

Model estimates that increased social distancing following the Pause to Save Lives prevented over 109,000 cases

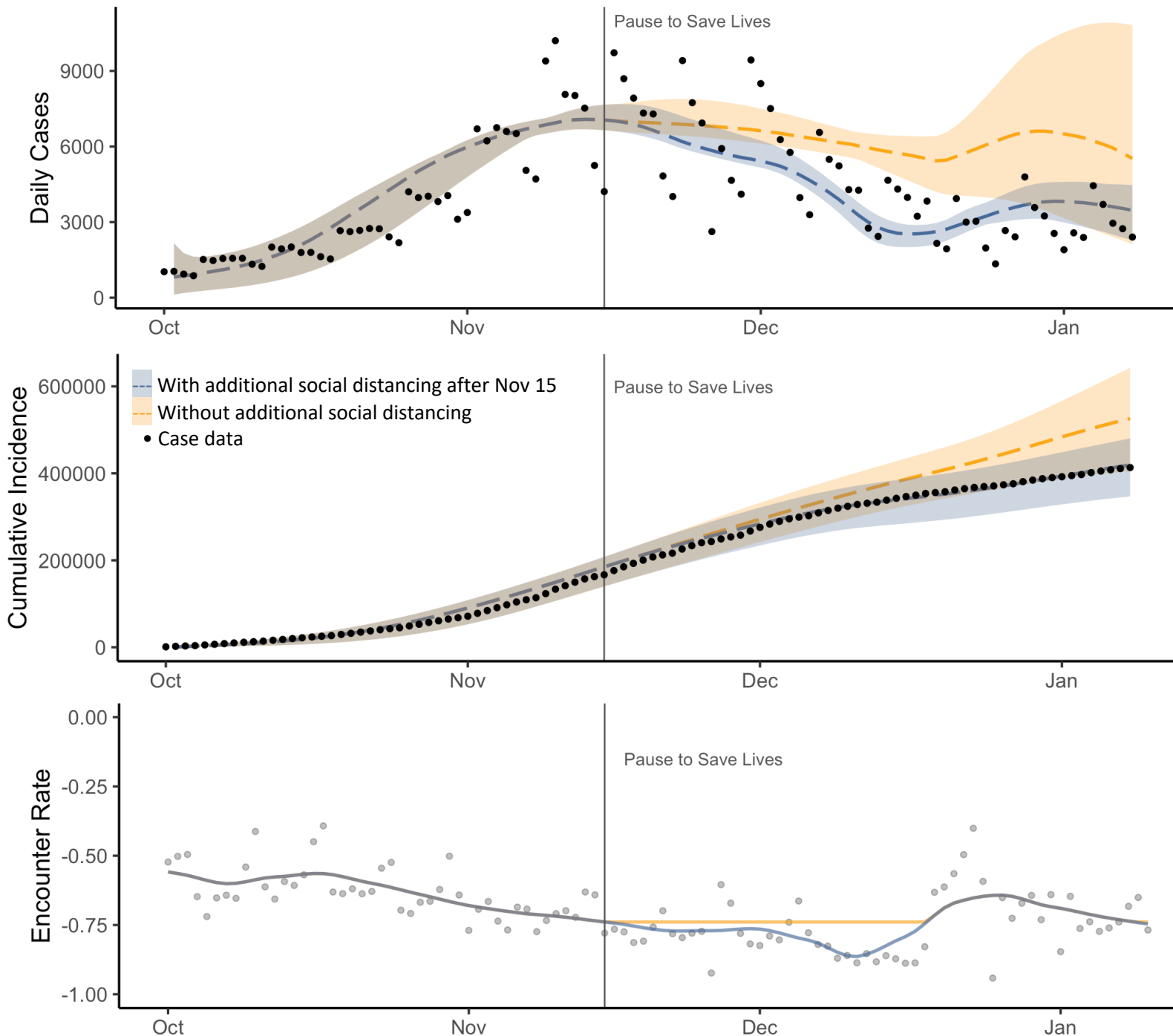
- Modeling the impact of social distancing following November 15 (Pause to Save Lives), using daily case data and mobility data
- Simulations project that from November 15 to January 8, increased social distancing prevented ~109,000 cases
- Based on Michigan case fatality rate estimates (1.8 - 2.6%), this translates to preventing ~1960 - 2800 deaths

109,000
Cases prevented

Cumulative Cases
Nov 15 - Jan 8

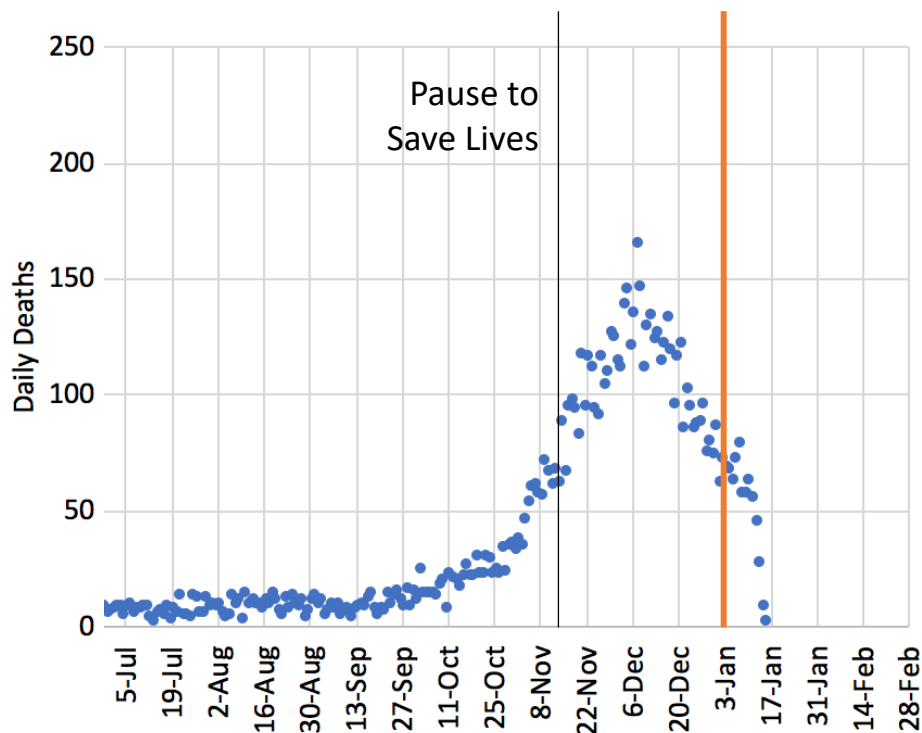
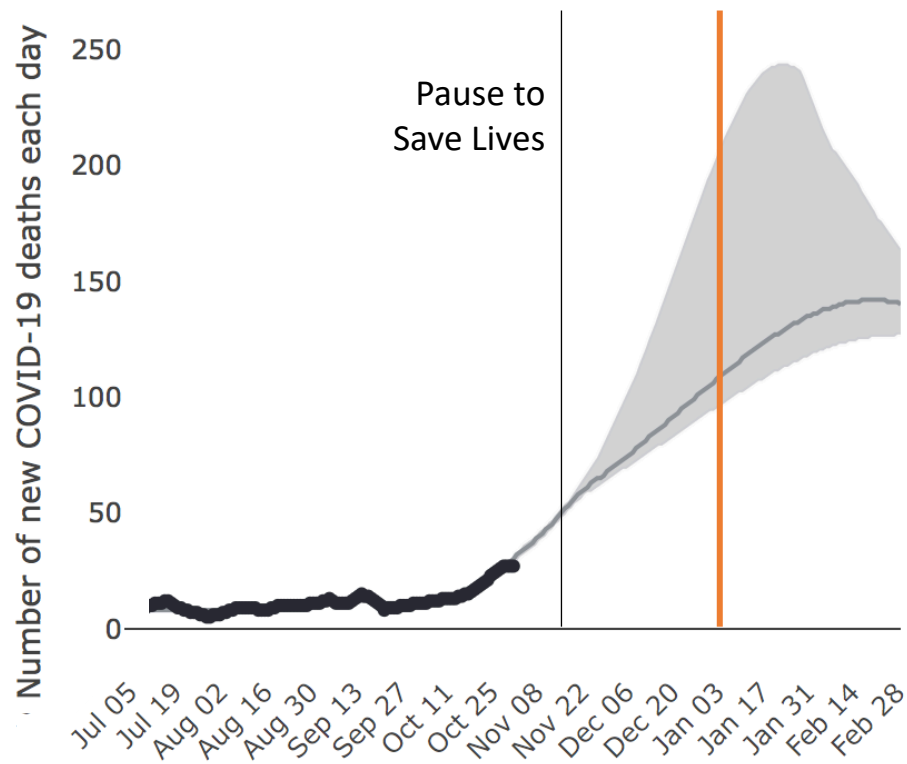
Impact of social distancing over the holiday season

- **Model estimates that increased social distancing following November 15 (Pause to Save Lives) prevented at least ~109,000 cases**
- Further cases and deaths prevented may also have occurred following the end of the study period (Jan 8)
- Blue: Model fit to daily case data; Orange: Simulation assuming no additional social distancing (no decrease in encounter rate) starting November 15 (Pause to Save Lives)
- Uncertainty level: best 10% of parameter estimates out of 1000 estimates



Sources: UM COVID-19 Modeling, MDSS case data, [Unacast encounter rate data](#)

COVID-SIM projected vs. actual daily deaths



- Early November COVID-SIM projection (assumes conditions stay the same) vs. actual daily deaths
- Michigan has seen fewer deaths than would be expected based on COVID-SIM projections assuming status quo going into November
- Peak projected daily deaths range ~125-250
- Actual peak daily deaths ~150

Oxford Coronavirus Government Response Tracker (OxCGRT)

- Government Response Index: tracks overall government response based on measures of containment & closure, economic response, and public health response
- Three additional indices based on subsets of the GRI: Containment & Health, Stringency, and Economic Support
- Each index is a total score based on the features included
- Does not capture differences in enforcement or effectiveness of a given policy



Containment & Closure

- School closing
- Workplace closing
- Cancel public events
- Restrict gathering sizes
- Close public transport
- Stay at home
- Movement & travel restrictions



Economic Response

- Income support
- Debt relief



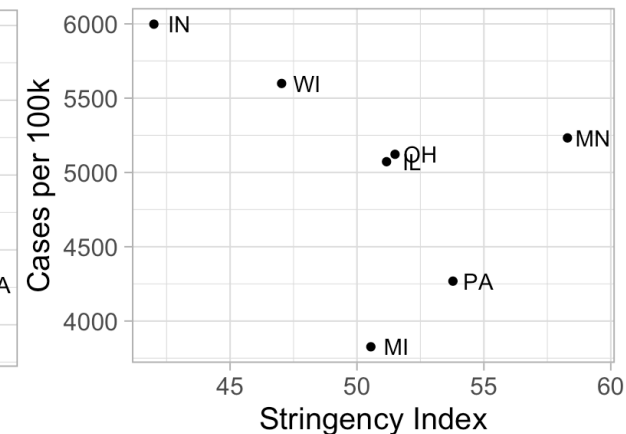
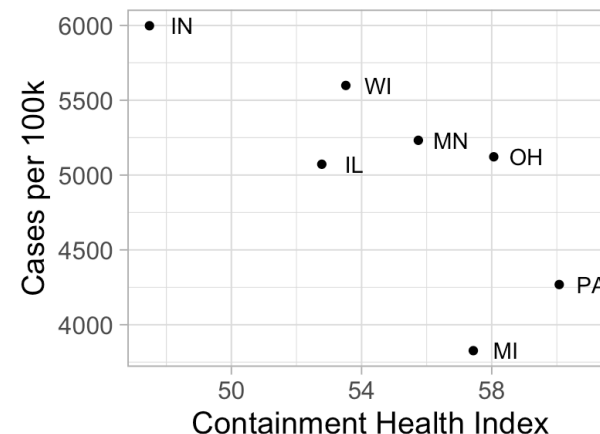
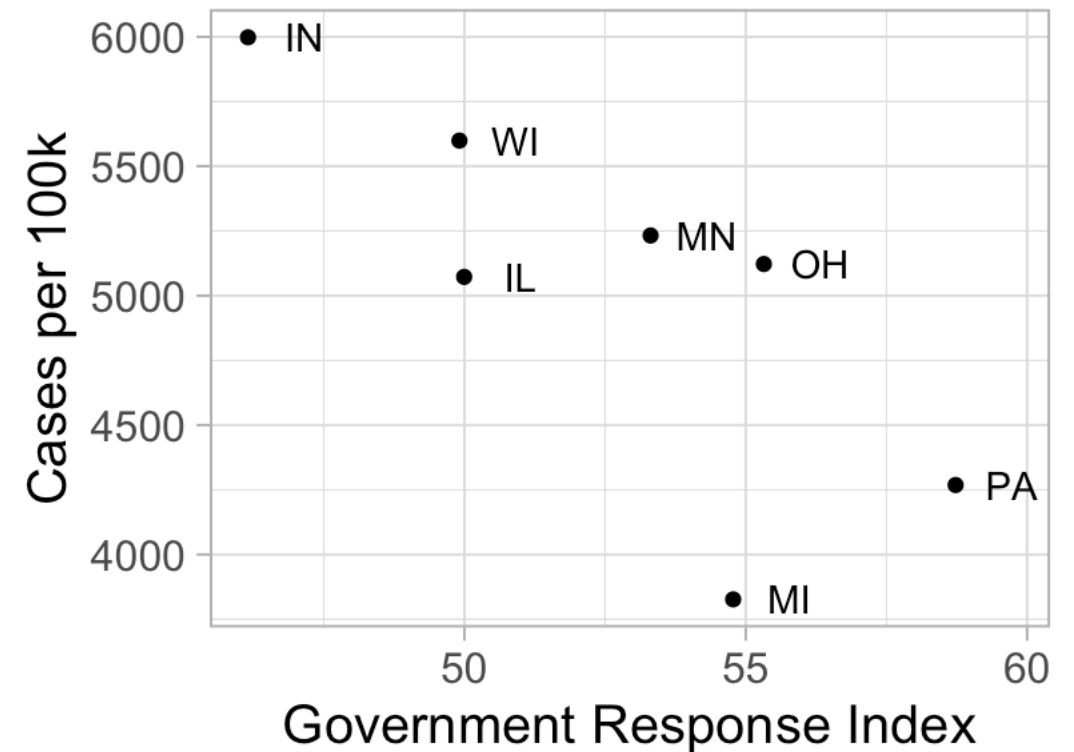
Public Health Systems

- Public information campaigns
- Masks required
- Testing policy
- Contact tracing
- Emergency healthcare investment
- Investment in vaccines
- Vaccine policy

Government response index vs. cases in the Midwest

- **Midwestern states with higher average government response index over the holiday season (Nov 1 – Jan 15) also had fewer cases per 100,000 population**
- Similar patterns for containment health index and stringency index (although weaker for stringency index)
- Note the average does not reflect dynamic changes during this time range
- Government response index (GRI) – an overall index for government response, accounting for closures, economic supports, and public health efforts
 - Stringency – subset of GRI focused on closures
 - Containment and Health – subset of GRI focused on closures and health efforts (but not economic supports)

Nov 1 - Jan 15

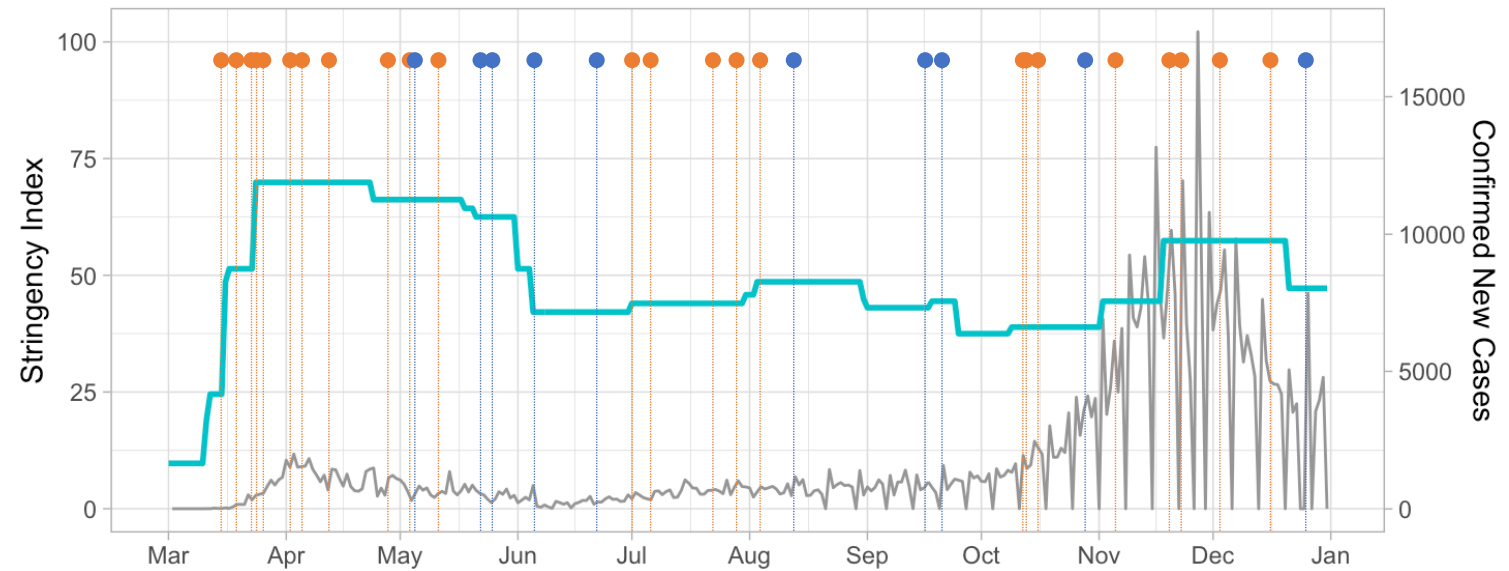


Michigan and Ohio Containment & Closure Efforts

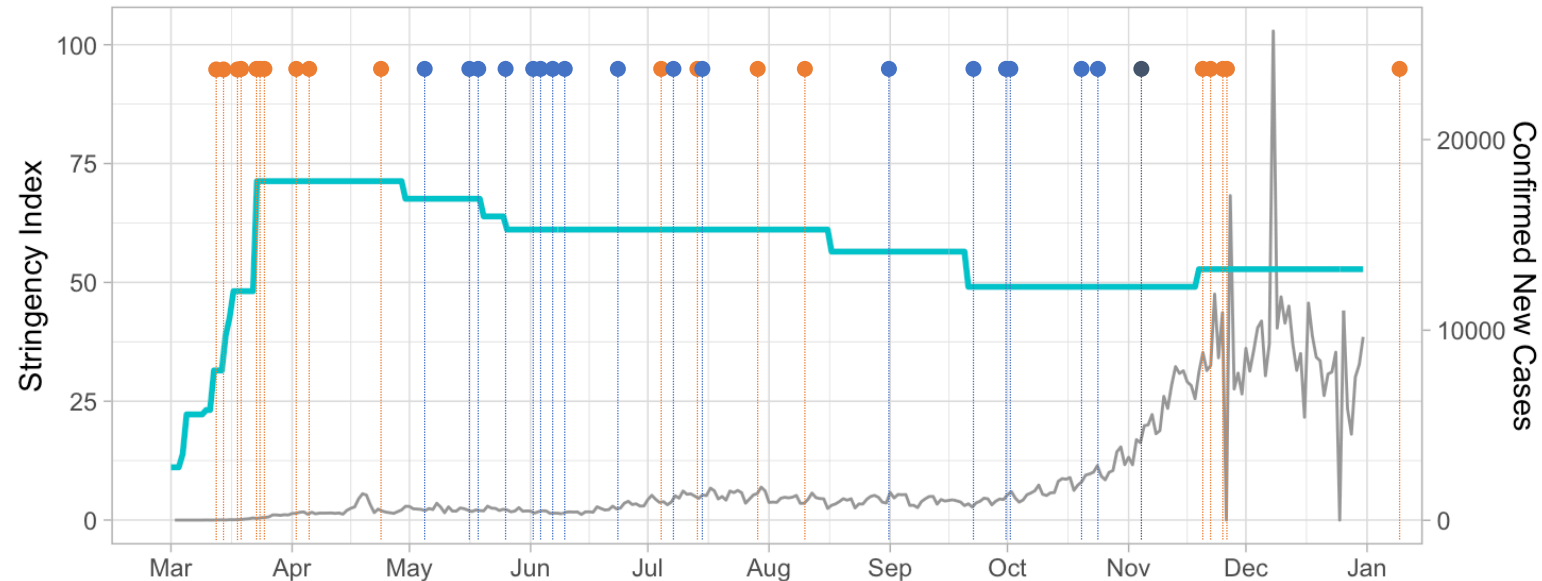
- Stringency index in MI has been more adaptive to changes in case counts whereas OH has had fewer changes and tended toward reopening
- Stringency index does not capture differences in enforcement or effectiveness of a given policy

—●— Stringency Index Value ●— Closing/restriction
—●— Confirmed New Cases ●— Opening

Michigan Stringency Index and New Daily Cases of COVID-19



Ohio Stringency Index and New Daily Cases of COVID-19



Sources: [OxCGRT indices](#) (turquoise), JHU case data (grey),
[JHU policy tracker](#) (blue/orange)

Cases per million in Michigan, Ohio, and Indiana

- Michigan cases per population have been low compared to Midwest neighboring states over the holiday season

