What is naloxone?

Naloxone is a “rescue” drug that quickly and safely reverses opioid overdose. It is available as an injectable solution and as a nasal spray. Naloxone works by blocking the effects of opioids in the body. Virtually all opioid overdose deaths are preventable if naloxone is administered in time.

A person who has overdosed cannot administer naloxone to themselves — it must be administered by someone else nearby. The most effective way to prevent fatal opioid overdose with naloxone is to prioritize naloxone distribution to people who use drugs (for example, through harm reduction and syringe services programs) as this group is the most likely to witness an overdose.

Distributing naloxone to the public at pharmacies is also highly effective. All states but one (Neb.) allow pharmacists to prescribe or dispense naloxone to anyone.

Other new and innovative methods for naloxone distribution include:

- Publicly accessible “NaloxBoxes”
- Vending machine distribution
- Naloxone distribution by mail and
- Naloxone leave-behind programs led by Emergency Medical Services (EMS) professionals.
What evidence supports naloxone to reverse opioid overdose?

**Naloxone Saves Lives** Opioids produce their effects on the body (including pain relief and slowed breathing) by attaching to and activating certain receptors in the brain. Naloxone is able to reverse opioid overdose by blocking those receptors and preventing opioids from attaching.

**Naloxone Effectively Blocks All Opioids** Although certain opioids, like fentanyl, produce stronger effects on the body, they do not require more naloxone to counteract. Multiple studies have demonstrated that the same amount of naloxone works to reverse opioid overdose regardless of fentanyl exposure.

**Naloxone Access Saves Lives** Between 1996 and 2014, syringe services programs across the U.S. distributed over 150,000 naloxone kits, resulting in tens of thousands of opioid overdose reversals by community members. The reach of naloxone access programs has since expanded. For example, North Carolina received reports of 4,152 successful community overdose reversals with naloxone in the year 2021 alone.

**Naloxone Does Not Worsen Substance Use** Common myths about naloxone are that it encourages drug use and discourages people who use drugs from seeking treatment. These claims are untrue; multiple studies have found no association between naloxone access and worsening patterns of substance use.

**What Are Naloxone Access Laws?** In response to rising overdose rates, states have implemented laws that make it easier for members of the public to access naloxone. State naloxone access laws vary, but many states have established a standing order that authorizes the dispensing of naloxone to persons meeting set criteria. Naloxone access laws are associated with lower rates of fatal opioid overdose.

**Are there risks to my community or institution if we don’t support naloxone to reverse opioid overdoses?**

Yes.

**Naloxone Access Laws Do Not Guarantee Naloxone Access** County leaders can help ensure that local residents successfully obtain the naloxone needed to save lives by providing institutional and financial support for naloxone access programs.

**Without Naloxone Nearby, There May Be More Overdose Deaths** Though most first responders already carry naloxone, the fastest way to reverse an overdose is to ensure that the person on scene when the overdose occurs (usually someone else who uses drugs) has naloxone on hand before the overdose occurs.
How much naloxone do we need?

The amount of naloxone each community needs depends on a number of local factors. The website NaloxoneNeededToSave.org provides evidence-based estimates of the quantity of naloxone each state needs to achieve naloxone saturation.

State and federal block grants support the purchase of naloxone by public safety and public health agencies, but this may not be enough. One study compared naloxone access in 12 states and found that only one state met the national target for naloxone access.  

What are best practices for supporting or implementing naloxone to reverse opioid overdoses?

- Increase the local supply of naloxone by funding procurement or coordinating local or regional stockpiles.

- Provide funding and voice strong, unambiguous support for programs and sites that distribute naloxone. High-volume distribution though syringe services programs is typically the most effective strategy for preventing overdose death with naloxone.

- Prioritize naloxone distribution to recently incarcerated persons and their social networks. Recently incarcerated people are at high risk of overdose and regularly use naloxone to save lives.

- Reduce mandatory training requirements for those who distribute naloxone. About five minutes is all that’s needed to deliver successful and effective naloxone training.

- Educate local pharmacies about naloxone access laws and dispensing naloxone to the community. Despite new regulations allowing pharmacists to dispense naloxone, levels of pharmacy distribution remain low. Reasons may include: poor understanding of naloxone access laws; not keeping naloxone in stock; and stigma against naloxone or people who use drugs.

- Support policies that treat naloxone as a public health tool, not drug paraphernalia. Naloxone possession should be encouraged and does not indicate criminal activity.
What are examples of successful naloxone distribution programs?

The first large scale effort to distribute naloxone to people who use drugs was pioneered by Dan Bigg at the Chicago Recovery Alliance in 1996.43

In Anne Arundel County, Md., the department of health offers free, ongoing trainings to teach community members how to administer intranasal naloxone. Led by the county’s Overdose Response Coordinator, the trainings are held a few times per month and equip each participant with a naloxone kit to take with them into the community.44

In 2022, the San Diego County Board of Supervisors unanimously approved a resolution to provide overdose prevention education and naloxone distribution in schools. The Board’s action will educate students and their parents about overdose risks and increase the availability of naloxone among student and parent first responders.45

Rikers Island Correctional Facility, New York City’s jail, distributes naloxone to community members who come to the jail for visitation. In the first six months of this program, 20% of the 226 visitors who received naloxone witnessed an overdose, and most used that naloxone to reverse the overdose and save a life.37

Project DAWN (Deaths Avoided with Naloxone), an initiative coordinated by the Ohio Department of Health, provides naloxone supplies to a diverse network of hundreds of organizations providing overdose education and naloxone distribution in communities.46

These and many other model programs are described online at the Brandeis Opioid Resource Connector.

ADDITIONAL RESOURCES:

Please visit the Opioid Solutions Center for a curated list of resources, technical assistance opportunities and the sources referenced in this brief.