Over 350,000 people have died from an opioid overdose since 1999.

In 2016, over 40,000 deaths involved opioids.

Pillars of CDC Activity

- Improve data quality and track trends
- Strengthen state efforts by scaling up effective public health interventions
- Supply healthcare providers with resources to improve patient safety
- Collaborate with public safety to respond quicker and more effectively
- Empower consumers to make safe choices
CDC’s Enhanced State Opioid Overdose Surveillance (ESOOS) Program

- **Strategy One: Increase timeliness of non-fatal opioid overdose reporting**
  - Use syndromic surveillance to establish an early warning system to detect sharp increases or decreases in non-fatal opioid overdoses
  - Three indicators: suspected all-drug, opioid, and heroin overdoses

- **Strategy Two: Increase timeliness and comprehensiveness of fatal opioid overdose reporting**
  - Capture detailed information on toxicology, death scene investigations, and other risk factors that may be associated with a fatal overdose.

- **Strategy Three: Widespread dissemination**
  - Rapidly disseminate surveillance findings to key stakeholders working to prevent or respond to opioid overdoses

**Funding for Enhanced Toxicology Testing**

- Supplemental funding for all ESOOS-funded states

- 40% of base funding
  - 60% of supplemental funds must go directly to ME/Cs to support comprehensive toxicology testing
  - If ME/Cs already fully funded for testing, can use funds for other innovative projects to improve timeliness/comprehensiveness of data
Increases in opioid overdose deaths do not mirror use/misuse patterns

opioid overdose deaths >>> opioid use/misuse

Example: heroin, 2002 → 2016
Data from the National Survey on Drug Use and Health & the National Vital Statistics System

Increases in opioid overdose deaths do not mirror use/misuse patterns

heroin overdose deaths >>> heroin use

533% 135%

If use is not increasing substantially,

why are people dying?
**SUDORS Fields**

**Prevention**
- Presence of bystanders
- Polysubstance use

**Intervention**
- Prior overdose
- Comorbidities

**Response**
- Naloxone administered
- Bystander response
- Substance potency

**Potential Recommendations**
- Don’t use alone
- No benzo/opioid overlap
- "Warm hand-offs" Non-opioid pain treatment
- Naloxone access/education
- Family/friend awareness
SUDORS case definitions for opioid overdose deaths

- Cases identified using death certificate cause of death information
  - Literal cause of death text fields
  - Underlying cause-of-death codes X40–44 (unintentional poisoning) and Y10–14 (undetermined intent)
  - Multiple cause-of-death codes
    - T40.0 (poisoning by opium)
    - T40.1 (poisoning by heroin)
    - T40.2 (poisoning by natural and semi-synthetic opioids)
    - T40.3 (poisoning by methadone)
    - T40.4 (poisoning by synthetic opioids other than methadone)
    - T40.6 (poisoning by other unspecified narcotics)

- Cases identified using medical examiner/coroner (ME/C) reports to supplement cause-of-death codes
  - E.g., death certificate says “drug toxicity” but does not specify any substance(s), but ME/C report mentions lethal amount of fentanyl
  - E.g., death certificate has pending cause of death but ME/C report indicates a drug overdose with a contributing opioid

SUDORS leverages the web-based platform of the National Violent Death Reporting System

- Basic descriptors
  - Compare across demographics
- Mental health diagnoses
- Substance abuse treatment history
- Recent release from institution
- Overdose location
- Survival time
- Substances present
- Substances contributing to death
### Substance Abuse

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tests positive for substances abuse</td>
</tr>
<tr>
<td>2.</td>
<td>History of substance abuse</td>
</tr>
<tr>
<td>3.</td>
<td>Recent drug use patterns</td>
</tr>
</tbody>
</table>

### Scene Indications of Drug Use

- **Any evidence of drug use**
- **Evidence of drug overdose**

### Route of Drug Administration (Check all that apply)

- No information on mode of administration
- Evidence of breathing/suffocation
- Evidence of injecting (Check all that apply)
  - Track marks on fingers
  - Needles/Syringe
  - Intravenous
- Crack pipe
- Filters
- Cocaine
- Evidence of Sublingual
- Other injection evidence - Specify

### Illicit or Prescription Drugs (Check all that apply)

- Evidence of prescription drugs (Check all that apply)
- Evidence of illicit drugs (Check all that apply)

- Prescribed to victim
- Not prescribed to victim
- Prescribed to perpetrator

- Type of prescription drug found (Check all that apply)
  - False
  - False
  - Prescription bottle
  - Test
  - Witness report
  - Other illicit drug - Specify

- Type of illicit drug found (Check all that apply)
  - False
  - False
  - Opioid
  - Test
  - Witness report
  - Other illicit drug - Specify
Data Dissemination

MMWR – SUDORS data, November 2017

FIGURE: Percentage of opioid overdose deaths testing positive for fentanyl and fentanyl analogs, by state – 32 states, July–December 2016

Summary

- ESOOS provides rapid data to inform prevention and response efforts for nonfatal and fatal opioid overdose

- SUDORS provides detailed information on deaths involving opioids
  - Substances detected and contributing to death
  - Circumstances surrounding overdose

- Prevention and response should be guided by the substances detected and contributing to overdose deaths as well as the circumstances surrounding the death
Acknowledgements

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  - State health departments
  - Medical Examiner and coroner offices
  - Vital registrar offices
- CDC staff
  - Dr. Grant Baldwin

For more information, contact CDC
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TTY: 1-888-232-6348
www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Thank you!

Questions?
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