Centers for Disease Control and Prevention
CDC-Wide Activities and Program Support

Center for Forecasting and Outbreak Analytics

Program	Appropriations Bill	Agency	FY23 Appropriation	FY24 President's Budget	FY24 Recommendation
Center for Forecasting and Outbreak Analytics	Labor-HHS	Centers for Disease Control and Prevention (CDC)	$50 million	$100 million	$100 million

The Centers for Disease Control and Prevention (CDC) established the Center for Forecasting and Outbreak Analytics (CFA) in April 2022 to support the U.S. government and partners with advanced analytics, disease modeling, and outbreak analytics. The Center aims to improve the U.S. government's ability to forecast and model emerging health threats and mitigate their effects, such as social and economic disruption. Initially funded through the American Rescue Plan, the FY 2023 Omnibus Appropriations Act provided an additional $50 million to sustain the Center's program level, and included the authorization for CFA under Section 214 of the PREVENT Pandemics Act.

The Center focuses on three key functions: 1) predicting emerging threats through advanced analytics, 2) informing decision-makers and communicating with the public about actions to respond to these threats, and 3) innovating new analytic approaches and technologies. It is committed to openness, transparency, and health equity.

ASPPH's vision of public health includes "an equitable health system in which all individuals have access to quality health care and preventive services and can make healthy choices." To achieve this vision, ASPPH emphasizes the need for CDC funding to support preventive measures and forecasting services for communities across the U.S. Specifically, the ASPPH Strategic Plan calls for increased CDC and CFA funding and partnerships with schools and programs of public health. The CFA has contracted with schools of public health to evaluate and improve disease forecasting methods and created a Nursing Home Public Health Response Network.

In FY 2023, the Center will continue responding to public health emergencies, building modeling capabilities, promoting health equity, and collaborating with state, local, tribal, and territorial jurisdictions to develop, test, and scale products for infectious disease outbreaks. The CFA will also seek to establish Modeling Centers of Excellence.

In the past year, the Center for Forecasting and Outbreak Analytics has achieved several accomplishments in its mission to strengthen public health infrastructure:

1. Mpox Technical Reports: The CFA published four technical reports on the mpox outbreak in the U.S., providing key data on incidence rates, factors affecting incidence, transmission levels, and potential future outbreak trajectories. These reports were shared widely and informed decision-making at the state and local levels.
2. Virtual Analyst Platform: In collaboration with other CDC programs, CFA is developing a common suite of software, tools, and file and code-sharing capabilities to enable real-time collaboration among modelers.

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3. Industry Days: CFA hosted its second industry engagement event in February 2023 and reached more than 350 leaders from the technology, public health, and data science fields in person, and over 1,300 people attended virtually. Industry Days increase the connection and communication between CFA, the technology industry, and political leadership, in service of modernizing public health data and strengthening public health infrastructure.
4. COVID-19 Omicron Response: CFA provided early warnings about the potential impact of the Omicron variant, enabling leaders at all levels to prepare and minimize the impact of the virus. They also awarded a contract to Kaiser Permanente to analyze COVID-19 hospital data and assess the clinical severity of the Omicron variant.
5. Development of Accessible Models: CFA is working across organizational lines, partnering with the Administration for Strategic Preparedness and Response (ASPR) to transform their single agent-based model for COVID-19 into a suite of models and additional tools accessible to U.S. Government partners.
6. Research & Development: CFA is supporting the development of new mathematical modeling approaches and disease forecasting optimization strategies by contracting with universities and creating Modeling Centers of Excellence.
7. Nursing Home Public Health Response Network: In partnership with CDC's Division of Healthcare Quality Promotion, CFA established this network to address health disparities among nursing home residents who have increased susceptibility to infectious diseases.
8. State, Tribal, Local, and Territorial (STLT) and Public Health Partners: CFA is collaborating with various organizations to establish open communication and engagement with STLT partners, supporting the development of trainings, demonstration sites, and decision support tools to optimize disease forecasting products.

The future of the Center for Forecasting and Outbreak Analytics involves several key areas of focus:

1. Expanding coordination with a diverse selection of STLT partners to build their advanced analytics and disease forecasting capabilities.
2. Developing modeling tools and other products to enable stakeholders at multiple levels to make better-informed decisions when preparing for and responding to public health emergencies.
3. Accelerating the availability of advanced analytics and outbreak forecasting at the speed and scale necessary for improved decision-making, transitioning to a common public health ecosystem.
4. Collaborating with STLT partners to improve the collection of race, ethnicity, age, geographic, and other demographic data crucial for studying equity in exposures and improving outcomes.
5. Building on equity work in actionable ways, such as developing equity-informed data on disease transmission, establishing an analytic response team focusing on specific populations in high-risk settings, improving data collection methods, using relevant demographic strata in models, and investigating drivers of disparities and potential solutions.
6. Sustaining progress made with initial emergency supplemental funding, CFA will continue responding to public health emergencies, developing modeling capabilities, and honing analytics for robust decision support.
7. Building on funded partnerships to develop innovation, integration, implementation, and coordination of advanced analytics and epidemic forecasting in the U.S., through the creation of the nation's first network focused on outbreak modeling, forecasting, and advanced analytics.

The CFA will play a critical role in supporting decision-makers with timely information, helping the CDC and the nation respond effectively to emerging health threats. This work will require sustained investment, new ways of working, and collaborations with the private sector.

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Report Language Requested:
"*Center for Forecasting and Outbreak Analytics*. – The Committee includes $ 100,000,000 to continue the new Center for Forecasting and Outbreaks Analytics. The Center addresses a critical need to improve the U.S. government's ability to forecast and model emerging health threats and take timely action to mitigate their effects, such as social and economic disruption. The Committee urges the Center to continue to work with schools of public health and other academic institutions to engage the nation's expertise in disease modeling, public health data analysis, research, and training to build workforce capacity in this emerging field. With additional resources, CFA will work to develop modeling tools and other products, and eventually STLT capacity, enabling stakeholders at multiple levels to make more and better-informed decisions on preparing for and responding to the next public health emergency. As an interagency resource for early warnings related to emerging biological threats, the Center will support the public health system in detecting, responding to, and eventually preventing future epidemics and outbreaks."

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