



# Why Overdose Matters for HIV

For most drug users and people who work with them, overdose is an urgent issue. Many AIDS, harm reduction, and other drug service organizations have created programs to educate people who use drugs about overdose prevention and response techniques; to distribute naloxone – a safe and highly effective opioid overdose antidote that is included in the World Health Organization’s Model List of Essential Medicines<sup>2</sup>; and to document the extent of overdose and the success of responses. But funding has been limited. Recently, the Global Fund to Fight AIDS, Tuberculosis and Malaria issued guidance that they will support these kinds of overdose prevention activities<sup>3</sup>. Other AIDS funders are beginning to follow this lead, and service providers should ensure that overdose services are available to their drug-using clients directly or through local referral networks. This document presents arguments that organizations can make to AIDS funders to show that overdose prevention and response matter for HIV programming.

*If you ever get in a meeting with some professional type people, tell ‘em that, you know, people like us – no, we’re not professionals, but if we have [naloxone] at hand we can save somebody’s life with this stuff... it’s a lifesaver, there’s no question.*

Overdose program participant, Chicago <sup>1</sup>

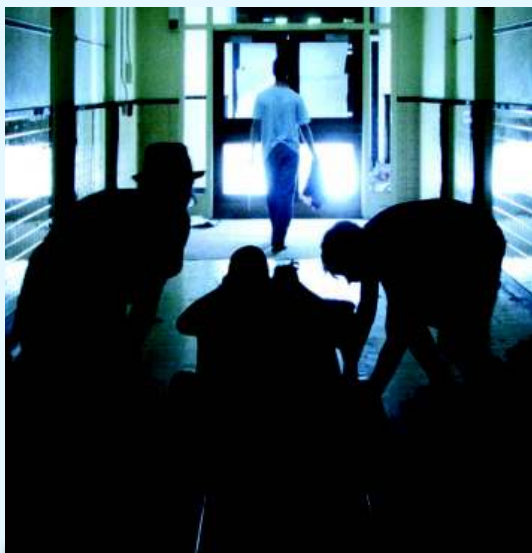
## What is naloxone?

Naloxone—also known by the brand name Narcan—is a safe, highly effective antidote to opioid overdose. It binds to the same receptors in the body that receive heroin and other opiates; it “kicks out” the opiates and reverses the respiratory depression that leads to death from overdose. Naloxone cannot get you high and has no potential for abuse. Naloxone is not a controlled substance, though in most countries it does require a doctor’s prescription.

# Background

In Eastern Europe and Central Asia, a report by the Eurasian Harm Reduction Network found that overdose was common in Kyrgyzstan, Latvia, Romania, Russia, and Tajikistan<sup>4</sup>. According to the report, Russia officially reported 9,354 overdose deaths in 2006, by far the highest rate in the region.

Overdose is a well-documented major cause of death among opioid users, and is an issue among stimulant users as well – especially people who use cocaine<sup>5 6 7 8</sup>. Drug users regularly experience and witness overdose; a survey in Russia found that 59 percent of injection drug users had experienced an overdose, and 81 percent had witnessed an overdose<sup>9</sup>. Drug overdose experiences start occurring soon after initiation of injection; one study in northern Vietnam found that 43 percent of injection drug users had experienced a non-fatal overdose in their lifetime (half of the study participants had been injecting for less than three years<sup>10</sup>). Drug users can and do respond to overdoses that they witness: nearly a third of respondents in a study in Bangkok, Thailand had experienced an overdose, while 68 percent had witnessed one, and the majority responded by performing first aid or taking the victim to the hospital<sup>11</sup>. As the people most likely



to be present at the time of an overdose, people who use drugs deserve the information and tools to enable them to respond most effectively.

At least 15 countries in Europe, Asia and North America currently have programs that provide overdose prevention education and distribute naloxone to opioid users. These programs train drug users as well as their friends and family members on how to use naloxone and provide aftercare to someone who has overdosed. Naloxone-based overdose prevention programs began in England, Germany, and the United States in the mid-1990s, and many are already showing results. The number of fatal overdoses declined by more than 30 percent in Chicago within three years of the overdose program's expansion in 2000<sup>12</sup>, and similar results have been documented in Baltimore<sup>13</sup>, San Francisco<sup>14</sup>, and the state of New Mexico<sup>15</sup>. A large-scale randomized controlled trial of naloxone distribution to prisoners upon release – called the N-ALIVE study<sup>16</sup> – is currently underway in England.

# Linking Overdose Prevention to HIV Efforts

Fatal and nonfatal overdose are serious public health concerns. Program implementers and health care providers who work with drug users should be trained in overdose prevention. Moreover, overdose prevention and response are necessary components of quality HIV programming for people who use drugs. The following are seven reasons why we must link HIV/AIDS services with overdose prevention and education.

**1. Overdose is a significant cause of mortality among people living with HIV.** Overdose has been documented as a leading – and in some cases the number one – cause of death among injection drug users living with HIV in many countries, including Canada<sup>17</sup>, the United States<sup>18</sup>, India<sup>19</sup>, Spain<sup>20</sup>, France<sup>21</sup>, and many others<sup>22 23 24 25 26 27 28 29</sup>. Overdose caused approximately 21 percent of all deaths among people living with HIV/AIDS in Russia in 2007, second only to tuberculosis<sup>30</sup>. Overdose often greatly exceeds HIV and other infectious disease as a cause of death among injection drug users<sup>31</sup>.

**2. HIV infection puts people who inject drugs at greater risk of fatal overdose.** HIV infection is associated with an increased risk of fatal overdose<sup>32 33</sup>, due in part to systemic disease and liver damage associated with HIV infection<sup>34</sup>. More broadly, compared to their non-injection drug using peers, annual mortality rates have been found to be 13-17 times greater among people who inject drugs, much of which is attributable to overdose<sup>35</sup>. HIV care and treatment providers should therefore prioritize providing overdose prevention support to their drug-using patients.

**3. Overdose prevention services connect people who use drugs to HIV prevention, drug treatment, primary health care, and other basic services.** Consistent experience from harm reduction organizations around the world suggests that overdose prevention programs help draw in new participants to HIV prevention services, subsequently building links to drug treatment, primary health care, HIV/HCV testing, care and treatment, and other health services. By expanding the breadth of care and support and addressing the priorities of people who use drugs, HIV prevention services may expand coverage and more effectively fight the HIV epidemic. People also often question behavior and circumstances that lead them to experience an overdose, which can result in positive

*We came to the jail and already people there had heard about naloxone. Rumors about our project had been spreading among drug users, which has definitely helped us attract more clients.*

Outreach worker in Naberezhnye Chelny,  
Russian Federation

change. Results from a prescription naloxone program found that in the six months following training on naloxone administration, participants had a decrease in injection frequency and were more likely to enter drug treatment<sup>36</sup>. After experiencing an overdose, about half of the participants in another study who talked to someone about drug treatment options enrolled in drug treatment<sup>37</sup>. Service providers can support such steps by providing referrals and actively facilitating access to the drug treatment services that people desire.

*I did SOMETHING, you know,  
that made a difference.*

*The whole world can't  
see it but I know it made  
a difference. And that's  
important ... to me.*

Overdose program participant,  
Chicago<sup>39</sup>

#### **4. Overdose prevention empowers people who use drugs and who have or are at risk of acquiring HIV.**

Overdose education and naloxone distribution put powerful tools in the hands of people who use drugs, much as syringe exchange enables people to take charge of their health. In interviews with overdose program participants, saving someone's life from an overdose is consistently described as a profoundly moving experience. Research has shown that with appropriate training, people who use drugs are as skilled as medical providers in correctly recognizing overdose and assessing when

naloxone is indicated for use<sup>38</sup>. Considering the high prevalence of overdose, the safety and relatively low cost of overdose interventions, and the efficacy of peer response to overdose, people who use drugs should not be obstructed from taking steps to prevent overdose from occurring, or to reverse a witnessed overdose.

**5. Overdose may exacerbate HIV-related disease.** Nonfatal overdose is associated with a number of disease sequelae, including pneumonia, pulmonary edema, acute renal failure, rhabdomyolysis, immune suppression, physical injury, and other conditions<sup>40 41 42 43</sup>. Any of these outcomes may be made worse by HIV infection, or may lead to HIV-related complications. In settings where ARV delivery is not well integrated in the health system, nonfatal overdose with or without subsequent hospitalization may result in unplanned HIV treatment interruption. Respiratory illnesses commonly occur among HIV-positive individuals, such as tuberculosis, bacterial pneumonia, and other obstructive pulmonary diseases<sup>44 45 46 47</sup>; respiratory illnesses such as these may further put drug users at risk of overdose death following opioid-induced respiratory depression.

**6. Many of the same policies that increase risk of HIV infection among injection drug users also increase the risk of overdose; addressing overdose risk can impact HIV risk.**

State policies that criminalize and incarcerate people who use drugs or prioritize abstinence-based, often compulsory, drug treatment are well documented to increase the risk of HIV infection. These same policies and release from prison greatly increase the risk of overdose<sup>48 49 50 51 52 53 54 55 56</sup>. Health and social welfare programs that serve people who use drugs inside or exiting from these settings have an opportunity to support overdose prevention when people are at greatest risk for experiencing an overdose. In addition, structural interventions to address these overdose risks can also reduce HIV risk.

**7. Overdose is a serious concern among people living with HIV who use drugs.**

Virtually any survey of injection drug users shows that large majorities have both experienced and witnessed overdoses, and that a significant proportion have experienced multiple overdoses in their lifetime. In a study of injection drug users in the United States, 87 percent were strongly in favor of participating in an overdose management training program to receive take-home naloxone and training in resuscitation techniques<sup>57</sup>. The majority of drug users in a study in Australia reported positive attitudes toward naloxone distribution (89 percent said it was a “good” or “very good” idea) and 92 percent said they were willing to participate in a related training module<sup>58</sup>. A key component for successful programs working with people who use drugs is being responsive to the needs of the patients and clients themselves.

*INPUD recognizes that overdose is a major cause of death among people who use drugs. There are clear and effective ways of empowering people who use drugs to reduce their chances of overdose and to save the lives of their friends and peers when overdose does occur. We must strive to make available lifesaving information and technologies, especially for people living with HIV who may be at high risk of overdose. Failure to do so is a failure to support the health and human rights of people who use drugs.*

Mat Southwell, Project Manager,  
International Network  
of People Who Use Drugs

## In summary

**National and international agencies that fund and implement health services for people who use drugs have an opportunity to reduce the growing, worldwide overdose epidemic. Experience has shown that overdose prevention and education and naloxone distribution to both illegal and legal opioid users can enhance HIV programming and are feasible and effective in many different settings, including harm reduction outreach programs, AIDS and drug treatment services, emergency medical departments, and prisons. Disease and death from overdose are unacceptable, preventable, and rightly within the mission of HIV and drug service organizations to address.**



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