

BACKGROUND

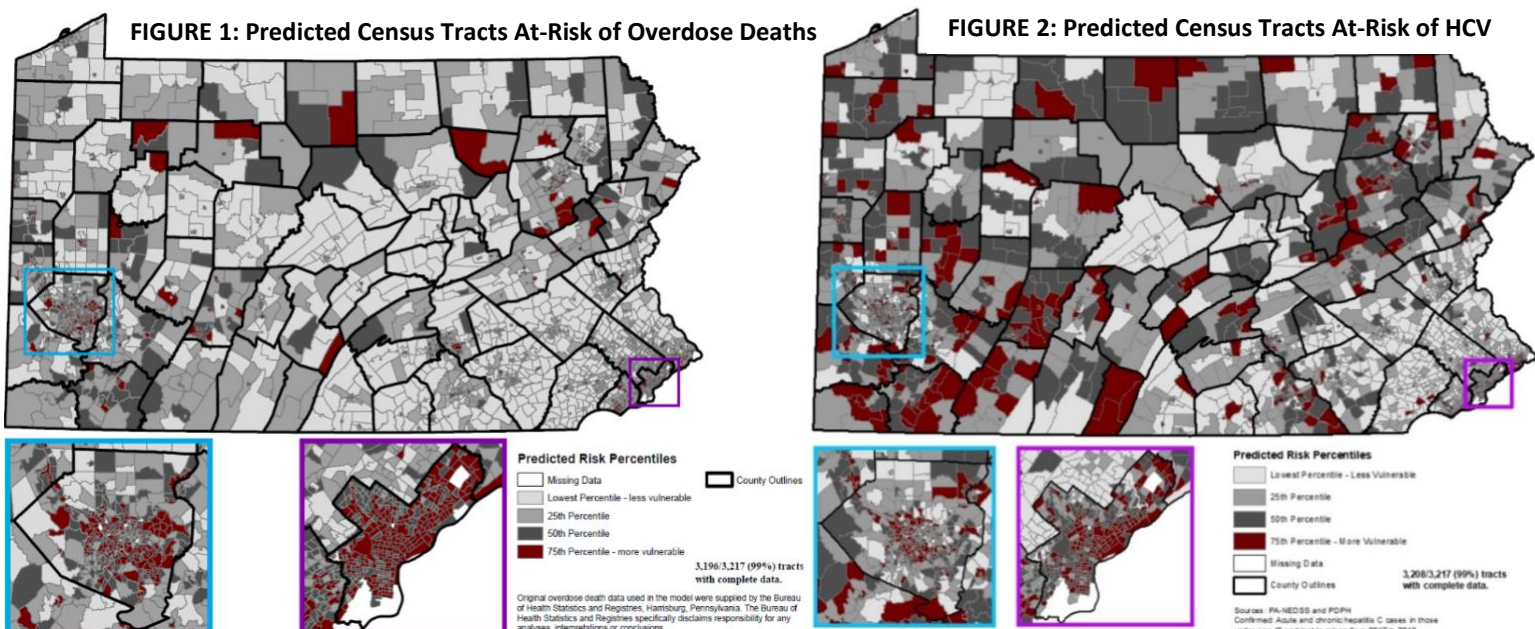
In 2015, needle sharing among IV drug users in Scott County, Indiana, resulted in an HIV outbreak where 235 individuals were infected – 47 times more than the national rate. Hepatitis C (HCV) was another bloodborne infectious disease raising alarms during the outbreak since more than 90 percent of those infected with HIV were also positive for HCV. This devastating outbreak earned national attention, and shortly after, the Centers for Disease Control and Prevention (CDC) conducted a study to predict which U.S. counties were at risk of a similar outbreak. In Pennsylvania, Luzerne, Cambria and Crawford were identified as being at risk.

PENNSYLVANIA ASSESSMENT

Pennsylvania conducted an in-state vulnerability assessment with more recent, census tract-level data to determine which communities are at the highest risk of bloodborne infections associated with unsterile drug use and drug overdose deaths. The most recent, complete HCV case data (representing bloodborne infections associated with unsterile injection drug use) and overdose death data were used to compare with the CDC’s original predictions. Two statistical models were used—one with HCV case counts as the outcome and another with overdose death counts as the outcome.

WHAT WERE THE RESULTS?

Pennsylvania’s assessment found Blair, Union and Tioga counties were the top three counties with the highest crude rates of HCV cases per 100,000 population under age 40, different than the three counties the CDC had predicted. The top 25% of census tracts vulnerable to high overdose death rates are mostly found around Philadelphia and Pittsburgh (Figure 1). Meanwhile, the top 25% of census tracts vulnerable to high HCV infection rates are more evenly spread across the state in both urban and rural areas (Figure 2).



This assessment shows specific detail otherwise missed using only county-level data to predict vulnerability to bloodborne infections and drug overdose deaths. Syringe service programs can be beneficial for vulnerable communities across the state to help decrease overdose deaths and the spread of infectious bloodborne infections. These results provide a starting point to work towards a more efficient allocation of health-related resources and targeted interventions that will prevent the spread of infectious disease and further decrease drug overdose deaths in the state, in both the short and long term.

For more details, please refer to the full vulnerability assessment report:

<https://www.health.pa.gov/topics/Documents/Opioids/Vulnerability%20Assessment%20Report.pdf>