A Worsening Drug Overdose Crisis:

*Behind the Numbers*

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The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
The more widely used a drug, the less likely users are to use other drugs.

Less frequently consumed substances are rarely the first used and often added later in substance use trajectories.

**Lifetime Prevalence of Substance Use and Mean Number of Other Substances Used - 2018**

Drug Use Patterns in the United States - 2019

Past Year Illicit Drug Use

Almost 20 percent INCREASE in users – over 9.5 million more people – from 2015 alone

1 in 5 People Aged 12 and Older Used Illicit Drugs in 2019

Past Year Initiates

The number of past year initiates of substances declined in many categories from 2018

SOURCE: National Survey on Drug Use and Health (NSDUH) - 2020
Co-Occurring Use of Opioids and Other Substances in 2019

- **Past Year Marijuana Use**: 53.0% with any past year opioid misuse, 16.2% with no past year opioid misuse. Total use: 5.3M.
- **Past Month Heavy Alcohol Use**: 14.7% with any past year opioid misuse, 5.5% with no past year opioid misuse. Total use: 14.6M. MDE = Major Depressive Episodes
- **Past Year Cocaine Use**: 15.6% with any past year opioid misuse, 1.5% with no past year opioid misuse. Total use: 1.6M. SMI = Serious Mental Illness
- **Past Year Methamphetamine Use**: 8.7% with any past year opioid misuse, 0.4% with no past year opioid misuse. Total use: 1.1M + 873K + 20.9M + 11.3M + 1.8M + 1.5M

SOURCE: National Survey on Drug Use and Health (NSDUH) - 2020
Changing pattern in co-occurring opioid and nonopioid drug use in the United States between 2011 and 2018

- Survey of past month co-use of prescription and illicit opioids and 12 nonopioid psychoactive drug classes in national sample of persons entering treatment of opioid use disorder.
- Past-month illicit opioid use increased from 45% in 2011 to 70% in 2018.
- Use of prescription opioids alone dropped from 55% to 30%.
- Past-month use of at least 1 nonopioid drug occurred in nearly all participants (> 90%), with significant increases in methamphetamine (+85%)

Source: Cicero, Ellis, & Kasper (2020). AJPH, 110(2), 244-250.
## Prevalence of specific substance use disorders (SUDs) among VA patients with an opioid use disorder (OUD) diagnosis in 2017

<table>
<thead>
<tr>
<th>Substance Use Disorder</th>
<th>Among OUD + 1 other SUD (n = 15,075) % (n)</th>
<th>Among OUD + ≥2 other SUDs (n = 23,588) % (n)</th>
<th>Among total OUD cohort (N = 65,741)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol use disorder</td>
<td>50.0% (7531)</td>
<td>83.1% (19,592)</td>
<td>41.3% (27,123)</td>
</tr>
<tr>
<td>Cannabis use disorder</td>
<td>13.1% (1968)</td>
<td>54.4% (12,728)</td>
<td>22.4% (14,696)</td>
</tr>
<tr>
<td>Cocaine/stimulant use disorder</td>
<td>18.7% (2823)</td>
<td>71.7% (16,915)</td>
<td>30.0% (19,738)</td>
</tr>
<tr>
<td>Sedative use disorder</td>
<td>6.7% (1010)</td>
<td>23.4% (5509)</td>
<td>9.9% (6519)</td>
</tr>
<tr>
<td>Other substance use disorder</td>
<td>11.6% (1743)</td>
<td>47.6% (11,234)</td>
<td>19.7% (12,977)</td>
</tr>
</tbody>
</table>

Waves of the U.S. Opioid Overdose Epidemic

- **Wave 1**: Prescription opioid deaths began to climb in the late 1990s
- **Wave 2**: Heroin deaths rise in 2010
- **Wave 3**: Synthetic opioid deaths – illicit fentanyl and analogs - skyrocket in 2013

Over 495,000 people have died from an opioid overdose since 1999

SOURCE: National Vital Statistics System Mortality File
Drug Overdose Deaths Involving Cocaine and Psychostimulants with Abuse Potential in the US are Increasing Too

Cocaine-involved death rate increased almost 3-fold since 2013. 76 percent of deaths in 2019 involved an opioid.

Other psychostimulant-involved death rate increased over 4-fold since 2013. 54 percent of deaths in 2019 involved an opioid.

TOTAL DEATHS 2013-2019

Cocaine-Involved: 72,009
Other Psychostimulant-Involved: 60,359


Opioid Deaths Nested in a Broadening Drug Overdose Epidemic.
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Opioid deaths with information on involved opioids, Jan–Jun 2018, no. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total opioid overdose deaths</strong></td>
<td><strong>13,415 (100)</strong></td>
</tr>
<tr>
<td><strong>Opioid drug class or drug involved in opioid deaths</strong></td>
<td></td>
</tr>
<tr>
<td>Any prescription opioid</td>
<td>3,853 (28.7)</td>
</tr>
<tr>
<td>Any illicit opioid</td>
<td>11,124 (82.9)</td>
</tr>
<tr>
<td>Any suspected IMF</td>
<td>9,105 (67.9)</td>
</tr>
<tr>
<td>Any suspected heroin</td>
<td>5,281 (39.4)</td>
</tr>
<tr>
<td>Any fentanyl analog</td>
<td>2,678 (20.0)</td>
</tr>
<tr>
<td>Any U-series</td>
<td>63 (0.5)</td>
</tr>
<tr>
<td><strong>Common mutually exclusive combinations of opioids involved in opioid deaths</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Opioid combinations co-involving IMF</strong></td>
<td></td>
</tr>
<tr>
<td>IMF with no other illicit opioids</td>
<td>4,320 (32.2)</td>
</tr>
<tr>
<td>IMF with heroin</td>
<td>2,566 (19.1)</td>
</tr>
<tr>
<td>IMF with fentanyl analogs</td>
<td>1,172 (8.7)</td>
</tr>
<tr>
<td>IMF with heroin and fentanyl analogs</td>
<td>1,008 (7.5)</td>
</tr>
<tr>
<td><strong>Illicit opioid combinations not co-involving IMF</strong></td>
<td></td>
</tr>
<tr>
<td>Heroin with no other illicit opioid</td>
<td>1,534 (11.4)</td>
</tr>
<tr>
<td>Fentanyl analogs with no other illicit opioid</td>
<td>312 (2.3)</td>
</tr>
<tr>
<td>Prescription opioid with no illicit opioid</td>
<td>2,291 (17.1)</td>
</tr>
<tr>
<td>All other combinations of opioids</td>
<td>212 (1.6)</td>
</tr>
</tbody>
</table>

Note: IMF is illicitly manufactured fentanyl. Refer to source for other footnotes.
Majority of Opioid Deaths Involve Other Non-Opioid Drugs

63% of all opioid deaths also involved other drugs


Source: Gladden, O’Donnell, Mattson, Seth (2019). MMWR 68 (34), 737
Most Overdose Deaths Involve More Than One Illicit Substance

The 10 Most Frequent Combinations of Opioid and Stimulant Deaths Accounted for Almost 77 Percent of Deaths

More than 3 in 5 people who died from drug overdose had an identified opportunity for linkage to care or life-saving actions.


IMFs include fentanyl and fentanyl analogs.
A growing proportion of ALL drug overdose deaths in the U.S. involve synthetic opioids since 2013

Source: Mattson, Tanz, Quinn, Karlisa, Patel, and Davis (2021). MMWR. 70(6), 202
Nonfatal Drug and Polydrug Overdoses Treated in Emergency Departments — 29 States, 2018–2019

Source: Liu, Scholl, Hoots, Seth (2020). MMWR, 69(34), 1149
The Drug Overdose Epidemic Appears to Have Worsened During COVID-19 Pandemic – By Drug Class

December 17, 2020

- Approximately 81,230 drug overdose deaths occurred in the United States in the 12-months ending in May 2020.
- Increase began in 2019 and appears to have accelerated during the COVID-19 pandemic.
- Synthetic opioids are the primary driver - 12-month count of these deaths increased 38.4% ending in May 2020.
- Overdose deaths involving cocaine (26.5%) and psychostimulants (34.8%) also increased in the same period.

Persons with poly-Substance Use Disorders report more inability accessing treatments during COVID-19

Source: Liu, Scholl, Hoots, Seth (2020)

Source: Mellis, Potenza, Hulsey (2021). Journal of Substance Abuse Treatment, 121, 108180
Key Take-Aways about Polysubstance Use in the U.S.

- Polysubstance use is not new and is common among persons struggling with use disorders.
- The pattern of substances used is changing.
- Some polysubstance use is occurring without user’s knowledge of drug contamination.
- The proliferation of synthetic drugs - especially illicitly manufactured fentanyl and fentanyl analog - greatly elevates the overdose risk of polysubstance use.
- Persons struggling with multiple substance use disorders face greater challenges accessing treatment and recovery services – especially during COVID-19 pandemic.
Expand the provision and use of naloxone and overdose prevention education

Expand access to and provision of treatment for substance use disorders

Intervene early with individuals at the highest risk for overdose

Improve detection of overdose outbreaks due to fentanyl, novel psychoactive substances (e.g., fentanyl analogs), or other drugs to facilitate an effective response

Learn from the Past

Think of the Future

QUESTIONS
Back-Up Slides
$300M per year for 3 years

Seamless integration of data and prevention programs

66 jurisdictions funded including 47 states, DC, 2 territories, and 16 hard hit cities and counties

At least twenty percent of state funds go to the local level as well to spur innovation and multisector collaboration.
DOSE Drug Overdose Surveillance and Epidemiology System

- **Faster Data:** Incentivize data submissions to as rapidly as every 2 weeks.
- **Greater Coverage:** ED data with greater coverage (>75% of visits).
- **Expanded Drugs:** Suspected all drug, opioid, heroin, stimulant overdoses required.
- **More Comprehensive Sources:** Leverage both syndromic data (24-48 hours) and hospital billing/claims data (3-4 weeks). Syndromic data from the National Syndromic Surveillance Program (NSSP) or local syndromic system.

Getting more timely, comprehensive, localized, and actionable data
SUDORS  State Unintentional Drug Overdose Reporting System

- **More Comprehensive:** Detailed information about deaths and their circumstances from death certificates, medical examiner/coroner reports, & toxicology results.

- **Expanded Drugs:** All drug overdose deaths. Not just opioid involved.

- **Faster Data:** Incentivize data submissions to as rapidly as 6-11 months after death.

- **Increased Capacity:** More funding to ME/Cs

- **Early Signal:** Preliminary counts of opioid-involved deaths from clinical and scene evidence one month after death (OPTIONAL)
More detailed data informs future prevention activities

➢ Basic descriptors
➢ Compare across demographics

➢ Mental health diagnoses
➢ Substance abuse treatment history

➢ Recent release from institution
➢ Overdose location
➢ Survival time

➢ Substance abuse history
➢ Scene indication of drug use
➢ Route of drug administration

➢ Substances present
➢ Substances contributing to death

Getting more timely, comprehensive, localized, and actionable data
CDC supports innovation in local surveillance

- **Funding and flexibility for state and local public health departments to:**
  - Address key local surveillance needs
  - Provide insight on critical CDC data gaps

- **66 recipients propose >175 surveillance projects**
  - Vast majority of recipients' fund ≥2 projects with $400,000
  - Report preliminary aggregate data to CDC by summer 2021

7 CDC priorities

1) Surveillance of linkage to care
2) Surveillance of persons using and misusing opioids
3) Track public health risk of illicit opioid drug supply
4) Link overdose data from different sources within the same jurisdiction
5) Link PDMP data for different sources within the same jurisdiction
6) Innovative drug overdose morbidity/mortality data
7) Other critical local surveillance

Getting more timely, comprehensive, localized, and actionable data
Leveraging Other Investments

➢ Ensure labs able to test for as many fentanyl analogs in current use as possible.

➢ Provide accurate measurement of known fentanyl analogs that allows for comparability across labs.

➢ Increase lab throughput given demand.

➢ Readily add new analogs to testing protocols/methods as they appear in the US.