CITY OF PHILADELPHIA
OVERDOSE FATALITY REVIEW
2021

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The mission of OD Stat is to reduce drug-related deaths and harms associated with substance use and prohibition, by advancing systems-level change through city-wide collaboration and a recommendations process aimed at promoting the health and wellness of people who use drugs.

**OD STAT LEADERSHIP**

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**OD STAT ATTENDEES/PARTNER AGENCIES**
Executive Summary

Provisional data from the CDC’s National Center for Health Statistics indicate that there were an estimated 100,000 drug overdose deaths in the United States during the 12-month period ending in April 2021. An estimated 78,056 deaths occurred during the same period the year before, marking an increase of 29% from 2020 to 2021. In the same 12-month period, Philadelphia recorded an increase of 8.7% from the 1,147 deaths during the same period the year before.

The fact that Philadelphia’s increase in substance use-related deaths was lower than the national increase could be attributed, at least partially, to the expansion of treatment and harm reduction services seen citywide, though the increase was variable, reflecting geographic and racial disparities.

Overdose deaths are preventable.
That over 1,200 people a year continue to die of drug overdoses in Philadelphia is indicative of the need to redouble the City’s efforts to reduce substance use-related fatalities and potential harms related to substance use and prohibition. Overdose and other substance use-related deaths are preventable. Each person reviewed in OD Stat represents both a tragedy and an opportunity to understand how the various agencies in Philadelphia can improve their systems and policies to better ensure the health and safety of Philadelphians who use substances.

The national 29% increase in overdose deaths also signals the profound impact of Covid-19 on the lives of all people, especially those most structurally vulnerable and marginalized.
In Philadelphia, we saw the ongoing effects of the COVID-19 pandemic, namely social isolation, reduced capacity of healthcare providers due to COVID-19 protocols and reduced staffing levels, increased demand on emergency departments and crisis response centers, increased feelings of anxiety and sadness, and loss of employment.

Furthermore, Philadelphians continue to experience the effects of widespread fentanyl contamination and adulteration of the drug supply.
Fentanyl was found in 14 of the 17 OD Stat decedents’ toxicology. Not only has fentanyl replaced heroin as the predominant opioid in Philadelphia, but it is also now found in the stimulant supply, which includes cocaine and methamphetamine, as well as in counterfeit pills. Long time stimulant users, who are often opioid naive, are encountering fentanyl for the first time.

Stimulant-involved deaths are highest among Black Philadelphians, who also make up the largest proportion of people hospitalized for stimulant-related conditions.

Overdose deaths involving a stimulant are rising in Philadelphia, particularly among Black city residents. This appears to be due at least partially to more frequent contamination of the stimulant supply with opioids, little opioid tolerance among people who use stimulants, as well as a lack of awareness of the risk of contamination and of strategies to prevent opioid overdose. Graphs depicting stimulant-involved hospitalizations and mortality rates area available in the addendum of the report.

In addition to these overarching issues, individuals also shared experiences relating to access to healthcare, the need for more hands-on support including warm handoffs to substance use treatment, frequent interactions with the criminal legal system, adverse childhood experiences, mental health needs and suicidal ideation.

This report shares the issues that have been identified and the recommendations made to address them. OD Stat developed 25 recommendations for nine different agencies throughout 2021. This report highlights a selection of the recommendations but makes available the full list of recommendations that have been made since 2019.

The recommendations highlighted in this report were written to address issues including, but not limited to:

- Increasing access to harm reduction materials
- Reducing potential harms relating to the criminal legal system
- Addressing new risks associated with a changing drug supply
- Increasing the capacity of mobile crisis teams
- Creating communications materials
- Increasing access to life-saving medications for opioid use disorder.

Please note this report is utilizing overdose data that was finalized as of March 3, 2022. This report does not represent finalized 2021 overdose data.
Background

The Philadelphia Board of Health authorized OD Stat in 2019 to unify city-wide efforts to address the overdose crisis and improve upon current practices by identifying gaps in services and policy opportunities for prevention. Through an intensive case review process, we aim to learn about individual experiences while analyzing both qualitative and quantitative data to better understand the generalizability of that individual’s experience. The recommendations process is aimed at making policy and procedural changes based on the needs and opportunities identified through the case review process.

Why do we call it the “Overdose Crisis”?  

About half of the 2021 overdose deaths in Philadelphia involved both an opioid and a stimulant together, and another 14% involved stimulants alone. Terminology and narratives centered on opioid use (e.g., the “opioid crisis”) do not speak to the preventable deaths of people who also/only use stimulants.

Beyond being appropriate and accurate, this word choice is a matter of racial equity – the stimulant-involved mortality rate among Black, non-Hispanic Philadelphians has been rising since 2013 and was highest of all racial demographic groups in 2020. By focusing only on opioids (which traditionally have had the highest overdose death rates among white Philadelphians) we ignore the magnitude of overdose among Black Philadelphians.

Methodology of the Review Process

OD Stat matches fatal overdose data from the Medical Examiner’s Office (MEO) to the City of Philadelphia’s Integrated Data System, CARES. CARES unites data sets from many City departments and allows the OD Stat team to conduct a latent class analysis to analyze the ways overdose decedents experienced City services throughout their life. The OD Stat team identifies 4-5 cases for review based on the latent class analysis, current or emerging trends, demographics, toxicology, and location of overdose. Qualitative data are collected from partners including City agencies, hospitals, community-based organizations, and interviews with next-of-kin. The team compiles data into detailed case notes and other visuals for the quarterly review process. OD Stat members review the cases to identify gaps in services and opportunities for policy or procedural changes. Recommendations are created, shared, and tracked with stakeholders on a quarterly or as needed basis.

For a more detailed account of the methodology, please see appendix.
### Demographics of OD Stat Decedents Reviewed in 2021

<table>
<thead>
<tr>
<th></th>
<th>2021 OD Stat Decedents</th>
<th>% of Total Reviewed (17)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11</td>
<td>65%</td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/non-Hispanic</td>
<td>10</td>
<td>59%</td>
</tr>
<tr>
<td>White/non-Hispanic</td>
<td>6</td>
<td>35%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>5</td>
<td>29%</td>
</tr>
<tr>
<td>30-39</td>
<td>3</td>
<td>18%</td>
</tr>
<tr>
<td>40-49</td>
<td>3</td>
<td>18%</td>
</tr>
<tr>
<td>50-59</td>
<td>6</td>
<td>35%</td>
</tr>
<tr>
<td>60+</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Poverty</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lived in a zip code with higher than city-wide average % of people living in poverty</td>
<td>7</td>
<td>41%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No degree</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>High School degree</td>
<td>9</td>
<td>53%</td>
</tr>
<tr>
<td>GED</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>Higher Ed (completed some)</td>
<td>7</td>
<td>41%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed at Time of Death</td>
<td>11</td>
<td>65%</td>
</tr>
<tr>
<td>Homelessness</td>
<td>9</td>
<td>53%</td>
</tr>
<tr>
<td>Homelessness and accessed shelter system</td>
<td>7</td>
<td>41%</td>
</tr>
<tr>
<td>Accessed recovery/halfway house</td>
<td>2</td>
<td>12%</td>
</tr>
</tbody>
</table>

### Residence

In 2021, by residence, the highest number of overdoses occurred in 19134, 19124, 19140, 19132, and 19144. At left is the map of the OD Stat decedent’s resident zip codes reviewed in 2021.

Note: One decedent lived out of county and one was experiencing homelessness at the time of death.
Changing Drug Supply
Fentanyl, Polysubstance Use, and Racial Disparities

OD Stat aims to review the cases of individuals whose toxicology mirrors larger trends in Philadelphia. The tables below outline the toxicology of the 17 decedents reviewed in 2021 and the toxicology of all overdose decedents in 2021. Please note that 2021 data throughout this report are preliminary and reflect finalized cases as of March 15, 2022.

<table>
<thead>
<tr>
<th>Toxicology – OD Stat Decedents</th>
<th>2021 OD Stat Decedents</th>
<th>% of Total Reviewed (17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Opioid</td>
<td>14</td>
<td>82%</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>14</td>
<td>82%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>9</td>
<td>53%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>4</td>
<td>24%</td>
</tr>
<tr>
<td>PCP</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td>Opioid Only</td>
<td>5</td>
<td>29%</td>
</tr>
<tr>
<td>Stimulant Only</td>
<td>3</td>
<td>18%</td>
</tr>
<tr>
<td>Stimulant and Opioid</td>
<td>10</td>
<td>59%</td>
</tr>
<tr>
<td>Xylazine</td>
<td>3</td>
<td>18%</td>
</tr>
</tbody>
</table>

Categories are not mutually exclusive.

Opioids were involved in 83% of all drug-related fatalities in 2021, with fentanyl present in about 94% of those fatalities. Fentanyl is not just a potential risk for those using opioids – in fact 51% of all fatalities involved both an opioid and a stimulant, up from 48% in 2020. In 2021, just 32% of deaths involved just an opioid, down from 50% in 2020. Additionally, the percentage of xylazine, a non-opioid animal tranquilizer, commonly known as “tranq,” has increased in post-mortem toxicology by 8% since 2020. It is commonly found alongside fentanyl and can complicate overdose reversals. Xylazine can also lead to complex wounds as evidenced by emergency department visits for skin and soft tissue injuries more than quadrupling since the first quarter of 2019.
The figure to the right demonstrates emergency department utilization for skin and soft tissue injuries from Q1 2019 to Q4 2021.

In 2021, cocaine was found about 1.5 times more frequently in Black/non-Hispanic Philadelphians toxicology than in that of white/non-Hispanic Philadelphians. Due to limitations of the fatality review process, we often do not know the patterns of individual’s drug use and rely primarily on post-mortem toxicology. While it is tempting to conclude from the post-mortem toxicology that Black individuals are more likely to use cocaine and therefore unintentionally encounter fentanyl in the cocaine supply, other factors should be considered when addressing mortality such as the impact of structural racism and access to quality medical care and harm reduction resources. Regardless, more Black overdose decedents had a stimulant in their toxicology, meaning they may be more likely to encounter fentanyl unknowingly in the stimulant supply. Fentanyl can lead to overdose for anyone, but people who do not typically use fentanyl or other opioids and who may not be aware that fentanyl is in their drugs are particularly at risk for overdose. Opioid naïve individuals may also be less aware of the potential risk of overdose and the harm reduction measures one could take to mitigate risk.

It is important to note that not all who overdose have a substance use disorder. Four of the decedents reviewed in OD Stat in 2021 used drugs recreationally and often sought out non-opioid substances. Interventions, education, and messaging should be catered to this audience and their motivations for, and patterns of, substance use.

Additionally, substance use treatment options vary depending on what substance the individual uses. Medications for Opioid Use Disorder (MOUD) like methadone, buprenorphine, and naltrexone remain the gold standard for treating opioid use disorder, but there are fewer treatment options and no FDA-approved medication treatment options for individuals who use stimulants. Current best practices for stimulant use disorder include motivational interviewing, cognitive behavioral therapy, contingency management, and the community reinforcement approach which is frequently used alongside contingency management. Contingency management is not currently utilized in most states including Pennsylvania due to federal law that prohibits kickbacks to patients. California will be the first state to receive a waiver from HHS permitting the use of contingency management for people with stimulant disorder using Medicaid funds. Services for people who use drugs are often centered around syringe access, but many people who use stimulants smoke their drugs. People who use stimulants may have little reason to engage with harm reduction if they are not offered tools like safer smoking kits which cater to their specific needs. Four of the decedents reviewed in OD Stat used stimulants, although one of the four died with fentanyl in their toxicology.
For individuals who would benefit from MOUD, there are barriers that may prevent someone from accessing treatment. Stigma, interference with daily life and work, fear of legal repercussions, lack of culturally appropriate treatment, misperceptions about opioids and MOUD, geographical distance from treatment providers, and lack of access to medical providers, especially ones who can prescribe or refer to MOUD, can all act as barriers. There are also racial disparities in access to MOUD; recent research shows that racial segregation can predict differences in access to both buprenorphine and methadone and that this disparity likely only worsened during the pandemic. One study points out that buprenorphine is more commonly accessed by white individuals and individuals with employer-based insurance (Nguemen Tiako, 2021). Lack of access can also be influenced by stigma, geographic location, individual biases, and perception of different medications. Methadone, when used for treating OUD, can only be dispensed at a licensed Opioid Treatment Program (OTP) and requires that the individual travel to the clinic on a daily/weekly/biweekly basis. The regularity of clinic visits can act as a barrier as it relates to transportation, work schedules, and childcare to name a few. Conversely, buprenorphine can be prescribed by a variety of outpatient providers and requires less monitoring and physical travel.

The table below shows the percentage of decedents reviewed in OD Stat who accessed MOUD at any point in their lives and at their time of death. The total number of decedents for this table is 10, indicating decedents who used opioids and would therefore have likely been eligible for MOUD.

<table>
<thead>
<tr>
<th>2021 OD Stat Decedents</th>
<th>% of Total (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessed MOUD at Any Point</td>
<td>7</td>
</tr>
<tr>
<td>Engaged in MOUD at Time of Death*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Current prescription for buprenorphine or regular attendance at an OTP

The table below shows the percentage of decedents reviewed in OD Stat who accessed rehab or withdrawal management at any point in their lives.

<table>
<thead>
<tr>
<th>2021 OD Stat Decedents</th>
<th>% of Total (17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessed Rehab or Withdrawal management</td>
<td>8</td>
</tr>
</tbody>
</table>

As a response to the evolving drug supply, increasing polysubstance use, and disparities in access to treatment, OD Stat made the following recommendations in 2021:

1. The Managing Director’s Office should create a non-enforcement agreement to allow for the possession and distribution of fentanyl test strips.

2. PDPH should expand overdose prevention, naloxone, and fentanyl test strip distribution to new community partners.

3. DBHIDS should expand methadone treatment via new mobile sites in historically underserved communities.

4. PDPH should create a city-wide work group with clinical providers to discuss evolving clinical education needs. This group should focus on inpatient and emergency levels of care, expanding to outpatient once clinical protocols are developed. This work group will share information and recommendations with the larger provider community via guidelines and/or conferences/webinars. This group convened for the first time in January 2022.
Emergency Departments as Critical Points of Entry

Throughout case review in 2021, OD Stat noted a trend that individuals frequently sought medical, substance use, and behavioral health treatment at emergency departments and crisis response centers. Of the 17 decedents reviewed in 2021, 6 individuals went to emergency settings at least 8 times in the years leading up to their death, with one decedent seeking care up to 69 times in the last 7 years.

Their experiences varied depending on their needs as well as their willingness and ability to wait for care. Despite their myriad experiences (some left before they were seen, some left “AMA”, and others received extensive medical treatment), individuals reviewed in OD Stat were rarely provided a “warm handoff” from emergency departments to a treatment provider.

A warm handoff is defined as the transfer of care of an individual with substance use disorder from a healthcare unit to substance use treatment. Instead, individuals were often provided with referrals or advised to follow up with outpatient providers. Those reviewed in OD Stat rarely followed up on their own due to various reasons including, but not limited to, lack of transportation, stigma, or not being established with a primary care or other medical provider.

OD Stat made several recommendations aimed at reducing patient-directed discharges, promoting warm handoffs, improving patient experience, and identifying ways people could be linked to resources from the community.

1. DBHIDS will expand mobile crisis capacity from one full time mobile team to four full-time regional providers to cover the city 24/7. Crisis team should include a nurse, behavioral health specialist, and a person or family member with lived experience.

2. DBHIDS should provide 24/7 access to DBHIDS funded bed-based levels of care.
High Frequency of Criminal Legal Touchpoints

Throughout the review process, OD Stat found that the decedents reviewed commonly encountered the criminal legal system. 71% of all decedents had been arrested at some point in their lives, 59% had been incarcerated, and 59% had been on probation. Even among the one group categorized by low utilization of City services, interactions with police or prisons were the most common touchpoint. It is well known that people who use drugs are at higher risk of fatal overdose following incarceration when compared to non-incarcerated individuals, with the highest risk in the two weeks following release\(^2\) (Pizzicato et al., 2018). Studies have also linked higher levels of policing in specific areas or precincts with increased risk of overdose mortality, hypothesizing that it creates an environment where people who use drugs are fearful of arrest, leading to behaviors like not calling for medical help when witnessing an overdose.\(^3\) This means that not only are people with histories of arrest potentially more at risk for overdose, the communities around them are also more at risk due to higher levels of policing, which is more common in predominantly Black neighborhoods.\(^3\) This is supported via OD Stat data where Black/non-Hispanic decedents made up 75% of those who had been arrested, 70% of those who had been on probation, and 80% of those who had been incarcerated.

<table>
<thead>
<tr>
<th>Criminal Legal Touchpoints (ever)</th>
<th>2021 OD Stat Decedents</th>
<th>% of Total (17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arreests</td>
<td>12</td>
<td>71%</td>
</tr>
<tr>
<td>Probation</td>
<td>10</td>
<td>59%</td>
</tr>
<tr>
<td>Incarceration</td>
<td>10</td>
<td>59%</td>
</tr>
</tbody>
</table>

To investigate the generalizability of the decedent’s experiences, the OD Stat team conducted a latent class analysis of all 2021 decedents. A latent class analysis is a statistical method that groups individuals into mutually exclusive groups, or latent classes, based on their history of service utilization. We found that this level of involvement is mirrored by larger trends; the analysis showed that 68% of all decedents in 2021 had been arrested at one point in their lives, 61% in the last five years.

OD Stat made the following recommendations to address the high levels of criminal legal involvement among OD Stat decedents:

1. First Judicial Courts should increase the number of safe surrender events by offering a rolling schedule of at least quarterly events in geographically representative areas of the city.
2. First Judicial Court should purge all active warrants connected to misdemeanor-level cases for anything prior to 2010.
3. PDPH should provide harm reduction resources to the Office of Reentry Partnerships to include in their resource packet provided to people leaving incarceration. PDPH will provide a script to ORP to include in outreach calls about harm reduction resources.
4. PDP will provide information to visitors on mail order naloxone by providing website for Next Distro on PDP website and in person, when possible, pending Covid-restrictions.
5. PDP will complete benzodiazepine withdrawal screening for anyone who reports opioid use. (This is to address presence of xylazine in opioid supply and risk of seizures).
6. The City of Philadelphia should continue to focus on release from incarceration as a critical point for support. PDPH should provide support to agencies offering case management and cell phones to individuals released from PDP to increase support post-incarceration.
Effects of COVID-19

While the second year of the pandemic offered some hope in the form of COVID-19 vaccines and new treatment options, Philadelphians along with those across the country continued to feel the effects of a pandemic that has killed over 1 million Americans to date. Fatal overdoses rose 5.5% from 2019 to 2020 and while overdose numbers for 2021 are not finalized, they are projected to surpass 2020 numbers. Additionally, those most structurally vulnerable and marginalized like Black and Latinx Philadelphians were affected most significantly by Covid as evidenced by levels of unemployment, illness, and death.

Notable effects of the pandemic include:

- Loss of social connections and increased isolation
- Loss of employment/delays in unemployment assistance
- Increased feelings of depression, anxiety, and sadness
- Increased instances of intimate partner violence
- Avoidance of medical treatment
- Increased demand on emergency departments and Crisis Response Centers leading to longer wait times
- Stimulus payments/temporary increase in financial means
- Fewer available treatment beds due to social distancing and reduced staffing levels
- Transition to from in-person to virtual treatment

How did the City and State respond?

- Expanded access to telehealth for buprenorphine inductions
- Expanded methadone “take-home” dosing
- Expanded options to utilize telehealth for some components of methadone induction and treatment
- Increased distribution of naloxone and fentanyl test strips
- Executive order to create a non-enforcement agreement to allow for the possession and distribution of fentanyl test strips
- Creating new low-barrier options to obtain naloxone like the Narcan Near Me Tower located in West Philadelphia

OD Stat made the following recommendations that address some of the effects of the pandemic for people who use drugs:

1. PDPH should create communications materials to promote strategies for safer use while alone. Materials should be distributed citywide and ensure areas of the city with less harm reduction/treatment resources are prioritized. PDPH will prioritize providing overdose prevention and harm reduction resources, including but not limited to Narcan and fentanyl test strips, to Black and Latinx-led organizations and organizations serving primarily Black and Latinx Philadelphians.

2. Office of Domestic Violence Strategies (ODVS) should coordinate the delivery of training around IPV screening and follow up to medical providers and social workers at medical/behavioral health/substance use treatment locations annually. Trainings should include information about the effects of IPV and sexual trauma for both children and adults, trauma-informed interventions to support individuals and families, and implicit bias.
Extensive Histories of Trauma, Behavioral Health Needs, and Histories of Suicidal Ideation

Trauma and behavioral health needs are a continued theme among decedents reviewed in OD Stat. Case reviews showed frequent childhood trauma, including physical and sexual abuse, behavioral health crises including suicidal ideation, history of nonfatal overdoses, experiences of physical violence, and the loss of a loved one to overdose. It is important to note that the OD Stat team relies on personal reports and information gleaned from other data sources, so the number of people affected by the issues below may very well be an undercount. There were accounts from family members who believed their loved one may have had a behavioral health condition but was never diagnosed.

<table>
<thead>
<tr>
<th>2021 OD Stat Decedents</th>
<th>% of Total (17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health Diagnosis</td>
<td>9 53%</td>
</tr>
<tr>
<td>Suicidal Ideation</td>
<td>9 53%</td>
</tr>
<tr>
<td>Childhood Trauma</td>
<td>8 47%</td>
</tr>
<tr>
<td>Childhood Sexual Abuse</td>
<td>4 24%</td>
</tr>
<tr>
<td>Familial Overdose</td>
<td>3 18%</td>
</tr>
<tr>
<td>History of Nonfatal Overdose</td>
<td>6 35%</td>
</tr>
<tr>
<td>History of violence against them (Adult)</td>
<td>4 24%</td>
</tr>
<tr>
<td>History of violence against them (Child)</td>
<td>7 41%</td>
</tr>
</tbody>
</table>

OD Stat made the following recommendations as a response to high rates of trauma and behavioral health needs among OD Stat decedents:

1. DBHIDS should ensure preventive behavioral health services for children are well known and easily accessible without formal child welfare involvement.

2. DBHIDS will expand mobile crisis capacity from one full time mobile team to four full-time regional providers to cover the city 24/7. Crisis team should include a nurse, behavioral health specialist, and a person or family member with lived experience.
The overdose crisis affects more than just those who use drugs; it affects loved ones and their communities. This work requires all Philadelphians to get involved with their communities to prevent overdoses.

| Resources |

**Naloxone Access:**
The life saving medication naloxone (Narcan) is available to be mailed to your house through NextDistro.org/Philly. It is also available at your local pharmacy upon request. More information can be found at PhillyNaloxone.com

**Fentanyl Test Strips:**
If you or a loved are concerned that any substances you interact with contain fentanyl, fentanyl test strips are available to be mailed to your home through NextDistro.org/Philly

If you would like to a training for how to reverse an overdose, use fentanyl test strips, or learn about getting resources for your organization, please go to PhillyNaloxone.com to sign up.

**Philly Lifts:**
Philly LIFTS is a program that provides direct support to parents and children affected by Neonatal Abstinence Syndrome (NAS). The NAS program is not affiliated with Department of Human Services (DHS). https://www.phila.gov/2021-02-20-city-programs-help-families-affected-by-neonatal-abstinence-syndrome-nas/

**Bereavement Support Services:**
The City’s Substance Use Prevention and Harm Reduction program offers a range of free bereavement support services for those who are grieving the loss of a Philadelphia resident due to substance use. https://www.phila.gov/programs/substance-use-prevention-and-harm-reduction/bereavement-support-services/

**Boost Your Mood:**
Even as we make progress against the COVID-19 pandemic, we know the fight is far from over. DBHIDS is committed to addressing trauma, achieving equity, and engaging community, and we have gathered these wellness tips and mental health resources to help Boost Your Mood in these difficult times. www.dbhids.org/boost

Please visit www.phila.gov/programs/combating-the-opioid-epidemic/resources/ for connections to even more resources relating to the drug overdose crisis in Philadelphia

| How to Get Involved |

**Volunteering with harm reduction-oriented groups:**
Community based outreach and volunteer groups throughout Philadelphia directly assist individuals who use substances by providing sanitation kits, snack bags, clean drinking water, clean clothes, and linkage to other needed services. Examples of such harm reduction-oriented volunteer groups include Angels in Motion, Operation In My Backyard, and Prevention Point Philadelphia.

**Lived Experience:**
OD Stat works best when the voices of those most impacted are at the table. If you or a loved one are currently using substances or in recovery and would like to be involved in a review or recommendations process, please contact OD Stat Central Administrator Zoe.Soslow@Phila.gov. Your contribution will help to ensure that discussion about substance use issues is holistic, fair, and equitable. You may also provide a voice in ensuring that recommendations are helpful and true to your everyday reality.
Methodology

1 Data Matching
Case selection begins with matching fatal overdose data from the Medical Examiner’s Office (MEO) to the City of Philadelphia’s Integrated Data System, CARES. CARES unites data sets from many City departments including the Philadelphia Fire Department, Department of Behavioral Health, Philadelphia Police Department, and the Department of Human Services.

2 Latent Class Analysis
Once data are matched, a latent class analysis (LCA) is completed. A LCA is a statistical method where decedents are classified into mutually exclusive groups based on historical interactions with City services. This allows the OD Stat review team to better understand how overdose decedents experienced City services throughout their life.

3 Case Selection
The OD Stat team looks at the demographics, toxicology, and latent classes of overdose decedents to select 8-10 decedents per quarter. This cohort is later narrowed down to 4-5 decedents who are reviewed at the quarterly meeting.

4 Data Collection
The OD Stat team requests and collects data from partners, including City agencies, hospitals, and community-based organizations. MEO social workers conduct next-of-kin interviews, which provide vital qualitative information about their loved one’s experiences.

5 Material Prep
The OD Stat team compiles data into detailed case notes, visual timelines, and visual representations of the social determinants of health of each decedent’s resident zip code.

6 Prepare with Partners
Materials are reviewed before quarterly meetings with a team comprised of members from Philadelphia Department of Public Health (PDPH), Department of Behavioral Health and Intellectual disAbility Services (DBHIDS), the Managing Director’s Office (MDO), and other stakeholders including people with lived experienced and medical providers. This team is tasked with helping to ensure materials are prepared for the review.

7 Quarterly Review
OD Stat convenes on a quarterly basis to review the cases of 4-5 overdose decedents. Leadership from city agencies including PDPH and DBHIDS, city health systems, community-based organizations, and people with lived experience attend quarterly reviews. Members discuss and identify missed opportunities, with the purpose of making policy or procedural recommendations.

8 Recommendations
In 2021, OD Stat convened a Recommendations Work Group which met following each quarterly review. The work group collaborated to refine a set of recommendations that emerged from the review process. Recommendations were then shared with partners and the OD Stat team tracked progress on a quarterly or as needed basis. OD Stat is expanding opportunities for new stakeholders to be involved in the recommendation process in 2022. Instead of working with a set group, OD Stat will create new work groups to develop recommendations based on the issues identified in the review process. Our goal is to include more community members, including those with lived experience, as well as subject matter experts in the recommendation writing process.
Citations


Thank you

Thank you to the agencies, organizations, and individuals who offered their time and expertise to OD Stat. Special recognition to those who were involved in the development and implementation of OD Stat recommendations including:

- Philadelphia Department of Public Health
- Department of Behavioral Health and Intellectual disAbility Services
- Managing Director's Office
- Philadelphia Fire Department
- Community Behavioral Health
- Office of Reentry Partnerships
- District Attorney's Office
- Office of Domestic Violence Strategies
- Philadelphia Department of Prisons
- First Judicial District of Pennsylvania
- Prevention Point
- Temple Health
- Penn Medicine
- Jefferson University Hospitals
- Einstein Medical Center

and community members

Exceptional acknowledgement and thanks to the loved ones who shared their family member's stories. Your contributions are valued and integral to the OD Stat process.