Center for Forecasting and Outbreak Analytics

Better data, better analytics, better response

"I am excited we have launched CDC's Center for Forecasting and Outbreak Analytics. This new center is an example of how we are modernizing the ways we prepare for and respond to public health threats. I am proud of the work that has come out of this group thus far and eager to see continued innovation in the use of data, modeling, and analytics to improve outbreak responses."

Rochelle P. Walensky, M.D., M.P.H.; Director, CDC



The Center for Forecasting and Outbreak Analytics (CFA)

CFA is a new center established as a national resource at the Centers for Disease Control and Prevention (CDC). CFA's goal is to enable timely, effective decision-making to improve outbreak response using data, models, and analytics. The center will grow to support leaders with a focus on addressing the needs of the most vulnerable communities. It will also develop a program to provide insights about infectious disease events to the public to inform individual decision making – the equivalent of the National Weather Service for infectious diseases. Planning for the CFA began in August 2021 with initial funding of \$200 million from the American Rescue Plan.

The work of CFA rests on three main pillars



PREDICT

CFA is building a world-class outbreak analytics team with experts in infectious disease modeling, epidemiology, and data science to develop a faster, richer evidence base to guide decision-making during emergencies. The team will model and forecast disease spread and severity; establish a data and analytics technology architecture; and collaborate with federal, state, and local leaders to support decision making.

Although CFA was still in the pre-launch phase of development in winter 2021, the team pivoted quickly to anticipate the timing and impact of the Omicron variant on cases and hospitalizations in the United States. In partnership with Kaiser Permanente Southern California and UC Berkeley, CFA produced the first US estimates of Omicron severity compared to the Delta variant. CFA, in collaboration with partners, have also contributed analyses related to school test-to-stay polices, travel policies, and vaccine policy.



INFORM

CFA will employ expert communicators to continuously share insights from the Predict team with federal, state and local partners and the public. The team will translate and communicate forecasts and analyses to support public health decision making; maintain a network to engage decision-makers, including those in the public sector, private sector, and in civil society; and build capacity at the state and local level to produce and interpret models and analytics.

Within days of recognizing that the Omicron variant would cause a surge in the United States, the CFA team alerted federal leaders, state and local public health partners and the public that an impending increase in cases and hospitalizations would likely disrupt the functioning of critical infrastructure. This activity gave leaders several weeks of advanced notice of the timing of the surge, allowing key planning activities.



INNOVATE

CFA will advance research and development priorities to improve the performance of outbreak forecasts and analyses. The team will identify, assess, and improve data sources and studies in collaboration with public, private, and academic partners; support development of new methods to make accurate, timely and useful forecasts and analyses; establish a network of innovation hubs among state and local jurisdictions; and advance communication and visualization capabilities. CFA has awarded \$21 million in funding to academic institutions to advance modeling and forecasting methodology, with an emphasis on workforce development and health equity. Additional investments will be announced in the coming months.

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