Centers for Disease Control and Prevention

Influenza (Flu)

Forecasts of Flu Hospital Admissions

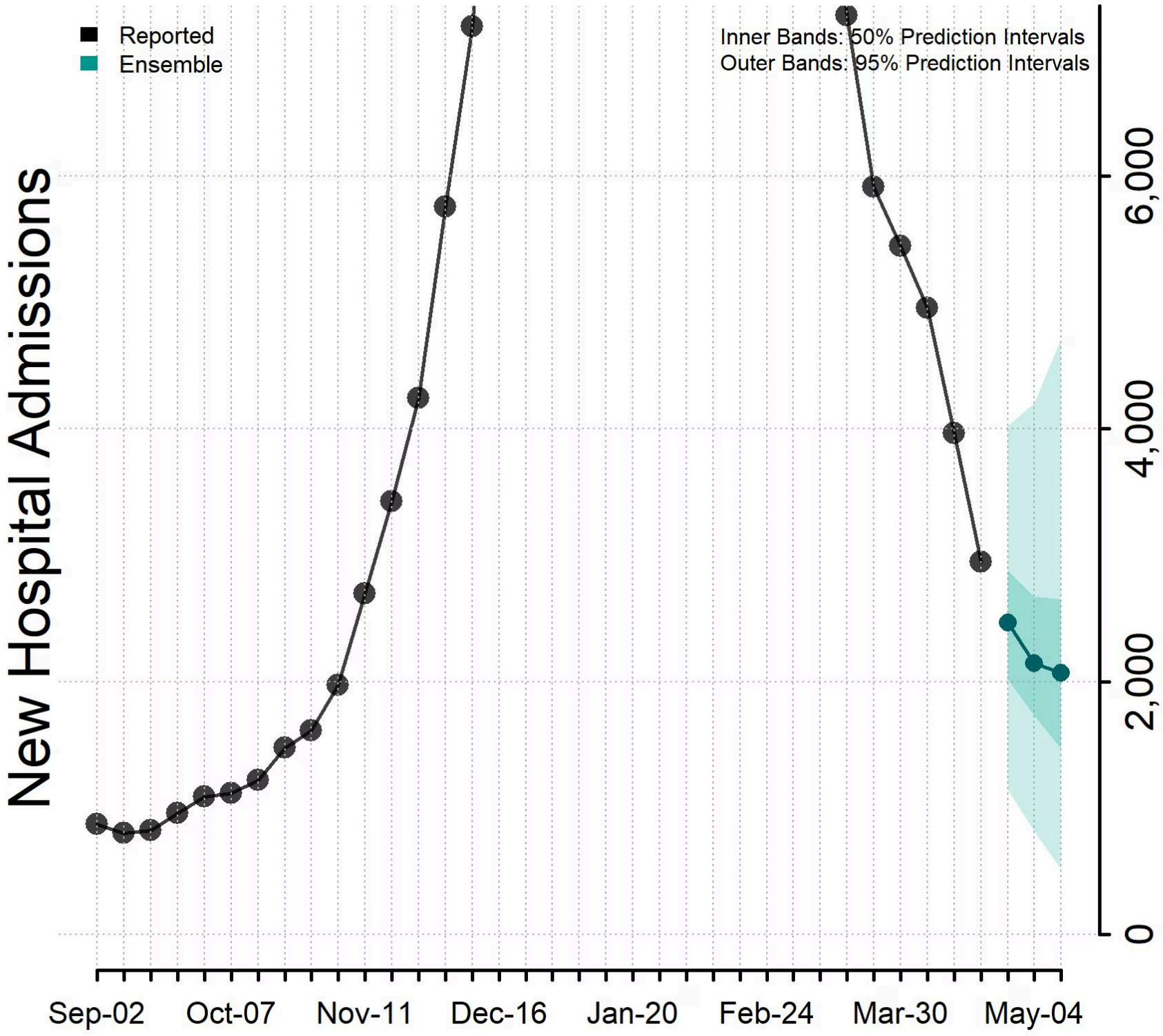
Updated April 26, 2024

Reported and forecasted new influenza hospital admissions as of April 24, 2024.

Interpretation of Forecasts of New Hospital Admissions

- This week's ensemble predicts that the number of new weekly laboratory confirmed influenza hospital admissions will likely decrease nationally, with **520 to 4,700** laboratory confirmed influenza hospital admissions likely reported in the week ending May 11, 2024.
- This week, 24 modeling groups contributed 29 forecasts that were eligible for inclusion in the ensemble forecasts for at least one jurisdiction. Contributing teams are listed below.
- Ensemble forecasts combine forecasts from diverse models into one forecast. They have been among the most reliable forecasts in performance for previous influenza and COVID-19 forecasting efforts, but even the ensemble forecasts may not reliably predict rapid changes.
- The figure shows the number of new laboratory confirmed influenza hospital admissions reported in the United States each week from September 1 through April 20 and forecasted new influenza hospital admissions per week for this week and the next 2 weeks, through May 11. Hospitals are required to report daily laboratory-confirmed influenza hospitalizations to the National Healthcare Safety Network (NHSN). See COVID-19 Guidance for Hospital Reporting and FAQs [658 KB, 52 pages] for additional details on this guidance.

National Forecast



Download all national data [XLS – 10 KB]

State Forecasts

State-level forecasts show the predicted number of new laboratory confirmed influenza hospital admissions per week for this week and the next 2 weeks by state. Each state forecast figure uses a different scale due to differences in the number of new influenza hospital admissions per week between states and only forecasts included in the ensemble are shown. Plots of the state-level ensemble forecasts and the underlying data can be downloaded below.

Download state forecasts [957 KB, 14 pages]

Download all forecast data [XLS – 387 KB]

Additional forecast data and information about submitting forecasts are available at https://github.com/cdcepi/FluSight-forecast-hub .

Contributing Teams and Models

- California Department of Public Health (CADPH) (Model: FluCAT)
- Carnegie Mellon Delphi Group (Model: CMU-TimeSeries)
- Center for Forecasting and Outbreak Analytics (CFA/CDC); renewal model team (Model: cfa-flu-epidemia-light)

- Center for Forecasting and Outbreak Analytics (CFA/CDC); SEIR model team (Model: flu-mechanistic)
- CEPH Lab at Indiana University (Model: Rtrend_fluH)
- Columbia University (Model: CU-ensemble)
- Fogarty International Center, National Institutes of Health (NIH) (Model: Flu_ARIMA)
- Georgia Institute of Technology (Model: GT-FluFNP)
- Los Alamos National Lab and Northern Arizona University (Model: LosAlamos_NAU-CModel_Flu)
- LU Computational Uncertainty Lab (Model: Chimera)
- MOBS Lab at Northeastern (Model: MOBS-GLEAM_FLUH)
- Northeastern University & University of California San Diego (Model: GLEAM_AI_FLUH)
- Norwegian Institute of Public Health – Fjordhest (Model: fjordhest-ensemble)
- Predictive Science Inc (Model: PSI-PROF)
- Signature Science (Model: SigSci-CREG)
- Signature Science (Model: SigSci-TSENS)
- Srivastava Group (Model: SGroup-RandomForest)
- Stevens Institute of Technology (Model: Gradient Boosting Regressors)
- The Center for Systems Science and Engineering at Johns Hopkins University (Model: CSSE Ensemble)
- UNC Infectious Disease Dynamics (Model: InfluPaint)
- University of Georgia Center for the Ecology of Infectious Diseases Forecasting Working Group (Model: Copycat)
- University of Georgia Center for the Ecology of Infectious Diseases Forecasting Working Group (Model: INFLAenza)
- University of Guelph Dynamics Training Lab (Model: Composite Curve)
- University of Guelph Dynamics Training Lab (Model: GRYPHON)
- University of Massachusetts-Amherst (Model: UMass-trends_ensemble)
- University of Massachusetts-Amherst (Model: flusion)
- University of Michigan, Computer Science and Engineering (Model: DeepOutbreak)
- University of Virginia, Biocomplexity Institute (Model: UVAFluX-Ensemble)
- Virginia Tech, Sanghani Center for Artificial Intelligence and Data Analytics (Model: Ensemble Model)

Last Reviewed: April 26, 2024