



COVID-19 Update

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Clusters

- Outbreak in a dormitory for migrant workers in Singapore linked to almost 800 cases
- 80 infections tied to live music venues in Osaka, Japan
- 65 cases resulting from Zumba classes in South Korea
- Clusters have also occurred aboard ships and at nursing homes, meatpacking plants, ski resorts, churches, restaurants, hospitals, and prisons





Dispersion factor (k)

- Reproductive rate (R_0) of SARS-CoV-2 is the average number of new infections caused by each patient. Without social distancing, this reproduction number (R) is about 2-5
- The dispersion factor (k) describes how much a disease clusters – the lower the number the higher the risk of clusters
 - SARS – K factor was 0.16
 - MERS – K factor was 0.25
 - 1918 Flu pandemic – K factor was 1
 - SARS-CoV-2 – K factor estimated at 0.1
 - 10% of cases cause 80% of the spread

Church Choir Practice

After choir practice with one symptomatic person,
87% of group developed COVID-19



● Index case

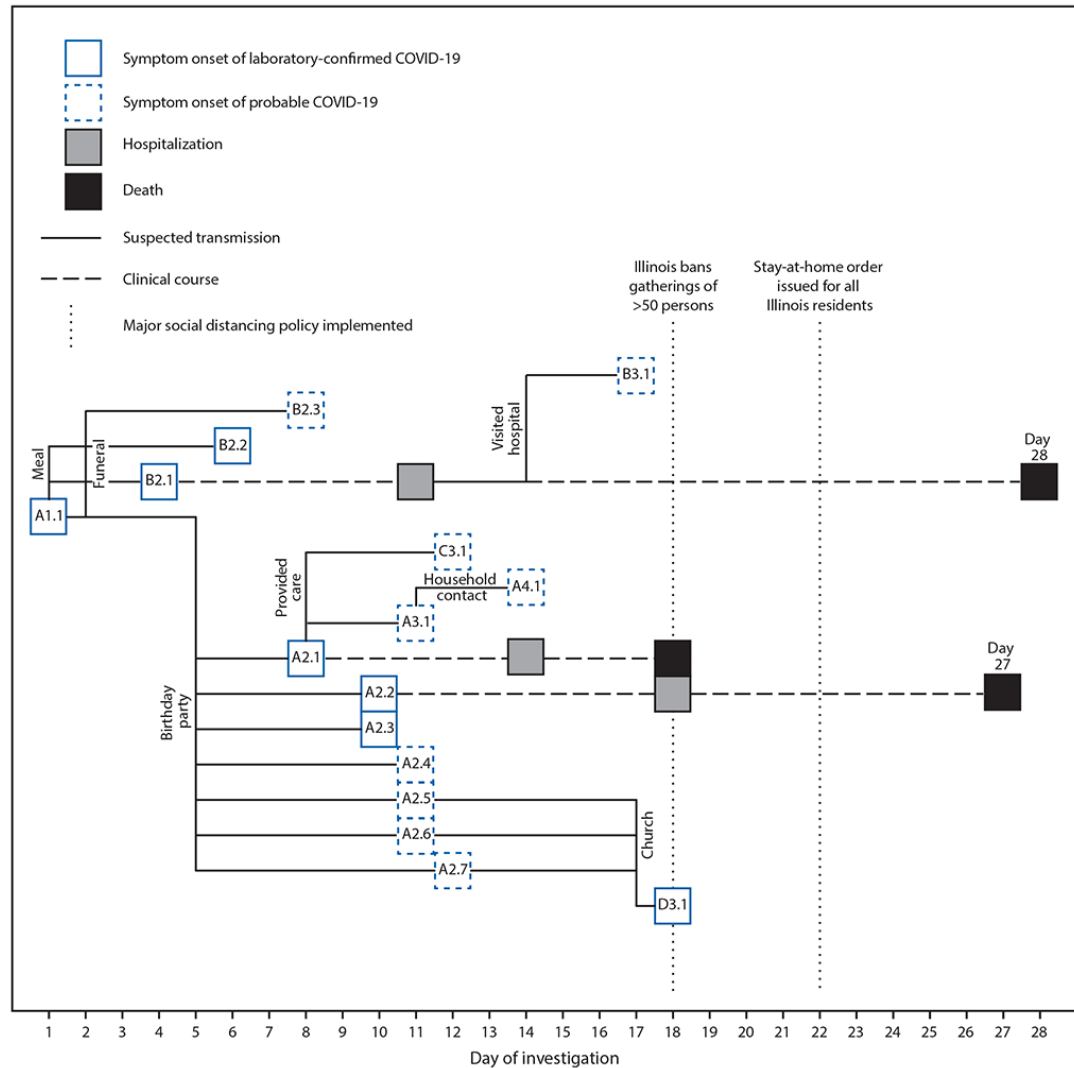
● 32 confirmed and 20 probable cases

● unaffected person

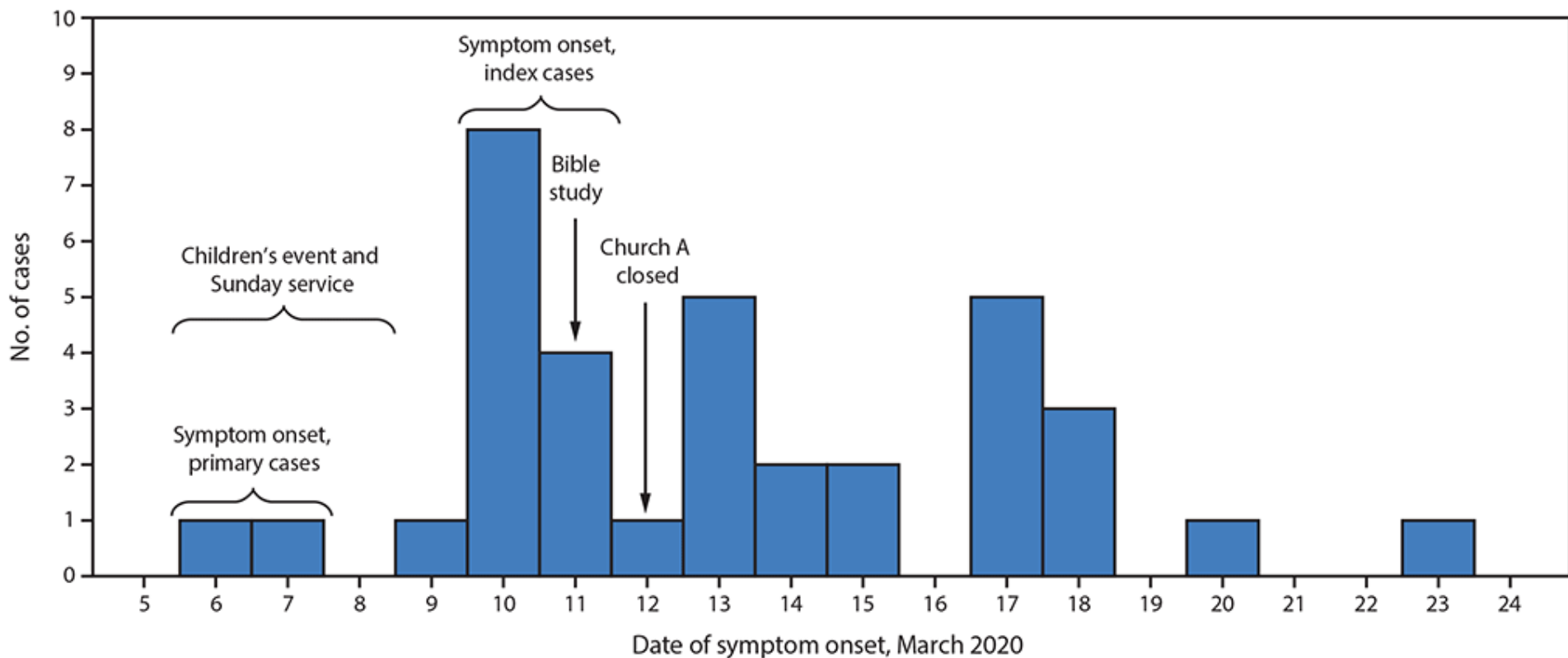
COVID-19 spreads easily

- Avoid groups
- Stay at least 6 feet apart
- Wear face coverings

Family gathering



Arkansas Church

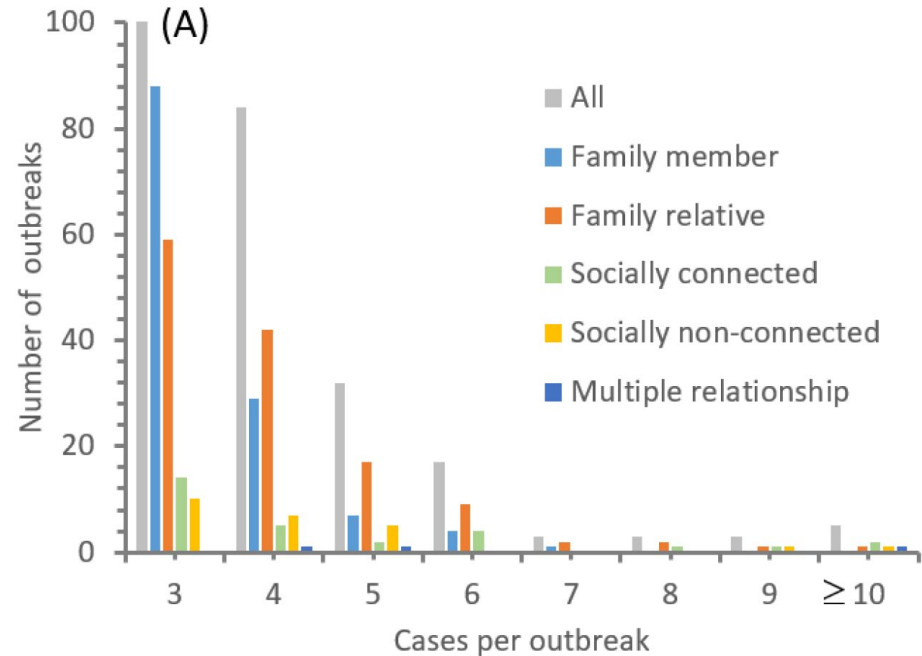


Meatpacking

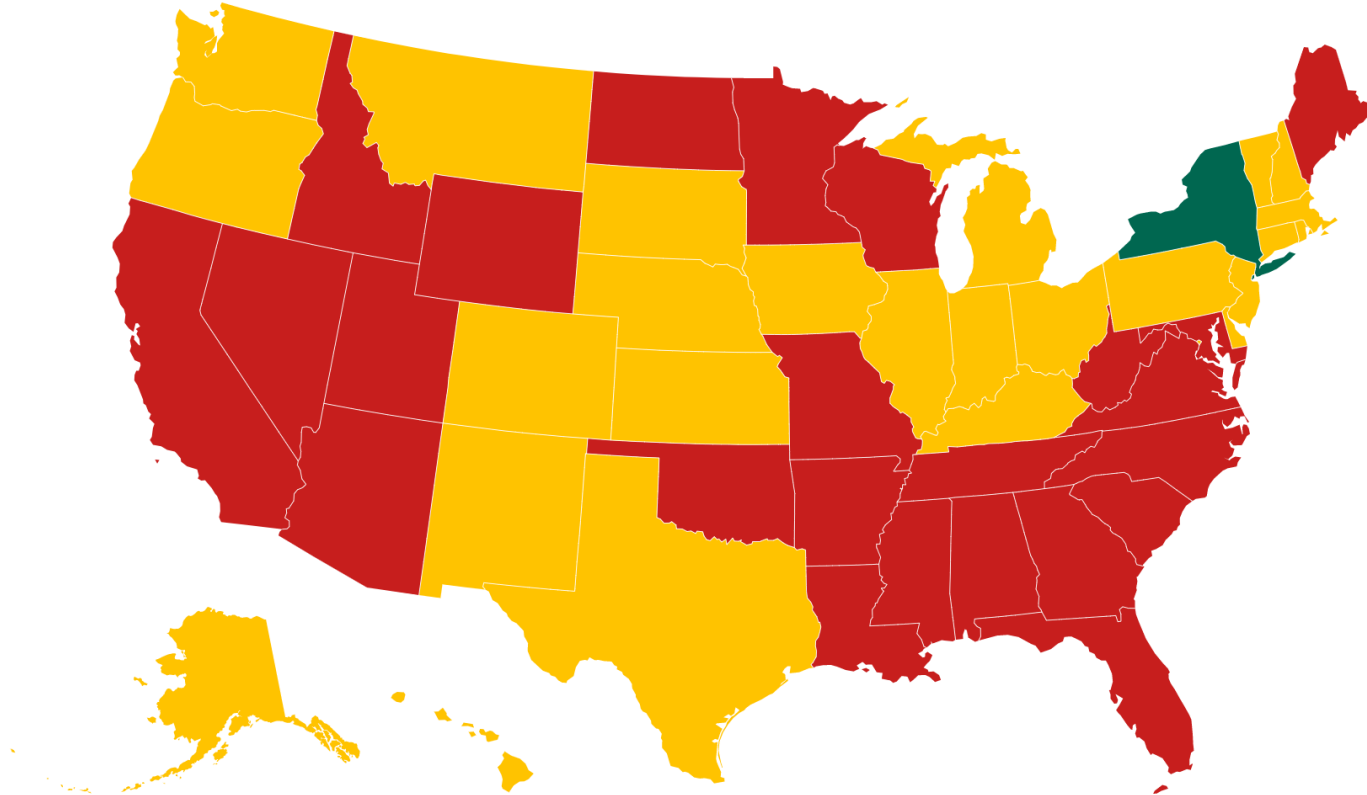
- Counties containing or within 15 miles of one or more meatpacking plants reported 373 COVID-19 cases per 100,000 residents – nearly double the U.S. average of 199 cases per 100,000
- Outbreaks in 115 facilities across 23 states, 5000+ workers infected, with 20 dead
- Meat plant outbreaks are a significant driver of the eight-fold growth in COVID-19 cases in rural America

Indoors vs. Outdoors

- The main sources for infection are home, workplace, public transport, social gatherings, and restaurants. This accounts for 90%
- 18.7 x more likely to get an infection from an indoor exposure than an outdoor exposure







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Questions