

# COVID-19 (Coronavirus Disease)


CASES ARE RISING.  
**ACT NOW!**



## COVID-19 Forecasts: Hospitalizations

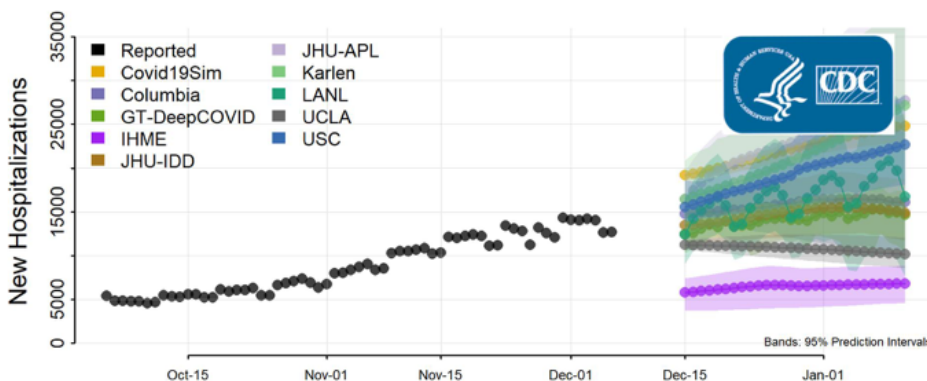
Updated Dec. 15, 2020 [Print](#)

### Interpretation of Forecasts of New Hospitalizations

- This week, CDC received forecasts of daily, new reported COVID-19 hospital admissions over the next 4 weeks from 11 modeling groups.
- On the national level, the forecasts estimate that 6,800 to 28,000 new COVID-19 hospital admissions will be reported January 11, 2021.
- Reported hospital use data have recently been made available on [HealthData.gov](https://healthdata.gov) , with daily new confirmed COVID-19 hospital admissions reported for each state. The forecast graphs presented here now include both the reported data and the forecasts.
- State-level forecasts also show a high degree of variability, which results from multiple factors. Hospital admissions forecasts use different sources of data for COVID-19 cases or deaths, with different limitations, and make different assumptions about social distancing.

### National Forecasts

#### National Forecast



- The figure shows the number of new confirmed COVID-19 hospital admissions reported nationally in the United States each day from October 5, 2020 to December 6, 2020 and the predicted number of new COVID-19 hospital admissions per day for

the next 4 weeks, through January 11, 2021.

- The forecasts make different assumptions about hospitalization rates and levels of social distancing and other interventions and use different methods to estimate the number of new hospital admissions.


[Download national forecast data](#)  [CSV – 1 sheet]

## 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 uses a different scale, due to differences in the number of new COVID-19 hospital admissions per day in each state.

[Download state forecasts](#)  [PDF – 8 pages] <sup>1</sup>












[Download all forecast data](#)  [CSV – 1 sheet]

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












## Forecast Assumptions


The forecasts make different assumptions about social distancing measures and use different methods and data sets to estimate the number of new hospital admissions. Additional individual models details are available here; [https://github.com/cdcepi/COVID-19-Forecasts/blob/master/COVID-19\\_Forecast\\_Model\\_Descriptions.md](https://github.com/cdcepi/COVID-19-Forecasts/blob/master/COVID-19_Forecast_Model_Descriptions.md) .

Social distancing is incorporated into the forecasts in two different ways:

- 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)
  - [Johns Hopkins University, Infectious Disease Dynamics Lab](#)  (Model: JHU-IDD)
  - [Institute of Health Metrics and Evaluation](#)  (Model: IHME)
  - [University of California, Los Angeles](#)  (Model: UCLA )
- These modeling groups assume that existing social distancing measures in each jurisdiction will continue through the projected 4-week time period:
  - [Georgia Institute of Technology, College of Computing](#),  (Model: GT-DeepCOVID)
  - [Google and Harvard School of Public Health](#)  (Model: Google-HSPH)
  - [Johns Hopkins University, Applied Physics Lab](#)  (Model: JHU-APL)
  - [Karlen Working Group](#)  (Model: Karlen)
  - [Los Alamos National Laboratory](#)  (Model: LANL)
  - [University of Southern California](#)  (Model: USC)

The rate of new hospital admissions is estimated using one of four approaches:

- These modeling groups assume that a certain fraction of infected people will be hospitalized:
  - [Columbia University](#) 
  - [Covid-19 Simulator Consortium](#) 
  - [Google and Harvard School of Public Health](#) 
  - [Johns Hopkins University, Applied Physics Lab](#) 
  - [Johns Hopkins University, Infectious Disease Dynamics Lab](#) 
  - [Los Alamos National Laboratory](#) 
  - [University of California, Los Angeles](#) 
  - [University of Southern California](#) 
- The [Georgia Institute of Technology, College of Computing](#),  uses COVID-19 hospitalization data reported by some jurisdictions to forecast future hospitalizations.
- The [Institute of Health Metrics and Evaluation](#)  estimates numbers of new hospitalizations based on numbers of forecasted deaths.
- The [Karlen Working Group](#)  uses the rate of reported infections to estimate the number of new hospitalizations in a given jurisdiction, unless the rates of reported infections and hospitalizations differ. In that case, the rate of reported hospitalizations is used to forecast new hospitalizations.

Additional information on use of HHS reported hospital admissions for COVID-19 forecasts is available here: <https://github.com/reichlab/covid19-forecast-hub/blob/master/data-processed/README.md#hospitalizations> .

<sup>1</sup> 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: Hospitalizations](#)

---

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

---

[CDC COVID Data Tracker](#)

---

[COVID-19 Mathematical Modeling](#)

Last Updated Dec. 15, 2020

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