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
  - 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.
Between June 8 and June 14, the number of COVID-19 deaths per week rose by more than 25 percent in 7 states (including AL, GA, and WA) and by less than 25 percent in 10 states (including CA, NJ, and TN).

Notes: States with no data had no deaths between 6/1 and 6/7. The District of Columbia is in the bin with mortality rate > 250 and percentage difference > 0. The color bins on this map are changed with each update to better represent the latest data.

Data for June 14, 2020, accessed on June 15, 2020

“Latest week” is 6/8 to 6/14, “prior week” is 6/1 to 6/7.

Sources: FRBC calculations, CSSE, and BEA
This chart gives similar information to the map, but it is more precise and includes the nation as a whole.

COVID-19 Mortality Rates and Changes in Number of Deaths
As of June 14, 2020

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.
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).