Supplement

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Empirical Estimates of β from the COVID–19 Trends and Impact Survey

2.7% Percentile, 97.5% Percentile, and Median By State

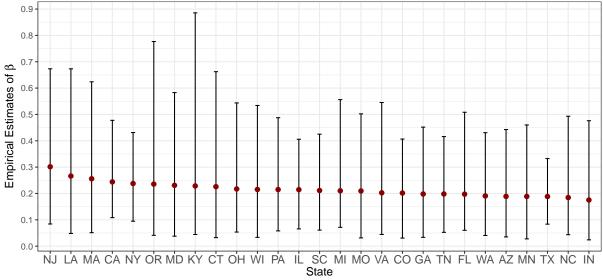


Figure 1: Since β represents the ratio of $\Pr(\text{test}_+|\text{untested}, S_0)$ to $\Pr(\text{test}_+|\text{tested})$, we estimate β from the COVID-19 Trends and Impact Survey as the ratio of the screening test positivity over the overall test positivity. Here, we consider the 2.5% and 97.5% percentiles and mean for each state. Most have a mean near 20.

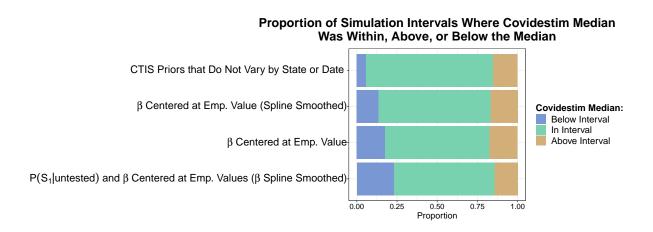


Figure 2: For each implementation, the proportions of simulation intervals where the Covidestim median was below, within, or above the interval are shown, across all states used for the implementation.

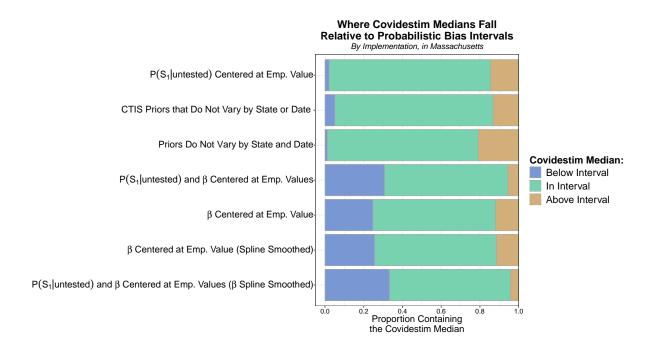


Figure 3: The proportions of simulation intervals where the Covidestim median was below, within, or above the intervals are shown, considering all counties except Dukes/Nantucket, where Covidestim estimates were not produced.

Full Set of Simulation Intervals by State

Estimated Infections by State CTIS Priors that Do Not Vary by State or Date Covidestim California Alabama Alaska Arizona Arkansas 2,000,000-1,500,000-1,000,000-500,000-0 10,000,000= 7,500,000= 5,000,000= 2,500,000= 0 1,500,00 750,000 1,000,000 500,000- 250,000-Colorado Delaware District of Columbia Connecticut Florida 1,500,00 6,000,000 1,000,000-4.000.000 500,000- 250,000-500,000 100,000 2,000,000 0 Georgia Hawaii Idaho Illinois Indiana 3.000.000 1,500,000 2,000,000 2 000 000 200,000 1,000,000-100,000 500,000 Kansas Kentucky Louisiana Maine Iowa 1,200,00 600,000 400,000 500,000 200.000 200.000 Maryland Massachusetts Michigan Minnesota Mississippi 1.500.000 1,000,000 1,000,000 1,000,000-**Estimated Infections** 500,000 500,000 500,000 New Hampshire Missouri Montana Nebraska Nevada 1,500,000 1,000,000 200,000 500.000 250,000-100.000 New Mexico North Carolina North Dakota New Jersey 400,000 2,000,000 200,000-1,000,000-Ohio Oklahoma Oregon Pennsylvania Rhode Island 3,000,00 3.000.000 300.00 1,000,000 1,000,000-100,000 South Carolina South Dakota Utah Tennessee Texas 1,500,000 200,000= 150,000= 100,000= 50,000= 0 = 1.500.000 1.000.000 500,000 -500,000 Washington Vermont Virginia West Virginia Wisconsin 400,000-300,000-200,000-100,000-1,500,000 1,000,000 500,000 500,000 Wyoming 150,000-

COVID-19 Trends and Impact Survey

50.000 -

County Results by Implementation

date