



Naloxone Saturation Strategy

February 2025

Introduction



Purpose of the strategy

Minnesota is strongest when everyone is thriving and living their lives to the highest potential, no matter their background or zip code. This includes the nearly 300,000 Minnesotans experiencing substance use disorder (SUD) who need access to resources that support their well-being and reduce risks associated with substance use.

The State of Minnesota is committed to ensuring that every person has access to the resources and support they need to achieve and sustain long-term recovery from substance use and SUD and is focused on creating a continuum of care that supports Minnesotans wherever they are in their recovery journey. To this end, the state invests significant resources across substance use prevention, harm reduction, treatment, and recovery.

For Minnesotans with substance use disorder (SUD) the dangers of overdose are as high as they've ever been. From 2018 to 2023, opioid-involved overdose deaths significantly increased. The potency of illegal drugs such as fentanyl, coupled with an illicit drug supply increasingly contaminated with substances unknown to the user have exacerbated an overdose crisis begun by prescription opioids decades ago. One of the most effective approaches to combat the overdose crisis is harm reduction. The Substance Abuse and Mental Health Services Administration (SAMHSA) defines harm reduction as “a practical and transformative

approach that incorporates community-driven public health strategies - including prevention, risk reduction, and health promotion - to empower people who use drugs (and their families) with the choice to live healthy, self-directed, and purpose-filled lives.”¹ Harm reduction is an evidence-based practice that has demonstrated significant impact in reducing overdose deaths. Systematic reviews of 22 community-based naloxone programs show consistent improvement in overdose survival rates², with research indicating that every 10% increase in naloxone distribution is associated with an 11% decrease in overdose deaths³. Harm reduction strategies for opioid addiction focus on minimizing the negative health and social consequences associated with drug use including syringe service programs, drug checking services, and housing supports. One of the most successful harm reduction strategies is ensuring the overdose reversal, life-saving drug naloxone is present wherever and whenever an overdose occurs. Over the last several years Minnesota has made great strides in increasing the availability of naloxone across the state, mandating naloxone be available in schools, state corrections, sober homes, treatment centers, and with law enforcement. Naloxone funding has also increased from both federal, state, and local sources. To increase availability even further, the State, in collaboration with its community and government partners, is creating a naloxone saturation strategy to help guide the evolution of the system.



Vision

Naloxone saturation refers to a community's capacity to respond effectively to opioid overdoses by ensuring that naloxone is widely available, accessible, and ready for use whenever and wherever an overdose occurs. Research demonstrates that comprehensive naloxone distribution programs can reduce community overdose death rates by 27-46%⁴. Minnesota's Naloxone Saturation Strategy aims to achieve this through:

1

Evidence-based distribution methods

2

Prioritization of at-risk populations

3

Increasing the likelihood that naloxone is administered during a witnessed overdose

The State Naloxone Saturation Strategy sets forth guiding principles, key pillars, and specific approaches to achieve this vision, including ensuring the availability of both nasal and intramuscular naloxone, and developing quantitative and qualitative measures to track saturation progress within communities. This comprehensive approach ensures that naloxone saturation not only saves lives but also provides opportunities to positively change the direction of lives impacted by opioid overdoses. This strategy is intended to be iterative, and responsive to the changes of a particularly fluid and dynamic illicit drug landscape.



Guiding principles

Minnesota's strategy for achieving a comprehensive naloxone saturation system is grounded in key principles of collaboration, practice-based and evidence-based decision-making informed by both experiences of people who use drugs (PWUD) and data, health equity, cultural responsiveness, and strategic distribution. This approach aims to meet the needs of all state residents, with a particular focus on communities at highest risk of overdose.

- **Collaborative:** No single entity alone can achieve naloxone saturation, but together we can create a system that not only saves lives but improves them. Ongoing, transparent collaboration between state and local government, community-based providers, PWUD, law enforcement, and others is a vital component to the state strategy.
- **Informed by People Who Use Drugs:** “Nothing about us without us” expresses the idea that no policy should be decided by any representative without the full and direct participation of members of the group(s) affected by that policy. To ensure the most effective naloxone saturation system possible, incorporating the voices of PWUD in the design is important.
- **Data driven:** Timely, accurate, and meaningful data is necessary to ensure that communities have naloxone in the quantity and format they need, and that the state can respond with the appropriate resource when they do not. The state will work with its partners on best ways to gather actionable information and reducing reporting burden of ancillary information. The strategy acknowledges the importance of both evidence-based practice and practice-based evidence.
- **Equity focused:** In Minnesota, communities of color are far more likely to die of a drug overdose. American Indian Minnesotans are dying at over nine times the rate of White Minnesotans and Black Minnesotans at over three times the rate. Minnesota's naloxone saturation strategy recognizes these inequities and their root causes.
- **Culturally tailored and responsive:** To be effective, naloxone saturation, like all public health strategies, needs to meet people where they are. This means services that acknowledge and are responsive to the complexity and multiplicity of identities that an individual connects to, including ethnicity, sexual and gender orientation, geographical, and religious.
- **Strategic distribution:** Not only are PWUD those dying of overdose, but they are also most likely to witness an overdose. Minnesota's strategy ensures that naloxone saturation efforts are evidence-based including a focus on PWUD and those that serve them most directly, such as syringe service providers and organizations serving unhoused Minnesotans. Places such as schools, treatment centers, state corrections and sober homes are also places where naloxone is critical. Putting naloxone in other settings, along with training and education, is also important both to be on hand should an overdose occur but also for stigma reduction.

Background and context



Current state

Minnesota's current naloxone distribution system is a hub and spoke model, where state-funded partners such as harm reduction organizations and regional Emergency Medical Response (EMS) distribute and provide education and training to other partners and their communities. This approach mirrors successful programs in other states - notably Vermont's Hub and Spoke model, which demonstrated a 96% reduction in opioid use and 89% decrease in emergency department visits⁵.

In the last year Minnesota's decentralized system has been reinforced by a state-run and funded (with one-time federal dollars) online ordering portal. This portal is operated by the Minnesota Department of Health (MDH) in collaboration with the Minnesota Department of Human Services (DHS); and provides naloxone at no cost to groups that are required to have naloxone such as schools, state corrections, treatment centers, and law enforcement. It also is available to other organizations serving high priority populations such as PWUDs, Tribal Nations, and the unhoused. While the portal is currently supported with federal funds its availability turns on and off when those funds are expended. Local governments, primarily through opioid settlement funds, also fund community-based organizations to provide naloxone product, training, and education.

A strength of the hub and spoke model is that naloxone procurement and distribution is closer to the people who need it, and organizations can purchase intramuscular (IM) or nasal naloxone depending on the preference of the people they serve. The hub and spoke model also provides redundancy against relying on any single manufacturer. However, the decentralized nature of the system presents a significant challenge in tracking and measuring distribution. Research has shown that "a central challenge of measuring naloxone distribution is that naloxone flows across multiple channels, some of which are inherently difficult to track to the end user"⁶. This challenge is particularly evident in Minnesota's system, where decentralized distribution complicates accurate data collection and results in an unclear picture of naloxone saturation across different areas. This lack of visibility can hinder efforts to assess distribution effectiveness, identify high-need regions, and inform data-driven action.

Key pillars of the strategy



Pillar 1: Data integration

Ensuring naloxone saturation starts with understanding how much naloxone the state needs and where it needs to be. Currently, Minnesota state agencies do not have the data systems in place to give policy makers and communities a clear picture of the current state of naloxone distribution. A 2024 landscape analysis by Minnesota Management and Budget (MMB) found that the state currently lacks important information to measure saturation. It found that existing data is not sufficiently timely, detailed, or integrated, and notably, it does not encompass major sources of distribution. While community leaders in naloxone distribution are experts and often know what is needed, the state lacks the data infrastructure to set clear and actionable goals for distribution and respond to local needs in a timely manner. This issue is underpinned by the state's decentralized system for tracking distributing naloxone, whereby a wide array of groups procure and distribute naloxone directly from manufacturers, distributors, and suppliers. Naloxone is tracked using various platforms, data collection methods, and reporting processes. This decentralized tracking makes it challenging to gather a comprehensive picture of distribution in the state.

The state can improve its naloxone data collection in the following ways.

1 Improve quality and use of existing data to promote action

The state will leverage existing data sources, such as EMS response, overdose records, and healthcare claims for targeted intervention. This could include programmatic and statutory changes to enable data sharing and improve reporting in legacy systems. To understand the total amount of naloxone entering Minnesota the state will also seek to supplement state data with private-sector data by gathering information from manufacturers, over-the-counter retail sales, and out of state non-profit distributors. This will require new partnerships for data standardization and collection. The state also understands it is vital to provide summary data to community partners and the public, so as to inform the local response to this crisis.

2 Create new understanding with better engagement at the frontlines

Segmentation in state and local response efforts make it difficult to understand the needs at the frontlines. The state will work with its partners on developing information feedback loops with frontline organizations to gauge naloxone needs and invest in surveying and interviewing of individuals in active use.

3 Improve consistency in data collection and reporting for state-administered grants

State agencies, working collaboratively across the state enterprise, will enhance the quality of its data by standardizing and strengthening grantee reporting. This can ensure consistent, meaningful, and transparent data collection on naloxone purchases and distribution. For example, currently grantees are sometimes asked to report number of kits and sometimes number of doses. Going forward the state will just ask grantees to report number of doses.

Pillar 2: Education and training

Comprehensive training and education are vital to effective naloxone distribution. While priority is given to PWUD and those who frequently interact with them, broader education about naloxone serves as a powerful tool for reducing stigma.

The state can enhance education and training in the following ways.

1 Support naloxone education

Naloxone saturation cannot be achieved unless those administering the medicine are educated and trained on its use. Education as to what naloxone is, why it is important, and how it can save a life and perhaps create a pathway for change is a potentially powerful avenue for reducing the stigma associated with substance use disorder. The state will work with its partners to assess current education efforts and identify additional strategies that are culturally responsive, age appropriate, and seek to normalize naloxone access similar to CPR or epi-pens.

2 Create standards for training

The state can work with its partners to develop and set standards for naloxone training. This training can evolve over time to help address myths/misinformation and also topics such as the importance of rescue breathing, of the importance of breathing over consciousness, appropriate naloxone dosing, and other techniques. These trainings can help address emergent issues and trends and can be shared with both people who provide direct service to PWUD as well as the general public.

3 Promote stigma reduction

Stigma acts as a significant barrier to public health approaches to overdose prevention. The state will promote stigma reduction activities and messages with its partners across government, community, and industry. Reducing stigma will increase the adoption of Naloxone distribution and administration.

Pillar 3: Partnerships and distribution

All successful public health strategies require collaboration and partnership, and naloxone saturation is no different. Additionally, the state has a state-supervised, county-administered human services system, adding additional emphasis to the need for partnerships. Minnesota has been well-served by its community-based naloxone distribution system and will seek to build on this approach by strengthening partnerships, exploring new relationships for low barrier access, and by using its convening power to bring people together.

1 Create new and strengthen existing partnerships

Over the years the state has built strong relationships with EMS and harm reduction partners when it comes to naloxone, but there are new opportunities to work with a broader array of partners. County and local government (e.g. local public health), law enforcement, fire departments, pharmacies, religious leaders, hospitals, schools, sober homes, and other partnerships provide powerful opportunities to increase access to naloxone, reduce stigma, and develop new on-ramps for recovery.

To support current and build up additional community-based organizations the state will explore granting strategies such as mini and micro grants that can help support smaller harm reduction organizations efforts to build up their capacity and autonomy. State staff can provide technical assistance to these smaller groups to help obtain the necessary certifications to help them qualify for direct funds. The state will also seek to increase appropriate and timely data sharing with partners, so the state can identify places where naloxone is needed and work in coordination with community partners to get naloxone to those areas.

2 Encourage secondary distribution and explore new opportunities for low-barrier access to naloxone

Secondary distribution and low-barrier access to naloxone is critical for naloxone saturation. The state will encourage recipients of state-funded naloxone to do secondary distribution such as leave behind programs or offering it to the inquiring public upon request. Additionally, the state will explore more opportunities for low-barrier access such as harm reduction vending machines, publicly available naloxone storage boxes, and Overdose Education and Naloxone Delivery (OEND) points. These approaches to distribution ensure that life-saving naloxone is available 24/7 whenever and wherever it might be needed, regardless of time of day or location.

3 Use its convening power to bring people together

The state will use its power as a convener to both bring together diverse partners as well as smaller convenings with direct service providers. The state will regularly convene state-funded partners to share the latest overdose data trends from the State Unintentional Drug Overdose Reporting System (SUDORS), naloxone saturation, and other data sources and hear from local partners what is happening on the frontlines, how that does or does not reflect in the data, and what PWUDs are experiencing.

Pillar 4: Naloxone funding and procurement

Funding and procurement are foundational elements of the state's naloxone saturation strategy. Currently funding sources are primarily mixed between state, federal, and local dollars. These funding streams have implications (and vice versa) on procurement strategies such as the naloxone distribution portal and separate naloxone grant making through state and federal sources. The investment in these distribution strategies is supported by research demonstrating their high cost-effectiveness, with studies showing an expenditure of only \$421 per quality-adjusted life year gained⁷.

1 Both nasal and intramuscular naloxone needed

The state will support procurement strategies that ensure people have access to the form of naloxone that works best for them. Nasal naloxone is much more approachable to most people who have no experience with syringes, including PWUD while intramuscular is both cheaper and preferred by some PWUD. Ensuring both forms of naloxone are available is critical to meeting people where they are at.

2 Both/and approach to naloxone procurement

The state's hub and spoke model and the naloxone portal both have their strengths and are important to achieving the kind of saturation Minnesota wants to achieve. The state's historical decentralized naloxone distribution and procurement provides important local control regarding nasal or IM, connections to priority populations, more immediate understanding of conditions on the ground, and access to reduced and sometimes free pricing.

With the creation of the naloxone distribution portal, the state's hub and spoke model was reinforced with a mechanism to get naloxone out to priority groups without a lengthy and time-consuming RFP process. Given the relative speed with which it can acquire and disperse naloxone the portal can play an important role in responding to any potential saturation deserts. While the portal is currently supported with one-time federal funds its availability turns on and off when those funds are expended.

The state will continue to support the current hub and spoke model and look for additional ways to strengthen the portal to minimize down times, including identifying sustainable funding sources. Regardless of procurement mechanism, distribution will always be done at the community level.

3 Blend and braid naloxone funding

Current funding sources for naloxone include state designated grants, Opioid Epidemic Response Advisory Council (OERAC) funds, federal block and State Opioid Response (SOR) grants, local opioid settlement funds, and Teva settlement funds. The state will strategically use different funding mechanisms to support the appropriate procurement mechanism, i.e., conventional grant making to community-based organizations or to the portal, as well as look for additional funding opportunities such as through the Teva settlement.

For example, state funds may work better for non-profit partners who do intramuscular distribution and provide other harm reduction activities such as offering clean syringes, HIV/Hep C testing, etc., while federal funds are better suited for the naloxone portal. In both cases, however, funds will be blended and braided to achieve the greatest impact for naloxone saturation and community health.

4 Focus on efficiency

Resources are not endless, and the state needs to consider how to achieve saturation while ensuring we are using our resources to their best and highest use.

Conclusion

Naloxone saturation and the path to a purpose-filled life

Opioid overdoses, stemming from misuse or adulterated supply, touch every corner of Minnesota. Naloxone administration is more than a life-saving measure—it's a foundation for transformative change in our communities. While naloxone saves lives, it's just the beginning of the journey towards fulfillment and personal meaning. To empower individuals to lead self-directed, purpose-filled lives, naloxone saturation needs to be embedded and connected to a broader network of services and supports such as housing stability, treatment and recovery options including low-barrier access to medications for opioid use disorder, behavioral and physical health care, and ultimately educational and employment opportunities.

To this end naloxone saturation is a core strategy that when connected to other harm reduction, treatment, and recovery services can change the trajectory of a human life for the better.



Endnotes

- 1 Substance Abuse and Mental Health Services Available from: <https://www.samhsa.gov/find-help/harm-reduction>
- 2 McDonald & Strang. Drug and Alcohol Review, 2016. Available from: <https://pubmed.ncbi.nlm.nih.gov/27028542/>
- 3 Irvine et al. International Journal of Drug Policy, 2019.
- 4 McClellan et al. Drug and Alcohol Dependence, 2018. Available from: <https://pubmed.ncbi.nlm.nih.gov/29610001/>
- 5 Brooklyn & Sigmon. Journal of Addiction Medicine, 2017. Available from: <https://pubmed.ncbi.nlm.nih.gov/28379862/>
- 6 JAMA Health Forum. Achieving the Potential of Naloxone Saturation by Measuring Distribution.
- 7 Coffin & Sullivan. Annals of Internal Medicine, 2013. Available from: <https://pubmed.ncbi.nlm.nih.gov/23277895/>