Using Narcan to prevent opioid overdoses: Examining the landscape in Ohio, Kentucky

Overdose deaths in Kentucky and Ohio have dramatically increased in recent years, far outpacing the rise in overdose deaths nationwide. In 2005, Ohioans died from drug overdoses at a rate of 10.9 deaths per 100,000 people. The drug overdose death rate that year for Kentucky was 15.3 deaths per 100,000 people. Those rates increased to 46.3 deaths per 100,000 people for Ohio and 37.2 deaths per 100,000 people for Kentucky in 2017, the most recent year for which data are available for both states. Ohio jumped from 19th in the nation in 2005 to second in 2017 in overdose death rates. Kentucky remained fourth.

As drug overdose death rates have risen, so has demand for Narcan. Also known as naloxone, Narcan is a medication approved by the Food and Drug Administration to prevent fatal overdoses from opioids, including heroin, morphine, fentanyl and oxycodone. Doctors can prescribe Narcan to patients who may be at risk for opioid overdose or to patients in treatment for addiction, including medication-assisted treatment. In addition, Narcan is available in Kentucky and Ohio without a prescription for anyone to purchase.

In 2009, 7,877 doses of Narcan were administered by Emergency Medical Services providers throughout Ohio. By 2018, that number had risen to 36,999. Data for 2009 is not available for Kentucky, but more than 12,000 Narcan doses were administered by EMS providers in 2018.

MEDICATION-ASSISTED TREATMENT combines medication with counseling and other behavioral health therapies to treat substance use disorders and prevent opioid overdose.
Through program evaluations and public opinion surveys, Interact for Health has collected data about the distribution of Narcan in the region as well as Ohio and Kentucky adults’ knowledge of and opinions about the medication.

**Distribution of Narcan in Greater Cincinnati**

One of Interact for Health’s strategies to prevent opioid overdoses and overdose deaths is harm reduction, specifically widespread distribution of Narcan. In 2017 Interact for Health contracted with the University of Cincinnati to evaluate the reach and impact of multiple Narcan distribution programs in its 20-county service area.\(^7\), \(^8\)

Between February 2016 and February 2017, 1,739 people in Greater Cincinnati received overdose prevention training through organizations funded by Interact for Health. These include the Center for Addiction Treatment, Clermont County Mental Health & Recovery Board, Greater Cincinnati Behavioral Health, Talbert House, Transitions, Inc., and the University of Cincinnati Early Intervention Program. As a result of this training, 487 participants reported having obtained at least one dose of Narcan and 35 reported having used it. Thirty-one overdose reversals were documented. It is important to understand that this likely greatly underestimates the number of lives saved because of the difficulty of reaching participants after training.

Participants in this training received either a prescription for Narcan to be filled at a pharmacy or an actual dose of Narcan in a ready-to-use nasal spray. The evaluation found that distributing the nasal spray was far more effective than distributing prescriptions. Many participants who were given Narcan prescriptions reported never having the prescription filled. About 3 in 10 of these participants cited difficulties in filling the prescription as the main reason they never obtained Narcan.

Fifty-five percent of participants in the Narcan training program reported having witnessed at least one overdose. On average, participants witnessed four overdoses. Some reported witnessing dozens. This indicates that these programs were able to reach high-risk populations that were likely to witness an overdose and administer Narcan.

Among the 55% of participants who had witnessed an overdose, most (65%) reported that 911 was called in response to the overdose they most recently witnessed. That includes 35% who reported calling 911 only, 24% who reported calling 911 and performing CPR, 5% who reported calling 911 and providing stimulation and 1% who reported calling 911 in addition to rescue breathing.

These programs lay the groundwork for Narcan expansion across Greater Cincinnati. Currently, Interact for Health supports the Narcan Distribution Collaborative, which aims to understand the value and impact of saturating a community with Narcan.

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**NARCAN**

is commonly dispensed as a nasal spray. It also can be administered by injection.

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Narcan. Approximately 30,000 kits have been distributed over two years. Participants reached through the collaborative immediately receive a Narcan kit after a short training. This project will conclude with an evaluation in 2020.

Most Ohio and Kentucky adults familiar with Narcan

In addition to its harm reduction work, Interact for Health each year conducts the Ohio Health Issues Poll and partners with the Foundation for a Healthy Kentucky to conduct the Kentucky Health Issues Poll. These surveys measure adults’ opinions about a variety of health-related policies. In 2018, Interact for Health asked questions about Narcan on both surveys.

First, OHIP and KHIP asked “How familiar would you say you are with the use of Narcan to prevent people from dying if they are experiencing an overdose?” About 7 in 10 adults in each state reported they were familiar with Narcan. This includes 30% of Kentucky adults and 29% of Ohio adults who said they were very familiar. About 3 in 10 adults in each state reported they were not very or not at all familiar. This includes 19% of Kentucky adults and 22% of Ohio adults who said they were not at all familiar.

Half say Narcan gives people chance to seek treatment

OHIP and KHIP also asked, “Which of the following statements best describes your view about making Narcan available to people who overdose? A) Making Narcan available gives people the chance to continue using heroin or prescription painkillers, or B) Making Narcan available gives people the chance to seek treatment for their addiction.” Adults in both Ohio (59%) and Kentucky (50%) were more likely to say Narcan gives people the chance to seek treatment than to say it gives people the chance to continue using (29% in Ohio and 38% in Kentucky). This suggests that at least half of Ohio and Kentucky adults see the connection between Narcan and treatment. Adults in Ohio are more likely than those in Kentucky to believe that Narcan gives people the chance to seek treatment.

4 in 10 adults would be likely to carry Narcan

Finally, OHIP and KHIP asked, “Suppose you were in contact with people at risk for opioid overdose. How likely would you be to carry Narcan?” About 4 in 10 adults in...
each state reported they would likely carry Narcan. This includes 21% in Ohio and 19% in Kentucky who said they would be very likely to carry Narcan. About 6 in 10 in each state reported that they would not likely carry Narcan. This includes about 4 in 10 who said they would be not at all likely to carry Narcan.

In both Ohio and Kentucky, adults with more education and higher incomes were more likely to report they would carry Narcan. Additionally, adults in both Ohio (46%) and Kentucky (41%) who were familiar with Narcan were more likely than those who were not familiar to report that they would likely carry Narcan.

**Young adults more likely to carry Narcan knowing a prescription is not needed**

In Ohio, respondents were told that Narcan is available throughout the state without a prescription. They were then asked again how likely they would be to carry Narcan. This information did not change the opinion of the majority of adults in Ohio. Just less than half of Ohio adults (46%) reported that they would be very or somewhat likely to carry Narcan. However, 63% of young adults between the ages of 18 and 29 reported they would be very or somewhat likely to carry Narcan given the information that it is available without a prescription. That compares with only 44% of adults ages 18 to 29 before they told that Narcan is available without a prescription.

**Opportunity remains for Narcan training and education**

While widespread Narcan distribution is still fairly new, most adults in Kentucky and Ohio are familiar with the medication. They are also aware of the association between administration and treatment for drug addiction. Nonetheless, opportunity exists for education to increase awareness of the benefits of Narcan. Training and distribution programs such as those provided by the Narcan Distribution Collaborative can help to fill this gap and prevent the spread of common misconceptions. As overdoses and deaths continue, it is likely that demand for Narcan will increase. For this reason, it is important to continue to provide education and monitor public opinion.

### ENDNOTES


7. Adams, Brown, Butler, Clermont, Clinton, Hamilton, Highland and Warren counties in Ohio; Boone, Bracken, Campbell, Gallatin, Grant, Kenton and Pendleton counties in Kentucky; and Dearborn, Franklin, Ohio, Ripley and Switzerland counties in Indiana.