Coronavirus Disease 2019 (COVID-19)

COVID-19 Forecasts: Deaths

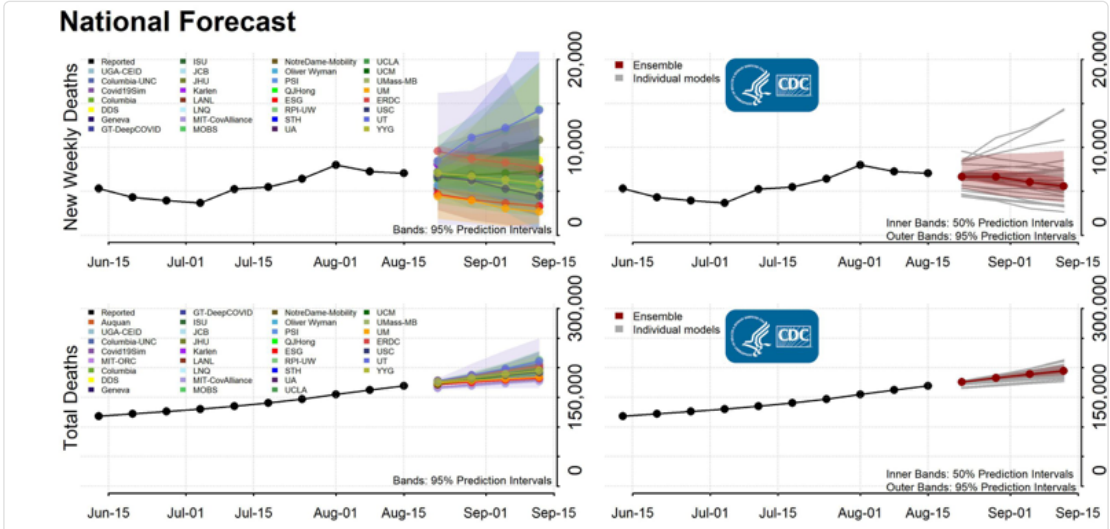
Updated Aug. 21, 2020 Print

Observed and forecasted new and total reported COVID-19 deaths as of August 17, 2020.

Interpretation of Forecasts of New and Total Deaths

- This week CDC received forecasts of national COVID-19 deaths over the next 4 weeks from 33 modeling groups. Of the 33 groups, 31 provided forecasts for both new and total deaths and two provided forecasts for total deaths only.
- This week's national ensemble forecast predicts that 3,700 to 9,600 new COVID-19 deaths will be reported during the week ending September 12 and that 187,000 to 205,000 total COVID-19 deaths will be reported by that date.
- State- and territory-level ensemble forecasts predict that the number of reported new deaths per week will likely increase over the next four weeks in Minnesota and may decrease in 13 jurisdictions. Those with the greatest likelihood of a decrease over the next four weeks include Arizona, Florida, Mississippi, and South Carolina.

National Forecast



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- The top row of the figure shows the number of new COVID-19 deaths reported in the United States each week from June 13 through August 15 and forecasted new deaths over the next four weeks, through September 12.
- The bottom row of the figure shows the number of total COVID-19 deaths in the United States each week from June 13 through August 15 and the forecasted number of total COVID-19 deaths over the next four weeks, through September 12.
- Models make various assumptions about the levels of social distancing and other interventions, which may not reflect recent changes in behavior.

State Forecasts

State-level forecasts figures show observed and forecasted state-level new and cumulative COVID-19 deaths in the US. Each state forecast uses a different scale, due to differences in the numbers of COVID-19 deaths occurring in each state.

Download state forecasts [29 pages][1]

Download forecast data [1 sheet]

Additional forecast data and information on forecast submission are available at the COVID-19 Forecasting Hub.

Forecast Assumptions

The forecasts make different assumptions about social distancing measures. Information about individual models is available here: https://github.com/cdcepi/COVID-19-Forecasts/blob/master/COVID-19_Forecast_Model_Descriptions.md.

Forecasts fall into one of two categories:

- These modeling groups make assumptions about how levels of social distancing will change in the future:
  - Columbia University (Model: Columbia)
  - Google and Harvard School of Public Health (Model: Google-HSPH)
  - Georgia Institute of Technology, Center for Health and Humanitarian Systems (Model: GT-CHHS)
  - John Burant (Model: JCB)
  - Johns Hopkins University, Infectious Disease Dynamics Lab (Model: JHU)
  - Notre Dame University (Model: NotreDame-FRED)
  - Predictive Science Inc. (Model: PSI)
  - University of California, Los Angeles (Model: UCLA)
  - Youyang Gu (COVID-Projections) (Model: YYG)

- These modeling groups assume that existing social distancing measures will continue through the projected four-week time period:
  - Auquan Data Science (Model: Auquan)
  - Carnegie Mellon University (Model: CMU)
  - Columbia University and University of North Carolina (Model: Columbia-UNC)
  - Covid-19 Simulator Consortium (Model: Covid19Sim)
  - Discrete Dynamical Systems (Model: DDS)
  - Georgia Institute of Technology, College of Computing (Model: GT-DeepCOVID)
  - Iowa State University (Model: ISU)
  - Karlen Working Group (Model: Karlen)
  - LockNQuay (Model: LNQ)
  - Los Alamos National Laboratory (Model: LANL)
  - Massachusetts Institute of Technology, COVID-19 Policy Alliance (Model: MIT-CovAlliance)
  - Massachusetts Institute of Technology, Operations Research Center (Model: MIT-ORC)
  - Northeastern University, Laboratory for the Modeling of Biological and Socio-technical Systems (Model: MOBS)
  - Notre Dame University (Model: NotreDame-Mobility)
  - Oliver Wyman (Model: Oliver Wyman)
  - Qi-Jun Hong (Model: QJHong)
  - Rensselaer Polytechnic Institute and University of Washington (Model: RPI-UW)
  - Robert Walraven (Model: ESG)
  - Steve Horstman (Model: STH)
  - US Army Engineer Research and Development Center (Model: ERDC)
  - University of Arizona (Model: UA)

- University of California, Merced (Model: UCM)
- University of Geneva/Swiss Data Science Center (one-week ahead forecasts only) (Model: Geneva)
- University of Georgia, Center for the Ecology of Infectious Disease (Model: UGA-CEID)
- University of Massachusetts, Amherst (Models: UMass-MB and Ensemble)
- University of Michigan (Model: UM)
- University of Southern California (Model: USC)
- University of Texas, Austin (Model: UT)

[1] The full range of the prediction intervals is not visible for all state plots. Please see the forecast data for the full range of state-specific prediction intervals.

Additional Resources:

Previous COVID-19 Forecasts: Deaths

FAQ: COVID-19 Data and Surveillance

CDC COVID Data Tracker

COVID-19 Mathematical Modeling

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Content source: National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases