

COVID-19 Mortality Rate Trends in Countries and US States

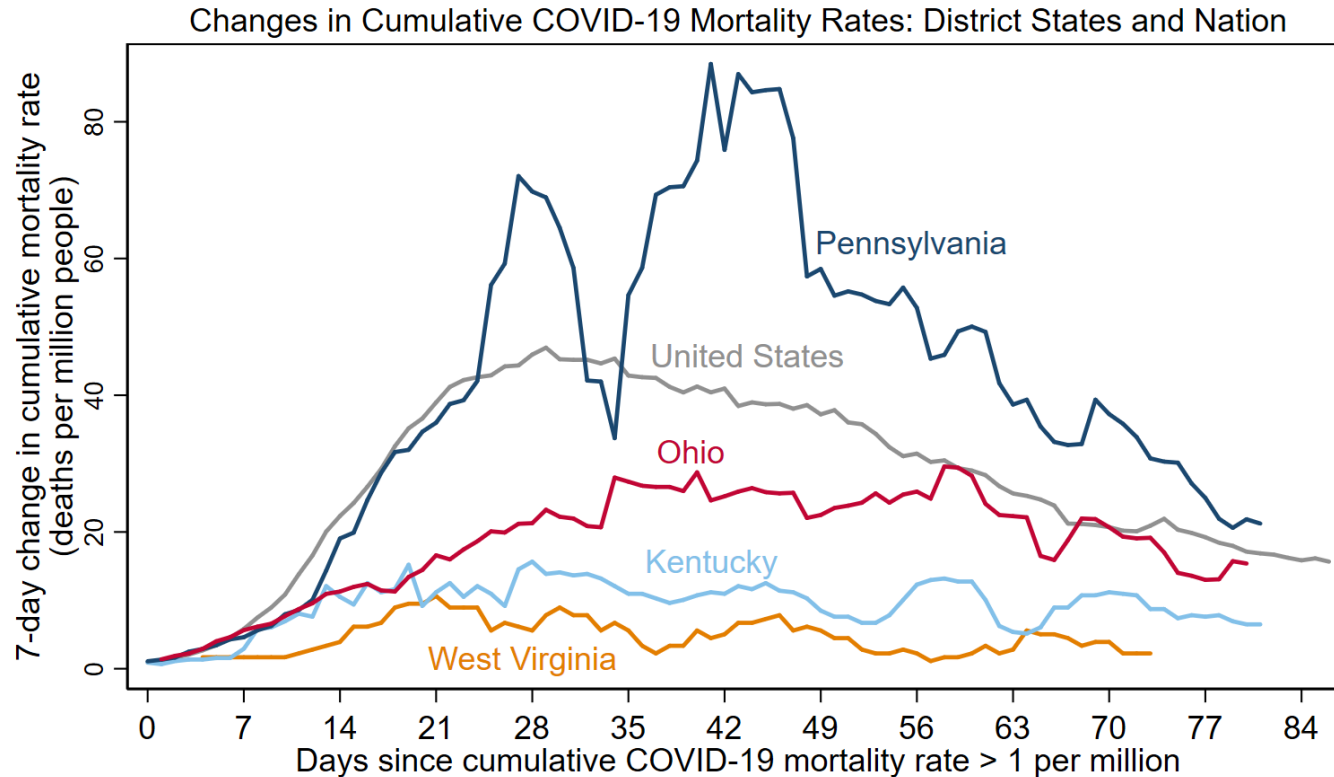
Joel Elvery

Updated June 15, 2020

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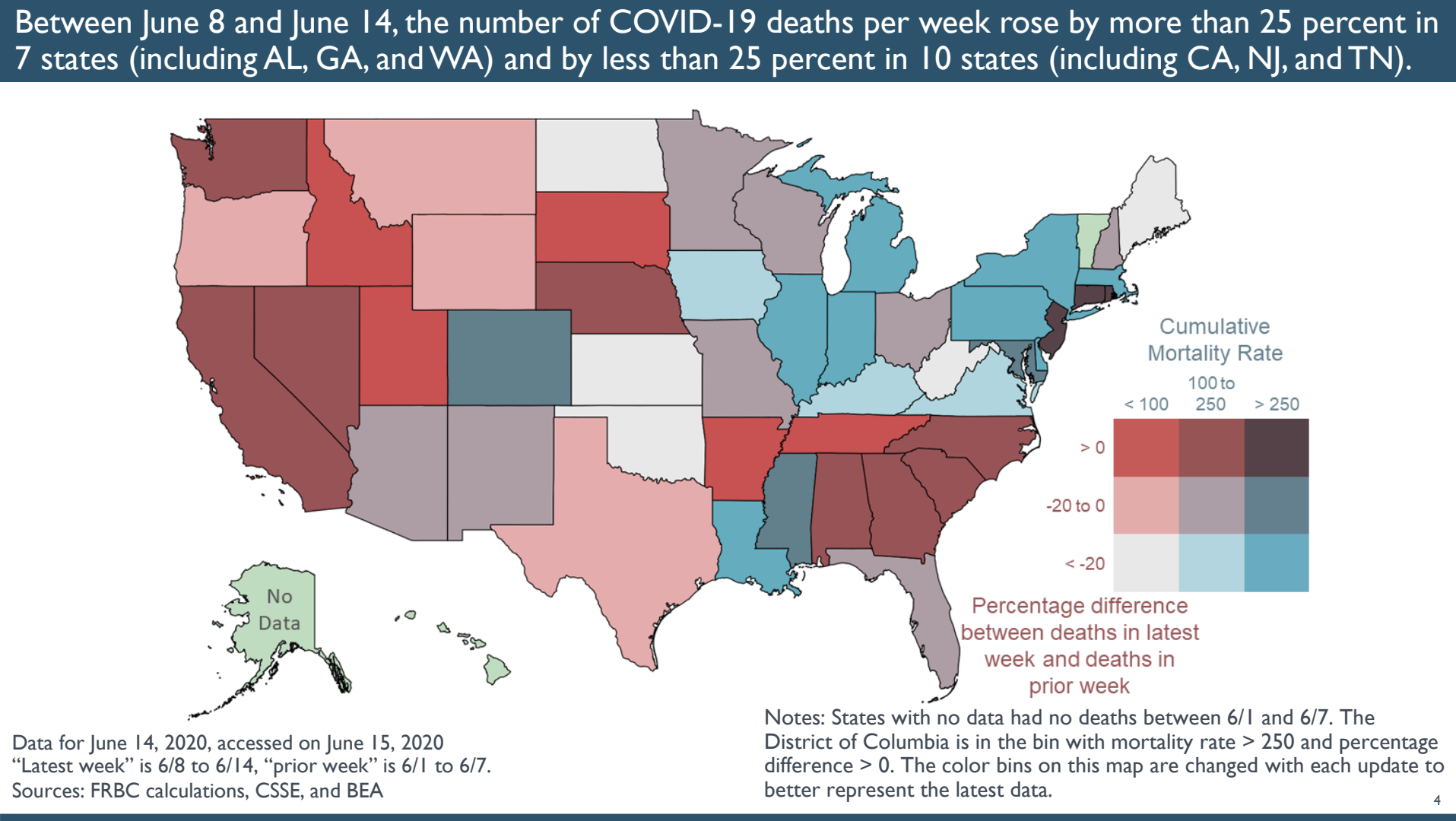
- The charts in this presentation use the same data sources as the charts in two April 2020 District Data Briefs. Please see these reports for additional details.
 - [Getting to Accuracy: Measuring COVID-19 by Mortality Rates and Percentage Changes](#)
 - [A Speeding Rate Starts to Slow: COVID-19 Mortality Rates by State](#)
- Since those reports were completed, additional evidence shows that COVID-19 deaths have been underreported, both in other countries and in the United States. The following charts present the latest the Center for Systems Science and Engineering at Johns Hopkins University (CSSE) data through June 14, with no attempt to further correct for underreporting.
 - The cumulative number of deaths in Spain was revised downward on May 25. I spread this revision between March 3 and May 24 by scaling down daily changes in the number of deaths.
- The charts have been modified from those in the reports to better convey the current status of the COVID-19 epidemic in the United States.
- All dates in this presentation refer to the year 2020.

In the week leading up to June 14, the population-adjusted number of COVID-19 deaths per week declined in all four Fourth District states and in the US as a whole.

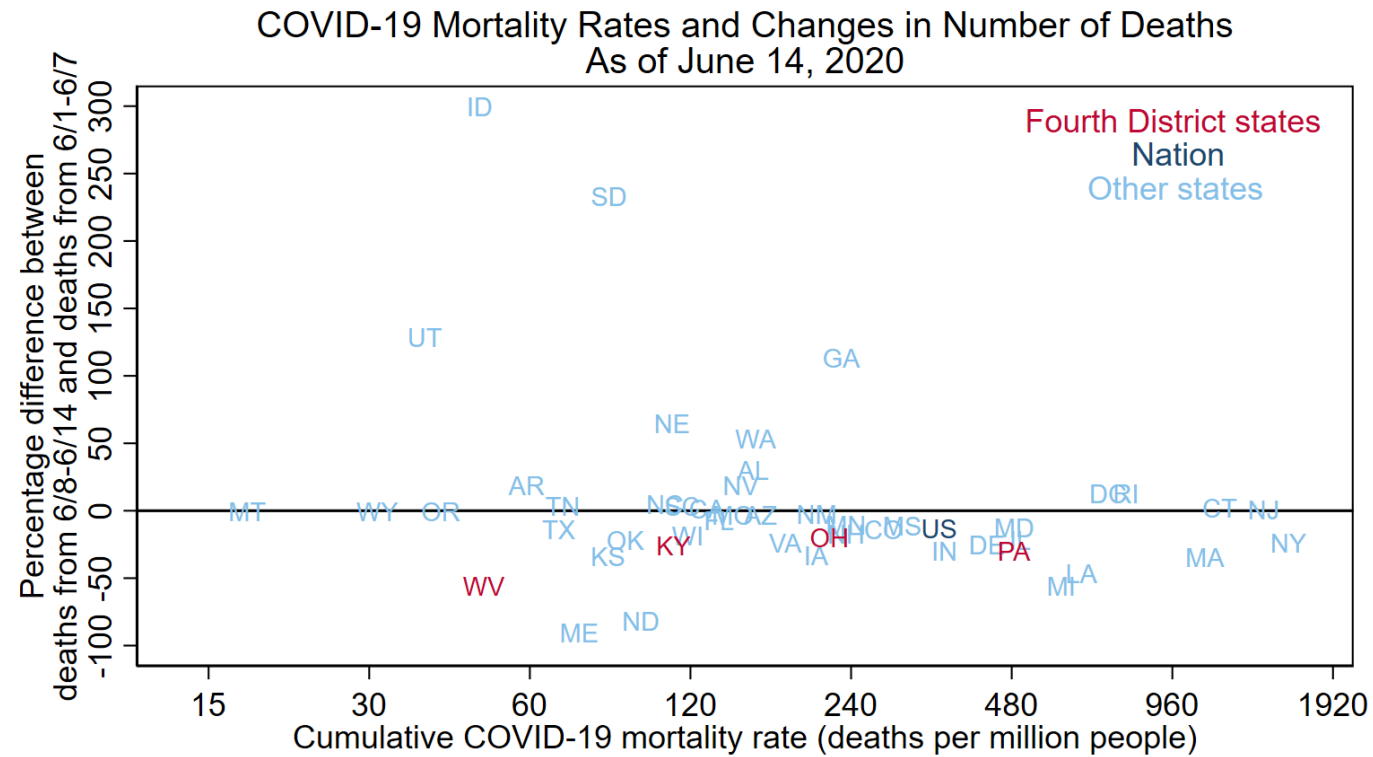


Note: Data through June 14, 2020.

Sources: FRBC calculations, The Center for Systems Science and Engineering at Johns Hopkins Univ., and Bureau of Economic Analysis.

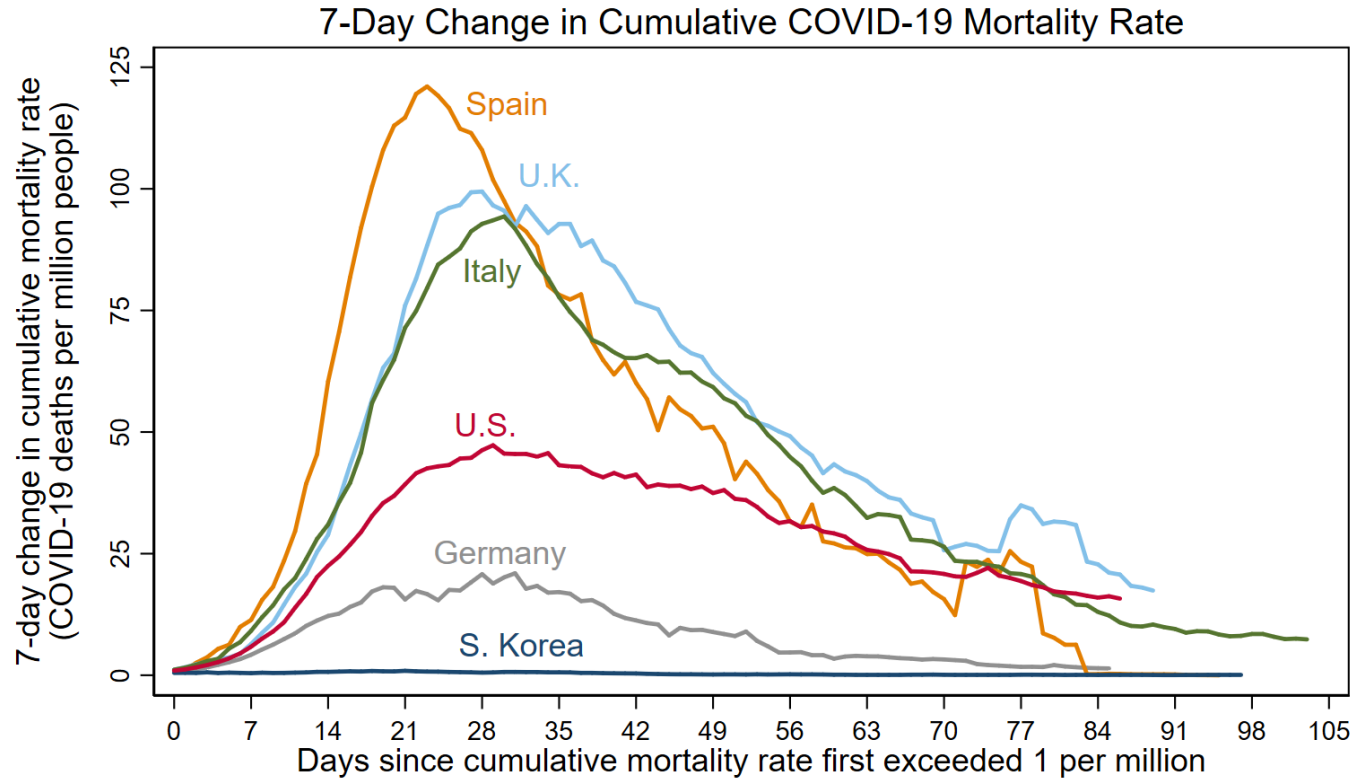


This chart gives similar information to the map, but it is more precise and includes the nation as a whole.



Notes: Horizontal axis has log scale. AK, HI, and VT excluded because they had no COVID-19 deaths from 6/1-6/7, 2020.
Sources: FRBC calculations, The Center for Systems Science and Engineering at Johns Hopkins Univ., and Bureau of Economic Analysis.

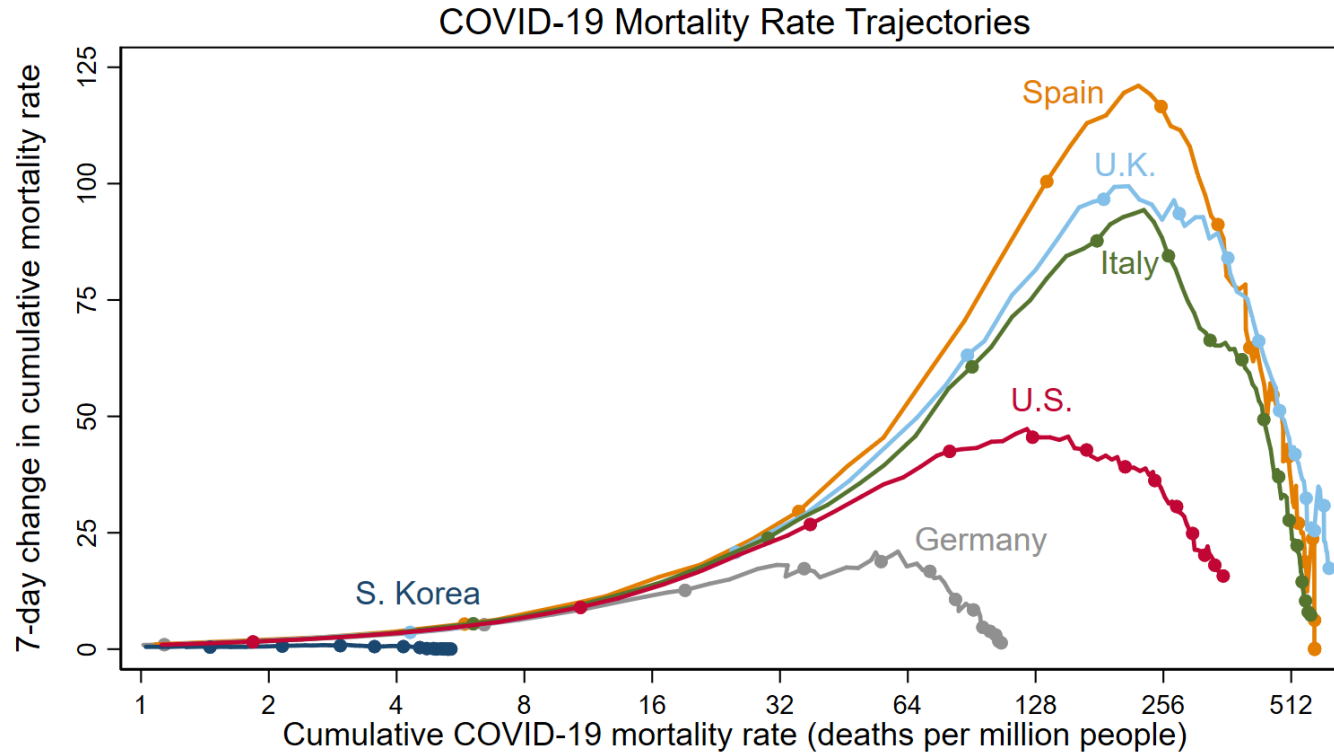
The epidemic curve of the US peaked at a lower weekly change in the cumulative mortality rate than the curves of Italy, Spain, and the UK. However, the decline from the peak has been relatively small in the US.



Notes: 3/22/2020 was first day US rate > 1. Data through 6/14/2020.

Sources: FRBC calculations, The Center for Systems Science and Engineering at Johns Hopkins Univ., and the World Bank

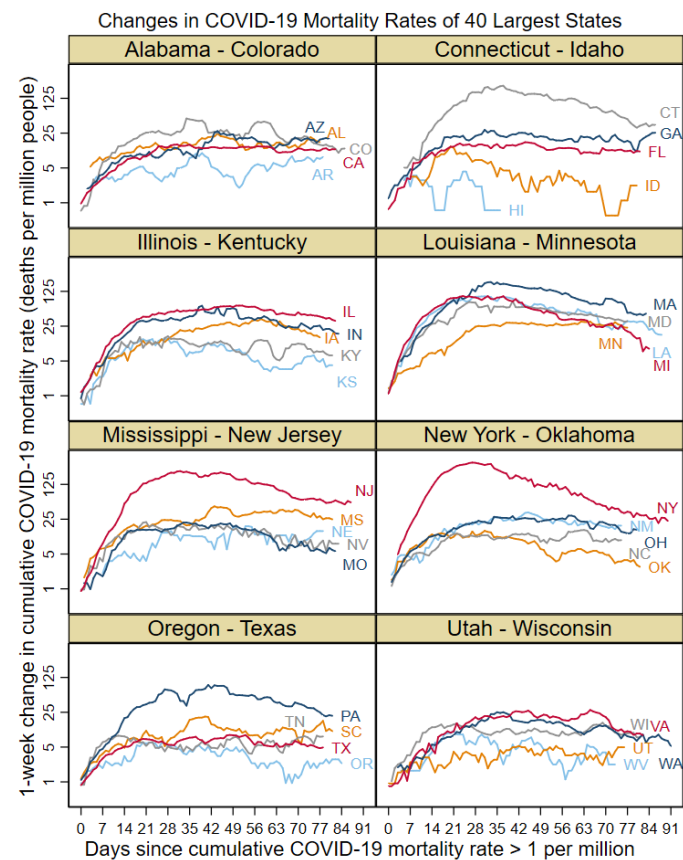
As of June 14, the COVID-19 mortality rate of the US is 351 deaths per million people. This is more than triple that of Germany and more than half those of Spain and UK.



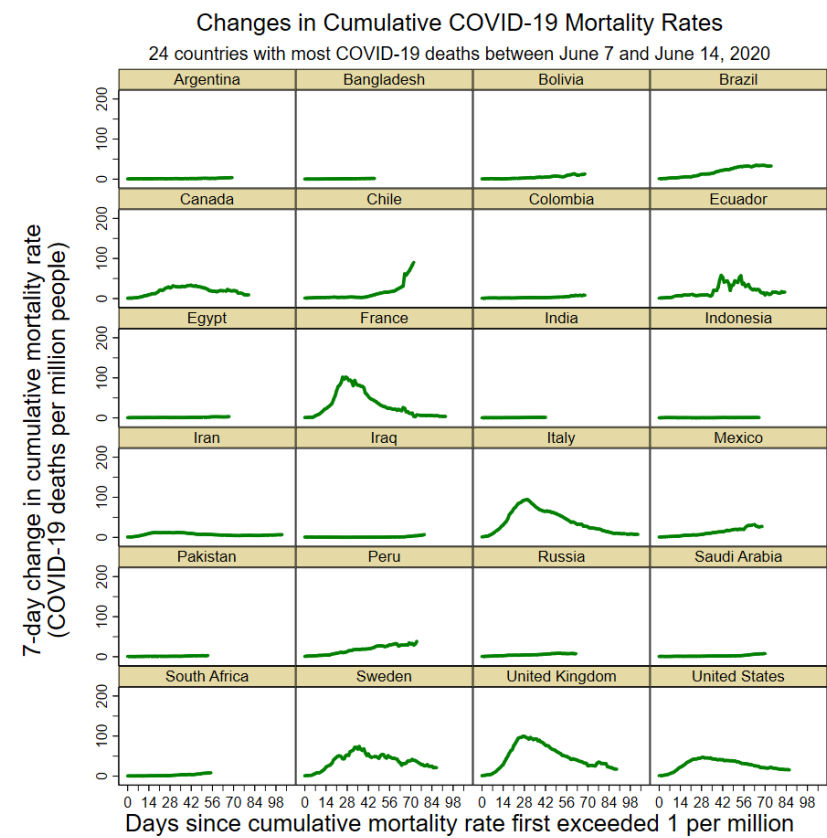
Notes: Horizontal axis has log scale. Excluding days when mortality rate < 1. Dots on Sundays to show time. Data through June 14, 2020.

Sources: FRBC calculations, The Center for Systems Science and Engineering at Johns Hopkins Univ., and the World Bank

These charts show the changes in COVID-19 mortality rates for the 40 largest US states (left) and the 24 countries with the highest number of COVID-19 deaths in the week leading up to June 14 (right).



Notes: Vertical axis uses a log scale. Number of days capped at 91. Data through June 14, 2020.
Sources: FRBC calculations, The Center for Systems Science and Engineering at Johns Hopkins Univ., and Bureau of Economic Analysis.



Notes: Data points excluded if cumulative mortality rate < 1. Data from 1/22-6/14/2020.
Sources: FRBC calculations, The Center for Systems Science and Engineering at Johns Hopkins Univ., and the World Bank