COVID-19 Mortality Rate Trends in Countries and US States

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Introduction

- 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
 - <u>A Speeding Rate Starts to Slow: COVID-19 Mortality Rates by State</u>
- 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 7, 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 7, the population-adjusted number of COVID-19 deaths per week rose in OH and WV and modestly declined in KY, PA, and the US.



Changes in Cumulative COVID-19 Mortality Rates: District States and Nation

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

Between June I and June 7, the number of COVID-19 deaths per week rose in 16 states, including AZ, LA, MI, and TN. Deaths per week continued to fall in some hard-hit states, such as CT, MD, NJ, and NY.



Data for June 7, 2020, accessed on June 8, 2020 "Latest week" is 6/1 to 6/7, "prior week" is 5/25 to 5/31. Sources: FRBC calculations, CSSE, and BEA

Notes: States with no data had no deaths between 5/25 and 5/31. The District of Columbia is in the bin with mortality rate > 250 and percentage difference below -30 percent. The color bins on this map are changed with each update to better represent the latest data.



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.



and the World Bank

7-Day Change in Cumulative COVID-19 Mortality Rate

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As of June 7, the COVID-19 mortality rate of the US is 338 deaths per million people. This is more than triple that of Germany and more than half those of Spain and UK.





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 7 (right).



Notes: Vertical axis uses a log scale. Number of days capped at 84. Data through June 7, 2020. Sources: FRBC calculations, The Center for Systems Science and Engineering at Johns Hopkins Univ, and Bureau of Economic Analysis.

