State governments must carefully consider where they are allocating scarce resources that help combat the growing overdose epidemic by ensuring that naloxone is getting to people who are most likely to use it to reverse an overdose. In this series, we highlight novel naloxone distribution approaches for Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP) grantees with programs involving justice-involved populations.

Harm Reduction–Based Naloxone Distribution via Vending Machines in County Jails

Naloxone is an opioid antagonist that can be administered intravenously, intramuscularly, or intranasally to displace and block opioid agonists from receptor sites, effectively reversing an opioid overdose.\(^1\) There is no risk of abuse or addiction to naloxone, and there are few documented side effects. This antidote has been a standard tool for use by emergency medical services personnel to reverse opioid-related overdoses for more than 40 years.\(^2\) Naloxone effectiveness has been well established,\(^3\) with few adverse events following administration.\(^4\) It is now packaged so that it is easy enough to use that anyone, including those with no formal medical training, can administer it.

The United States remains in the midst of an unprecedented overdose epidemic, with more than 100,000 overdose deaths in the year ending April 2021.\(^5,6\) The vast majority of these overdose deaths are opioid-related and could have been averted had naloxone been administered by those present.\(^7,8\) Naloxone is one of the most powerful tools
communities have in combating the overdose crisis; evidence shows that distribution can reduce overdose deaths.7–8 While there are growing efforts to distribute naloxone in community settings, there have also been periods of national shortages as some organizations report no use of it, even unnecessarily destroying naloxone because they believe it is past its expiration date.9–10

Jails have emerged as a critical overdose prevention touchpoint. Among people who have been recently incarcerated, rates of overdose are more than 100 times higher than among the general population.11 For jails in particular, studies suggest that at least one out of every five overdose deaths in the community is of someone who has recently been released from this setting.12 More than 11 million people are booked yearly. Many of them will be released within hours or days. Furthermore, jails offer a unique opportunity to identify and intervene with people who are opioid dependent. For these reasons, the setting is an effective one from which to distribute naloxone to people who are likely to use it to reverse an opioid-related overdose.

Naloxone Distribution in Jails

Overdose education and naloxone distribution (OEND) programs,13 well established in many jail facilities, provide training in opioid overdose response and naloxone administration to those who opt in while detained in jail. People who take the training are provided naloxone in their belongings upon release.14 Because of the ongoing and dramatic increases in overdose deaths, some facilities, additionally, distribute naloxone to all detainees who receive medications for opioid use disorder (OUD) or who screen positive for OUD. Others post signage with instructions for detainees to request it upon release.

Vending machines have recently emerged as strategy for widespread distribution of naloxone to detainees released from jail facilities. These machines can be customized to provide naloxone and other supplies in a secure, organized, and stigma-free manner. This article highlights three examples of states that have facilitated efforts to distribute naloxone through county jail facilities, the process by which states can support naloxone distribution, and the barriers to and facilitators of distributing naloxone through vending machines in jail facilities.

Examples From the Field

Michigan Department of Health and Human Services

The Michigan Department of Health and Human Services has an online portal that allows individuals and agencies to order free naloxone that is delivered through the mail. The delivered kits are Narcan® nasal spray boxes that each contain two single doses (4 milligrams each) of naloxone. Administration instructions are inside the box and also inside the sealed foil packaging for each nasal naloxone dose.
Local partners from Wayne State University who were providing training and technical assistance on behavioral health services in jail facilities supplied the vending machines through Overdose Data to Action\textsuperscript{15} funds awarded to Michigan from the Centers for Disease Control and Prevention. New vending machines that cost approximately $3,500 were customized to vend up to 360 boxes of Narcan for free and were installed in seven jail facilities in the lobbies, where all people freely coming to the facility can access them. For each facility, a local “stocker” agency assumed responsibility for ordering the naloxone from the online portal. Stocker agencies include local harm reduction organizations, community mental health providers, and in-jail medical providers. The agencies also placed QR code stickers on the boxes and machines; the codes link to an app (OpiSafe) and website with instructions on how to administer naloxone, where to obtain more, and where to find treatment options in the community.

**Indiana Division of Mental Health and Addiction**

The Indiana Division of Mental Health and Addiction uses State Opioid Response\textsuperscript{16} funds to coordinate with Overdose Lifeline (ODL), a nonprofit organization focused on education, advocacy, and support for individuals, families, and communities affected by the disease of addiction and substance use disorders. In partnership with the state, ODL coordinates statewide naloxone distribution efforts and maintains an online portal where Indiana residents, organizations, and agencies can request free intranasal naloxone. ODL has installed over 100 NaloxBoxes across 55 counties in Indiana, and it has funding for up to 500. In addition, ODL is working to install 19 vending machines using the same customized machines used in Michigan. The first such vending machine was installed in the St. Joseph County jail in South Bend, Indiana, followed by Wayne, Dubois, Marion, and Monroe County jails and Tippecanoe County Community Corrections. Machines have also been placed at Clark Memorial Hospital in Clark County and Eskenazi Health Center West 38th Street in Indianapolis. ODL created its own QR code to place on each vending machine to link to intranasal and intramuscular naloxone training videos on its website.

**The Regional Judicial Opioid Initiative**

With funding from BJA’s COSSAP, the Ohio Supreme Court partnered with the National Center for State Courts (NCSC) to develop the Regional Judicial Opioid Initiative (RJOI), which includes judicial leaders and court stakeholders from Illinois, Indiana, Kentucky, Michigan, North Carolina, Ohio, Tennessee, and West Virginia. This initiative standardized information across participating states to develop a data dashboard identifying interstate areas of concern in which to target efforts. In late 2021, using this dashboard, the NCSC identified “hot spots”—the five counties in each state that have the highest overdose death rates. The NCSC initiated outreach to the hot spot counties in the RJOI states to determine their interest in obtaining naloxone vending machines. The highest priority for placement of the machines is inside a jail, preferably in a place that is open to the public. The goal is to get naloxone to as many people as possible upon their release from jail. Locations other than jails that were approved for vending machines include pretrial services agencies, community corrections sites, and community harm reduction agencies that partner with jails to offer programs and services to individuals immediately after their release from jail. The project’s scope includes building a partnership between the jail and agencies to provide the naloxone kits for the machines. The NCSC, which purchased 20 machines, is currently finalizing the sites for them and identifying partner agencies to provide the kits for long-term sustainability.

**Barriers to and Facilitators of Implementation**

To better understand the barriers to and facilitators of these novel naloxone distribution efforts, RTI
International staff members have interviewed early adopters. The main barriers resulted from stigma, stemming from misconceptions about naloxone. Sometimes this misconception came from legal representatives requesting special language for the machines, but more often resistance arose from stakeholder concerns about providing naloxone to opioid users. However, the sheriffs of all the counties installing the vending machines overwhelmingly supported installation, and their support helped overcome the stigma. Existing relationships and partnerships with local harm-reduction stakeholders also helped mitigate the impact of stigma. Another barrier was the shipping of the machines to more rural counties; major delays resulted from the supply-chain shortages caused by the COVID-19 pandemic and remoteness of certain facilities.

In contrast, several factors facilitated the implementation of vending machines. For example, jail facilities receiving technical assistance to implement OUD medications, or already providing these services, were more likely to implement them. These existing ties between OUD treatment and harm reduction providers, along with free naloxone and support from the state, also helped to reduce misconceptions about liability. Staff members at all the facilities with vending machines have had an overwhelmingly positive experience and wish they could provide even more resources in the machines, such as syringes or sharps containers. To remove the barrier of attending an in-person training before accessing naloxone, none of the facilities require such training.

**Summary and Next Steps for Jurisdictions**

Interest in distributing naloxone through vending machines in jails is growing nationally; efforts to do so are under way in multiple jurisdictions. As illustrated by our examples, these machines are being purchased through a variety of federal funding mechanisms, including COSSAP, with multiple configurations of local agencies receiving supports from various state agencies to champion these efforts. Agencies have provided each with restocking and immediate updates; many of the machines vend all 360 boxes within 2 weeks. Agencies stocking naloxone at jails noticed a significant increase in the number of kits distributed when individuals could get them from a vending machine compared to when corrections officers would directly ask individuals if they needed a naloxone kit. This suggests that vending machines could help reduce the stigma associated with obtaining naloxone kits.

Jurisdictions or agencies interested in implementing naloxone vending machines in their county jails should consider the following:

- Determine what, if any, strategies your jurisdiction is already using to get naloxone to people recently released from jail.
- Decide who will be responsible for monitoring and restocking the vending machines. Possible responsible entities could include jail staff, the department of health, or local harm-reduction organizations.
- Use data-driven strategies to identify locations where these machines can vend free naloxone and reach high-risk populations.
- Look up the laws and policies in your jurisdiction. Are there any legal barriers to implementing naloxone vending machines in county jails?
- Determine how you will provide recipients with naloxone administration training. Resources for written and visual instructions can be found at the following sites:
  - [https://www.cossapresources.org/Content/Documents/Articles/AHP_Implementing_MAT_in_Jails.pdf](https://www.cossapresources.org/Content/Documents/Articles/AHP_Implementing_MAT_in_Jails.pdf)
References


Visit the COSSAP Resource Center at www.cossapresources.org.

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