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THE RIPPLE EFFECT

Stories of purpose and lasting impact

AI targeting. Human assisting.

How predictive modeling helped one state serve its most vulnerable population.

CLOSING THE GAP ON PUBLIC HEALTH DISPARITIES THROUGH DATA

THE SITUATION

Think back to spring 2020. Rising COVID-19 infection rates. Hospitals struggling to find beds for patients. Mask mandates announced. The likelihood of a normal summer diminishing by the day. Amid this escalating crisis, one state prioritized opening test sites and distributing PPE—but how could it identify the vulnerable populations that needed it most?

Several agencies within the state collaborated with Deloitte to solve the problem of getting PPE and testing to high-risk households where residents were compromised by diabetes, hypertension, heart disease, and other health conditions that increased the risk of complications from COVID-19. This was critical in the early stages of the crisis when the state was facing limited supplies and low public trust. To help mitigate infections from spreading, door-to-door PPE distribution and education had to take place in areas where health precautions would make the greatest impact.

Selecting and launching test sites had similar challenges. Location considerations such as accessibility through public transportation, distance of travel, and methods of transportation were critical. The state's equity-driven approach required sophisticated data mapping that calculated income disparities, disease rates, and other criteria to produce a clear snapshot of locations that presented the least number of hurdles to get people through the door.



THE SOLVE

To provide the insight the state needed to make these decisions, Deloitte used HealthPrism™, a predictive population health analytics platform that is specifically designed to identify populations most at risk of certain health conditions. It is one of the largest known Social Determinants of Health (SDoH) databases in the United States, including all 50 states, more than 1,500 variables at the household level, and health risk models for more than 20 disease types.

Data scientists created predictive models and analyses that pinpointed areas with at-risk populations for state leaders. The data also helped inform where languages other than English were spoken in certain areas—information necessary to translate and distribute education materials. Using advanced geospatial analytics, Deloitte also recommended testing locations where the driving distance for residents most affected by COVID-19 was 10 minutes or less.

Results came fast. State officials received insights in a few hours instead of weeks, expediting data-driven decision-making. The faster decisions could be made, the greater the number of vaccinations that could be distributed to vulnerable populations and help slow the spread of the virus.

HOW DO YOU CURB
A PUBLIC HEALTH CRISIS?
FOLLOW THE DATA.

THE IMPACT

The new data-driven “equity lens” helped the state formalize a long-term emergency management plan designed to close the gap to public health access. A first-of-its-kind public dashboard was developed to highlight the state’s efforts to equitably distribute resources and services and inspire state and local leaders to advance equity across key social factors such as housing, income, education, broadband access, and unemployment.

The state opened close to 70 health equity pilot programs, which increased access to PPE and testing.

By May 2021, the locations collectively received approximately 1 million face masks and 835,900 bottles of hand sanitizer.

A photograph showing a person's hands wearing blue nitrile gloves, carefully handling a brown cardboard box. The background is slightly blurred, showing what appears to be a warehouse or storage area with metal shelving units.

**MAKING ACCESS EASY FOR THOSE WHO
NEED IT MOST**

LET'S CONNECT.

Do these challenges sound familiar?



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