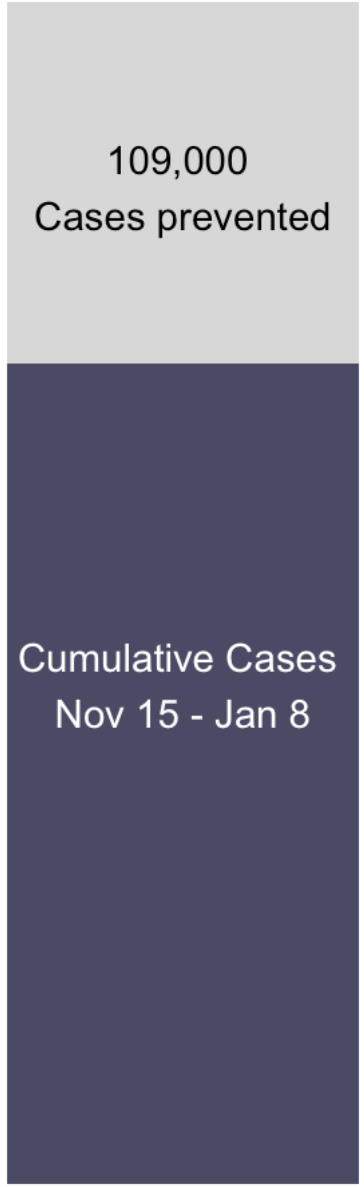
Model estimates that increased social distancing following the Pause to Save Lives prevented over 109,000 cases

- 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 (2.6%), this translates to preventing ~2800 deaths



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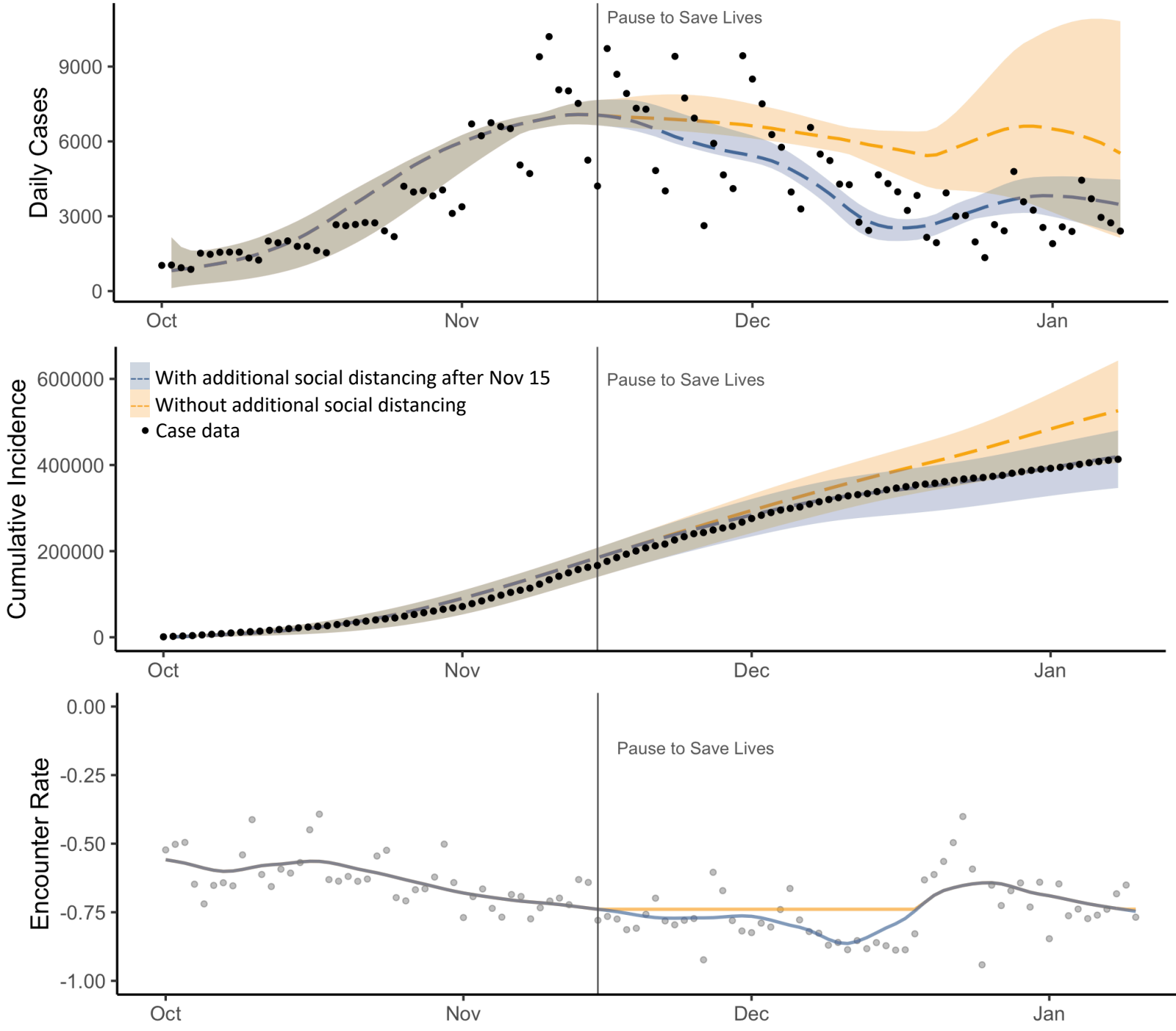
Sources: UM COVID-19 Modeling, MDSS case data, Unacast encounter rate data

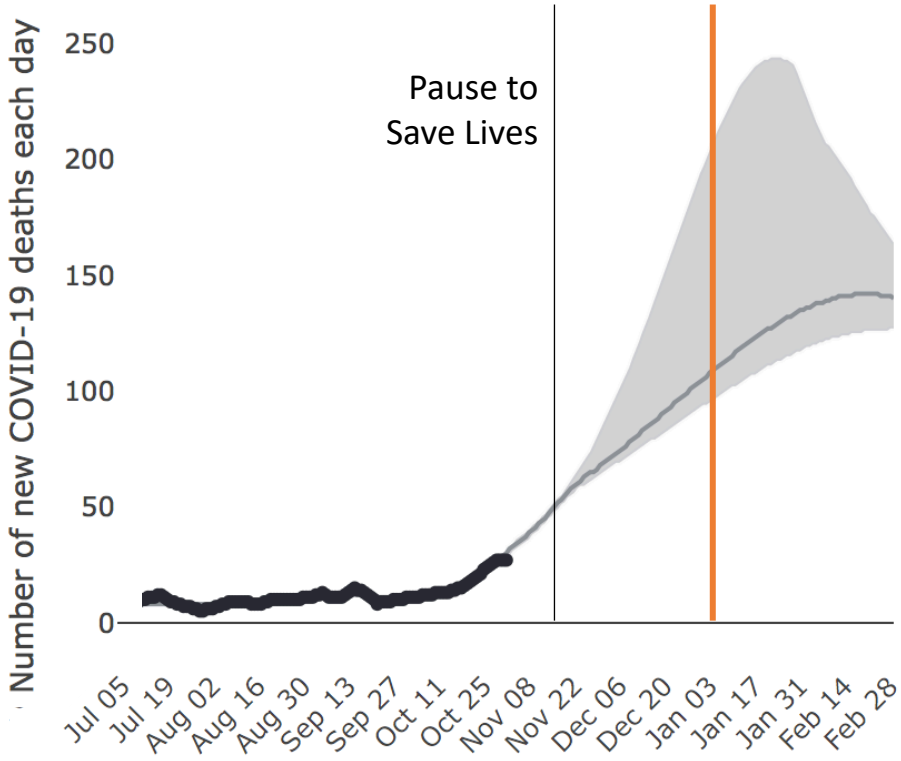
Impact of social distancing over the holiday season

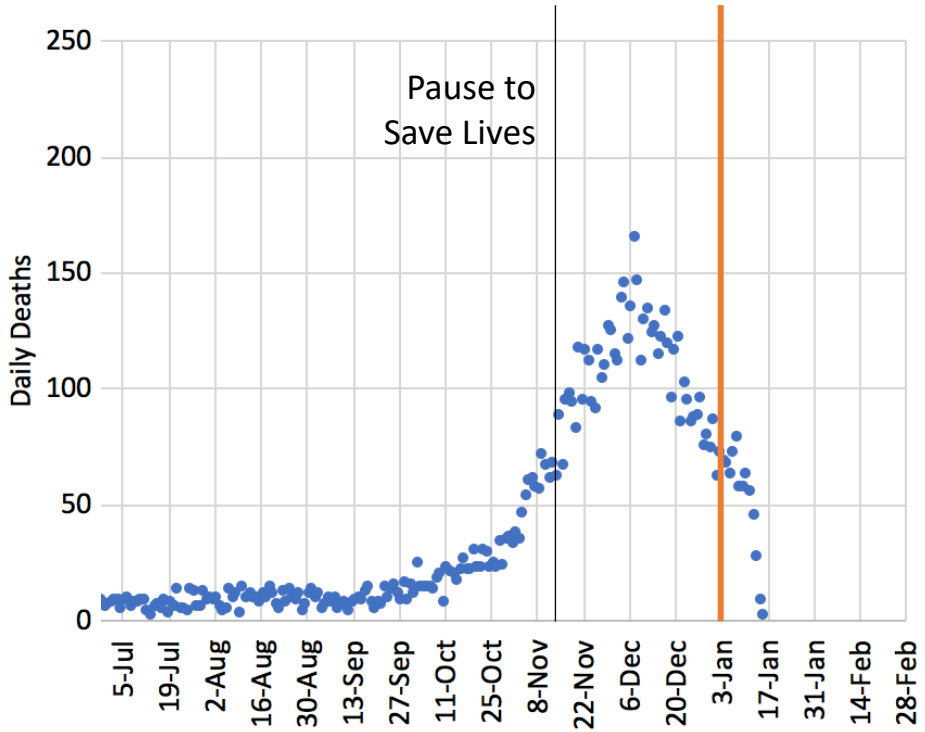
- Evaluate the impact of increased social distancing following November 15 (Pause to Save Lives)
- **Model estimates that increased social distancing following the Pause prevented ~109,000 cases**
- Blue: Model fit to daily case data
- Orange: Simulation assuming no additional social distancing (no decrease 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

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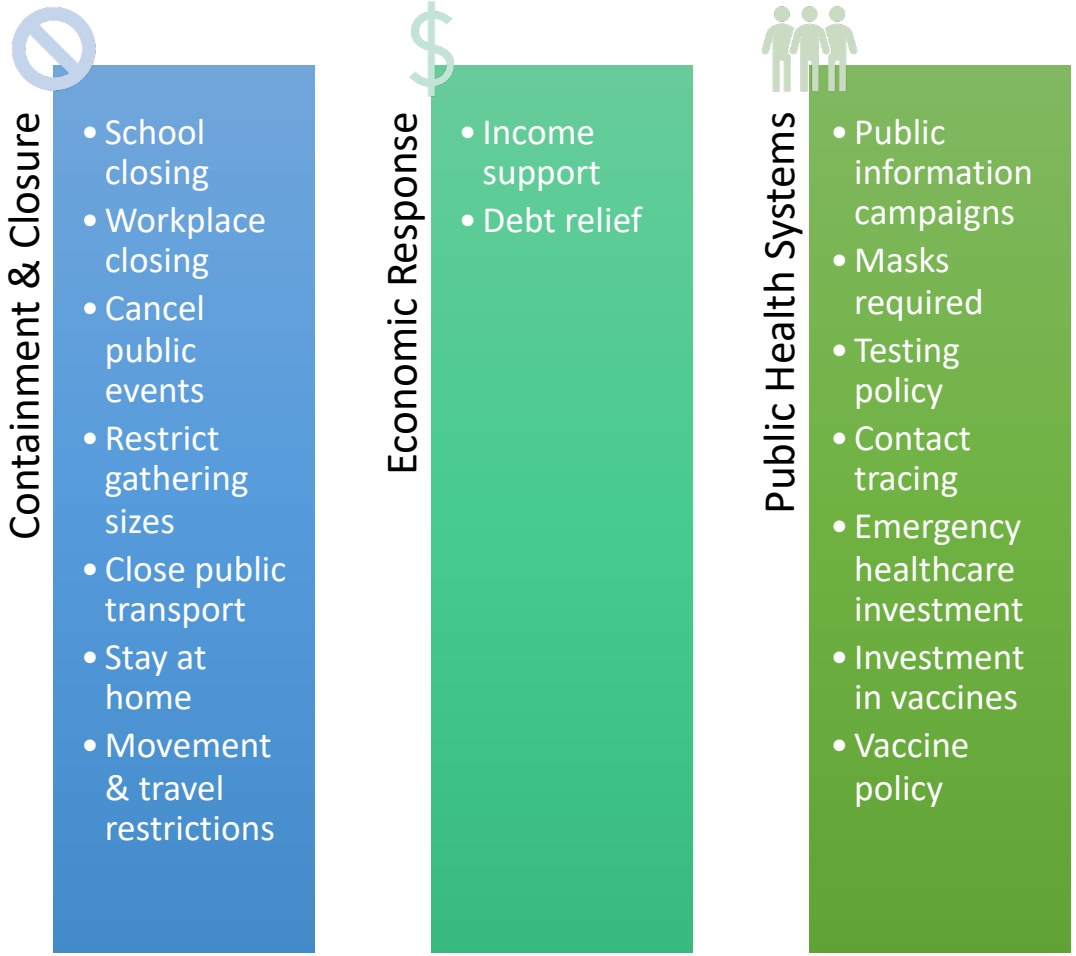
Source: MDSS data, COVID-SIM Model

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

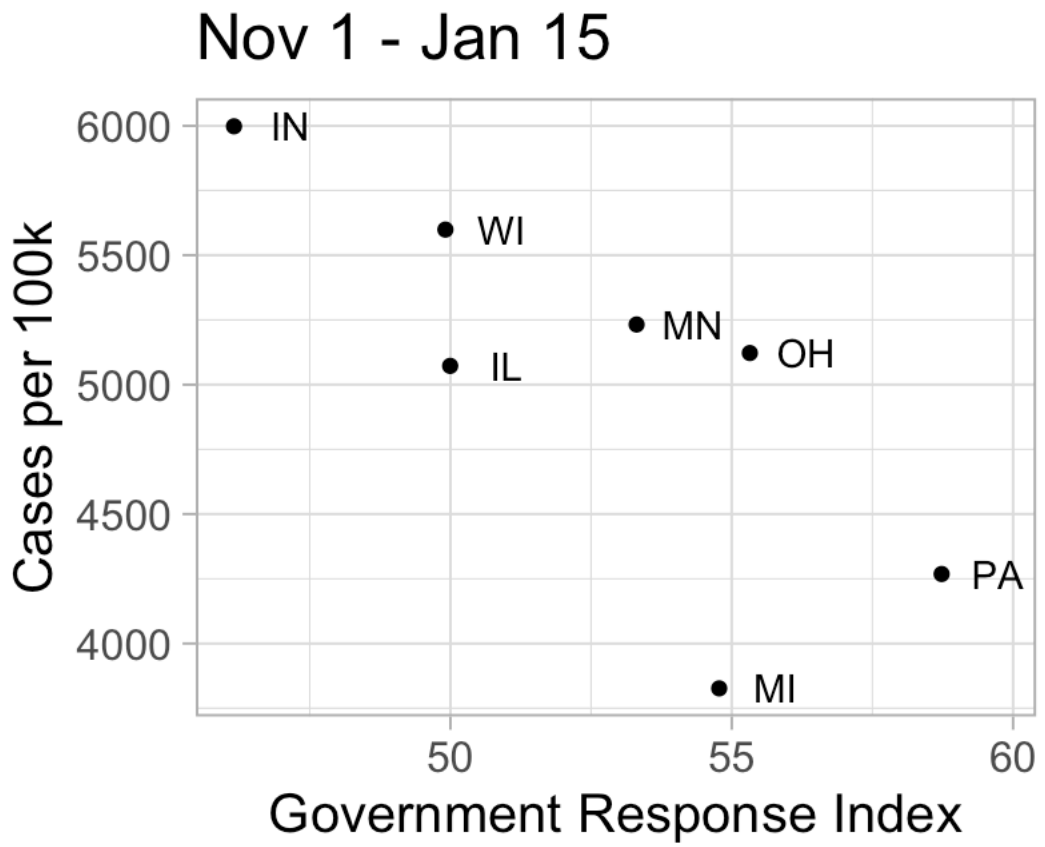


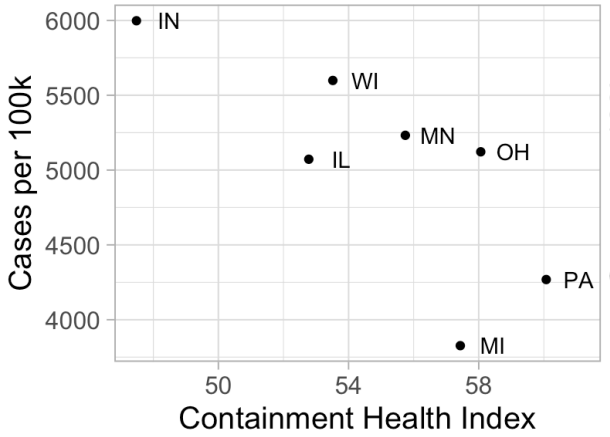
Source: OxCGRT indices

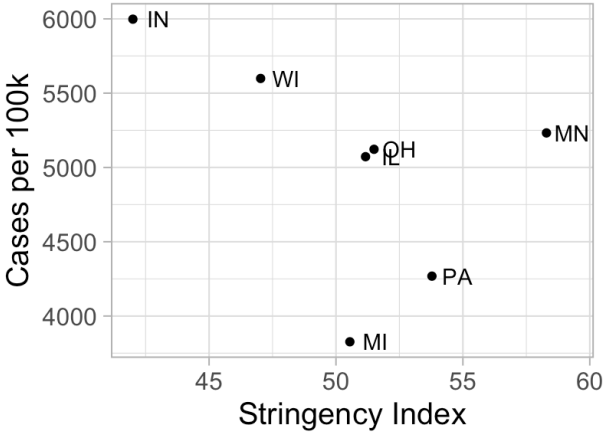
Government response index vs. cases in the Midwest

- **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)

Source: OxCGRT indices, JHU case data

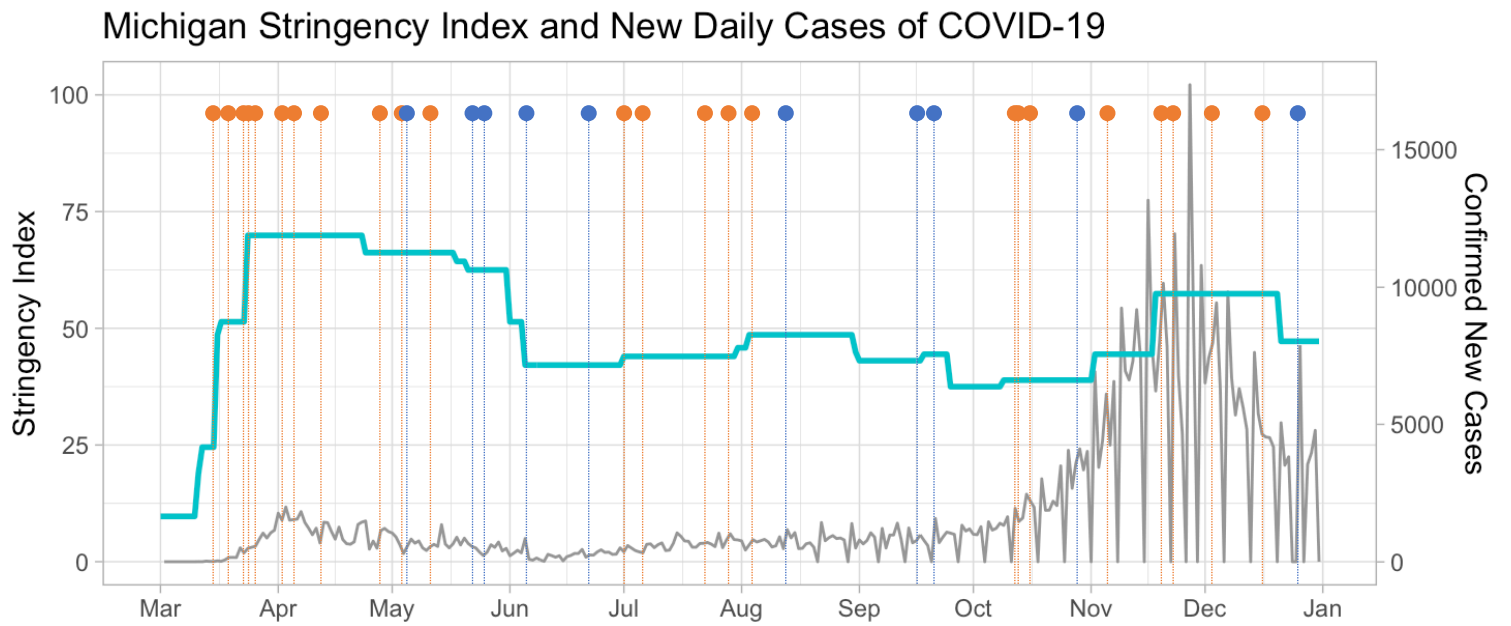


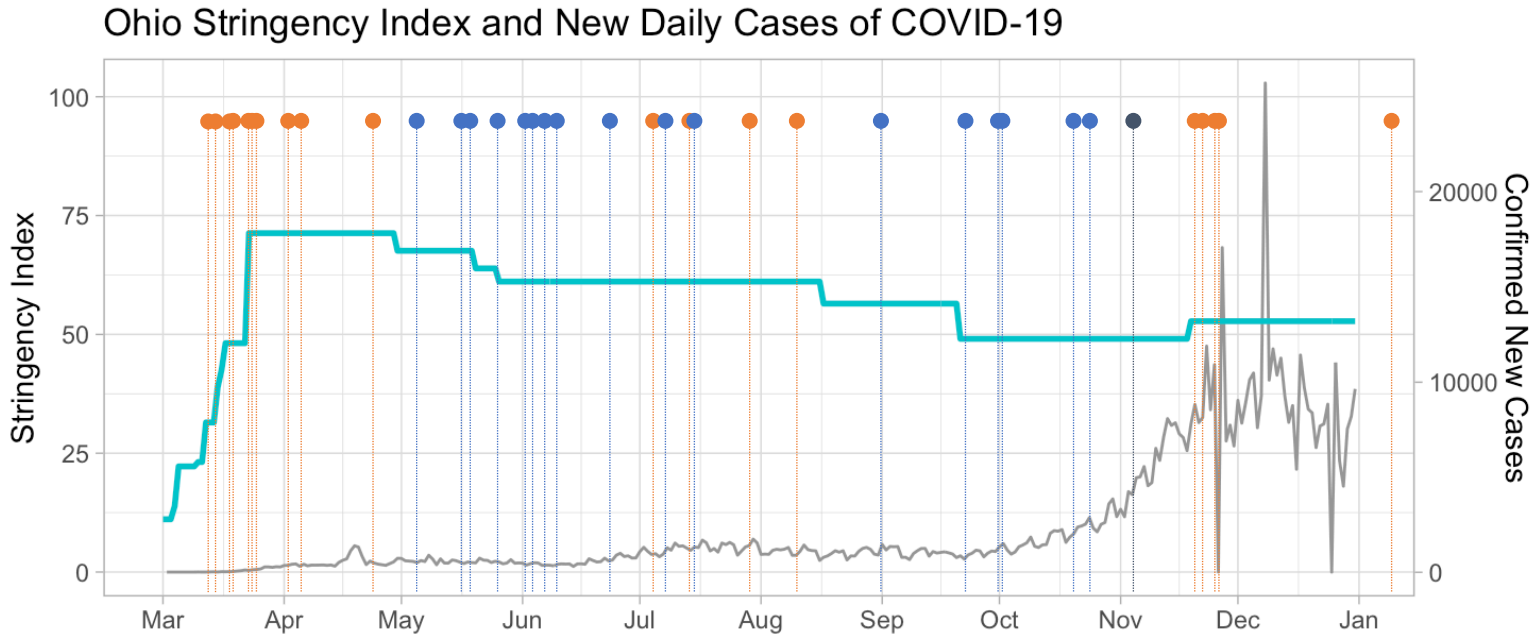




Michigan and Ohio Containment & Closure Efforts

- 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

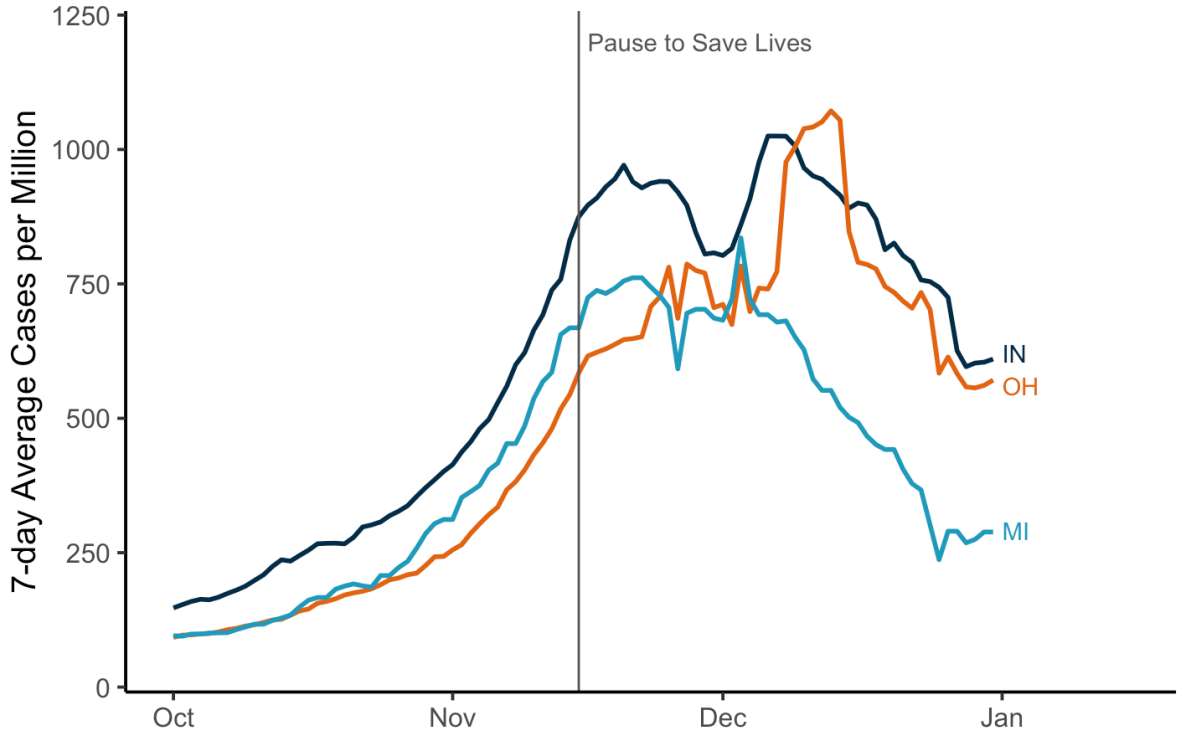


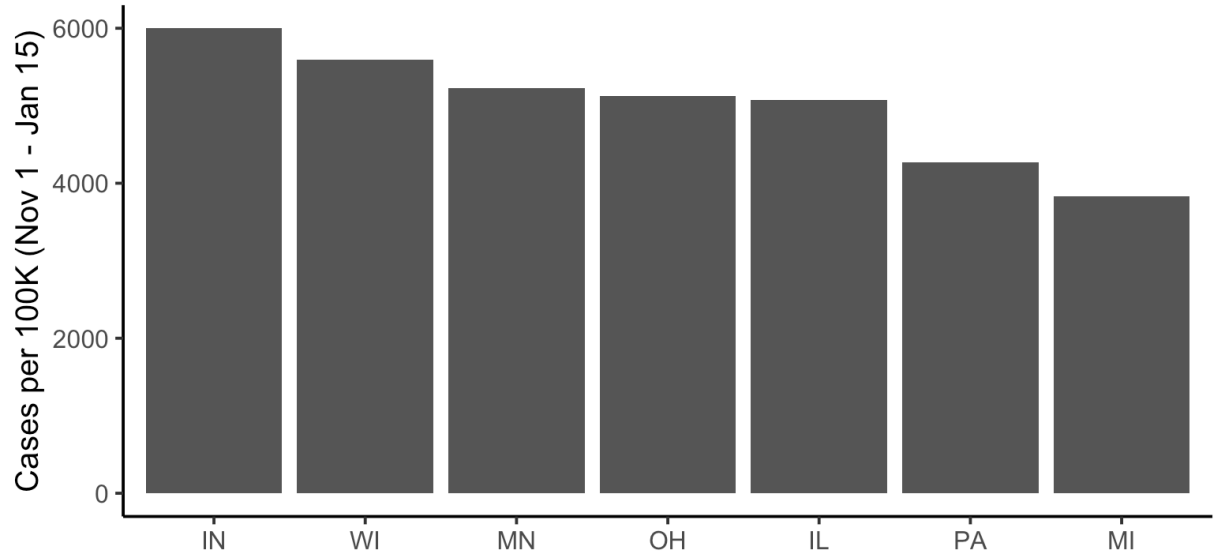


Sources: [OxCGRT indices] (turquoise), JHU case data (grey), [JHU policy tracker] (blue/orange)

Cases per million in Michigan, Ohio, and Indiana

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





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Source: JHU case data