**Title:** Trend of Louisiana COVID-19 Outbreaks in Religious Services, March 2020 – February 2021

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**Objective:** To better understand the impact of the transmission of COVID-19 in religious services in Louisiana.

**Background**: Louisiana identified its first COVID-19 outbreak in a religious service, or place of worship for faith-based communities, in March 2020. As a mitigation response, during the Phase 1 period, maximum capacity was reduced to 25% and masking and social distancing were enforced. As religious services return to maximum capacity, there is concern about the role that these settings will contribute to the burden of disease.

**Methods**: COVID-19 outbreaks in religious services were identified by the Louisiana Office of Public Health Infectious Disease Epidemiology Section (IDEpi) using two different methods: the facility would contact IDEpi directly to report an outbreak or IDEpi would use contact tracing data to identify an outbreak. An electronic survey was created in REDCap to record outbreaks that were identified in Louisiana. COVID-19 outbreaks in religious services from March 2020 to February 2021 were extracted from REDCap, including aggregate- and individual-level data. Frequency analyses were performed.

**Results**: As of March 2, 2021, Louisiana has identified 81 COVID-19 outbreaks in religious services, including 381 cases, 28 hospitalizations, and 7 deaths. The mean age of the reported cases is 50 years; 79.7% of the reported cases are white and 61.0% are female. There was one outbreak identified during the Stay-at-Home Order, zero during Phase 1, 15 during Phase 2, 40 during Phase 3, and 25 during Modified Phase 2. Public Health Region 6 has the highest average outbreak size of 6.12 cases per religious service.

**Conclusions**: Outbreaks in religious services were identified in higher numbers as restrictions were lifted across the state. With less restrictions in place, it is imperative to encourage proper mask wearing and social distancing throughout the duration of the pandemic in places of worship.