



COVID-19

COVID-19 Forecasts: Hospitalizations

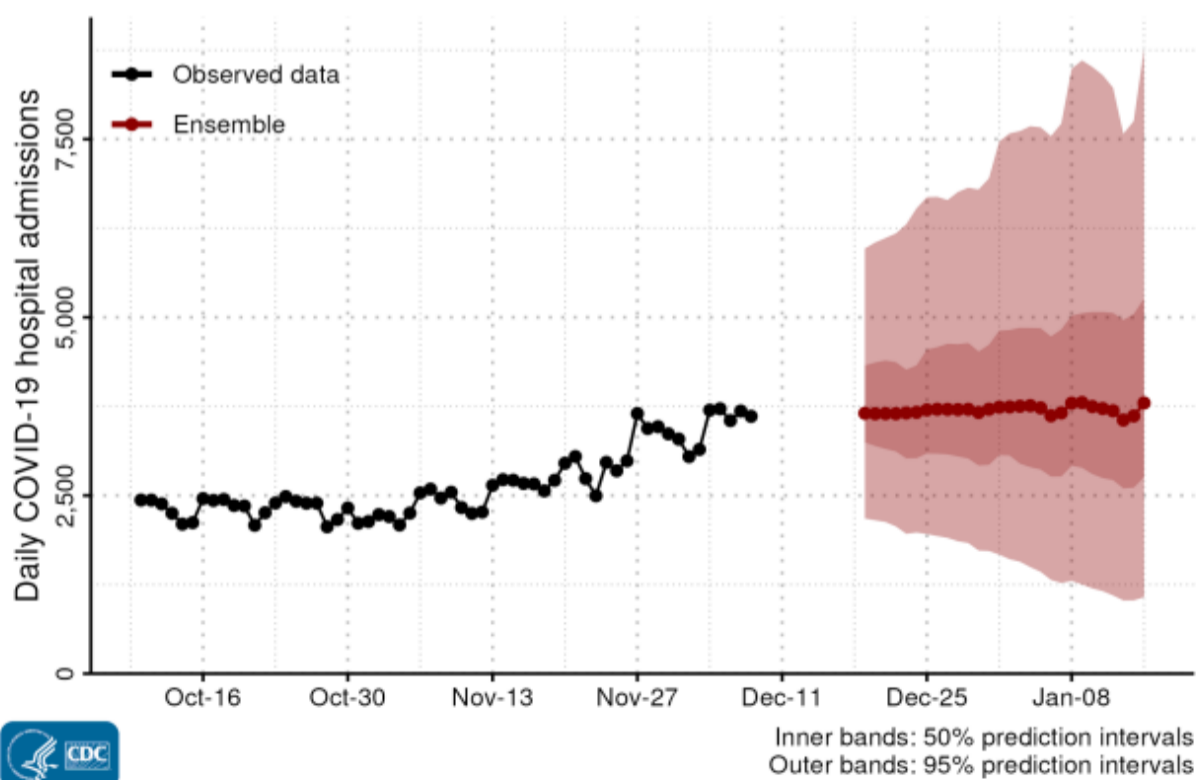
Updated Dec. 19, 2023

Forecasted daily COVID-19 hospital admissions as of December 18, 2023

Interpretation of Forecasts of New Hospitalizations

- This week's national ensemble predicts that the number of daily COVID-19 hospital admissions will remain stable or have an uncertain trend, with 1,100 to 8,800 daily COVID-19 hospital admissions likely reported on January 15.
- The state- and territory-level ensemble forecasts predict that over the next four weeks, trends in numbers of future hospitalizations 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 Forecasts



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- The figure shows the number of daily COVID-19 hospital admissions reported in the United States each day from October 10 through December 8 and forecasted daily COVID-19 hospital admissions over the next four weeks, through January 15.
- This week, ensemble forecasts of daily COVID-19 hospital admissions included forecasts from 10 modeling groups, each of which contributed a forecast 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](#)  [CSV – 6 KB]


State Forecasts

State-level forecasts show the predicted number of daily COVID-19 hospital admissions for the next four weeks by state. Each state forecast figure uses a different scale due to differences in the number of daily COVID-19 hospital admissions 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 forecasts and the underlying data can be downloaded below.


[Download state forecasts](#)  [PDF – 2 MB]

[Download state forecast data](#)  [CSV – 3 MB]

Additional forecast data and information about submitting forecasts are available at the [COVID-19 Forecast Hub](#) .

Forecast Inclusion, Evaluation, and Assumptions

The teams with forecasts included in the ensembles are displayed below. Forecasts are included when they meet a set of submission and data quality requirements, further described at the [COVID-19 Forecast Hub](#) .

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

Reported hospitalizations can vary due to variable staffing and inconsistent reporting patterns within the week. Thus, daily variations in the reported values and the forecasts may not fully represent the true number of hospitalizations in each jurisdiction on a specific day.

Contributing Teams

Individual model details are available here: <https://covid19forecasthub.org/community/> .

- CEPH Lab at Indiana University (Model: CEPH)
- Carnegie Mellon Delphi Group (Model: CMU)
- Masaryk University (Model: Masaryk)
- Northeastern University, Laboratory for the Modeling of Biological and Sociotechnical Systems (Model: MOBS)
- Predictive Sciences Inc. (Model: PSI-DICE)
- Srivastava Group (Model: SGroup-RF)
- University of Massachusetts, Amherst (Model: UMass-GBQ)
- University of Massachusetts, Amherst (Model: UMass-Sarix)
- University of Massachusetts, Amherst (Model: UMass-TE)
- University of Texas, Austin (Model: UT)

Additional Resources

[Previous COVID-19 Forecasts: Hospitalizations – 2023](#)

[FAQ: COVID-19 Data and Surveillance](#)

CDC COVID Data Tracker

COVID-19 Mathematical Modeling

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