COVID-19 Forecasts: Deaths

Updated Aug. 17, 2022

Reported and forecasted new and total COVID-19 deaths as of August 15, 2022.

Interpretation of Forecasts of New and Total Deaths

- This week's national ensemble predicts that the number of newly reported COVID-19 deaths will remain stable or have an uncertain trend over the next 4 weeks, with 1,800 to 5,000 new deaths likely reported in the week ending September 10, 2022. The national ensemble predicts that a total of 1,046,000 to 1,055,000 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 remain stable or have an uncertain trend in all jurisdictions.
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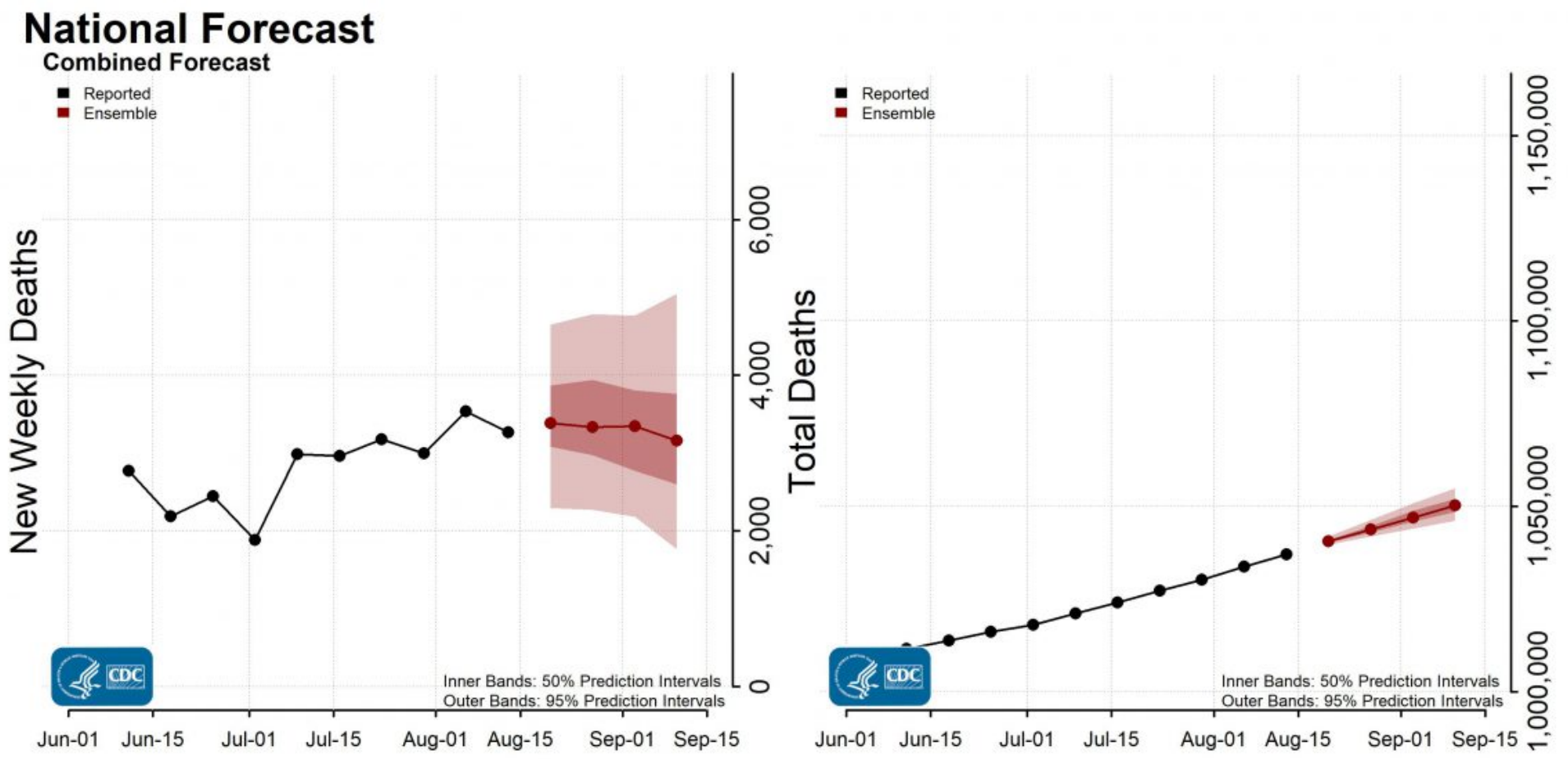
- Ensemble forecasts combine diverse independent team forecasts into one forecast. While they have been among the most reliable forecasts in performance over time, even the ensemble forecasts have not reliably predicted rapid changes in the trends of reported cases, hospitalizations, and deaths. They should not be relied upon for making decisions about the possibility or timing of rapid changes in trends.

National Forecast



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- The figures show the number of new (left) and total (right) COVID-19 deaths reported in the United States each week from June 11 through August 13 and forecasted over the next 4 weeks, through September 10.

- This week, 15 modeling groups contributed a forecast that was eligible for inclusion in the new or total deaths ensemble forecasts for at least one jurisdiction.
- Models make various assumptions about the levels of social distancing and other interventions, which may not reflect recent changes in behavior. See model descriptions below for details on the assumptions and methods used to produce the forecasts.

Download national forecast data [XLS – 14 KB]

State Forecasts

State-level forecasts show the predicted number of new COVID-19 deaths for the next 4 weeks by state. Each state forecast figure uses a different scale due to differences in the number of COVID-19 deaths between states and only forecasts meeting a set of ensemble inclusion criteria are shown. Further details are available here: https://covid19forecasthub.org/doc/ensemble/ . Plots of the state-level ensemble forecast and the underlying data can be downloaded below.

Download state forecasts [PDF – 1 MB]

Download forecast data [CSV – 429 KB]

Additional forecast data and information about submitting forecasts 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.

Forecast Inclusion, Evaluation, and Assumptions

Forecasts are listed when they meet a set of submission and data quality requirements and a subset are included in the ensemble. Further details are available here: https://covid19forecasthub.org/doc/ensemble .

Ensemble and specific team forecast performance is evaluated using a variety of metrics, including the assessment of prediction interval coverage. This assessment is available at https://delphi.cmu.edu/forecast-eval/ .

The forecasts make different assumptions about social distancing measures. Additional individual model details are available here: https://github.com/cdcepi/COVID-19-Forecasts/blob/master/COVID-19_Forecast_Model_Descriptions.md. Details on the ensemble's accuracy in short-term predictions and its usefulness as a real-time tool to help guide policy and planning can be found here: Ensemble Forecasts of Coronavirus Disease 2019 (COVID-19) in the U.S.

Intervention assumptions fall into multiple categories:

- These modeling groups make assumptions about how levels of social distancing will change in the future:
  - Columbia University (Model: Columbia)
  - Predictive Science Inc. (Model: PSI)

- These modeling groups assume that existing social distancing measures will continue through the projected 4-week time period:
  - Bob Pagano (Model: BPagano)
  - Georgia Institute of Technology, College of Computing (Model: GT-DeepCOVID)
  - Johns Hopkins University Applied Physics Lab (Model: JHU-APL)

- Johns Hopkins University, Infectious Disease Dynamics Lab (Model: JHU-IDD)
- Karlen Working Group (Model: Karlen)
- Massachusetts Institute of Technology, Cassandra (Model: MIT-Cassandra)
- Massachusetts Institute of Technology, Institute for Data, Systems, and Society (Model: MIT-ISOLAT)
- Microsoft AI (Model: Microsoft)
- Northeastern University, Laboratory for the Modeling of Biological and Socio-technical Systems (Model: MOBS)
- Qi-Jun Hong (Model: QJHong)
- Robert Walraven (Model: ESG)
- University of California, San Diego and Northeastern University (Model: UCSD-NEU)
- University of Southern California (Model: USC)

[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 – 2022 | 2021 | 2020

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.

Evaluation of Individual and Ensemble Probabilistic Forecasts of COVID-19 Mortality in the U.S. | medRxiv

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