



**CASE STUDIES**

# **Linkage to Care in Non- Public Safety Settings**

**OVERDOSE**  
DATA2ACTION



# Table of Contents

Introduction to Case Studies.....3

Linkage to Care in Non-Public Safety Settings.....4

Case Study: Massachusetts Linkage to Care and  
Overdose Education and Naloxone Distribution Program .....5

Evaluation Considerations .....9

References ..... 11

Endnotes ..... 11

## ACKNOWLEDGMENTS

We would like to acknowledge the following individuals who contributed to the development of this product:

**Suggested citation:** Centers for Disease Control and Prevention. *Overdose Data to Action Case Studies: Linkage to Care in Non-Public Safety Settings*. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, 2022.

### CDC Contributors:

Nida Ali, PhD, MPH  
Robyn Borgman, PhD  
Emily Costello, MPH, MSW  
Kari Cruz, MPH  
Minda Reed, MD, MPH  
Cherie Rooks-Peck, PhD, RD

**Contributors from  
OD2A-funded Recipients:**  
Massachusetts Department  
of Public Health:  
Linda Goldman, MBA, MSW  
Darian Leta, MPH  
Perla Roberts  
Denise Sanderson, MPH

**Disclaimers:** The findings and conclusions in this study are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention. The Centers for Disease Control and Prevention (CDC) cannot attest to the accuracy of a non-federal website. Linking to a non-federal website does not constitute an endorsement by CDC or any of its employees of the sponsors or the information and products presented on the website.

# Introduction to Case Studies

The purpose of the case studies project is to capture in-depth information from the Centers for Disease Control and Prevention's (CDC) **Overdose Data to Action (OD2A)**-funded jurisdictions about current and emerging practices related to overdose prevention and response.

Each of the highlighted jurisdictions is funded through the multiyear (OD2A) cooperative agreement which focuses on understanding and tracking the complex and changing nature of the drug overdose epidemic and highlights the need for seamless integration of data into prevention strategies. Six key topic areas identified for interviews, analysis, and dissemination are listed here. Within each topic, specific activities and programs from various jurisdictions are captured as case studies. Programs and projects were selected based on a thorough review of current OD2A activities. These case studies illustrate overdose prevention and response efforts that can be shared with practitioners as they consider how to adapt interventions to their local context.

- Adverse childhood experiences or ACEs
- Harm reduction
- **Linkage to care in non-public safety settings**
- Public safety-led post-overdose outreach programs
- State and local integration activities
- Stigma reduction

# Linkage to Care in Non-Public Safety Settings

## How does it work?

**The rate of drug overdose deaths continues to increase in the United States.<sup>1</sup>**

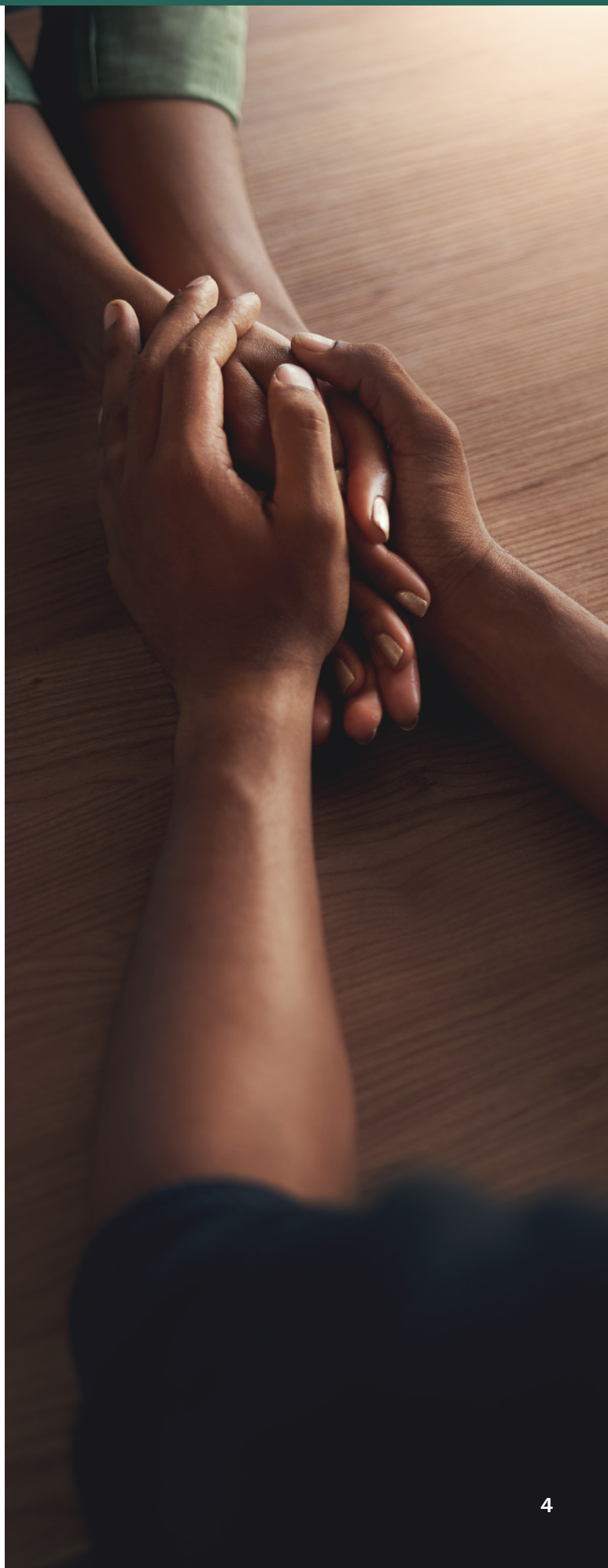
Access to care and services for persons who use drugs is critical to addressing the current overdose epidemic. Linkage to care, or the process of connecting people at risk of overdose to evidence-based treatment, services, and supports, is an integral overdose prevention strategy.<sup>2</sup> Warm handoffs by peer support navigators can help people better navigate systems of care. Events that may prompt an individual being linked to care include:

- An overdose event
- A visit to syringe services program
- Diagnosis of HIV or viral hepatitis
- Interactions with public safety

Individuals can be linked to treatment/services<sup>3</sup> including:

- Medications for opioid use disorder (buprenorphine, methadone, naltrexone)<sup>4</sup>
- Behavioral health therapy (e.g., contingency management, motivational interviewing)<sup>5</sup>
- Wraparound services such as mental health care, transportation, peer support, infectious disease care, obstetric care, or harm reduction services that can address barriers to care

Overdose education and naloxone distribution (OEND) is an important service that is commonly linked to overdose prevention. OEND aims to reduce harm and risk associated with an opioid-involved overdose and includes access to naloxone,<sup>6</sup> education, and training on how to prevent and recognize an opioid overdose and how to administer naloxone.<sup>4</sup>



# Massachusetts Linkage to Care and Overdose Education and Naloxone Distribution Program

## CASE STUDY SNAPSHOT

- The Massachusetts Department of Public Health (MDPH) funded agencies to provide HIV/hepatitis C (HCV)/sexually transmitted infection (STI) testing and linkage to care services for persons who inject drugs (PWID); these services facilitate access to HIV/HCV/STI medical care and treatment, medications for opioid use disorder (MOUD), and harm reduction services. In addition, several agencies offer overdose education and naloxone distribution (OEND) services.
- Services are provided in a range of settings including, but not limited to, service center locations, street outreach, and mobile service venues.
- The Massachusetts' Bureau of Infectious Disease and Laboratory Sciences (BIDLS) worked with several population health advisory groups and a committee of providers and consumers to solicit input from community stakeholders.
- A combination of data (overdose death, HIV surveillance, HIV/HCV/STI diagnoses, and OEND program), monthly group calls with OEND providers, and agency-level calls with each provider allow MDPH to coordinate rapid responses to evolving needs.

## DESCRIPTION OF THE PROGRAM

MDPH funded agencies to provide HIV/HCV/STI testing and linkage to care services for PWID; these services facilitate access to HIV/HCV/STI medical care and treatment, MOUD, and risk and harm reduction services. In addition, several agencies offer OEND services. Services are provided in a range of settings including, but not limited to, service center locations, street outreach, and mobile service venues.

Massachusetts has expanded interdisciplinary care/service teams in both clinical and community-based settings to bridge medical care, behavioral health,

and non-clinical professional support for PWID. In doing so, Massachusetts aims to:

- Facilitate linkage to substance use disorder (SUD) treatment
- Support recovery from SUDs
- Prevent acquisition and transmission of HIV, HCV, and STIs
- Enable individuals with HIV, HCV, or STI diagnoses to access medical care and treatment



In addition to HIV/HCV/STI testing; risk reduction/harm reduction services (e.g., syringe services); and linkage to SUD services, including MOUD, several agencies in Massachusetts provided OEND services. Two of these agencies (Lynn Community Health Center and Tapestry Health in Chicopee) used OD2A resources to replicate the OEND model in new cities and towns. Similarly, OD2A funding has enabled Health Imperatives, an organization that provides sexual health care and HIV/HCV/STI services, to expand its existing service model to out-post HIV/HCV/STI testing and linkage services in SUD treatment settings.

Holyoke Health Center used OD2A funding to provide services from recovery coaches (RCs) within a nurse-led MOUD program that is focused on building relationships with patients and providing extensive patient education, case management, and support. The main goals for RCs are 1) to help individuals, some of whom have survived overdoses, sustain recovery by providing peer and educational support and 2) to assist with patient navigation between group sessions, visits, and appointments with MOUD providers. RCs provide services onsite at the health center and in the community where they:

- Link patients to HIV/HCV/STI testing and OEND
- Support access to and maintenance of HCV treatment
- Facilitate connections to primary care
- Link clients to resources such as housing, job training, and transportation

Priority populations for these programs include people with opioid use disorder (OUD), with a focus on Black and Latinx individuals, individuals who are born outside of the United States or in U.S. territories, and men who have sex with men.

## PARTNERS INVOLVED

While there has been no formal needs assessment to inform linkage to care or OEND services, Massachusetts' BIDLS works with several population health advisory groups and a committee of providers and consumers (the Massachusetts Integrated Prevention and Care Committee) to solicit input concerning linkage to care or OEND needs and interests from community stakeholders.

The population health advisory groups include the following: Gay Men's Advisory Group, Black Advisory Group, Latinx Advisory Group, and a Behavioral Health Advisory Group.

## Additional stakeholders include:

- Medical professionals
- Hospitals
- Case managers
- SUD treatment counselors and RCs
- Local and regional health departments
- Other state agencies
- Community-based organizations
- Law enforcement
- Correctional facilities
- First responders
- The general public

## DATA USED TO INFORM THE PROGRAM

Massachusetts routinely examines both overdose death and HIV surveillance data collected by MDPH to inform where linkage to care and OEND services are most needed. HIV/HCV/STI and OEND program data reported by providers are also used to monitor service provision and to identify and address gaps. Additionally, MDPH holds monthly group calls with OEND providers and agency-level calls with each provider. Providers often use these calls to inform MDPH of population/service needs "in real time." All these sources routinely provide MDPH with valuable information, which allowed them to coordinate rapid responses as needs evolved.

## BARRIERS AND FACILITATORS TO IMPLEMENTING THE MASSACHUSETTS LINKAGE TO CARE AND OVERDOSE EDUCATION AND NALOXONE DISTRIBUTION PROGRAM

### Barriers

- Homelessness and/or housing instability presented challenges for care and service engagement:
  - Housing costs are very high in Massachusetts, and finding affordable housing can be difficult, particularly with embedded services that promote housing stability and engagement in healthcare.
  - There have been situations involving law enforcement vacating places where people experiencing unsheltered homelessness live, which can impact providers' ability

to locate clients and clients' ability to keep their belongings, which often include medication, harm reduction supplies (e.g., clean needles, hygiene kits, wound care materials), and/or naloxone.

- PWID can frequently move in and out of correctional institutions, which may lead to interruptions in care and increased risk for overdose post-release.
- PWID have varying levels of trust for traditional health care institutions, having faced stigma due to substance use, racism, and other issues (e.g., mental illness).
- The COVID-19 pandemic has created additional barriers to care:
  - Much of the interaction with program recipients was virtual during the height of the pandemic, which sometimes presented challenges for providers and clients in building and maintaining relationships.
  - Some SUD treatment settings, shelters, and correctional facilities temporarily paused outreach services to protect their clients, guests, and residents.
  - Hiring and retaining staff has been even more challenging during the pandemic, and many programs have experienced significant staff turnover and difficulty hiring.

#### Facilitators

- Highly skilled provider staff offered a range of interdisciplinary care, including clinical and non-clinical services (e.g., case management, patient education, and recovery support).
- Strong relationships existed between partner agencies and the communities served.
- A separate funding stream was used to enable agencies, including Tapestry Health, to purchase mobile units to deliver accessible, low-threshold services in the field (e.g., HIV/HCV/STI testing and linkage services and OEND).
- Collaborations with other providers (e.g., medical providers, shelters, and SUD treatment sites) enhanced opportunities to deliver OEND and linkage services in coordination with other needs.

## EVALUATION OF THE MASSACHUSETTS LINKAGE TO CARE AND OVERDOSE EDUCATION AND NALOXONE DISTRIBUTION PROGRAM

Evaluation efforts are aimed at continuous quality improvement of program services to achieve long-term goals of preventing overdose deaths, as well as linkage to care and treatment for those living with HIV, HCV, or STIs. Additionally, they aim to improve system-level changes within the communities and increase capacity to better serve those at highest risk. MDPH and other key stakeholders will use program evaluation findings to refine models of service provision and the siting of services.

### Outcomes

Current outcomes include:

#### Short-term

- Increased local and state capacity for sustainable surveillance and prevention efforts
- Increased understanding of context, resources, and needs in city/county/state
- Increased services for people with OUD at highest risk for overdose and infectious disease acquisition and transmission

#### Intermediate

- Increased state involvement in local-level prevention efforts
- Increased preparedness and response at the local level

#### Long-term

- Increased provision of evidence-based treatment for OUD
- Decreased drug overdose death rate, including prescription and illicit opioid overdose death rates
- Reduced incidence of HIV, STI, and viral hepatitis infections in PWID experiencing homelessness

## EXAMPLES OF MDPH'S EVALUATION QUESTIONS AND INDICATORS:

**Question: To what extent has local capacity for services to prevent overdoses and opioid-related infections been increased?**

### → Process Indicators:

- Number and percentage changes over time of agencies/sites providing OEND and related services
- Number and percentage changes over time of individuals participating in OEND and related services
- Number and percentage changes over time of agencies/sites implementing interdisciplinary care for people with OUD
- Percentage of individuals tested for HIV, HCV, and STIs among clients receiving HIV, HCV, STI and OEND program services
- Percentage of individuals referred to OUD prevention and treatment services among clients receiving HIV, HCV, STI and OEND program services
- Number and percentage of individuals linked to OUD prevention and treatment services among clients receiving HIV, HCV, STI and OEND program services

### Dissemination

- BIDLS offer monthly program data reports to agencies and reviews them with providers during monthly calls and other engagements, both for monitoring purposes and quality improvement
- Findings are disseminated in reports that can be shared with stakeholders

## SUSTAINABILITY

MDPH and its partners are working to ensure the sustainability of their OEND and linkage to SUD treatment service programs by securing additional funding sources beyond the current federal dollars. Massachusetts' Bureau of Substance Addiction Services will provide funding to support the Chicopee and Lynn OEND programs, but additional funding may be required for other program components.

MDPH is also identifying additional program resources for agency and community partners to bridge previously siloed areas. For example, linkage to SUD treatment services were recently added to a health center that previously provided only sexual health and infectious disease care. Ultimately, leadership, program implementors, and the community are strongly committed to continue this work.



# Evaluation Considerations

**Evaluators can consider the following when evaluating linkage to care and overdose education and naloxone distribution (OEND) services.**

## **Strategies for Successful Implementation of Linkage to Care Programs**

- Skilled provider staff who can offer a wide range of clinical and non-clinical services (e.g., case management, patient education, and recovery support)
- Strong relationships among provider agencies (e.g., medical providers, shelters, substance use disorders [SUD] treatment sites) and with the communities served
- Succession planning, including identification of multiple funding streams to promote program sustainability

## **Overcoming Barriers**

- Consider various methods of (and adaptations to) program delivery, especially in light of public health emergencies such as the COVID-19 pandemic.
- High turnover of staff with specialized skills and experiences (e.g., recovery coaches who provide critical linkage to care services) can hinder program efforts. Consider supplemental training and resources for additional staff to provide these services or fill critical program gaps.
- Homelessness and/or housing instability can present challenges for care and service engagement. Consider additional partnerships and pivots to outreach efforts, including tracking mechanisms for persons who inject drugs to facilitate linkage to care for priority populations as needed.<sup>7</sup>



## Additional Evaluation Questions and Indicators

- **Question:** What factors influence the feasibility of executing the linkage to care initiative in your jurisdiction?
  - Process Indicators:
    - Description of partnerships developed and services offered
    - Description of data quality and linkage variables
    - Completed needs assessment of the disproportionately affected populations
    - Number of trained staff available
    - Description of existing training available for staff on peer support, healthcare navigation, and other best practices (e.g., stigma reduction and trauma informed care)
- **Question:** To what extent have linkage to care initiatives been made available to the intended audience?
  - Process Indicators:
    - Number of potential recipients reached
    - Number of potential recipients contacted (e.g., via phone, home visit, email)
    - Number and percentage of potential recipients who received follow-ups (i.e., any outreach attempts after initial contact)
    - Number and percentage of potential recipients who agreed to participate
    - Number of follow-up contacts and services provided to participants

## Resources

- [CDC Overdose Prevention Evaluation Profile: Linkage to Care](#)
- [Public Safety-Led Linkage to Care Programs in 23 States: The 2018 Overdose Response Strategy Cornerstone Project \(High Intensity Drug Traffic Area, Opioid Response Strategy\)<sup>a</sup>](#)
- [National Practice Guideline for the Treatment of Opioid Use Disorder<sup>a</sup>](#)
- [Strengthening Community-Clinical Linkages to Improve Health Outcomes: Convening Summary<sup>a</sup>](#)
- [Emergency Department Naloxone Distribution: Key Considerations and Implementation Strategies<sup>a</sup>](#)



# References

# Endnotes

- <sup>1</sup> Hedegaard, H., Miniño, A. M., Spencer, M. R., Warner, M. (2021). *Drug overdose deaths in the United States, 1999–2020*. NCHS Data Brief, no 428. Hyattsville, MD: National Center for Health Statistics. 2021. DOI: <https://dx.doi.org/10.15620/cdc:112340>.
- <sup>2</sup> Mace, S., Siegler, A., & Wu, K. C. (2021). *Overdose Response and Linkage to Care: A Roadmap for Health Departments*. National Council for Mental Wellbeing. <https://www.thenationalcouncil.org/wp-content/uploads/2022/02/Overdose-Response-and-Linkage-to-Care-Roadmap-1-November-2021-1.pdf>
- <sup>3</sup> Carroll, J.J., Asher, A., Krishnasamy, V., Dowell, D. (2022). *Linking People with Opioid Use Disorder to Medication Treatment: A Technical Package of Policy, Programs, and Practices*. Centers for Disease Control and Prevention. [https://www.cdc.gov/drugoverdose/pdf/pubs/Linkage-to-Care\\_Edited-PDF\\_508-3-15-2022.pdf](https://www.cdc.gov/drugoverdose/pdf/pubs/Linkage-to-Care_Edited-PDF_508-3-15-2022.pdf)
- <sup>4</sup> Korthuis, P., McCarty, D., Weimer, M., Bougatsos, C., Blazina, I., & Zakher, B., Grusing, S., Devine, B., & Chou, R. (2017). Primary Care–Based Models for the Treatment of Opioid Use Disorder. *Annals Of Internal Medicine*, 166(4), 268–278. <https://doi.org/10.7326/m16-2149>
- <sup>5</sup> National Institute on Drug Abuse. (2018, January) *Behavioral Therapies*. <https://nida.nih.gov/sites/default/files/podat-3rdEd-508.pdf>
- <sup>6</sup> Lambdin, B. H., Bluthenthal, R. N., Wenger, L. D., Wheeler, E., Garner, B., Lakosky, P., & Kral, A. H. (2020). Overdose Education and Naloxone Distribution Within Syringe Service Programs — United States, 2019. *Morbidity And Mortality Weekly Report*, 69(33), 1117–1121. <https://dx.doi.org/10.15585/mmwr.mm6933a2>
- <sup>7</sup> Gilmore, D., & Kuperminc, G. P. (2014). Testing a model of participant retention in longitudinal substance abuse research. *American Journal of Evaluation*, 35(4), 467–484. <https://doi.org/10.1177/1098214014523822>

- <sup>a</sup> The Centers for Disease Control and Prevention (CDC) cannot attest to the accuracy of a non-federal website. Linking to a non-federal website does not constitute an endorsement by CDC or any of its employees of the sponsors or the information and products presented on the website.