

# Epidemiological scenarios to examine impact of lifting social distancing

## School of Public Health projections

Pre-decisional, estimations only

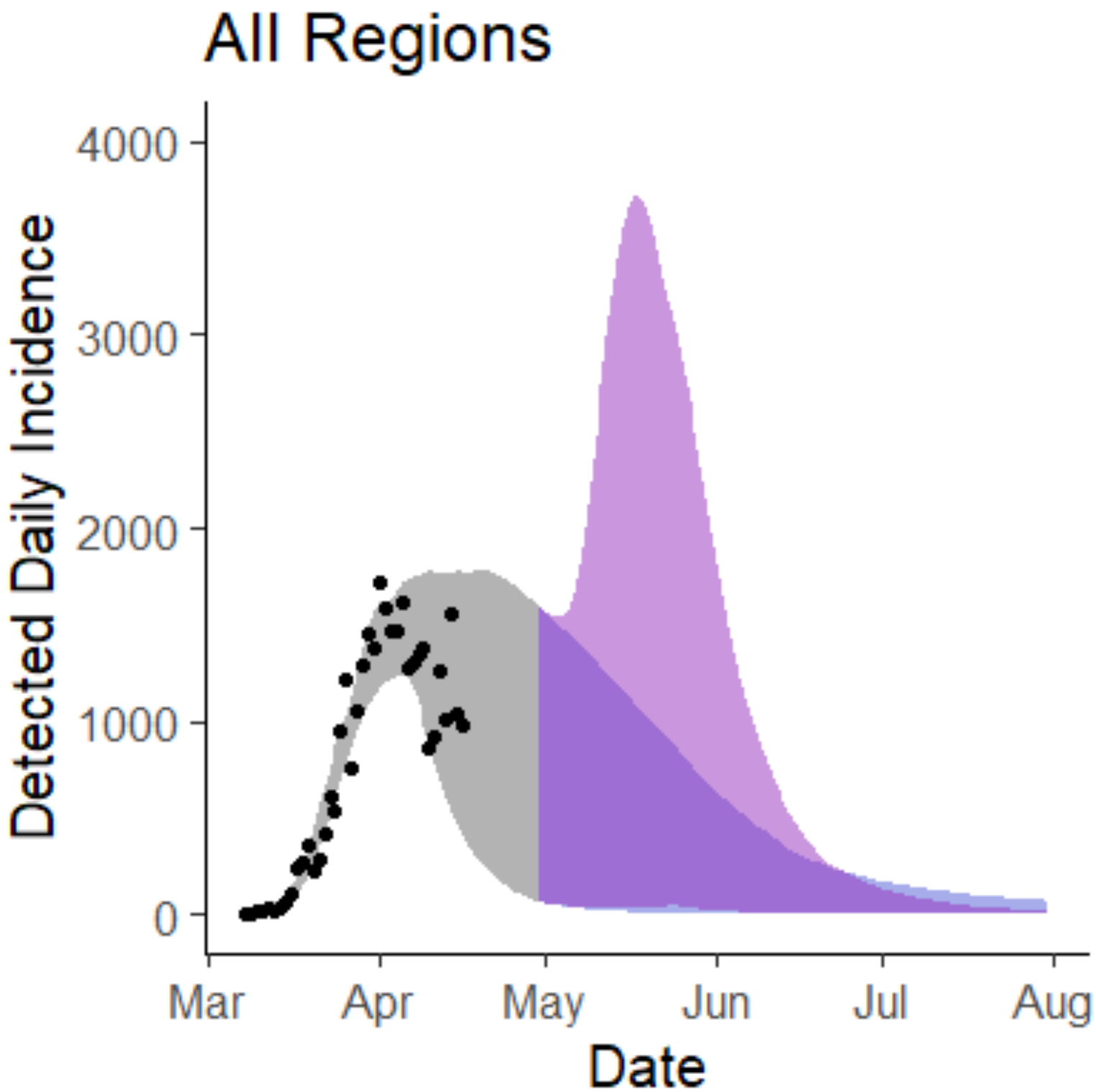
- Social distancing begins easing on 5/1 (range of outcomes)
- Social distancing continues indefinitely (range of outcomes)
- Incidence within realm of possibilities for both parameters

### Epidemiological scenarios used for planning<sup>1</sup>

Goals of projections	These scenarios were chosen to as example scenarios to inform planning; they represent the to best 10% of parameter estimates, but they should not be viewed as the only possibilities
Inputs	Actual lab confirmed cases, by region Demographic, disease progression, and other parameter data (regional and based on the literature) Date and scale of the effect of eliminating social distancing restrictions
Model simulation	Based on these inputs, the model samples from wide ranges for the epidemiological parameters and estimates the parameters using the case data. The resulting parameter estimates generate a range of outcomes for new cases per day The model tracks which of these simulations is a “best fit” to the case data so far (we have plotted the best 10% here)
Outputs	<b>The model generates a range of daily lab-confirmed cases for two scenarios:</b> <ul style="list-style-type: none"><li>Ending Stay Home, Stay Safe on 4/30 with a 2-week ramp-down</li><li>Keeping it in place for the remainder of the simulation</li></ul> These outputs are generated at the region level so that capacity calculations can occur
Limitations	Uncertainty in both the model and the input data—particularly for regions with few cases so far; these scenarios are only the top 10% of estimates

### Projections used to inform planning: Statewide total

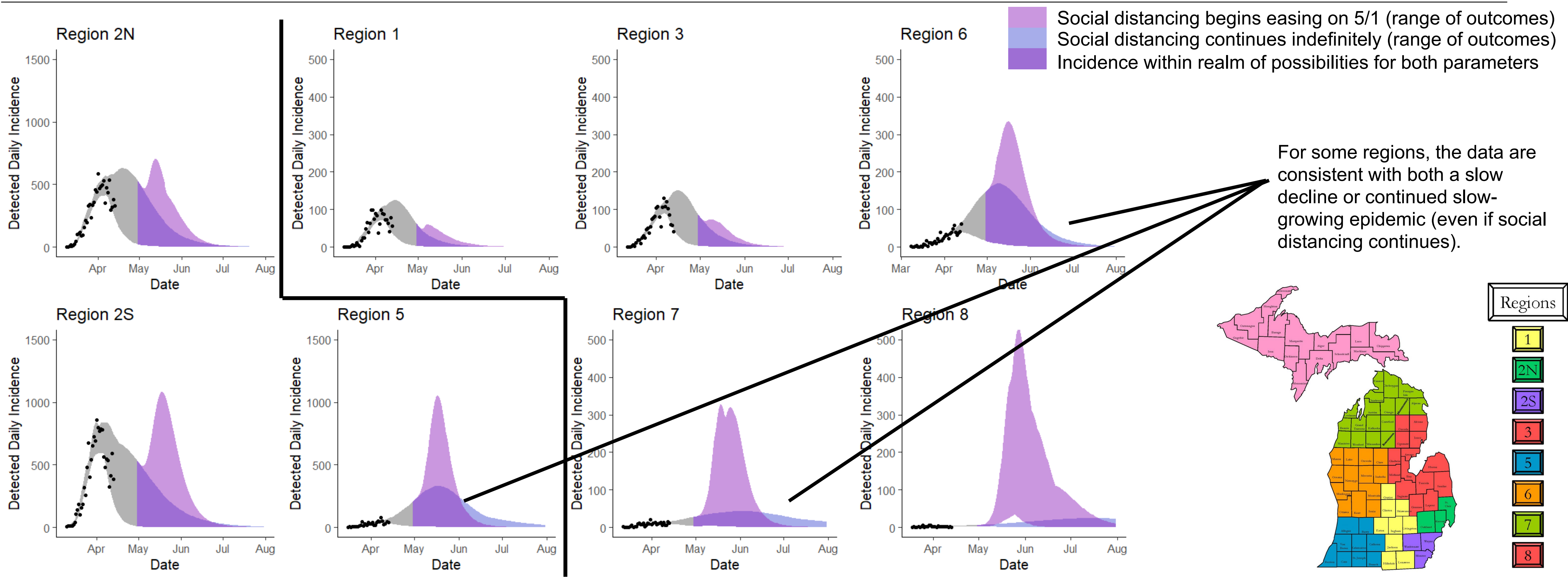
Projected daily new lab confirmed and probable cases, #



The social distancing scenarios range from no second peak, to a larger second peak than the first. This occurs because there are a wide range of possibilities for level of population immunity that is consistent with the data.

1. Model built by University of Michigan School of Public Health - M. Eisenberg and A. Brouwer

# Regional view: projections with and without social distancing ramp-down starting 5/1



These simulations apply the top 10% of best fitting simulations. The pink curve assumes a 2 week ramp-down of social distancing starting on May 1, assuming that there is no subsequent action taken to mitigate a potential second peak.

Some regions see a wider range of potential second peaks than others. This depends on how likely it is that a region has acquired significant population immunity. Those regions have the greatest uncertainty and thus a potential for an even higher second peak.