Hospital Forecasts

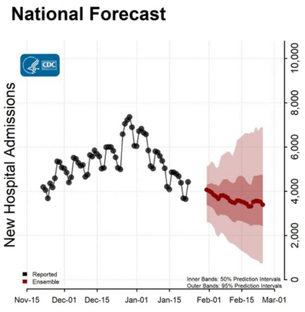
Updated Feb. 2, 2023 Español | Other Languages Print

Reported and forecasted new COVID-19 hospital admissions as of January 30, 2023.

Interpretation of Forecasts of New Hospitalizations

- This week's national ensemble predicts that the number of new daily confirmed COVID-19 hospital admissions will remain stable or have an uncertain trend with 700 to 6,900 new confirmed COVID-19 hospital admissions likely reported on February 24, 2023.
- The state- and territory-level ensemble forecasts predict that over the next 4 weeks, the number of daily confirmed COVID-19 hospital admissions will likely decrease in 10 jurisdictions, which are indicated in the forecast plots below. Trends in numbers of future reported hospital admissions are uncertain or predicted to remain stable in the other 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



Download full-sized image

- The figure shows the number of new confirmed COVID-19 hospital admissions reported in the United States each day from November 22 through January 23 and forecasted new COVID-19 hospital admissions per day over the next 4 weeks, through February 24.
- This week, ensemble forecasts of new reported COVID-19 hospital admissions included forecasts from 15 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 [XLS – 13 KB]

State Forecasts

State-level forecasts show the predicted number of new COVID-19 hospital admissions per day for the next 4 weeks by state. Each state forecast figure uses a different scale due to differences in the number of new COVID-19 hospital admissions per day 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 all forecast data [CSV – 1 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 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 .

Reported daily new hospital admissions can vary due to variable staffing and inconsistent reporting patterns within the week. Thus, daily variations in the reported numbers and the forecasts may not fully represent the true number of confirmed COVID-19 hospital admissions in each jurisdiction on a specific day.

Contributing Teams

Individual model details are available here: https://github.com/cdcepi/COVID-19-Forecasts/blob/master/COVID-19_Forecast_Model_Descriptions.md .

- Columbia University (Model: Columbia)
- Bob Pagano (Model: BPagano)
- Carnegie Mellon Delphi Group (Model: CMU)
- University of Colorado Boulder (Model:CUBoulder)
- Georgia Institute of Technology, College of Computing (Model: GT-DeepCOVID)
- Karlen Working Group (Model: Karlen)
- Masaryk University (Model: Masaryk)
- Northeastern University, Laboratory for the Modeling of Biological and Socio-technical Systems (Model: MOBS)
- Predictive Science Inc. (Model: PSI-DICE)
- University of Massachusetts, Amherst (Model:UMass-Sarix)
- University of Massachusetts, Amherst (Model: UMass-TE)
- University of Southern California (Model: USC)
- University of Texas, Austin (Model: UT)
- University of Massachusetts, Amherst (Model: UMass-GBQ)
- The University of Virginia (Model: UVA)

Additional Resources

Previous COVID-19 Forecasts: Hospitalizations – 2023 | 2022 | 2021 | 2020

FAQ: COVID-19 Data and Surveillance

CDC COVID Data Tracker

COVID-19 Mathematical Modeling