Optum Serve®

Priority Identification Vaccine Operating Tool (PIVOT)

A business intelligence decision support tool for COVID-19 planning

Overview

States are implementing strategies for the efficient and effective administration of the COVID-19 vaccine. With a nationwide goal to administer millions of vaccines each day to residents, this task is paramount to safeguarding the confidence, well-being and safety of every community.

State and local governments and private partners are the key components in achieving this goal. States have been provided guidance by Centers for Disease Control and Prevention (CDC) to implement the vaccine planning process using a phased approach. Critical to states' preparedness is their capability to deploy health care workers to administer the vaccines for priority populations using the most effective approach.

The Optum Serve PIVOT solution provides states with the data analytics and visualization needed to optimize the planning, administration and monitoring of vaccines in their jurisdictions. These tools are described in the following sections.

Additional capability to support a holistic vaccine program

VOICE: Vaccine Outreach Implementing Community Engagement is a customizable package of consulting services critical to addressing COVID-19 vaccine hesitancy and overall vaccine promotion that can be included with PIVOT. Supported by the PIVOT tool, VOICE offers a data-driven community engagement approach, which is a critical differentiating factor in supporting the inclusive and equitable distribution of COVID-19 vaccines to at-risk and vulnerable populations.

About us

At Optum Serve, we're dedicated to improving health across the nation. As part of UnitedHealth Group® (NYSE:UNH), we leverage our connection to UnitedHealthcare® and Optum® to deliver solutions that meet the broad spectrum of health care needs throughout the federal government. In bringing together our unmatched data with deep insights from our commercial businesses, we help solve challenges facing the government today – and uncover smarter solutions for tomorrow. Through close partnerships, we design tailored offerings that help customers work towards our shared goal: better health outcomes nationwide.

Priority population mapping tool

PIVOT allows users to quantify the size of priority populations at a ZIP code level. As an example, Figure 1 is an image of our mapping tool for residents over the age of 65 at a ZIP code level for Massachusetts. Other priority populations included in our mapping tool are listed in the bullets below.

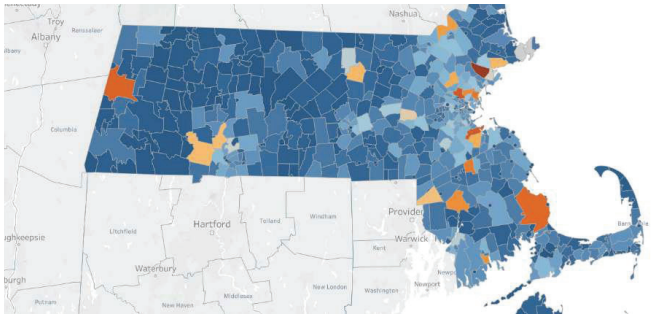

Figure 1

Optum Serve PIVOT COVID-19 vaccine planning solution includes:

- Priority populations mapping at a ZIP code level
- Socio-economically disadvantaged communities mapping
- Vaccine administration network mapping
- Vaccine network catchment area analyzer

Sample resource mapping data measures:

Population demographics:

- Population age 65+
- Population age 85+
- Median age
- African Americans
- Hispanic
- Asian
- Indian
- Hawaiian

Potential customizations:

- Medicaid members
- Health plan members
- Residents stratified by health status

Socio-economic demographics:

- Income per household
- Area Deprivation Index rank

Household characteristics:

- Households with individuals 65+
- Average household size
- Average family size
- Average house value
- Population in group quarters
- Population institutionalized

Socio-economically disadvantaged communities mapping

To support CDC's goal of improving health equity, we will bring our prior experience using the Area Deprivation Index (ADI). ADI, developed by the University of Wisconsin, ranks communities and neighborhoods to reflect socio-economic status (example of Cleveland, Ohio, is shown in Figure 2). Our mapping tool, which depicts ADI at both ZIP code and census tract levels, can be used by states to reach the most socio-economically disadvantaged areas to support an equitable vaccine program.

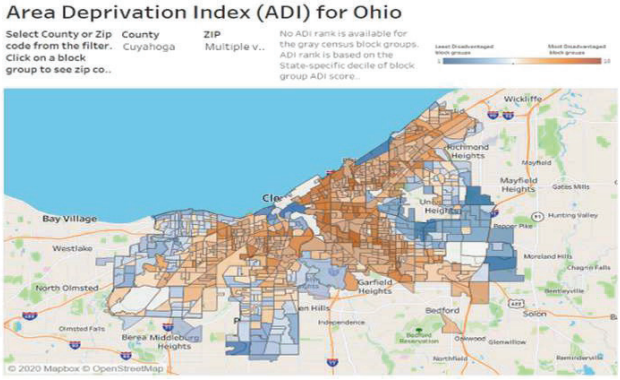

Figure 2

Vaccine administration network mapping

Developing a vaccine administration network is an integral part of vaccine administration and management. For a selected county/ ZIP code, our solution maps the location of hospitals, nursing facilities, health care centers, federally qualified health centers (FQHCs), pharmacies, schools and major sport venues as states plan their administration network. This view shown in Figure 3 (Bristol County, MA) incorporates the ADI at a census tract level to help ensure access for disadvantaged populations. PIVOT can also map the location of vaccine administration centers approved by the state to identify underserved areas.

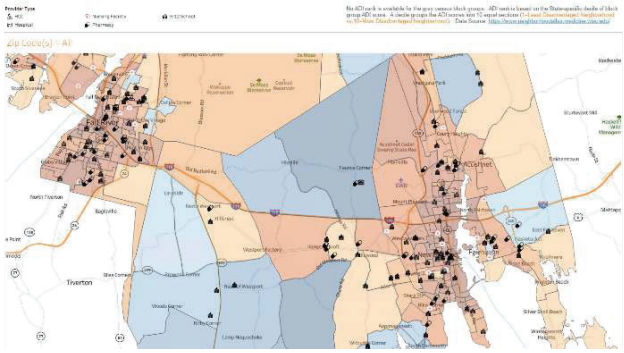

Figure 3

Vaccine network catchment area analyzer

Bridging the target population with vaccine providers in a dynamic model is essential to inform the optimal use of resources. Figure 4 depicts how our analyzer tool can be employed to estimate the target population size for a vaccine administration location within a five-mile radius. State and local planners can test and model various distribution options to optimize outreach goals and operational efficiency.

Vaccine monitoring

PIVOT is equipped to intake data from state vaccine registries to report on the administration of vaccines at a ZIP code level. The number of vaccines distributed can then be compared to the target populations in each ZIP code to determine the percentage of the target population that has been vaccinated. Clients can then use these analytics, as shown in Figure 5, to update their priorities for the next round of vaccine administration.

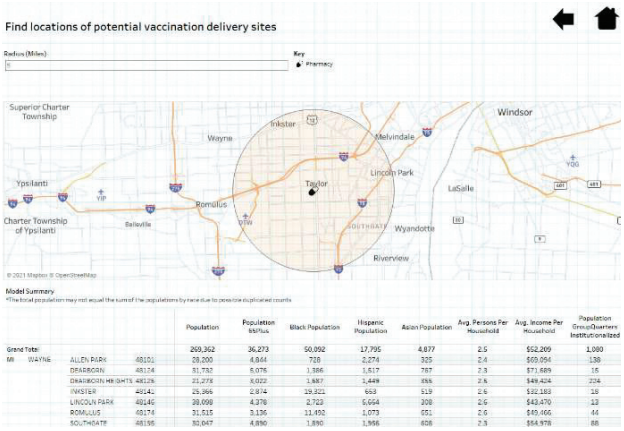

Figure 4

Figure 5

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information@optum.com
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