions may be prioritized, based on the 7-day antigen and PCR combined case rate per 100,000 population. If more than 14 days have elapsed since specimen collection, case investigation and contact tracing should not be pursued unless there are unique circumstances associated with the person tested. LPHAs may also elect to assess
their capacity to provide case investigation and contact tracing using the CDC’s high, medium, and low burden based on case backlog and staffing levels.

When case rates increase and resources are limited, LPHAs have to use a variety of factors to determine which cases should be prioritized for investigation and/or contact notification including cases in congregate settings such as schools and long-term care facilities and cases in settings that can lead to the rapid transmission of the virus causing a potential outbreak such as production factories. Vaccination status, if known, can also be used to determine the order of follow up for cases and contacts by prioritizing those who are known to be unvaccinated or have an unknown vaccination status. Ultimately, the goal of case investigation and contact tracing prioritization is to ensure LPHAs can reach as many people as possible given the limited amount of resources to ensure negative health outcomes within the community are reduced.

DHSS expects that LPHAs will re-engage in vigorous case investigation and contact tracing when cases and community transmission are reduced, according to the category in which the local jurisdiction falls in a given week. Case investigation and contact tracing remain critical tools in the long-term fight against COVID-19 and help shape future COVID-19 efforts.

It is also essential that LPHAs utilize EpiTrax for recording case investigation outcomes and surveillance data. In the guidance below, DHSS has limited the expectations of LPHAs regarding contact tracing volume based on localized case growth data. Additionally, DHSS has worked to ensure that only the most essential data variables, used for public health policy development and reporting, are prioritized. LPHAs may choose to utilize any additional data fields in EpiTrax for local purposes. LPHAs are encouraged to enter the minimum data set or the simple case investigation variables into EpiTrax while performing case investigations, so as not to create a duplicative need for data entry or increased burden of communication with DHSS to answer questions on specific cases with missing electronic data. Trainings on the use of EpiTrax can be found on the DHSS website and more specific EpiTrax guidance can be requested through the Bureau of Communicable Disease Control and Prevention Regional Epidemiologists.

Contact Tracing Tiers and Interventions
Please note that before moving between risk tiers, a jurisdiction should experience a 7-day combined case rate per 100,000 population within that tier for one full week.

**Category 1**

*High: 7-day case rate of 100 cases or more per 100k population*

- Investigate cases prioritizing those reported within the past 6 days especially those in vulnerable populations, cases associated with congregate settings including long-term care facilities and educational institutions, cases associated with outbreaks, and other high-risk groups, as defined by the CDC, using the simple case investigation.
- Contact tracing may be limited and resources temporarily reassigned to case interviews depending on the number of staff and the amount of resources.
• If case interviews are prioritized, provide positive cases with instructions for self-notifying close contacts with a request for close contacts to self-quarantine according to current CDC guidelines after the last possible exposure.

Category 2

Substantial: 7-day case rate of 50-99 cases per 100k population

• Investigate cases prioritizing those reported within the past 6 days especially those in vulnerable populations, cases associated with congregate settings including long-term care facilities and educational institutions, and cases associated with outbreaks, and other high-risk groups as defined by the CDC. At this level of community transmission a simple case investigation may be appropriate.
• Prioritize contact tracing for household contacts exposed within the past 6 days and contacts outside the house who are living, working, attending, or visiting congregate settings, part of a cluster/outbreak, or settings or events with potential extensive transmission.

Category 3

Moderate: 7-day case rate of 10-49 cases per 100k population

• Investigate all cases with a positive test collected in past 14 days
• Trace all close contacts, while prioritizing contacts of symptomatic cases, household contacts, contacts associated with outbreaks, those associated with congregate settings, and other groups at increased risk for severe illness, as defined by the CDC

Category 4

Low: 7-day case rate of 0-9 cases per 100k population

• Investigate all cases with positive test collected in the past 14 days
• Trace all close contacts exposed within the past 14 days