The Opioid Epidemic in Philadelphia

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RISE IN OPIOID OVERDOSE DEATHS IN AMERICA

A Multi-Layered Problem in Three Distinct Waves

Nearly 450,000 people died from an opioid overdose (1999-2018)

1990s mark a rise in prescription opioid overdose deaths

2010 marks a rise in heroin overdose deaths

2013 marks a rise in synthetic opioid overdose deaths

Rx OPIOIDS
Include natural, semi-synthetic, and methadone and can be prescribed by doctors

HEROIN
An illegal opioid

SYNTHETIC OPIOIDS
Include fentanyl and can be illicitly made

Learn more about the evolving opioid overdose crisis: www.cdc.gov/drugoverdose
Opioids were involved in nearly 47,000 deaths in 2018, which is nearly six times the number of opioid-involved overdose deaths in 1999.
Philadelphia has the highest death rate of the top 10 largest U.S. cities.

Drug Overdose Rates in Counties Associated with 10 Largest U.S. Cities

- Philadelphia
- Cook (Chicago)
- Maricopa (Phoenix)
- New York City (5 counties)
- San Diego
- Dallas
- Harris (Houston)
- Bexar (San Antonio)
- Los Angeles
- Santa Clara (San Jose)
Heroin is pure and cheap in Philadelphia

2015 Heroin Domestic Monitor Program
Number of Opioid Related Deaths with Specific Drug Present, 2003-2018

* Includes deaths with any opioid including heroin, morphine, or pharmaceutical
** Includes deaths with heroin or morphine detected
*** Includes deaths based on hospital tox
**** Categories are not mutually exclusive as multiple drugs might be detected in the system
# Demographics of Unintentional Opioid Related Deaths

## Age-Adjusted Rates* per 100,000 Residents

**January 1, 2017 - December 31, 2018**

<table>
<thead>
<tr>
<th></th>
<th>Age-Adjusted Rate per 100,000 residents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>49.2</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>25.9</td>
</tr>
<tr>
<td>Male</td>
<td>75.5</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong>**</td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>75.4</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>32.8</td>
</tr>
<tr>
<td>Hispanic</td>
<td>58.3</td>
</tr>
<tr>
<td><strong>Age</strong>*</td>
<td></td>
</tr>
<tr>
<td>15-24</td>
<td>14.1</td>
</tr>
<tr>
<td>25-34</td>
<td>63.1</td>
</tr>
<tr>
<td>35-44</td>
<td>96.2</td>
</tr>
<tr>
<td>45-54</td>
<td>103.0</td>
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<tr>
<td>≥55</td>
<td>47.1</td>
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</tbody>
</table>

* Rates are calculated using Philadelphia county population denominators from the 2017 American Community Survey 1-year estimates. Rates are adjusted to the 2000 U.S. Standard Population age distribution.

** Deaths among persons who had race/ethnicity listed as other were too few to calculate rates

*** Age-specific death rates are listed

Drug overdoses declined 8% in 2018

Drug Overdose Deaths and Homicides
Philadelphia, 2003-2018

- Drug Overdose
- Homicide

1,116 deaths
993 fatal opioid overdoses

Opioid Use Disorder in Philadelphia: 120,000 (est.)
Increasing hepatitis C and endocarditis as well.

Acute cases of hepatitis C reported to PDPH, 2012-2018

Hospitalizations for Endocarditis Among People with Opioid Use Disorder by Year

Department of Public Health
HIV Can Spread Rapidly Among People Who Inject Drugs

U.S. counties vulnerable to rapid spread of IDU-associated HIV

220 counties in 26 states

- Scott County, 215 HIV cases from IDU in 2014-2015
- Cabell County WV, 55 HIV Cases from IDU in 2019
- Lowell and Lawrence, Mass. 129 HIV cases in IDU from 2015-2018 (from 2012-2014, entire Mass had 123 IDU cases).
- Philadelphia, 71 HIV Cases from IDU in 2018 (115% increase from 2016)
- Scott County, 215 HIV cases from IDU in 2014-2015
- Cabell County WV, 55 HIV Cases from IDU in 2019
- Lowell and Lawrence, Mass. 129 HIV cases in IDU from 2015-2018 (from 2012-2014, entire Mass had 123 IDU cases).
- Philadelphia, 71 HIV Cases from IDU in 2018 (115% increase from 2016)

Van Handel et al., J Acquir Immune Defic Syndr, 2016
Identifying an Outbreak

Number of Newly Diagnosed Cases of HIV (regardless of AIDS status) in all PWID, by Year

**Data as of 6/25/2019
Incomplete data due to reporting lag**
Number of new HIV/AIDS diagnoses among IDUs in Philadelphia by year: 1981 to 2014

- Introduction of SEP
- Introduction of ART
- Introduction of Suboxone

1000 MMT Slots
6200 MMT Slots
### PMARC Pilot assessments of 143 PWID

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>HIV positive:</td>
<td>12 (8.4%)</td>
</tr>
<tr>
<td>- Detectable VL:</td>
<td>7 (58.3%)</td>
</tr>
<tr>
<td>Severe DSM 5 OUD:</td>
<td>132 (92.8%)</td>
</tr>
<tr>
<td>OD past 6 months:</td>
<td>41 (32.3%)</td>
</tr>
<tr>
<td>MAT past 30 days:</td>
<td>46 (36.5%)</td>
</tr>
<tr>
<td>Depression:</td>
<td></td>
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<tr>
<td>- Severe/Very Severe</td>
<td>57 (40%)</td>
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City’s Encampment Resolution Project
Treatment

Number of unique beneficiaries receiving medication assisted treatment by year

- Buprenorphine
- Methadone
- Naltrexone ER

<table>
<thead>
<tr>
<th>Year</th>
<th>Buprenorphine</th>
<th>Methadone</th>
<th>Naltrexone ER</th>
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<tbody>
<tr>
<td>2010</td>
<td>4,165</td>
<td>4,527</td>
<td>4,711</td>
</tr>
<tr>
<td>2011</td>
<td>4,974</td>
<td>4,974</td>
<td>4,974</td>
</tr>
<tr>
<td>2012</td>
<td>5,056</td>
<td>5,296</td>
<td>5,296</td>
</tr>
<tr>
<td>2013</td>
<td>887</td>
<td>1,652</td>
<td>1,652</td>
</tr>
<tr>
<td>2014</td>
<td>5,179</td>
<td>369</td>
<td>369</td>
</tr>
<tr>
<td>2015</td>
<td>5,179</td>
<td>369</td>
<td>369</td>
</tr>
<tr>
<td>2016</td>
<td>5,170</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td>2017</td>
<td>3,331</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>5,103</td>
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</tbody>
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Philadelphia DBHIDS In-Network Medication Assisted Treatment Capacity, as of 12/28/2018

Total DBHIDS In-Network MAT Program Capacity (any medication) = 12,479 slots.
Maintenance treatment opioid dependent patients

Overall 48% of high-risk opioid users in Tx

USA 13%
Rapid Initiation of buprenorphine/naloxone to optimize MAT in Philadelphia
RIDE Strategy

- Mobile
- Rapid relief of withdrawal symptoms
- Preferred Provider Network
- Support
  - Nurse practitioner
  - Case manager
  - Peer recovery specialist
Targeted Neighborhoods

Initial top 5 locations most well suited for operating a CUES.
Conclusions

• Philadelphia is experiencing a severe opioid epidemic

• New strategies are needed for HIV prevention

• MAT engagement remains challenging