Coronavirus Disease 2019 (COVID-19)

COVID-19 Forecasts: Deaths

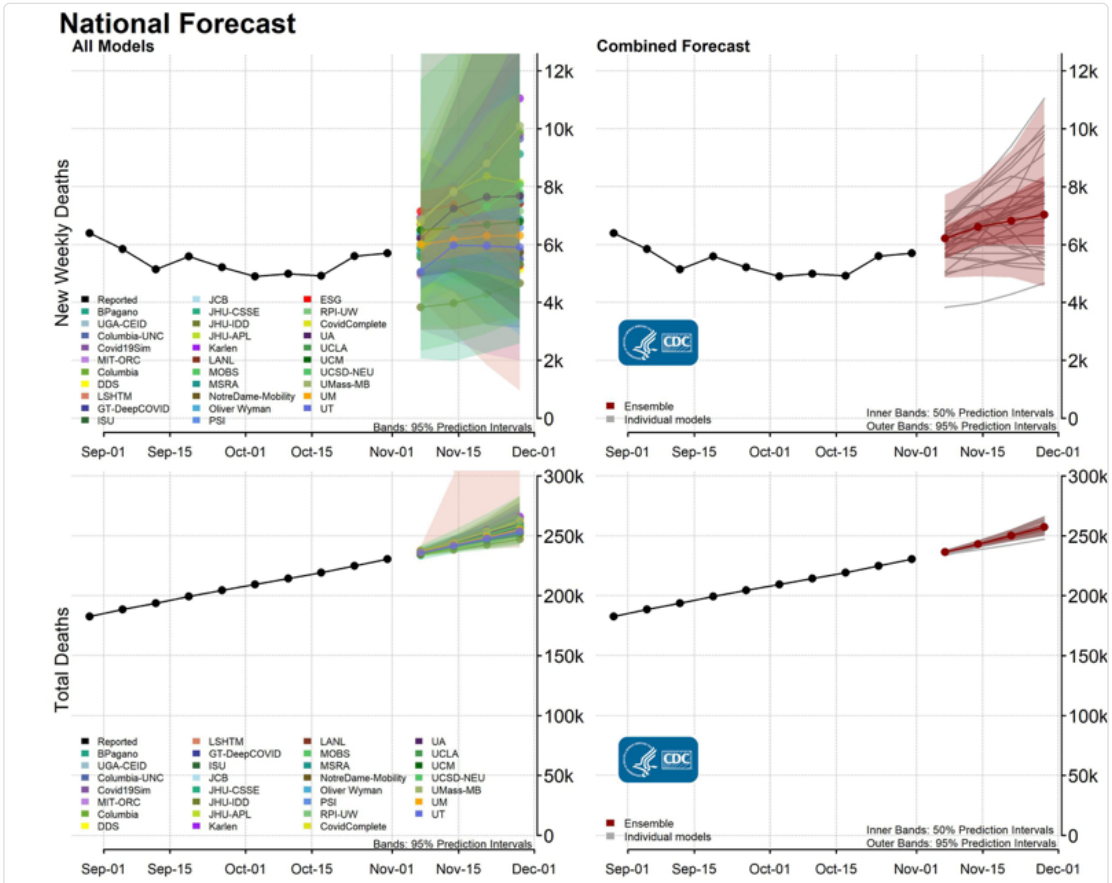
Updated Nov. 5, 2020 Print

Observed and forecasted new and total reported COVID-19 deaths as of November 2, 2020.

Interpretation of Forecasts of New and Total Deaths

- This week CDC received forecasts of COVID-19 deaths over the next 4 weeks from 36 modeling groups that were included in the ensemble forecast. Of the 36 groups, 33 provided forecasts for both new and total deaths, two groups forecasted total deaths only, and one forecasted new death only.
- This week's national ensemble forecast predicts that the number of newly reported COVID-19 deaths will likely increase over the next four weeks, with 4,600 to 11,000 new deaths likely to be reported in the week ending November 28, 2020. The national ensemble predicts that a total of 250,000 to 266,000 COVID-19 deaths will be reported by this date.
- The state- and territory-level ensemble forecasts predict that over the next 4 weeks, the number of newly reported deaths per week will likely increase in 15 jurisdictions, which are indicated in the forecast plots below. Trends in numbers of future reported deaths are uncertain or predicted to remain stable in the other states and territories.
- In previous weeks, all submitted forecasts were displayed, even if they did not include sufficient information on forecast uncertainty to be included in the ensemble. Forecasts are included in the ensemble and displayed on this page when they meet a set of submission and data quality requirements, further described here: https://github.com/reichlab/covid19-forecast-hub#ensemble-model .

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 August 29 through October 31 and forecasted new deaths over the next four weeks, through November 28.
- The bottom row of the figure shows the number of total COVID-19 deaths in the United States each week from August 29 through October 31 and the forecasted number of total COVID-19 deaths over the next four weeks, through November 28.
- Models make various assumptions about the levels of social distancing and other interventions, which may not reflect recent changes in behavior.

Download national forecast data [XLSX – 26 KB] [4 sheets]

State Forecasts

Plots of individual state forecasts, each state-level ensemble forecast and the underlying data can be downloaded below. Each state forecast figure uses a different scale, due to differences in the number of COVID-19 deaths between states.

Download state forecasts [PDF – 2 MB, 29 pages][1]

Download forecast data [CSV – 1 MB, 1 sheet]

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

Forecasts on COVID Data Tracker
View interactive visualizations of current and past cumulative and weekly COVID-19 death forecasts for the U.S. states and territories. Also, find maps and charts tracking cases, deaths, and trends of COVID-19 in the U.S.

Ensemble Forecast

An "ensemble" forecast combines each of the independently developed forecasts into one aggregate forecast to improve prediction over the next 4 weeks. Both national and state-level ensemble forecasts are developed for predicting new and total COVID-19 deaths reported each week for the next 4 weeks. Ensemble Forecasts of Coronavirus Disease 2019 (COVID-19) in the U.S. describes its accuracy in short-term predictions and its usefulness as a real-time tool to help guide policy and planning.

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. The list below includes all models that submitted a national- or state-level forecast.

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)
  - Covid-19 Simulator Consortium (Model: Covid19Sim)
  - Google and Harvard School of Public Health (Model: Google-HSPH)
  - John Burant (Model: JCB)
  - Johns Hopkins University, Infectious Disease Dynamics Lab (Model: JHU-IDD)
  - Notre Dame University (Model: NotreDame-FRED)
  - Predictive Science Inc. (Model: PSI)
  - University of California, Los Angeles (Model: UCLA)

- These modeling groups assume that existing social distancing measures will continue through the projected four-week time period:
  - Bob Pagano (Model: BPagano)
  - Carnegie Mellon Delphi Group (Model: CMU)
  - Columbia University and University of North Carolina (Model: Columbia-UNC)
  - Discrete Dynamical Systems (Model: DDS)

- Georgia Institute of Technology, College of Computing (Model: GT-DeepCOVID)
- Iowa State University (Model: ISU)
- Johns Hopkins University Applied Physics Lab (Model: JHU-APL)
- Johns Hopkins University, Center for Systems Science and Engineering (Model: JHU-CSSE)
- Karlen Working Group (Model: Karlen)
- London School of Hygiene and Tropical Medicine (Model: LSHTM)
- Los Alamos National Laboratory (Model: LANL)
- Massachusetts Institute of Technology, Operations Research Center (Model: MIT-ORC)
- Microsoft Research, Asia (Model: MSRA)
- 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)
- Rensselaer Polytechnic Institute and University of Washington (Model: RPI-UW)
- Robert Walraven (Model: ESG)
- Steve McConnell (Model: CovidComplete)
- University of Arizona (Model: UA)
- University of California, Merced (Model: UCM)
- University of California, San Diego and Northeastern University (Model: UCSD-NEU)
- University of California, Santa Barbara (Model: UCSB)
- 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 Texas, Austin (Model: UT)
- Walmart Labs Data Science Team (Model: Walmart)

[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

Ensemble Forecasts of Coronavirus Disease 2019 (COVID-19) in the U.S.

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