The Opioid Overdose Epidemic
Epidemiology and Trends

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Patients with mental health or substance use disorders are at increased risk for nonmedical use and overdose from prescription opioids...appropriate screening, identification, and clinical management by health care providers are essential parts of both behavioral health and chronic pain management and overdose prevention.

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*Director, Centers for Disease Control and Prevention*

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Trends and Epidemiology

- Nonmedical use
- Relationship between opioids and heroin
- Emergency department visits
- Dependence and abuse
- Overdose deaths
- Economic costs and additional public health consequences
TRENDS IN USE
Past year nonmedical use of opioid analgesics and heroin have increased in the US

<table>
<thead>
<tr>
<th>Year</th>
<th>Heroin</th>
<th>Opioid Analgesics</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>404</td>
<td>10,992</td>
</tr>
<tr>
<td>2012</td>
<td>669</td>
<td>12,489</td>
</tr>
</tbody>
</table>

SAMHSA NSDUH 2012
Chronic nonmedical use of opioid analgesics has increased more than less frequent use

Increase in heroin use has occurred among people who were past year nonmedical users of opioid analgesics.
Frequent nonmedical users of opioids more likely to engage in risky use behaviors, US, 2008-2010.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>1-29 Days of PYNMU of Opioid Pain Relievers</th>
<th>30-99 Days of PYNMU of Opioid Pain Relievers</th>
<th>100-365 Days of PYNMU of Opioid Pain Relievers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>aOR (95% CI)</td>
<td>aOR (95% CI)</td>
<td>aOR (95% CI)</td>
</tr>
<tr>
<td>Past Year Heroin Use</td>
<td>referent</td>
<td>2.8 (1.7-4.5)</td>
<td>6.4 (3.7-11.1)</td>
</tr>
<tr>
<td>Ever Inject Heroin</td>
<td>referent</td>
<td>1.6 (0.9-2.9)</td>
<td>4.3 (2.5-7.3)</td>
</tr>
<tr>
<td>Ever Inject Opioid Pain Relievers</td>
<td>referent</td>
<td>3.8 (1.9-7.8)</td>
<td>13.3 (7.7-23.0)</td>
</tr>
<tr>
<td>Past Year Heroin Abuse or Dependence</td>
<td>referent</td>
<td>3.2 (1.7-6.1)</td>
<td>7.8 (4.7-12.8)</td>
</tr>
<tr>
<td>Past Year Opioid Pain Reliever Abuse or Dependence</td>
<td>referent</td>
<td>2.9 (2.3-3.8)</td>
<td>8.9 (7.1-11.3)</td>
</tr>
<tr>
<td>Heroin Fairly or Very Easy to Obtain</td>
<td>referent</td>
<td>1.4 (1.1-1.7)</td>
<td>2.1 (1.8-2.6)</td>
</tr>
</tbody>
</table>

Abbreviations: PYNMU, past year nonmedical use; aOR, adjusted Odds Ratio; 95% CI, 95% Confidence Interval

1Odds ratio adjusted for sex, age, race/ethnicity, total family income, and county type

18-25 year olds have highest rates of chronic nonmedical use of opioid analgesics and heroin use.

EMERGENCY DEPARTMENT VISITS
Increasing number of ED visits due to nonmedical use of opioid analgesics and use of heroin

![Bar chart showing the increase in ED visits from 2004 to 2011 for opioid analgesics and heroin.](chart)

- **Opioid analgesics**
- **Heroin**

**Year**
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011

**Number of ED visits**
- 0
- 50,000
- 100,000
- 150,000
- 200,000
- 250,000
- 300,000
- 350,000
- 400,000

**SAMHSA DAWN ED Public Use Files 2004-2011**
18-34 year olds have highest rates of ED visits due to nonmedical use of opioid analgesics and heroin use.
DEPENDENCE AND ABUSE
Significant increases in number of people classified with and receiving treatment for dependence or abuse of opioid analgesics and heroin

<table>
<thead>
<tr>
<th></th>
<th>Number of persons in the US 12 years and older (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abuse or dependence -</td>
<td></td>
</tr>
<tr>
<td>opioid analgesics</td>
<td>1,509</td>
</tr>
<tr>
<td>Abuse or dependence -</td>
<td></td>
</tr>
<tr>
<td>heroin</td>
<td>214</td>
</tr>
<tr>
<td>Treatment - opioid</td>
<td></td>
</tr>
<tr>
<td>analgesics</td>
<td>360</td>
</tr>
<tr>
<td>Treatment - heroin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>277</td>
</tr>
</tbody>
</table>

SAMHSA NSDUH 2012
18-25 year olds have highest rate of dependence or abuse of opioid analgesics and heroin

SAMHSA NSDUH Public Use Files 2008-2011
OVERDOSE DEATHS
Drug overdose death rates continue to increase; unprecedented death rate

NCHS Data Brief, December, 2011, Updated with 2009 and 2010 mortality data
11 years of increases in opioid analgesic overdose deaths; heroin deaths increasing in recent years

CDC NCHS/NVSS Multiple Cause of Death File 1999-2010
Opioid analgesics #1 drug involved in overdose deaths; heroin #5

Opioid analgesic death rates highest in 45-54; heroin highest in 25-34
Additional risk factors

- **Demographics**
  - Men
  - Whites
  - American Indians/Alaska Natives

- **Socioeconomics and Geography**
  - Medicaid
  - Rural vs urban
ECONOMIC COSTS AND ADDITIONAL PUBLIC HEALTH CONSEQUENCES
Economic costs and additional public health consequences

- $72.5 Billion in healthcare costs
- People who abuse opioids generate, on average, annual direct health care costs 8.7 times higher than nonabusers
- Increase in hepatitis C
- Other infectious disease complications
- Neonatal abstinence syndrome


Of 75 patients who underwent AAROD at a NYC clinic during January–September 2012, 2 died and 5 others experienced serious adverse events requiring hospitalization.

To reduce morbidity and mortality associated with opioid dependence, evidence-based approaches (e.g., medication-assisted treatment) should be used for its management.

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6238a1.htm?s_cid=mm6238a1_e
Conclusions

- Abuse of opioids has increased over the last decade
- Overdose deaths from these drugs exact significant health, economic, and social consequences
- People with substance use disorders are at high risk for overdose death
- This is a complex problem with multiple drivers which requires a multi-pronged response strategy
- Expanding access to medication assisted treatment is an essential component of this strategy
Thank You

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