



Predict the prevalence of national infectious diseases

Better accuracy helps you provide the appropriate resources and treatment people need

Before you make critical business and patient care decisions, make sure you have precise data.

As the world prepares today for healthier tomorrows, infectious disease surveillance and forecasting platforms make all the difference. These platforms monitor emerging disease patterns and forecast potential health events.

Disease forecasting platforms use real-world data to:

- Power disease surveillance
- Identify vulnerable populations
- Allocate resources appropriately
- Reduce the economic burden of care
- Minimize clinician and caregiver burnout
- Improve clinical outcomes

Designed for deep insight

The Optum® Infectious Disease Platform uses a combination of proprietary, low-latency, hyper-local, real-world data, and external data sources to provide a near real-time view into the current state of an infectious disease. Then, it takes things further by evaluating asymptomatic and symptomatic illness to provide critical insight into people who are exposed, infected and asymptomatic. This not only shows the chain of events of an illness appearing in population data, it also offers a vital opportunity to create proactive interventions that minimize the spread of a disease.

Optum

Optum Infectious Disease Platform turns real-world data into actionable insights for targeted social marketing, sales, customer engagement and health economics and outcomes research analysis. It includes:



More than 50 million lives of data



2,200 models trained down to a hyper-local level



40 private and public datasets providing >6 billion new data points each year



80% forecasting accuracy for all locations¹

This rich data can be used to segment populations to identify vulnerabilities, answer clinical research questions or validate hypotheses.

Surveillance

Near real-time surveillance for a range of specific infectious diseases down to a hyper-local level.

Understand what is happening now. Our platform precisely reflects nationwide infectious activity in a timely manner. Models contain up to 8 years of longitudinal data on a range of infectious diseases. Because data is representative of the entire U.S., you can apply the insights to the broader population.



Surveillance

Human metapneumovirus (HMPV)
Human parainfluenza viruses (HPIV)
Human coronavirus (HCoV)
Respiratory adenoviruses
Rhinovirus
Respiratory symptoms
Pneumonia
Vaccinations
Asthma



Surveillance and forecasting

Influenza
COVID-19
Respiratory syncytial virus (RSV)

Forecasting

Models predict risk levels for a specific infectious disease for the current week and the next 3 weeks down to a hyper-local level.

Plan with confidence. Make sure you always have the most relevant information at hand when making critical business and patient care decisions at a national or local level. Our patented precision forecasting technique accurately predicts the behavior of an infectious disease.

- Data is refreshed weekly; new data updates forecasts
- 4-week forecast for flu and COVID-19
- 2-week forecast for RSV

Vulnerability index

Segments population by condition severity, medication, procedure and more.

Predict the likelihood that a local population will have hospitalizations associated with surveilled diseases. Use the platform to determine patients with key risk factors, such as pre-existing conditions, acuity, and age. The vulnerability data can also be used to customize stratification thresholds in areas across the nation based on medical history and by considering sources aligned on population, race, ethnicity and social determinants of health (SDOH). This helps to:

- Identify and monitor populations of interest based on medical diagnoses
- Characterize vulnerable patients, including immunocompromised
- Facilitate proactive provider interventions
- Prioritize locations predicted to have the highest rate of hospitalizations

Air quality

Quantify the effect that changing environmental factors have on local populations.

Understanding the correlation between air pollutants and health outcomes is critical. This knowledge can be used to enhance customer engagement, supply chain management or marketing strategies. Apply these insights to:

- Identify patients nationwide that are affected by changes in air quality and highlight the significance of pre-existing conditions, acuity, SDOH factors, age and gender
- Establish baselines, track trends, draw comparisons and provide evidence for targeted actions
- Boost understanding of aerosol pollutant and health problem connections, including adverse birth outcomes, respiratory, cardiovascular diseases and more
- Provide a holistic image of nationwide air pollution distribution and how it changes over time



Target the right audience, at the right time, with the right message

2021-2023 influenza case study*

Using insights from the Infectious Disease Platform, a client sent a newsletter and activated social media campaigns. These efforts reached the right people at the right time, resulting in:

42% increase in open rates on hyper-local targeted ads and newsletters

382% increase in click-through rates for social media campaigns

94% decrease in cost-per-click



The Infectious Disease Platform provides valuable information regarding state and local transmission. This information is actionable when determining plans of care, contingency planning and providing direction for clinical staff.”

—Senior Medical Director,
Optum® Care Solutions



For more information, contact mdp-support@optum.com

About Optum

We're evolving health care so everyone can have the opportunity to live their healthiest life. Together, for better health.

Source

* UnitedHealthcare. Internal analysis of RVO influenza campaign. 2021-2023.

1. Based on a confidence interval range

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