

Course 4SUD

CEU By Net, LLC presents a sponsored CE Course 'Surviving the Opioid Overdose - But Now What?'

All documents and quizzes in this sponsored CEU By Net course are FREE to read, download, print, and save. Enroll in this course in the CEU By Net course catalog, if you wish to take the quizzes to earn CE Credits.

SAMHSA

Overdose Prevention and Response

TOOLKIT

With an introductory forward by SAMHSA

'The Role of Prevention Following a Nonfatal Opioid Overdose'

Study Guide 1 of CEU By Net's Course 4SUD

SAMHSA'S CENTER FOR THE APPLICATION OF PREVENTION TECHNOLOGIES

Now What? The Role of Prevention Following a Nonfatal Opioid Overdose

Post-overdose interventions should be enticing, respectful, collaborative, and work on cementing that connection between people who use drugs and services that can help them survive."

Maya Doe-Simkins, Harm Reduction Michigan

The emergency has passed. The overdose wasn't deadly and the patient is being discharged. But you understand the grim reality: people who have nearly died from an opioid overdose are at increased risk of overdosing again, and of that next overdose being fatal.^{1,2,3}

One reason for this increased risk is that many of the factors that contributed to the initial overdose—such as opioid dependence, poly-substance use, easy access to opioids, chronic pain, and/or mental health disorders—may still be present for the patient. Without appropriate intervention, these factors are likely to remain and increase in severity over time. Someone who overdoses on opioids may also suffer health-related consequences from the overdose itself, such as extreme stress; damage to the brain, heart, liver, or kidneys; and/or reduced opioid tolerance due to hospitalization/time away from use. These consequences may further increase a person's risk of and vulnerability to future overdose.

What can you do? This resource describes three post-overdose interventions that have shown promise in reducing the risk of subsequent overdoses and improving other health outcomes among people who have experienced a non-fatal overdose. Sometimes referred to as warm handoffs, these interventions represent a collaborative effort among law enforcement, medical providers, social workers, and prevention professionals to engage individuals who have experienced a non-fatal overdose and their family members in the period immediately following the overdose event.

WHAT DO OVERDOSE SURVIVORS NEED?

The primary goal of post-overdose interventions is to keep people safe—however that is defined for the individual.

For some survivors, this may mean connecting them to treatment and recovery services. For others who are not yet ready for treatment (or for whom treatment is not appropriate), this may mean providing information on how to use opioids more safely. Some survivors may also have needs that lie at the root of their opioid use, such as economic and physical safety, mental health support, and housing. While individual warm handoff approaches may not address all these needs, they do provide a unique opportunity to begin building ongoing relationships that are respectful, collaborative, and cement the connections between people who use drugs and services that can help them survive.

WHAT ARE WARM HANDOFFS?

"Warm handoffs" comprise a range of interventions aimed at helping individuals who survive an opioid-related overdose connect with the people, resources, and/or services they need to prevent future overdoses and other negative health outcomes.

Typically, these interventions involve individuals from a range of professions, including healthcare providers, law enforcement, and social workers. There is also an important role for prevention practitioners in initiating and coordinating these interventions.

In recent years, three types of warm handoff interventions have gained prominence among communities working to address opioid overdose:

- 1. Emergency department-based screening and referral:
- Emergency department-based naloxone provision; and
- 3. Post-overdose outreach and follow-up

Each type of intervention marks a unique opportunity to engage the overdose survivor: at the emergency department, as he or she is preparing to leave the emergency department, and after he or she has left the hospital. The choice of when to intervene will vary, as determined by the needs of the individual.

We briefly describe each of these strategies below. To learn more, explore the additional resources provided at the end of this tool.



Emergency Department-based Screening and Referral. Emergency departments are an ideal venue for offering a rapid assessment and intervention process known as Screening and Brief Intervention (SBI), or Screening, Brief Intervention, and Referral to Treatment (SBIRT). In this approach, counselors from within the hospital and/or external specialists, such as peer recovery coaches, use these assessment tools to determine a patient's risk for

future overdose, and suggest the most appropriate follow-up care, including treatment if appropriate.

These screening interventions also provide an important opportunity for practitioners to begin establishing a relationship with the overdose survivor; to explore factors and behaviors that may have contributed to the overdose, such as depression or homelessness; and to identify ways to support the survivor in addressing these factors. Administered prior to release, these screening and referral consultations typically take between 5–20 minutes.

This approach has worked well with patients with alcohol use disorders and has produced some strong results among patients with other substance use disorders.^{4,5} It is currently under consideration or used in New York, Massachusetts, California, Connecticut, Maine, North Carolina, Ohio, Oklahoma, Texas, and Vermont.



<u>Project ASSERT</u> in Boston, Massachusetts helps emergency department patients who demonstrate risky alcohol and drug use behavior to access treatment and care. Since 1994, Project ASSERT has offered alcohol and drug use screening and/or referral to treatment for more than 60,000 patients treated for intoxication in the emergency department.

Emergency Department-based Naloxone Provision. The goal of these interventions is to ensure that overdose survivors and those close to them leave the hospital with the lifesaving opioid overdose-reversal medication, naloxone. Many emergency departments currently provide survivors and their families with naloxone kits they can use in the event of an overdose. Often, these programs also teach family and friends how to administer naloxone and life-saving rescue breathing, and the importance of calling 911 following an overdose.

Studies have shown that take-home naloxone is associated with a reduction in fatal opioid overdose and fewer opioid-related emergency department visits. People who received both naloxone and overdose education in the emergency department were more likely to call 911, administer naloxone, and stay with an overdose victim compared to people who received overdose education only.⁶



Since April 2017, <u>Maine General Medical Center</u> has been prescribing and handing out naloxone kits to friends and family members of potential overdose victims.

Post-Overdose Outreach and Follow-up. In this approach, teams of community-based professionals (typically a counselor accompanied by someone from the police or fire department) visit the overdose survivor and his/her family in the days or weeks following the overdose event. Frequently referred to as "knock and talks," these visits offer an opportunity

Developed under the Substance Abuse and Mental Health Services Administration's Center for the Application of Prevention Technologies task order. Reference #HHSS283201200024I/HHSS28342002T. For training use only. January 26, 2018

http://www.samhsa.gov/capt/

PAGE 3

for survivors and their family and friends to learn about follow-up services, providing a bridge between the crisis and a safer future. Visits rest on a foundation of consent and respect for privacy and confidentiality. Outreach teams that include law enforcement make every attempt to minimize fear of arrest.

During these visits, outreach workers provide support, information (for example, about, insurance options and/or treatment facilities), referrals, and counseling services. Visits may focus on developing an overdose response plan, naloxone training, and/or exploring strategies for reducing the risk of another overdose (for example, by avoiding mixing opioids with other substances and/or understanding the changes in tolerance to opioids). Like all post-overdose interventions, these visits provide a starting point for building the kinds of relationships with survivors that make it more likely that they will contact professionals when they need help or treatment.



While no peer-reviewed studies have been conducted on this kind of follow-up, many communities, including **Chelsea**, **MA** and **Colerain Township**, **OH** have found them to be very helpful for survivors.

WHAT IS THE ROLE OF PREVENTION?

Prevention practitioners can play a pivotal role in supporting the implementation of post-overdose strategies.

Drawing on lessons learned from the delivery of primary prevention approaches, prevention practitioners are specifically well-positioned to do the following:



Provide audience-appropriate education and resources. Prevention practitioners can take the lead in developing and/or tailoring pamphlets, tip cards, instruction sheets, and other informational resources to support post-overdose strategies, on topics such as how to identify an overdose, use naloxone, reduce post-overdose risk, and access recovery supports. Practitioners also bring to the table experience developing and delivering trainings tailored to the needs of both lay and professional audiences, as well as expertise developing messaging designed to build awareness and support for selected interventions.



Promote community readiness. For any community-based intervention to succeed, community members must be prepared and motivated to support it. For post-overdose interventions like those described above—that rely on the participation and support of multiple community sectors, including members of the drug-using community—readiness is particularly important. Prevention practitioners have long recognized the relationship of readiness to success, and bring critical skills in readiness assessment and related capacity-

building. Some examples of how prevention practitioners can promote community readiness to adopt post-overdose interventions include:

- Increasing community knowledge about the dangers of opioid overdose;
- Increasing community knowledge of effective post-overdose interventions;
- Finding leaders and champions in the community to facilitate cross-sector collaboration; and
- Ensuring that the proper funding and other in-kind support are secured and properly allocated.



Reduce stigma. Prejudice directed toward people with substance use disorders can prevent many overdose survivors from getting the services and support they need to remain healthy. Fear of being judged can lead individuals to refuse to accept or seek help, including treatment and recovery services. Prevention professionals can play an important role in reducing the stigma associated with substance misuse by educating healthcare providers, first responders, and the community at large about what substance use disorder (SUD)related stigma is, how it impedes treatment and recovery, and how to address it. Stigmareducing strategies include:

- Promoting the use of non-stigmatizing language;
- Raising awareness of SUDs as treatable-diseases; and
- Encouraging treating those who suffer from SUDs with dignity and respect.⁷



Provide a socio-ecological lens. Prevention professionals understand that opioid misuse and overdose tend to be driven by risk factors at multiple socio-ecological levels. Some factors, such as chronic pain and mental health disorders, operate at the individual level. Others, such as having friends who use opioids and easy access to opioids, operate at the relationship and community levels. Still others, like lax policies regarding prescription opioids, operate at the societal level. Prevention practitioners can help to ensure that post-overdose approaches are integrated into comprehensive prevention approaches that address multiple factors operating at multiple levels.



Ensure that selected strategies are evidence-based. While emerging evidence confirms the effectiveness of post-overdose approaches in preventing future overdose, the research literature also cautions us that not all interventions work equally well. For example, studies have revealed critical differences in the reliability of different screening tools to detect substance use disorders.8 Some strategies also have the potential for producing unintended consequences. For example, strategies that include compulsory referral to treatment for overdose survivors may increase, rather than reduce, future overdose risk.9 The field of prevention has a long history using research to inform best practice, and can offer an important perspective on the potential ramifications of selected strategies.



Support evaluation efforts. In addition to identifying best practices backed by evidence, prevention professionals can contribute their evaluation expertise to assure that selected interventions are implemented as planned, and determine whether they are achieving their intended goals.

The field of prevention has much to contribute to the success of post-overdose approaches, but we cannot do it alone. It is important that we, as prevention professionals, seek out and work collaboratively with partners across the community—including healthcare providers, first responders, and treatment and recovery professionals—to develop and implement effective interventions that can save the lives of those who are most at risk for a future, fatal overdose.

WHERE CAN I LEARN MORE?

You will not be tested on the information in the following resource links. They are for further information and perspective.

This section includes a variety of articles, tools, and videos on post-overdose interventions. Resources developed by SAMHSA's CAPT are marked with an asterisk (*) and available at samhsa.gov/capt.

Emergency Department-based Screening and Referral

- SBIRT: Referral to Treatment. This page of the SAMHSA-HRSA Center for Integrated Health Solutions website offers a clear definition of SBIRT and a number of helpful resources, including a link to a searchable directory of drug and alcohol treatment programs by location.
- Three Strategies for Effective Referrals to Specialty Mental Health and Addiction **Services.** This presentation from the SAMHSA-HRSA Center for Integrated Health Solutions presents strategies for forming partnerships with specialty mental health and addiction services for effective referrals.
- Project ASSERT (Alcohol & Substance Abuse Services, Education and Referral to Treatment), Boston, MA. This study by staff at the Boston University School of Medicine describes Project ASSERT, which links emergency department patients with the substance abuse treatment system and with primary care and other preventive services.
- AnchorED, Rhode Island. AnchorED's peer recovery coaches are available to all 12 hospitals in the state of Rhode Island.

Emergency Department-based Naloxone Distribution

Emergency Department Naloxone Distribution: Key Considerations and Implementation Strategies. This white paper from the American College of Emergency Physicians provides information on rationale, implementation and utilization strategies, related policies and regulations, cost information, and other relevant considerations regarding setting and implementing a naloxone distribution program in the emergency department.

Developed under the Substance Abuse and Mental Health Services Administration's Center for the Application of Prevention Technologies task order. Reference #HHSS283201200024I/HHSS28342002T. For training use only. January 26, 2018 PAGE 6

Why is it So Hard to Implement Change? A Qualitative Examination of Barriers and Facilitators to Distribution of Naloxone for Overdose Prevention in a Safety Net **Environment.** Authors describe barriers to distribution programs, including those related to protocol and policy; workflow and logistical; staff roles and responsibilities; and education and training.

Community Naloxone Access

- Getting Naloxone to Those in Greatest Need: Lessons from Massachusetts* (Video). Building on lessons learned from Massachusetts, Dr. Alexander Walley, Medical Director of the Massachusetts Department of Public Health, presents strategies for getting naloxone, a safe and effective rescue medication for people experiencing opioid overdose, into the hands of those in greatest need.
- Lessons from South Carolina: Tracking Naloxone Distribution* (Video). Michelle Nienhius, Manager of Prevention Services from the South Carolina Department of Alcohol and Other Drug Abuse, discusses the importance of having an effective system for monitoring naloxone distribution.
- Opportunities for Engaging Partners to Prevent Opioid Overdose-related Deaths.* This tool presents different sectors prevention practitioners may want to engage in opioid overdose prevention efforts, along with opportunities for meaningful engagement.
- Preparing for Naloxone Distribution: Resources for First Responders and Others.* Provides a list of available resources on training first responders, both professional and lay, to prevent opioid overdose, including information on agencies doing work on this topic.
- Preventing Opioid Overdose: The Value of Naloxone* (Video). Dr. Alexander Walley, Medical Director of the Massachusetts Department of Public Health, underscores the importance of embracing naloxone distribution as a safe and effective strategy for preventing opioid-related overdose.
- State- and Community-level Partners to Engage in Opioid Overdose Prevention Efforts.* This tool is designed to help prevention practitioners identify potential partners within their state and communities, whose involvement is critical to preventing opioid overdose.
- The Role of Prevention in Addressing Opioid Overdose* (Archived Webinar). This webinar explores the role of prevention in addressing opioid overdose and opportunities for collaboration with other behavioral health sectors.

Post-Overdose Outreach and Follow-up

5 Investigates Reports from the Front Lines of the War on Opioids. Boston television team reports from the frontlines, via video and article, on a crisis response team in Chelsea, MA.

- Quick Response Team Workshop Videos. The resources on this page were developed to support Northeast Ohio communities interested in developing Quick Response Teams.
- Posing the question What's Next After Naloxone?, this article explores what the Massachusetts, Ohio, and New Mexico programs have in common.

Other Resources

- The Role of Prevention in Addressing Opioid Overdose* (Archived Webinar). This webinar explores key factors associated with opioid overdose and the critical role that prevention practitioners can play in addressing it.
- Words Matter: How Language Choice Can Reduce Stigma.* This resource examines the role of language in perpetuating substance use disorder stigma, followed by tips for assessing our own use of stigmatizing language, and steps for ensuring that the messages we deliver are positive, productive, and inclusive.

REFERENCES

¹Kinner, S. A., Milloy, M. J., Wood, E., Qi, J., Zhang, R., & Kerr, T. (2012). Incidence and risk factors for non-fatal overdose among a cohort of recently incarcerated illicit drug users. Addictive behaviors, 37(6), 691-696.

²Caudarella, A., Dong, H., Milloy, M. J., Kerr, T., Wood, E., & Hayashi, K. (2016). Non-fatal overdose as a risk factor for subsequent fatal overdose among people who inject drugs. Drug and alcohol dependence, 162, 51-55.

³Larochelle, M. R., Liebschutz, J. M., Zhang, F., Ross-Degnan, D., & Wharam, J. F. (2016). Opioid prescribing after nonfatal overdose and association with repeated overdose: A cohort study. Annals of internal medicine, 164(1), 1-9.

⁴Madras, B. K., Compton, W. M., Avula, D., Stegbauer, T., Stein, J. B., & Clark, H. W. (2009). Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: comparison at intake and 6 months later. Drug and alcohol dependence, 99(1), 280-295.

⁵Merchant, R. C., Liu, T., & Baird, J. R. (2016). Variations in Substance Use Prevalence Estimates and Need for Interventions among Adult Emergency Department Patients Based on Different Screening Strategies Using the ASSIST. Western Journal of Emergency Medicine, 17(3), 302.

⁶Dwyer, K., Walley, A. Y., Langlois, B. K., Mitchell, P. M., Nelson, K. P., Cromwell, J., & Bernstein, E. (2015). Opioid education and nasal naloxone rescue kits in the emergency department. Western Journal of Emergency Medicine, 16(3), 381.

⁷Landry, M. (2012). Anti-Stigma Toolkit: A Guide to Reducing Addiction-Related Stigma. Silver Springs, MD: The Danya Institute on behalf of SAMHSA's Central East Addiction Technology

Transfer Center. Retrieved on 12/30/2017 from http://attcnetwork.org/regcenters/productDocs/2/Anti-Stigma%20Toolkit.pdf.

⁸Merchant, R. C., Liu, T., & Baird, J. R. (2016). Variations in Substance Use Prevalence Estimates and Need for Interventions among Adult Emergency Department Patients Based on Different Screening Strategies Using the ASSIST. *Western Journal of Emergency Medicine*, *17*(3), 302.

⁹Klag, S., O'Callaghan, F., & Creed, P. (2005). The use of legal coercion in the treatment of substance abusers: An overview and critical analysis of thirty years of research. *Substance Use & Misuse*, *40*(12), 1777-1795.

Continue reading Study Guide 1 on the next page -The SAMHSA Toolkit . . .



Continuing
Study Guide 1 of
Course 4SUD

SAMHSA

Overdose Prevention and Response

TOOLKIT

ACKNOWLEDGMENTS

This update was prepared under contract number HHSS283201700074I/75S20322F42003 by A-G Associates for the Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS). The Overdose Prevention and Response Toolkit, formerly known as the SAMHSA Opioid Overdose Prevention Toolkit, was developed by the Association of State and Territorial Health Officials, in cooperation with Public Health Research Solutions, under contract number 10-233-00100.

DISCLAIMER

The views, opinions, and content expressed herein are those of the authors and do not necessarily reflect the official position of SAMHSA or HHS. Nothing in this document constitutes an indirect or direct endorsement by SAMHSA or HHS of any non-federal entity's products, services, or policies, and any reference to a non-federal entity's products, services, or policies should not be construed as such. No official support of or endorsement by SAMHSA or HHS for the opinions, resources, and medications described is intended to be or should be inferred. The information presented in this document should not be considered medical advice and is not a substitute for individualized client care and treatment decisions.

PUBLIC DOMAIN NOTICE

All materials appearing in this publication except those taken directly from copyrighted sources are in the public domain and may be reproduced or copied without permission from SAMHSA or the authors. Citation of the source is appreciated. However, this publication may not be reproduced or distributed for a fee without the specific, written authorization of the Office of Communications, SAMHSA, HHS.

ELECTRONIC ACCESS AND COPIES OF PUBLICATION

This publication may be downloaded or ordered at https://store.samhsa.gov or by calling SAMHSA at 1-877-SAMHSA-7 (1-877-726-4727).

RECOMMENDED CITATION

Substance Abuse and Mental Health Services Administration. SAMHSA Overdose Prevention and Response Toolkit. Publication No. PEP23-03-00-001. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2023.

ORIGINATING OFFICE

Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration, 5600 Fishers Lane, Rockville, MD 20857.

NONDISCRIMINATION NOTICE

The Substance Abuse and Mental Health Services Administration (SAMHSA) complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, religion, or sex (including pregnancy, sexual orientation, and gender identity). SAMHSA does not exclude people or treat them differently because of race, color, national origin, age, disability, religion, or sex (including pregnancy, sexual orientation, and gender identity).

ACKNOWLEDGEMENTS

The content of this Toolkit incorporated the thoughtful input of subject matter experts and review by the Overdose Prevention and Response Toolkit Sub-Committee comprised of SAMHSA staff.

SUBJECT MATTER EXPERTS

- Jim Albright, NRP, MS: Guilford County Emergency Services
- Yarelix Estrada, MSPH: Remedy Alliance for the People
- Mark Jenkins: Founder and CEO, Connecticut Harm Reduction Alliance
- Jennifer Miller, MA, MBA, CRADC, CCJP, MARS: Behavioral Health Network of Greater St. Louis
- Sam Rivera: Executive Director of OnPoint NYC
- Erin Russell, MHP: Health Management Associates
- Rebecca Trotzky-Sirr, MD: Los Angeles County Department of Health

SAMHSA STAFF

- Tara Andrews, MPA: Center for Mental Health Services
- Matthew Clune, MS: Center for Substance Abuse Prevention
- Tom Coderre: Acting Principal Deputy Assistant Secretary
- Amanda Doreson, MPA: Office of the Chief Medical Officer
- CAPT. Jennifer Fan, PharmD, JD: Center for Substance Abuse Prevention
- Jennifer Frazier, MPH: National Mental Health and Substance Use Policy Laboratory
- Kim Freese, LAC, MPA: Regional Director, Region 7
- Neeraj Gandotra, MD: Chief Medical Officer
- Lois Gilmore, LCSW-BCD, CRAADC, MARS: Assistant Regional Director, Region 10
- Shannon Hastings, MPH: Center for Substance Abuse Prevention
- Chase Holleman LCSW, LCAS: Center for Substance Abuse Prevention
- CAPT. Christopher M. Jones PharmD, DrPH, MPH: Center for Substance Abuse Prevention
- Sylvia Las, MPH: Center for Substance Abuse Treatment
- Riley Lynch, MPH: Center for Substance Abuse Prevention
- Erica McCoy, MPA: Center for Substance Abuse Treatment
- Michele LaTour Monroe: Center for Substance Abuse Treatment
- Lorraine Taylor-Muhammad, LMSW, MBA: Center for Mental Health Services
- Claudia Esme Nettey, BDS, MPH: Center for Substance Abuse Treatment
- Yngvild Olsen, MD, MPH: Center for Substance Abuse Treatment
- Gilberto Perez, MPH: Center for Substance Abuse Prevention
- Amy Smith, MA, LPC: Center for Substance Abuse Treatment
- Suzanne Wise: Center for Substance Abuse Treatment

TABLE OF CONTENTS

INTRODUCTION	
Overdoses in the United States	1
Toolkit Purposes and Audiences	1
Overdose Basics: Opioids	1
Overdose Basics: Stimulants and Other Drugs	2
How Overdose Occurs	2
Overdose Risk Considerations	2
OVERDOSE PREVENTION	5
Overdose Prevention and Harm Reduction	5
Treatment as Prevention	5
OPIOID OVERDOSE REVERSAL MEDICATIONS	7
Role of Opioid Overdose Reversal Medications (OORM)	7
OORMS Available to the Public	8
OORM Q&A	8
RESPONDING TO AN OVERDOSE	11
Recognize the Signs of an Overdose	11
Post-Overdose Treatment Considerations	12
Dos and Don'ts When Responding To An Overdose	13
APPENDIX 1: PEOPLE WHO USE DRUGS	14
APPENDIX 2: PEOPLE WHO TAKE PRESCRIPTION OPIOIDS	15
APPENDIX 3: PRACTITIONERS & HEALTH SYSTEMS	16
Opioid Stewardship	16
Opioid Use Disorder Treatment	17
Legal And Liability Considerations	17
APPENDIX 4: FIRST RESPONDERS	
APPENDIX 5: POLICY & SYSTEMS CONSIDERATIONS	19
REFERENCES	22

INTRODUCTION

OVERDOSES IN THE UNITED STATES

Overdose deaths remain at historically high levels in the United States. The Centers for Disease Control and Prevention (CDC) estimates that over 108,000 people died from overdose in 2022. Most of these deaths involved opioids. Although illicitly manufactured fentanyl has been a significant driver of deaths, other drugs in the illicit drug supply have become increasingly lethal and unpredictable. For example, overdose deaths involving illicit stimulants such as cocaine and methamphetamine—often in combination with opioids—have also risen. In addition, xylazine, an active ingredient in a non-opioid sedative approved by FDA for use in animals, but not approved for use in humans, is increasingly added as an adulterant to the illicit drug supply. Given these realities, it is important that everyone has access to accurate and timely information about overdose risk and prevention—understanding what to look for and how to respond when an overdose occurs can help save lives. Evidence-based interventions are available—knowing when and how to use them can help end the overdose crisis.

TOOLKIT PURPOSES AND AUDIENCES

The primary purpose of this Toolkit is to educate a broad audience on overdose causes, risks, and signs, as well as the steps to take when witnessing and responding to an overdose. It provides clear, accessible information on opioid overdose reversal medications, such as naloxone. This Toolkit serves to complement, not replace, training on overdose prevention and response. It is also intended to augment the use of other overdose prevention tools for community engagement and planning, as well as enhance provider education across multiple practice areas.

Overdose education and response tools have the greatest impact when focused on people who use drugs because they are most likely to witness and respond to an overdose.³ However, it is important to recognize that anyone could witness an overdose—whether on the street, at work, at home, in a clinical setting, or in a school. This Toolkit is therefore available for everyone to provide basic knowledge on how to recognize and respond to an overdose.

Some audiences may benefit from tailored information, guidance, and resources. Therefore, this Toolkit also includes sections for specific audiences, including people who use drugs (and their family members or caregivers) in Appendix 1; people who use prescription opioids in Appendix 2, practitioners, and health systems in Appendix 3, and first responders in Appendix 5 of this Toolkit also includes information and links to resources on policy and systems considerations for planning community overdose prevention and response initiatives.

OVERDOSE BASICS: OPIOIDS

Opioids are powerful substances that activate opioid receptors, which are present in cells throughout the body and are especially concentrated in the brain. This activation leads to chemical changes that block the experience of pain and produce euphoric effects, often described as an intense sensation of warmth or well-being. Medical practitioners have prescribed opioid medications for the treatment of acute and chronic pain, severe cough, and diarrhea for hundreds of years. Under the supervision of a medical provider, prescription opioid medications can be effective and safe to use for certain types of conditions.⁴ Common names for prescription opioids include morphine, codeine, oxycodone, hydrocodone, fentanyl, and hydromorphone.

Prescription opioids are also shared, sold, and used illicitly outside of a medical setting or a practitioner's supervision. Behaviors that put a person at greater risk of overdose include using prescription opioids for reasons not intended by the prescription and altering their form of ingestion, such as crushing, snorting, smoking, or injecting. People who share their prescribed opioids with family or friends may not realize that doing so places their friend or family member at risk for overdose. Drugs that are sold or purchased on the street are unregulated, meaning that their potency and content are unknown, and may include lethal amounts of drugs. Drugs that are sold on the street also may be combined with other active or inactive ingredients that affect their potency and effect.

It is important to understand that illicitly manufactured fentanyl or other illicit opioids are often found in counterfeit pills, which are made to look like prescription drugs. They may also be added to other illicit drugs such as methamphetamine or cocaine. As a result, individuals using unregulated drugs may be exposed to fentanyl or other synthetic opioids unknowingly—further increasing risk for an overdose.

OVERDOSE BASICS

In addition, people who use opioids, whether prescribed or illicit, can experience other negative side effects. For example, opioids can reduce saliva, often leading to a dry mouth, and cause constipation in some people. When people take a high dose of opioids for more than a week, the opioid receptors in their bodies can become used to that amount. This phenomenon, called *tolerance*, happens with many substances and medications, not just opioids. It is the body's way of adjusting to a specific dose or amount and means that an increasingly higher dose will be needed to experience the same effects.

The body's adjustment to dose is part of an expected phenomenon known as physical dependence. Physical dependence includes both a tolerance and a withdrawal component. Withdrawal can happen when a person suddenly stops taking an opioid or sharply reduces the amount to which their body has become tolerant. During withdrawal, the person experiences unpleasant symptoms, such as vomiting, diarrhea, severe abdominal cramping, runny eyes,runny nose, diarrhea,and severe anxiety.

FENTANYL IS A STRONG,

SYNTHETIC OPIOID that can be prescribed by a practitioner or obtained from unregulated sources when it is made illicitly. In some cases, fentanyl is also mixed with other illicit drugs, such as cocaine or methamphetamine. A person using that drug may not know they are also taking fentanyl or how much fentanyl they are taking. Fentanyl is now common in the illicit drug supply, and in recent years has become more common than heroin. Synthetic opioids, primarily illicitly manufactured fentanyl, are involved in most drug overdose deaths in the U.S.

Withdrawal from opioids is usually not fatal, but people can become extremely dehydrated during withdrawal—which can lead to death.⁵ Physical dependence also does not automatically mean that the person has an opioid addiction or are not in recovery from an opioid use disorder. For example, people taking opioids for cancer pain or individuals taking methadone or buprenorphine for the treatment of an opioid use disorder may experience withdrawal if they abruptly stop taking or significantly reduce the dose of these medications. This is only a manifestation of physical dependence and does not mean that they meet other diagnostic criteria for an opioid use disorder.

OVERDOSE BASICS: STIMULANTS AND OTHER DRUGS

Stimulant use, in particular methamphetamine use, has been on the rise in the United States since 2009.⁶ The rise in overdose deaths involving stimulants and opioids represents the most recent dimension of the ongoing overdose crisis.⁷This follows successive surges in overdoses related to prescription opioids, then heroin, and illicit fentanyl. Many deaths from stimulant drugs also involve an opioid, suggesting that some people may be buying unregulated stimulant drugs without knowing they contain fentanyl; however, patterns of stimulant use also have been changing, with a noted increase in people reporting use of both stimulants and opioids.^{8,9,10,11,12}

People can experience an overdose of methamphetamine or cocaine without opioid involvement, which is referred to as *overamping*. Overamping often affects multiple organs at the same time.¹³ People might present with cardiac symptoms, such as chest pains or heart palpitations, or appear to be experiencing a stroke. Some people experience psychiatric symptoms, such as agitation, delirium, or trauma. A lack of sleep, poor diet, or dehydration can increase the risk of overamping. Cocaine overdoses, in particular, are more likely to cause seizures, heart attacks, and strokes.

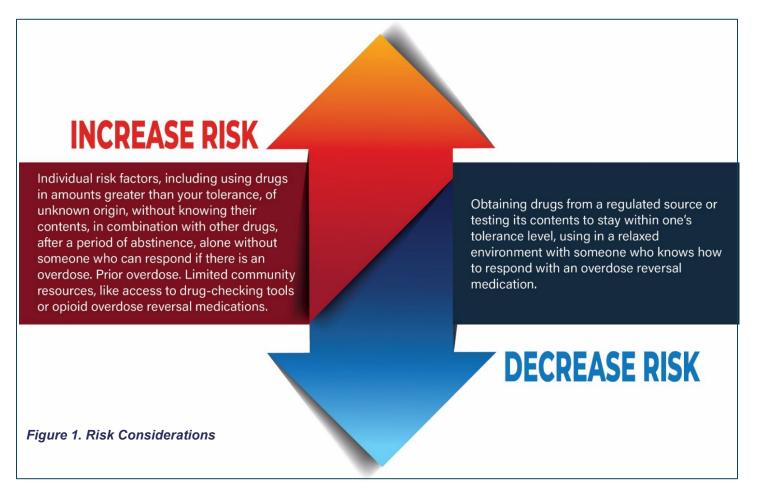
If stimulant overdose or overamping is suspected, seek medical assistance as quickly as possible. Although there is no available medication that can reverse stimulant overdose, as naloxone reverses opioid overdose, there are prescription medications and medical treatment that can manage acute symptoms.

HOW OVERDOSE OCCURS

An overdose occurs when someone takes more of a drug than their body can handle. In an overdose, the substances or medications that a person has taken can overpower the brain and other organs, preventing them from functioning normally. For example, an opioid overdose causes breathing to slow or even stop, depriving cells of the brain and heart of life-sustaining oxygen. This slowed or stopped breathing is called *respiratory depression*, which occurs because the opioids affect the breathing center in the brainstem. Without intervention, overdose can lead to death.

OVERDOSE RISK CONSIDERATIONS

Overdose risk in each individual increases or decreases depending on individual factors and community context. In Figure 1 below are some key examples, not an exhaustive list, of individual and community-generated risk factors.



INDIVIDUAL RISK FACTORS

- Taking an amount of a drug that is greater than your tolerance level. This may include using drugs after a
 recent period of abstinence, which may decrease previous tolerance levels.
- Returning to drug use after leaving jail/prison or healthcare setting where a medication for opioid use disorder was not provided or taken.
- Returning to drug use before receiving another injection of naltrexone, an FDA-approved medication for opioid use disorder, since the opioid blockage effect of naltrexone will have worn off and prior tolerance levels will have decreased.
- Taking a drug that is much stronger than what you are used to taking.
- Using a drug when you have underlying lung or heart conditions that leave you unable to tolerate lower levels of oxygen, such as asthma or sleep apnea.
- Using a similar drug to the one with which you have experienced a prior overdose.
- Combining different drugs—for example, opioids with other sedating substances such as benzodiazepines or alcohol.
- Using drugs alone without notifying someone who can respond using an overdose reversal medication.

OVERDOSE BASICS

COMMUNITY CONTEXT

- Due to clinic closure or inadequate access to health system providers to address pain treatment or OUD treatment, switching from prescription opioids to unregulated street-purchased opioids that have unknown contents and potency.
- Not having access to drug checking tools to test illicit drugs for contents prior to use.
- Not having easy and timely access to opioid overdose reversal medications.
- Not checking for prescriber or pharmacist error, or misunderstanding instructions that can lead to taking a medication more often or at a higher dose than was intended.
- Using a substance or taking a medication obtained from an unregulated source and not knowing its contents.
- Using drugs in an unfamiliar or stressful environment, which can reduce awareness of and access to overdose prevention tools.

OVERDOSE PREVENTION

OVERDOSE PREVENTION AND HARM REDUCTION

It is important to distinguish that overdose prevention involves actions before, during, and after acute overdose. Overdose prevention includes taking steps to reduce the risk of overdose in the first place, responding to an overdose by administering naloxone or other opioid overdose reversal medications, and referring the person to harm reduction services and supports.

Harm reduction services and supports can include syringe services programs, drug checking, and providing medications for opioid use disorder (MOUD), as well as the provision of or linkages to other evidence-based treatments for substance use disorders (SUDs) and prevention, screening, referral, and treatment services for infectious diseases such as HIV and viral hepatitis, and wound care.

Understanding the risk factors involved in overdose can help individuals take informed steps to mitigate them.

evidence-based, practical, and transformative approach that incorporates public health strategies—including prevention, risk reduction, and health promotion—to empower people who use drugs (PWUD) and their families with the choice to live healthier, self-directed, and purpose-filled lives. Harm reduction centers the lived and living experience of PWUD, especially those in underserved communities, in these strategies and the practices that flow from them.

- 1. Consider personal risk for overdose: The level of risk and strategies for prevention differ depending on whether you are taking a prescription medication as prescribed by your practitioner, are a patient receiving long-term pain management, or are obtaining and using illicit opioids.
- 2. Gather more information: Ask your prescriber and pharmacist questions. If you are taking prescription opioids for a medical condition, be sure to understand the medications you are taking by reviewing the potential interactions with other medications or substances and confirming the prescribed dosage. If you are using illicit opioids obtained on the street, consult a trusted source such as a harm reduction provider, practitioner, or pharmacist for overdose prevention information. Everyone who takes opioids or knows someone who does should learn the signs of an overdose and how to respond.
- 3. Take action: Empower yourself to take steps to reduce your risk of overdose. Obtain an opioid overdose reversal medication such as naloxone or nalmefene, as well as fentanyl and xylazine test strips.

Information on treatment services available in or near your community can be obtained from your state health department, your state alcohol and drug agency, or SAMHSA's FindTreatment.gov at https://findtreatment.gov/. You also can call SAMHSA's National Helpline at 1-800-662-HELP (4327) or text 435748 (HELP4U) for 24/7, 365-day-a-year free and confidential treatment referral. The 988 Suicide and Crisis Lifeline may also be helpful for people experiencing a mental health or substance use crisis that does not require an acute medical intervention. For more information, see the Resources section at the end of this Toolkit.

TREATMENT AS PREVENTION

Effective treatment of SUDs can reduce the risk of overdose and help those who have experienced an overdose make positive changes and attain a healthier life. Opioid use disorder (OUD) is a chronic disease, much like diabetes, high blood pressure, or heart disease. Evidence-based treatment for OUD includes the use of medications approved by the U.S. Food and Drug Administration (FDA). Three medications for opioid use disorder (MOUDs) are approved by the FDA to treat OUD: buprenorphine, methadone, and naltrexone. Methadone and buprenorphine in particular have been associated with significant reductions in risk for overdose death.^{4,14,15,16}

Research has demonstrated that all three MOUDs are safe to use for months, years, or even a lifetime in supporting recovery from OUD; integrating counseling and psychosocial support with MOUD treatment may have additional benefits for some patients. MOUDs normalize brain chemistry, block the euphoric effects of opioids, relieve cravings (methadone and buprenorphine), and normalize body functions without the negative and euphoric effects of the substance used. ¹⁷ All providers who prescribe controlled medications can also prescribe buprenorphine for OUD (or refer for methadone treatment as this can only be provided in special Opioid Treatment Programs). Naltrexone is not a controlled medication and can be prescribed by any provider as long as it falls within their scope of practice.

OVERDOSE PREVENTION

There currently are no FDA-approved medications for the treatment of stimulant use disorder. However, contingency management is a proven, effective behavioral intervention to support recovery in people with stimulant use disorder and as a complement to MOUD for individuals with OUD.

CEU By Net note: There are two study guides in this course, and two quizzes. This is the end of Study Guide 1 of Course 4SUD.

You can take Quiz 1 now, or you can proceed to read Study Guide 2, and take Quiz 1 and Quiz 2 when you are ready.

To locate the two Quizzes and two Study Guides for this course, return to your *My Home Page* and click the name of this course:

Course 4SUD - Surviving the Overdose - But Now What?

All courses in which you have enrolled appear on your My Home Page.