

PROBLEM

Opioid-related injuries and deaths, especially those involving potent synthetic opioids like fentanyl, continue to drive the drug overdose epidemic. Naloxone is a non-addictive, life-saving drug that can reverse the effects of an opioid overdose. However, there remains a need for a centralized, national reporting and monitoring system of near real-time naloxone availability at the county level.

CONCEPT

The Naloxone Saturation Layer will enable participating agencies to leverage near real-time naloxone information in their communities and compare to suspected drug overdose events and spikes in order to target naloxone distribution to high-risk areas and populations.

CURRENT OVERVIEW

During the pilot phase, the Naloxone Saturation Layer was implemented in 6 jurisdictions (City of Chicago, District of Columbia, Kansas, Kentucky, Michigan, and Montana) with further national expansion planned in 2024.

WHAT IS NALOXONE SATURATION?

Naloxone saturation examines the amount of available naloxone in a community needed to reduce overdose death rates. For the ODMAP Naloxone Saturation Layer, naloxone saturation is defined as the minimum number of naloxone kits distributed per 100,000 population per month required to observe a decrease in the overdose death rate for a given jurisdiction. This minimum naloxone distribution rate is determined by using regression modelling which studies the relationship between annual naloxone kit distribution and overdose deaths at the county level.

HOW THE LAYER WORKS

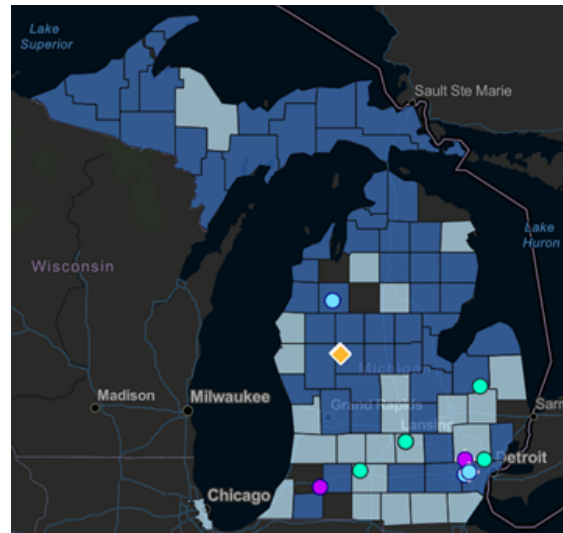
The Naloxone Saturation Layer will support public health, public safety, and community organizations in overdose prevention and response activities, including targeted naloxone distribution and identification of naloxone deserts.

Agencies submit naloxone distribution data into the ODMAP system with five required data points: 1) state; 2) county; 3) distribution year; 4) distribution month; 5) number of monthly naloxone kits distributed. The most recent monthly naloxone distribution data is highly recommended for the Naloxone Saturation Layer to be useful.

The submitted naloxone data can be accessed through the layer tool within the National Map. The naloxone saturation layer will be displayed as a choropleth, color-coded map layer indicating county-level naloxone saturation status. Additional naloxone information such as the number and rate of naloxone kits distributed will be available to drive overdose prevention and response strategies.

COUNTY-LEVEL NALOXONE SATURATION STATUS EXAMPLE - MICHIGAN

Naloxone saturation status and suspected drug overdose events, Michigan – February 2024



Does not represent actual overdose events

Naloxone Saturation Status



The naloxone saturation status is based on the most recent data submitted to ODMAP. Based on the initial regression model conducted in February 2024, naloxone saturation is indicated when there are 73.4 naloxone kits distributed per 100,000 population per month. This outcome will be updated as additional agencies are onboarded and more data is integrated into the model.

Since this layer is on the National Map, users can add additional layers or their own data sets on top. You can see this represented in the example from Michigan above which includes suspected overdose event data.