OD STAT

Managing Director's Office





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EXECUTIVE SUMMARY

The United States is in the midst of an unprecedented overdose epidemic, driven increasingly by illicitly manufactured synthetic opioids and exacerbated by the multitude of social issues related to the COVID-19 pandemic. Philadelphia has the highest unintentional overdose fatality rate among large cities in the United States. In 2017, unintentional druginvolved overdose deaths peaked with 1,217 drug-involved overdose fatalities.

There were 1,214 fatal overdoses in 2020, the second highest on record. This is likely attributed to the increased prevalence of synthetic opioids, including fentanyl and its analogues, in Philadelphia's street drug supply over the past few years. The COVID-19 pandemic has exacerbated risk factors for overdose and created new challenges in overdose prevention, including heightened unemployment and disrupted service provision. Fatal overdose rates also increased among those most affected by COVID-19, including non-Hispanic Black and Hispanic populations in 2020.

As a response to climbing overdose fatalities, the Philadelphia Board of Health authorized OD Stat, a Citywide overdose fatality review in 2019. OD Stat meetings convene on a guarterly basis to conduct confidential case reviews of individuals who died of a drug-related overdose. OD Stat was created as an effort to unify city-wide efforts to address the overdose crisis and improve upon current practices by identifying gaps in services and opportunities for prevention. The OD Stat team leads the process of creating policy and programmatic recommendations with the sole purpose of reducing death due to unintentional overdose. OD Stat bases recommendations on the framework of harm reduction and works closely with the Managing Director's Office's Opioid Response Unit and the Department of Behavioral Health and Intellectual disAbility Services to develop policy recommendations aimed at addressing the overdose crisis. This report highlights data regarding the overdose decedents reviewed by OD Stat in 2020 and the subsequent policy and programmatic recommendations.

INTRODUCTION

OD Stat Leadership:

Chair: Aubrey Powers, MSW, Chief of Staff, Managing Director's Office (MDO) Former Chair: Tumar Alexander, Managing Director, MDO Former Vice Chair: Thomas Farley, MD, Philadelphia Department of Public Health (PDPH) Vice Chair: Cheryl Bettigole, MD, MPH, Acting Commissioner, PDPH Vice Chair: Jill Bowen, Ph.D., Commissioner, Department of Behavioral Health and Intellectual disAbility Services (DBHIDS) Vice Chair: Blanche Carney, Commissioner, Philadelphia Department of Prisons (PDP) Vice Chair: Vanessa Garrett Harley, Esq., First Deputy Managing Director, MDO Vice Chair: Eva Gladstein, Deputy Managing Director, Health and Human Services (HHS) Vice Chair: Danielle Outlaw, Commissioner, Philadelphia Police Department (PPD) Vice Chair: Adam Thiel, Commissioner, Philadelphia Fire Department (PFD)

OD Stat Staff Group:

Zoe Soslow, MS, OD Stat Central Administrator, PDPH Khristian Monterroso, OD Stat Program Assistant, PDPH Kendra Viner, Ph.D., MPH, Director, Division of Substance Use Prevention and Harm Reduction, PDPH Sosunmolu Shoyinka, MD, Chief Medical Officer, DBHIDS Sam Gulino, MD, Chief Medical Examiner, Medical Examiner's Office (MEO) Roy Hoffman, MD, Medical Director, Fatality Review Program, MEO Suet Lim, Ph.D., Director of Research, DBHIDS Laura Vargas, MSW, LSW, Bereavement Care Program Manager, MEO/PDPH Kaitlin Worden, MSW, LSW, Bereavement Care Coordinator, MEO/PDPH Elvis Rosado, Health Educator, PDPH Lisa Fetterman, LSW, Clinical Care Manager Specialist, Community Behavioral Health (CBH) Maha Bayan, Grants Coordinator, PDPH

OD Stat Recommendations Work Group:

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*Find more information about OD Stat at https://www.phila.gov/2021-02-22-introducing-od-statphiladelphias-overdose-fatality-review-team/

OD STAT METHODOLOGY

Data Matching

Case selection begins with matching fatal overdose data from the Medical Examiner's Office to the City of Philadelphia's Integrated Data System, CARES. CARES unites data sets from many City departments.

Latent Class Analysis

Once data is 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 team to understand how overdose decedents interacted with City services across their lifetime.

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 at the time of quarterly review.

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Data Collection

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

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.

Prepare with Partners

Materials are reviewed before quarterly meetings with the OD Stat Staff Group and the Substance Use Data Work Group, a group of epidemiologists and data analysts working together to support OD Stat and collaborate around data needs relating to substance use.

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, and community-based organizations attend quarterly reviews. Members discuss and identify missed opportunities, with the purpose of making policy or procedural recommendations.

8 Recommendations

The OD Stat Recommendations Work Group meets following each quarterly review to refine a set of recommendations that emerged from the quarterly review. Recommendations are shared with partners and the OD Stat team tracks progress for prioritized recommendations.

OD STAT METHODOLOGY

The OD Stat team uses citywide data to complete quarterly latent class analyses. A latent class analysis is a statistical method in which individuals can be classified into mutually exclusive groups, or latent classes, based on historical interactions with City services. This analysis allows the team to better understand who is overdosing in Philadelphia and ensure the OD Stat decedents reflect larger trends. The table below is the annual latent class analysis for 2020.

Category	Number of OD Stat decedents	Total 2020 Decedents		
Latent class 1: Minimal or no city service interactions	2	322		
Latent Class 2: Behavioral health services less than 5 years prior to death	3	70		
Latent Class 3: Heavy city service use across lifetime.	10	245		
Latent Class 4: Behavioral health services across lifetime.	6	171		
Latent Class 5: Law enforcement interactions 1 to 5 years prior to death.	1	188		
Latent Class 6: Law enforcement interactions across lifetime	2	87		

The majority of decedents reviewed in OD Stat were in the third latent class, individuals who utilized many city services across their lifetime. The majority of overdose decedents in 2020 were in the first latent class (322 decedents), individuals minimal city service interactions, followed by the third latent class, individuals with heavy service use across their lifetime. (245 decedents).

*Latent class analyses are completed quarterly and annually. OD Stat decedents were chosen for review based on their class from the quarterly analysis. Quarterly and annual results vary, meaning decedents may fall into a different class in the annual analysis. The shifting of classes means there may be low representation of certain classes in OD Stat case selection.

SUMMARY OF TRENDS

Despite the varied experiences of the decedents reviewed in OD Stat, there were several themes identified throughout 2020's OD Stat decedents.

1 A need for racially equitable overdose prevention

Latent class analyses conducted during 2020 showed an increase in the proportion of non-Hispanic Black and Hispanic/Latinx overdose fatalities across all latent classes. This increase was most notable beginning in the second quarter of 2020 when COVID-19 stay at home orders were put in place. The number of unemployed non-Hispanic Black decedents also increased in 2020, highlighting the increased impact of the COVID pandemic on the Black population.

2. Experiences of trauma

Traumatic experiences were exceedingly common among the decedents reviewed by OD Stat. Many decedents experienced both documented childhood and generational trauma, as well as familial overdose. Many decedents reviewed by OD Stat were parents who left children behind, highlighting the importance of substance misuse primary prevention for children of overdose victims.

3. Changes in the street drug supply

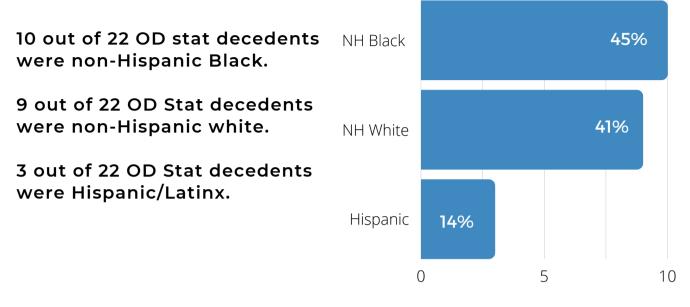
Many of the 2020 overdoses reviewed by OD Stat involved synthetic drugs such as fentanyl and designer benzodiazepines, and dangerous adulterants like xylazine. The widespread contamination of fentanyl in the street drug supply has led to an increase in overdoses among individuals with no prior experience using opioids. This also contributed to an increase in overdose fatalities among individuals with no or limited city service interactions across their lifetime.

4. The impact of the COVID-19 pandemic on overdoses

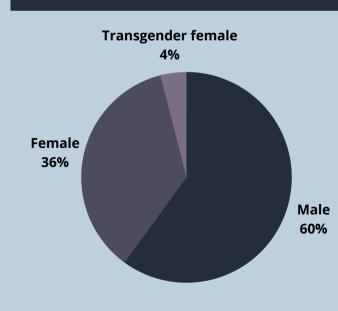
The COVID-19 pandemic has contributed to a rise in overdose fatalities in Philadelphia and its impact can be seen among the decedents reviewed by OD Stat in 2020. Increased isolation, increased unemployment, and changes in support and treatment structures during the pandemic has placed populations at higher risk for overdose. The pandemic also led to service disruption and reduction among harm reduction organizations and behavioral health treatment providers.

DEMOGRAPHICS: RACE/ETHNICITY

The OD Stat team reviewed the cases of 22 overdose decedents in calendar year 2020.



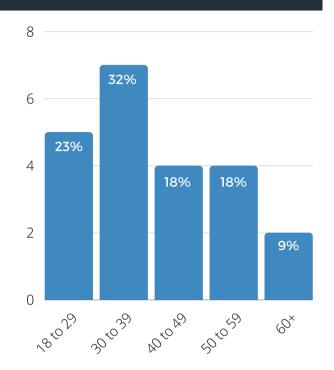
DEMOGRAPHICS: GENDER IDENTITY

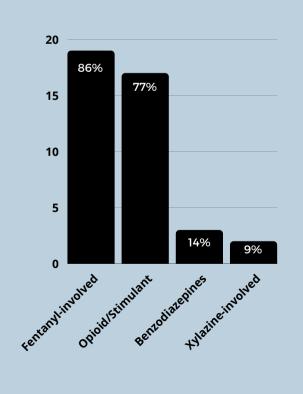


Of the 22 cases reviewed, 13 identified as cisgender male, 8 as cisgender female, and 1 as transgender female.

DEMOGRAPHICS: AGE

OD Stat decedents ranged from 22 to 69 years of age, with a mean age of 41. The majority of decedents reviewed were in the 30-39 age range (n=7), followed by the 18 to 29 age range (n=5).





TOXICOLOGY

The majority (19/22) of overdose deaths reviewed involved fentanyl, a synthetic opioid that was involved in 81% of all overdose deaths in 2020. Polysubstance use was also common, with 17 of 22 (77%) of overdoses involving both an opioid and a stimulant.

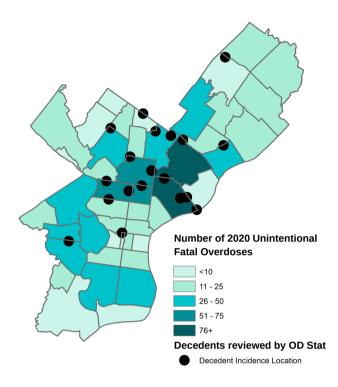
Three of the deaths reviewed involved benzodiazepines.

Two of the deaths reviewed involved xylazine, a non-opioid veterinary drug commonly used for sedation and as an analgesic. Xylazine has been found increasingly in Philadelphia's street drug supply as a common cutting agent for heroin and fentanyl.

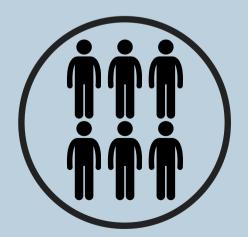
LOCATION OF OVERDOSE

The zip code with the highest number of unintentional fatal overdoses in 2020 was 19134.

This map displays the incident location by zip code of all OD Stat decedents reviewed in 2020.



HISTORY OF FAMILIAL OVERDOSE



6 of 22 decedents reviewed in OD Stat had a family member or loved one fatally overdose.*

*This statistic only reflects instances that were clearly documented or reported directly.

MEDICAL CONDITIONS

People who use drugs are often disproportionately impacted by medical comorbidities.

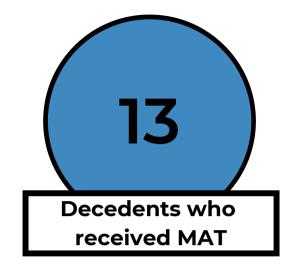
Of the 22 decedents reviewed in 2020, 16 had at least one medical comorbidity. The most prevalent medical comorbidities included a behavioral health diagnosis (73%), asthma (55%), Hepatitis C virus (55%), and chronic pain (55%).

Category	Number of OD Stat cases				
Any medical comorbidity	16 (73%)				
Behavioral health diagnosis	16 (73%)				
Asthma	12 (55%)				
Hepatitis C Virus	12 (55%)				
Chronic pain	12 (55%)				
Hypertension	9 (41%)				
Traumatic Brain Injury	5 (23%)				
Diabetes	4 (18%)				
Epilepsy/Seizure Disorder	3 (13%)				
HIV	2 (9%)				
Endocarditis	1 (4%)				

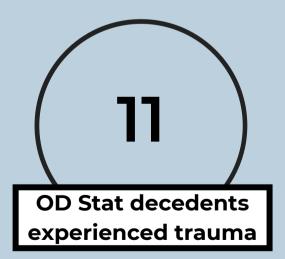
MEDICATION ASSISTED TREATMENT

Medication assisted treatment (MAT), involving methadone, buprenorphine or naltrexone, is the gold standard for opioid disorder treatment.

Of the 22 decedents reviewed by OD Stat, 13 had accessed MAT at some point in their lifetime and 5 were prescribed MAT at the time of their death.



EXPERIENCES OF CHILDHOOD TRAUMA



Half of all OD Stat decedents (11 out of 22) had documented experiences of childhood trauma.*

*This statistic only reflects instances that were clearly documented or reported directly.

HISTORY OF ARREST

Many individuals who use illicit drugs have a history of involvement with the criminal legal system.

Almost all decedents reviewed by OD Stat (21 of 22) had a history of at least one arrest during their lifetime.

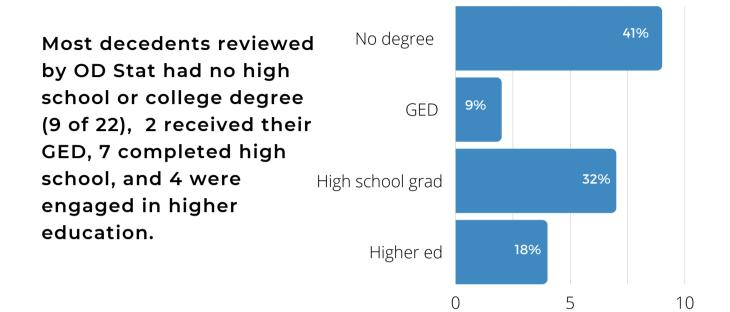


HISTORY OF INCARCERATION

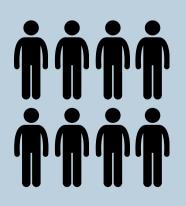


Most decedents reviewed by OD Stat (19 of 22) had a history of at least one incarceration during their lifetime.

SOCIAL DETERMINANTS: EDUCATION



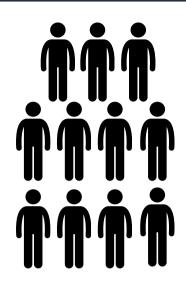
SOCIAL DETERMINANTS: UNEMPLOYMENT



Of the decedents reviewed by OD Stat, 8 of 22 were unemployed at their time of death.

SOCIAL DETERMINANTS: POVERTY

Half of all decedents (11 of 22) lived in a zip code with a higher poverty rate than the city-wide average (23%).



SOCIAL DETERMINANTS: SNAP BENEFITS



Of the decedents reviewed by OD Stat, 3 of 22 received SNAP benefits.*

*This statistic only reflects instances that were clearly documented or reported directly.

TABLE OF DEMOGRAPHICS

Overdose Mortality Rate by Sex, Philadelphia, 2018-2020

		MALES	FEMALES			
YEAR	Age-adjusted rate per 100,000 residents	N	Percentage	Age-adjusted rate per 100,000 residents	N	Percentage
2018	89.4	813	72.85	31.6	303	27.15
2019	98.7	849	73.83	31.1	301	26.17
2020	124.4	912	75.12	33.5	302	24.88

Calculation of age specific rates includes Philadelphia Residents only Source: Philadelphia Medical Examiner's Office

Overdose Mortality Rate by Race, Philadelphia, 2018-2020

		WHITE			BLACK			HISPANIC	
YEAR	Age- adjusted rate per 100,000 residents	N	Percent	Age- adjusted rate per 100,000 residents	Ν	Percent	Age- adjusted rate per 100,000 residents	Ν	Percent
2018	81.87	612	54.84	47.79	347	31.09	63.94	147	13.17
2019	81.7	566	49.22	54.4	384	33.39	77.6	183	15.91
2020	74.2	511	42.09	72	497	40.94	82.1	185	15.24

Calculation of age specific rates includes Philadelphia Residents only Source: Philadelphia Medical Examiner's Office

Overdose Mortality Rate by Age Group, Philadelphia, 2018-2020

		AGES 15-29		AGES 30-44			AGES 45-59			AGES 60+		
YEAR	Age- adjusted rate per 100,000 residents	N	Percent	Age- adjusted rate per 100,000 residents	N	Percent	Age- adjusted rate per 100,000 residents	N	Percent	Age- adjusted rate per 100,000 residents	N	Percent
2018	33.4	174	15.59	95.33	404	36.20	131.57	394	35.3	43.69	144	12.9
2019	34.84	165	14.35	107.38	444	38.61	130.58	379	32.96	49.68	161	14
2020	24.61	124	10.21	117.69	474	39.04	150.19	431	35.5	56.42	184	15.16

Calculation of age specific rates includes Philadelphia Residents only Source: Philadelphia Medical Examiner's Office

OD Stat develops policy and programming recommendations to prevent unintentional overdose deaths. The following recommendations were developed in 2020.

Promote and expand access to harm reduction services

In 2020, 3 or 4 people died every day from a drug-related overdose in Philadelphia. Harm reduction offers a set of evidenced-based strategies and tools for preventing overdose and other harms caused by drug use. Strategies include distribution of naloxone and clean syringes, drug checking, naloxone, and supervised consumption. ("Harm Reduction", 2021) These strategies are intended to empower people who use drugs to minimize their risk of overdose and disease transmission. In addition to reducing morbidity and mortality for people who use drugs, harm reduction strategies have also been successfully applied to reducing teen pregnancy, sexually transmitted infections such as HIV, and high-risk alcohol use. (Canadian Paediatric Society, 2008) OD Stat's recommendations seek to promote and increase access to harm reduction services and resources that keep people who use drugs informed, empowered, and most importantly, alive.

OD Stat recommends:

The Managing Director's Office (MDO) should create a non-enforcement agreement as it relates to fentanyl test strips.

The Philadelphia Department of Public Health (PDPH) should expand overdose prevention and naloxone/fentanyl test strip distribution to new community partners.

2 Overdose prevention must prioritize racial equity

Overdose fatalities in Philadelphia peaked in 2017 with 1,217 deaths. Since then, fatalities have decreased in the non-Hispanic white population while overdose numbers have steadily climbed in Black and Hispanic/Latinx populations. The COVID-19 pandemic further compounded overdose risk by introducing collective trauma, social isolation, record unemployment, surges in behavioral health and substance use crises, decreased access to services, and violence. Black and Hispanic/Latinx Philadelphians were also more likely to be essential workers, to live in multi-generational homes, and are at increased risk of contracting and dying from COVID-19. OD Stat's recommendation seeks to ensure racial equity is prioritized in overdose prevention plans.

OD Stat recommends:

PDPH should coordinate the creation of a citywide overdose prevention plan to address the rise in drug-related overdoses among Black and Hispanic Philadelphians.

Action steps include:

- Funding seven community-based organizations (CBO) led by people of color to build harm reduction capacity and provide overdose prevention awareness among the populations they serve.
- Planning a fentanyl test strip awareness campaign for Summer 2021. The campaign will be designed in collaboration with the grantees, as well as with other CBOs that serve predominantly Black and Hispanic/Latinx Philadelphians.

2 Overdose prevention must prioritize racial equity

Action steps include (continued):

- Ensuring that the current fentanyl awareness campaign addresses the presence of fentanyl in not only the heroin supply, but also the stimulant drug supply, because its contamination has had an outsized effect on Black Philadelphians who use substances.
- Funding the Linkage and Engagement After Prison (LEAP) case management program, run by CBO Action Wellness. Most of LEAP's clients are Black and Hispanic/Latinx because the War on Drugs and cash bail has led to a disproportionate number of Black and Latinx people incarcerated in PDP. LEAP's staff is also multiracial, as well as bilingual and bicultural, providing culturally appropriate care.
- ➤ Hiring and working with a Racial Equity Consultant who will help to inform hiring processes within PDPH's Division of Substance Use Prevention and Harm Reduction (SUPHR), consult with the funded community-based organizations to provide technical assistance and implicit bias trainings, provide guidance to ensure that SUPHR's public health messaging reaches Black and Hispanic/Latinx populations, help SUPHR to build partnerships in Black and Hispanic/Latinx communities, and meet with representatives from other City agencies that work with Black and Hispanic/Latinx populations affected by substance use.

Promote and expand access to Medication Assisted Treatment (MAT)

Medication assisted treatment (MAT) is the use of medications in combination with counseling and behavioral therapies to provide a "wholepatient" approach to the treatment of substance use disorders. Approved medications include buprenorphine, methadone, and naltrexone. (Substance Abuse and Mental Health Services Administration (SAMHSA), n.d.) Research from the National Institute on Drug Abuse (NIDA) indicates that methadone and buprenorphine can reduce overdose fatalities significantly by 59 and 38% respectively. Of the 22 OD Stat decedents reviewed to date, 13 (59%) accessed MAT at some point in their life, but only five (23%) were engaged in treatment at the time of death. OD Stat's recommendations are focused on making these life-saving treatments accessible and tailored to the individual needs of each patient.

OD Stat recommends:

- The Department of Behavioral Health and Intellectual disAbility Services (DBHIDS) should follow up with MAT prescribing providers following the fatal overdose of a patient.
- PDPH should coordinate with the Medical Examiner's Office (MEO) to screen a representative number of overdose decedents for therapeutic levels of buprenorphine as a pilot.
- ➤ DBHIDS should require methadone providers to share guest dosing protocols. Guest dosing protocols should include emergency guest dosing to ensure continuity of care and reduce risk of fatal overdose. DBHIDS should require providers to report how many patients are provided take homes and the amount of take homes to ensure methadone providers are providing equitable access to take homes.

Overdose prevention starts early by addressing trauma

Individuals who experience an adverse event or trauma in childhood are more likely to develop substance use disorders and experience an overdose. (Stein et al., 2017) Almost two-thirds of OD Stat decedents were formally diagnosed with a behavioral health condition and half had at least one documented event of childhood trauma. Given that the fatality review process is unlikely to identify all events, these are probably underestimates of the true numbers. While some decedents received behavioral health care following a trauma, many did not, and went on to self-medicate with drugs. Addressing trauma and ensuring that behavioral health treatment is offered immediately after a traumatic event is critical. OD Stat's recommendation will ensure that preventive services are widely known, easy to access, and offered outside of the formal child welfare system.

OD Stat recommends:

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

Make accessing treatment simple, person-centered, and non-punitive

Deciding to seek treatment can be overwhelming and complex. Individuals must determine where to seek treatment, what type of treatment they need or want, whether they fit eligibility criteria, and how they will physically get to a treatment facility. There may also be hesitation due to negative experiences with City systems and medical mistrust. OD Stat's recommendations seek to prioritize a "no wrong door" policy that would allow individuals to enter personalized care from a variety of settings, including telehealth. Treatment should be easy to access, patient-centered, trauma-informed, and most importantly meet the unique needs of each individual with compassion.

OD Stat recommends:

- DBHIDS should create access to low barrier assessments by ensuring IOP, OP, and FQHC's are able to conduct assessments, vitals, and facilitate direct admission to other programs that include MAT based on ASAM assessments
- Pennsylvania Department of Health, Department of Drug and Alcohol Programs, and the Office of Mental Health and Addiction Services (PA DOH, DDAP and OMHSAS) should support the permanent adoption of COVIDperiod policies which facilitate ongoing telehealth accessibility.

Department of Human Services (DHS) should improve community outreach efforts by addressing concerns regarding child removal in cases involving parental substance use.

Make accessing treatment simple, person-centered, and non-punitive

OD Stat recommends:

- ➤ DBHIDS will expand mobile crisis capacity from 1 full time mobile team to 4 full-time regional providers to cover the city 24/7. Crisis team should include a nurse, behavioral health specialist, and a person/family member with lived experience.
- PA State DOH should apply for a waiver to add exemptions for contingency management.
- > PDPH should develop a protocol to address patient's needs following pill mill enforcement or sudden buprenorphine clinic closures.
- DBHIDS should evaluate the effectiveness of warm handoffs* across all protocols.

*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.

O Promote public health-centered approaches to law enforcement

Research shows that people are at higher risk of fatal overdose following an incarceration than non-incarcerated individuals, with highest risk in the two weeks following release. (Pizzicato et al., 2018) This increased risk can be attributed to both physiological and social factors. Incarcerated people may experience a decrease in drug tolerance due to abstinence during incarceration, thus making them more at risk for overdose. (Binswanger et al., 2007) Additionally, people leaving incarceration must reestablish life beyond the walls by finding housing, accessing medical treatment, reconnecting with social supports, and often reacclimating to life under supervision (probation or parole).

The COVID-19 pandemic further complicated this time of transition; people leaving incarceration were faced with increased social isolation, limited access to medical and substance use treatment options, record levels of unemployment, and new challenges relating to the use of technology to access basic support systems. Recommendations that address law enforcement and incarcerations are vital to overdose prevention; 68% of 2020 decedents who were Philadelphia residents had at least one touch point with Police and 57% had at least one touch point with Probation and Parole. Of OD Stat decedents reviewed during 2020, 95% had a history of arrest and 86% had a history of at least one incarceration. OD Stat's recommendations prioritize keeping people who use drugs alive and out of jails whenever possible.

Promote public health-centered approaches to law enforcement

OD Stat recommends:

- First Judicial District should sunset all warrants for Police Assisted Diversion (PAD)-eligible offenses that were received before the creation of the PAD program.
- The District Attorney's Office (DAO) should create public health centered free diversion programs with City agencies or community partners that do not require substance use treatment.
- First Judicial District 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.
- First Judicial District should purge all active warrants connected to misdemeanor-level cases for anything prior to 2010.
- PDPH, DBHIDS, MDO, and DAO should form a work group to develop crosssystem public health-centered approaches to "subsistence dealers" (individuals who sell drugs to support a drug habit for survival). This group will provide a written recommendation within 6 months of formation.

Promote and expand community support to people who use drugs

While a "no wrong door" policy for accessing substance use and behavioral health treatment is prioritized, navigating these systems can still be complicated and overwhelming. People who use drugs face unique challenges when accessing healthcare at large due to stigma and discrimination. The opportunity to navigate these systems with an advocate like a Certified Peer Specialist or a Case Manager could provide the support needed to access vital resources like public benefits, housing, or behavioral health and substance use treatment. OD Stat's recommendations seek to increase access to community support for people who use drugs. By increasing access to peer support after a non-fatal overdose, broadening eligibility to case management services, expanding current alert systems to rapidly identify people in crisis, and ensuring that payment models incentivize outreach and long-term engagement, people should face fewer barriers to care and have the support they need to address their individual goals.

OD Stat recommends:

- > DBHIDS should expand eligibility to intensive case management to individuals with Substance Use Disorder diagnoses.
- DBHIDS should move towards more value-based payment models which allow for increased outreach and engagement in populations where it is most challenging (i.e. unhoused persons, people with histories of reduced linkage).

DBHIDS should enhance their current 311 alert system by factoring in frequent use of crisis services. Provide intensified community-based support to individuals who are flagged by enhanced 311 system.

MDO and PPD should coordinate a peer-based program that provides follow up post-non-fatal overdose through a harm reduction lens.

Housing is a crucial component in overdose prevention

Overdose prevention should extend beyond naloxone provision and increasing access to substance use treatment. Social determinants of health, such as housing access, can have significant effects on an individual's health. Of the 22 OD Stat decedents reviewed in 2020, 13 (59%) experienced homelessness at some point in their lives. All of these decedents had also been incarcerated at some point, highlighting the additional barriers that this population experiences. OD Stat case review showed that those individuals without stable housing struggled to follow up with necessary treatment and providers were often unable to locate individuals to offer support. OD Stat's recommendations seek to highlight housing as a basic human right and tenet of overdose prevention by providing protections to people with criminal legal history and prioritizing low-barrier housing options.

OD Stat recommends:

MDO should support local legislation that prevents landlords from denying applicants housing solely based on criminal background or history of filed eviction proceedings.

Over Service Develop and enhance the Overdose Fatality Review (OFR) process

Overdose Fatality Reviews (OFR) allow for ongoing cross-system data sharing, relationship building, and collaboration not commonly seen outside of this process. This means that OD Stat can complete deep dive reviews that look at the lives of overdose decedents through a holistic and trauma-informed lens. OD Stat's recommendations around the OFR process seek to expand and prioritize lived experience on the OD Stat team, broaden data sources to enrich the process, and most importantly seek legislation that supports overdose fatality review activities.

OD Stat recommends:

- PDPH and DBHIDS should include individuals with lived experience in OD Stat meetings and the OD Stat Recommendations Work Group.
- > PDPH should explore feasibility of accessing the Health Share Exchange.
- PDPH and MDO should advocate for State legislation which supports overdose fatality review activities.

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