



COVID-19

COVID-19 Forecasts: Deaths

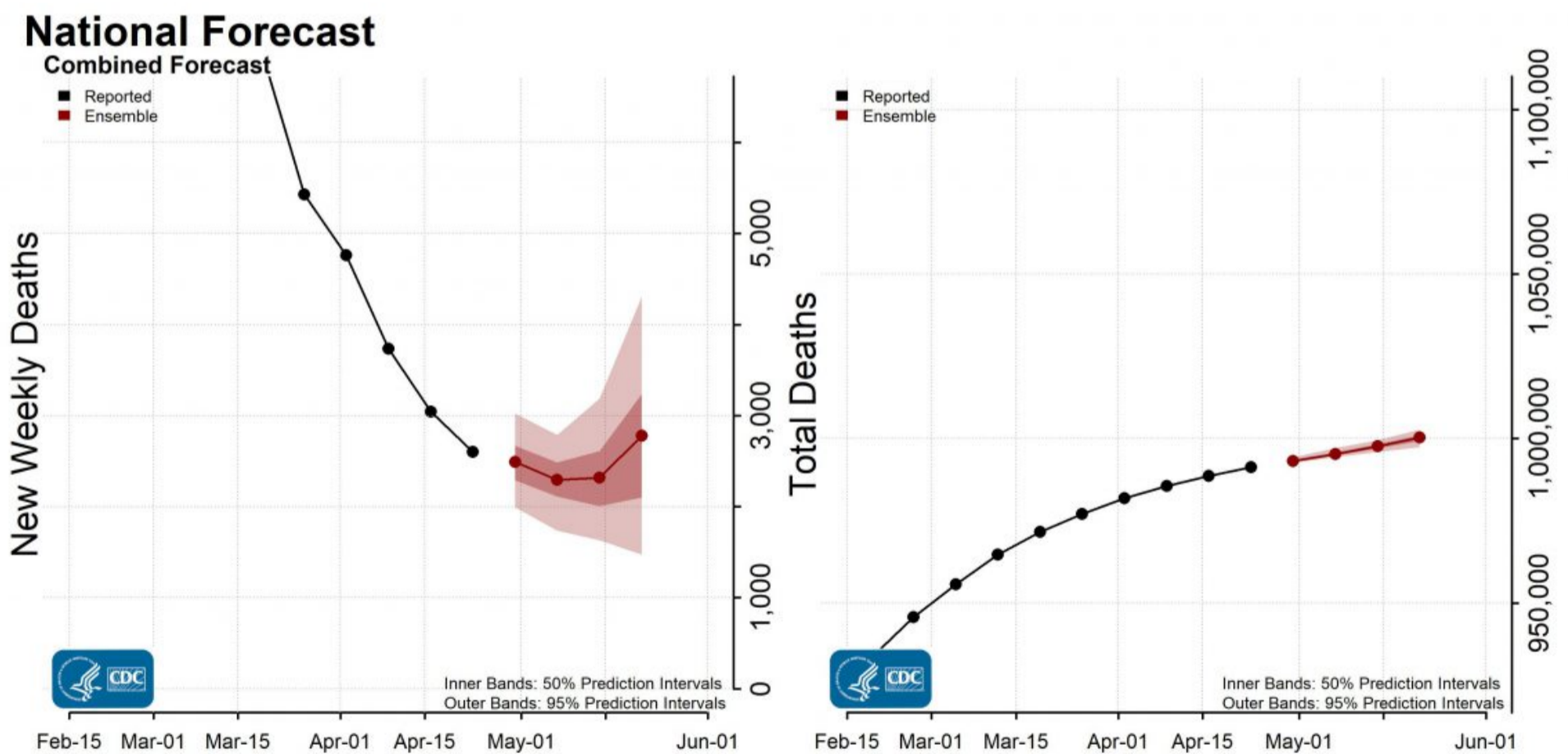
Updated Apr. 27, 2022

Reported and forecasted new and total COVID-19 deaths as of April 25, 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 1,500 to 4,300 new deaths likely reported in the week ending May 21, 2022. The national ensemble predicts that a total of 997,000 to 1,003,000 COVID-19 deaths will be reported by this date.
- The state- and territory-level ensemble forecasts predict that over the next 4 weeks, the trends in numbers of future reported deaths are uncertain or predicted to remain stable in all states and territories.
- 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 (top row) and total (bottom row) COVID-19 deaths reported in the United States each week from February 19 through April 23 and forecasted over the next 4 weeks, through May 21.
- This week, 22 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

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 – 9 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 – 642 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)
 - [Massachusetts Institute of Technology, Operations Research Center](#)  (Model: MIT-ORC)
 - [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 4-week time period:
 - [Alpert](#)  (Model: Alpert)
 - [Bob Pagano](#)  (Model: BPagano)
 - [Georgia Institute of Technology, College of Computing](#)  (Model: GT-DeepCOVID)
 - [Hong Kong University of Science and Technology](#)  (Model: DNN)
 - [Johns Hopkins University Applied Physics Lab](#)  (Model: JHU APPL)

- [Johns Hopkins University Applied Physics Lab](#)  (Model: JHU-AFL)
- [Johns Hopkins University, Infectious Disease Dynamics Lab](#)  (Model: JHU-IDDD)
- [Karlen Working Group](#)  (Model: Karlen)
- [Lehigh University Computational Uncertainty Lab](#)  (Model: LUcompUncertLab-VAR_3streams)
- [Masaryk University](#)  (Model: Masaryk)
- [Massachusetts Institute of Technology, Cassandra](#)  (Model: MIT-Cassandra)
- [Massachusetts Institute of Technology, Institute for Data, Systems, and Society](#)  (Model: MIT-ISOLAT)
- [Massachusetts Institute of Technology, Laboratory of Computational Physiology](#)  (Model: MIT-LCP)
- [Northeastern University, Laboratory for the Modeling of Biological and Socio-technical Systems](#)  (Model: MOBS)
- [Qi-Jun Hong](#)  (Model: QJHong)
- [Robert Walraven](#)  (Model: ESG)
- [Steve McConnell](#)  (Model: CovidComplete)
- [University of Georgia, Center for the Ecology of Infectious Disease](#)  (Model: UGA-CEID)
- [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](#)

[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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