Forecasts of Flu Hospital Admissions

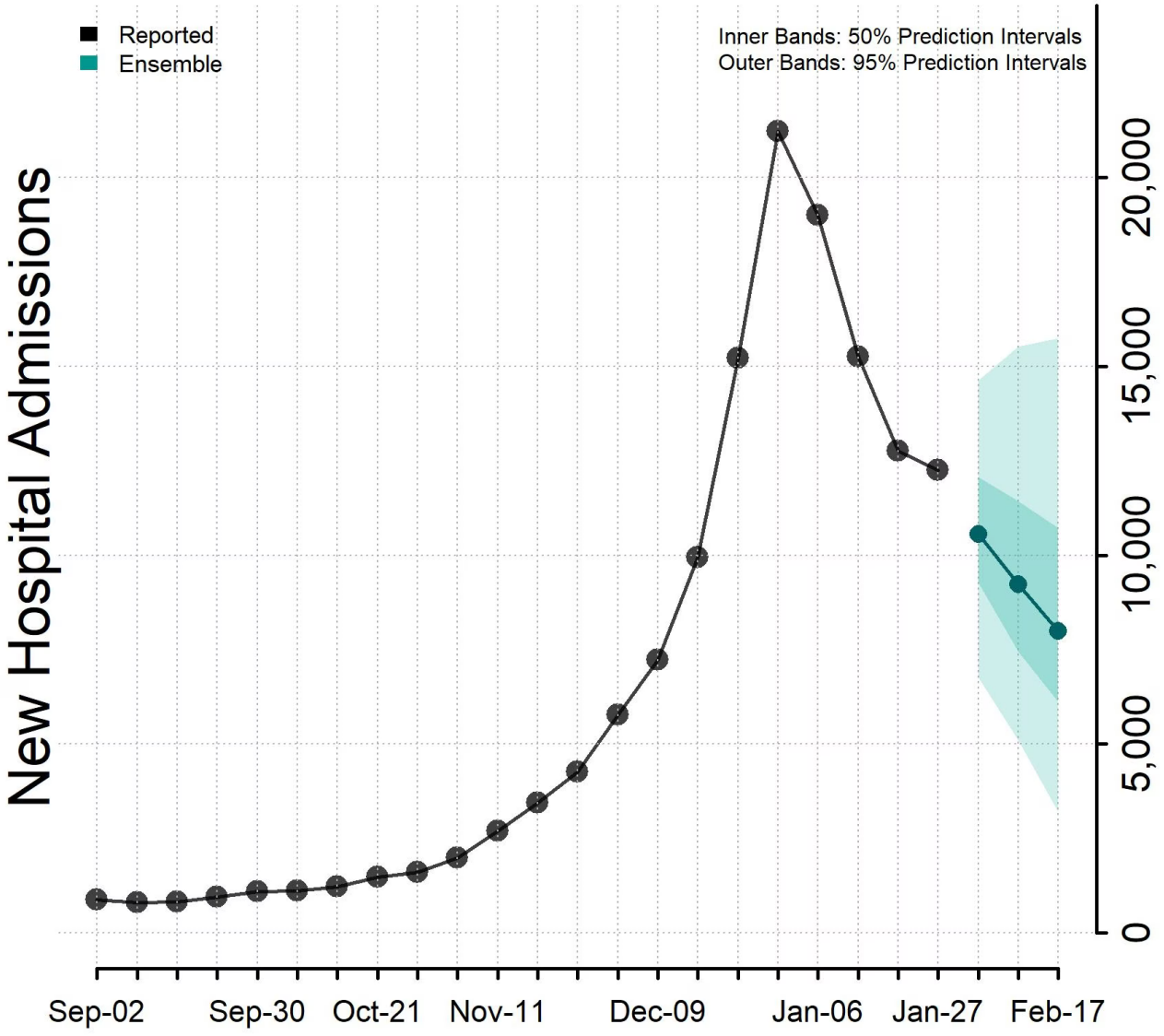
Updated February 2, 2024

Reported and forecasted new influenza hospital admissions as of January 31, 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 **3,200 to 16,000** laboratory confirmed influenza hospital admissions likely reported in the week ending February 17, 2024.
- This week, 25 modeling groups contributed 30 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 January 27 and forecasted new influenza hospital admissions per week for this week and the next 2 weeks, through February 17. Hospitals are required to report daily laboratory-confirmed influenza hospitalizations to HHS Protect. 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 [867 KB, 14 pages]

Download all forecast data [XLS – 413 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)
- Iowa State Niemi Research Lab (Model: Nonlinear ASG Hierarchical)
- Los Alamos National Lab and Northern Arizona University (Model: LosAlamos_NAU-CModel_Flu)
- LU Computational Uncertainty Lab (Model: Chimera)
- MIGHTE (Model: Nsemble)
- 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)

Last Reviewed: February 2, 2024
Source: Centers for Disease Control and Prevention, National Center for Immunization and Respiratory Diseases (NCIRD)