

# Preventing Unintentional Drug Overdose

## THE CURRENT OVERDOSE CRISIS

The United States is experiencing an epidemic of overdose deaths. Within the past decade, unintentional drug overdose overtook motor vehicle accidents to become the leading cause of accidental death among adults in the United States.<sup>1</sup> Overdose deaths are driven by the class of drugs known as opioids, which includes drugs such as heroin, morphine, oxycodone, hydrocodone, and fentanyl. In high doses, opioids cause respiratory depression, cessation of breath, and eventually, cardiac failure.<sup>2</sup> Risk factors for overdose include taking too much of a drug, combining opioids with drugs that depress the central nervous system like benzodiazepines (e.g., Valium or Xanax), using drugs alone, and drug use after a prolonged period of abstinence.

The overdose epidemic in the United States continues to worsen, with 63,632 overdose deaths in 2016 and 70,237 in 2017.<sup>3</sup> Opioid-involved overdoses accounted for two thirds of drug overdose deaths in 2017.<sup>3</sup> Fentanyl accounts for the large increase in the rate of overdose deaths. Approximately 40 times stronger than heroin and costing roughly 18 times less than heroin per kilogram, fentanyl contributes to overdose because it is potent, short-acting, and people are unsure or unaware of its presence in the drugs they are using – it cannot be identified in other drugs by sight, smell, or taste.<sup>4</sup>

## OPIOID OVERDOSE DEATHS ARE PREVENTABLE

Currently there is evidence to support the following recommendations:

### Avoid or reduce combined use of psychoactive substances

Benzodiazepines and alcohol increase the likelihood of an opioid overdose.<sup>2</sup> Judicious opioid prescribing guidelines encourage prescribers in healthcare practice to assess and mitigate potential risks to patient health. Providers can reduce patient overdose risk by consulting the prescription drug monitoring program and exercising caution when co-prescribing opioids with other central nervous system depressants, such as benzodiazepines (a class of medications which include lorazepam, diazepam, clonazepam and others).<sup>5</sup> Prescribers should screen patients being prescribed any psychoactive substance for alcohol use, and should suggest avoiding or reducing combined use of psychoactive substances including alcohol. Providers should screen for and identify patient overdose risk factors by reviewing the electronic health record.<sup>6</sup>

### Guarantee access to medication-assisted treatment (MAT)

Extended treatment for opioid use disorder (OUD) with buprenorphine (commonly prescribed in the buprenorphine-naloxone formulation), methadone, or naltrexone is associated with reductions in overdose.<sup>7,8</sup> Individuals treated for opioid overdose are at increased risk of subsequent fatal overdose, underscoring the importance of engaging and retaining this group in MAT following such an event.<sup>9</sup> Pregnant women with opioid use disorder can be treated effectively with either buprenorphine or methadone,<sup>10</sup> and adolescents with opioid use disorder also benefit from MAT provided in youth-specific care settings.<sup>11</sup> To guarantee access to these medications, coverage gaps in state Medicaid plans and marketplace health insurance must be closed, and the requirement of prior authorization for their prescribing eliminated.<sup>12</sup>

### Make naloxone widely available

Naloxone (Narcan) is a medication designed to reverse an opioid overdose by directly countering the effects of opioids and hence restoring normal breathing. In early 2018, the United States Surgeon General issued a rare national advisory urging Americans to know how to use naloxone and to keep it on hand.<sup>13</sup> Historically a standard medication in emergency medicine, community-based naloxone training and distribution programs have expanded across the US over the past decade. When properly trained, bystanders can recognize the signs of overdose and administer naloxone to save a life.<sup>14</sup> In 2013, community-based programs distributed naloxone to almost 38,000 laypersons across the country, and documented reports of more than 7,000 overdose reversals in that year.<sup>15</sup>

### Establish supervised consumption services

Supervised consumption services (SCS) refers to a service where people can use drugs in a monitored environment, ensuring there is opportunity for intervention in the event of a medical emergency, such as an overdose. Currently 12 countries have established SCS and many are supervised injection facilities (SIFs), specifically designed to reduce health risks related to injecting drug use. For their users, SIFs facilitate safer drug injecting practices, reduce overdose frequency, and enhance access to health and social services including drug treatment.<sup>16</sup> Although not yet evaluated in the US, SCS have been found to be cost effective, are not associated with increases in drug-related crime, and improve public order.<sup>16</sup> As of the end of 2018, no overdose-related deaths have been reported at an SCS.<sup>17</sup>

### Implement comprehensive Good Samaritan Laws

Good Samaritan laws provide legal protections to those who provide assistance to people they believe to be injured, ill, in danger, or incapacitated. In the event of an overdose, witnesses may hesitate to call 911 because they fear police involvement.<sup>18</sup> To encourage bystanders to call for emergency assistance in response to overdose, as of 2018 46 states and the District of Columbia have enacted Overdose Good Samaritan Laws to provide legal protections for overdose victims and the witnesses who try to save them.<sup>19</sup> People who use drugs (PWUD) will be more likely to call 911 in an overdose event if they feel confident in these protections.<sup>20</sup>

Overdose deaths can be prevented with several very simple strategies. People who use drugs should be counseled to avoid harm with the following key messages:

- Do not use alone
- Take turns using
- Do a test shot
- Do not mix drugs
- Have naloxone nearby

Source: NYC Department of Health and Mental Hygiene

## Monitor and adjust for increased potency in illicit or unregulated drugs

Given the increasing presence of fentanyl in illicit drug markets in a growing number of regions throughout the country, people who use drugs report adopting various strategies to reduce overdose risk that are worth reinforcing (see box). Techniques include sampling a small amount of drugs through non-injecting routes (snorting, smoking, or tasting), a test injection, and observing the reaction to use of any given batch of drugs of people with a higher tolerance before self-injecting.<sup>21,22</sup>

There are test strips available that can detect whether fentanyl is present, although the concentration of fentanyl in the drug is a more relevant indicator of overdose risk.<sup>23</sup> Methods for quantifying fentanyl concentration are more costly and this sort of testing is unavailable in most areas. Clinical toxicology screening in healthcare practice can identify fentanyl use or exposure among patients and guide education, while also serving as a proxy surveillance measure for levels of fentanyl in the local illicit market.<sup>24</sup> Health departments should monitor the prevalence of fentanyl in illicit drug markets in their jurisdictions and make public advisories when appropriate. Policy makers should implement any needed regulations, policies, and funding to make fentanyl test kits available to PWUD through systems and programs that have contact with PWUD or that PWUD can readily access such as syringe exchange programs and SCS as well as other settings.

## Address overdose vulnerability among people recently released or being released from criminal justice settings

Release from prison is a significant risk factor for overdose mortality,<sup>25</sup> and illicit or non-prescription opioid use is associated with criminal justice system involvement.<sup>26</sup> Correctional health authorities should offer MAT to incarcerated individuals with OUD, and should initiate treatment prior to release, continue or initiate treatment upon release and/or actively link those with OUD who are being released to MAT providers.<sup>27</sup>

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