Epidemiologic Data on Opioid Use: Changing Problems
Goals

To bridge the pain world and addiction world

1. Pain and pain treatment
   a. Chronic pain affects an estimated 100 million Americans (1/3 of the population).
   b. Complex physiologic, behavioral, and social phenomenon (FSMB)
   c. Increased prescribing of opioid analgesics (CDC)
   d. For some patients, opioids are the best treatment for chronic pain.
   e. For many more, there are likely to be more effective approaches.

2. Addiction and addiction treatment
   a. Neurobiological disease (SAMHSA/NIDA)
   b. Typically chronic or relapsing/remitting course (SAMHSA/NIDA)
   c. Often exists with other comorbid psychiatric conditions (SAMHSA/NIDA)
   d. Medication-assisted therapies are effective for opioid patients.
Use of Opioids in the United States

- Although there are many treatments for chronic pain, an estimated 5 to 8 million people use opioids long term.
- The number of opioid prescriptions for pain treatment grew from 76 million in 1991 to 219 million in 2011.
- Approximately 40 percent to 70 percent of those with chronic pain do not receive proper medical treatment.
- Prevalence of chronic pain and increasing use of opioids have created a “silent epidemic” of distress, disability, and danger.
Issues That Encourage Opioid Prescribing

- Twenty percent of the general population is significantly affected by chronic nonmalignant pain (CNMP).\(^3, 4, 5\)

- A successful initiative to address cancer pain inspired efforts by pain management advocates to increase the use of opioids for the treatment of chronic nonmalignant pain.

- These efforts are based on the belief that patients with CNMP deserve pain relief as much as those with cancer, and that sustained pain relief is possible with stable doses of opioids.
this source appears to have been a personal communication. There's not enough info to put into NLM style for that.
Stacy Hoffhaus, 1/30/2015
Trends in demand, supply, and unintended consequences are declining (impact of actions by FDA and manufacturers, education and training for prescribing physicians, and overdose campaigns), but IDU risks are on the rise.

More users are shifting from other opiates to heroin.

Changes in user characteristics (young suburban heroin users and aging adults dependent on pain pills and benzodiazepines)—Treatment need versus capacity

Unresolved problems in increasing accessibility to treatment
Opioid Prescriptions See a Small Drop, 2012–2013

- 2008: 200.7
- 2009: 222.5
- 2010: 229.5
- 2011: 240.3
- 2012: 247.3
- 2013: 229.5

+14.3%
Pollini et al. found that a high proportion of young heroin injectors reported problematic prescription-type opioid use before initiating heroin use.

A 2002–2011 NSDUH study found that 80 percent who began heroin use in the past year (recent initiates) had previous nonmedical use of pain relievers. Only 1 percent of recent initiates reported heroin use prior to using pain relievers.

Reasons for shifting from pain pills to heroin include difficulties converting the “hardened” extended-release pain pills into fine granules, which can be insufflated into a liquid and injected; some of these new pills turn into a gelatin when liquid is added, which precludes injection. Other reasons include difficulties obtaining pain pills as more recognition of the problem has resulted in decreased prescribing and the relatively cheap cost of heroin compared to pain pills.
Death rates from heroin overdose are increasing rapidly as death rates from prescription opioids are leveling off.

Note: 2012 saw the first national drop in prescription opioid deaths since the 1990s. This reflects a similar drop in painkiller prescribing rates across the United States and is a promising trend in reversing this epidemic. Although later slides will demonstrate that the corresponding heroin overdose rate is rising.
Pain Management Barriers

Public, Patients, Families

Health Care Professional

Pain Relief

Health Care System
Problems related to opioid use are rising in tandem with distribution.
Age-Adjusted Death Rates for Three Selected Causes Of Injury, United States, 1979–2013

In 1999, International Classification of Diseases, 10th Revision (ICD-10) replaced the previous revision of the ICD (ICD-9).
Human Exposure Cases Reported by Poison Centers in the United States: AAPCC 2004–2013

- Hydrocodone
- Oxycodone
- Cocaine
- Methadone
- Heroin

Number of Cases


Cases range from 0 to 35,000.
Percentage of Items Identified in DEA’s NFLIS Laboratory System: 2005–2014

- Heroin
- Oxycodone
- Hydrocodone
- Methadone

Percent of Items Seized

Grams of Selected Drugs Distributed per 100,000: DEA ARCOS 1997–2013

- Hydrocodone
- Methadone
- Oxycodone
- Buprenorphine

Graph shows the distribution of selected drugs over time from 1997 to 2013.
Number of U.S. Drug Poisoning Deaths
CDC 1999–2013

1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000 11,000 12,000 13,000 14,000

- Other Opiates
- Methadone
- Other Synthetics
- Benzodiazepines
- Heroin

Number of Drug-Poisoning Deaths Involving Heroin, Cocaine, and Opioid Analgesics, United States, 2013

Notes: The number of drug-poisoning deaths in 2013 was 43,982; OA = opioid analgesics
Rates per 100,000 of Drug-Poisoning Deaths Involving Other Opiates in the United States: 1999 & 2013

<table>
<thead>
<tr>
<th>Age Group</th>
<th>1999 Rate</th>
<th>2013 Rate</th>
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<tbody>
<tr>
<td>15–24 years</td>
<td>0.5</td>
<td>2.7</td>
</tr>
<tr>
<td>25–34 years</td>
<td>1.3</td>
<td>2.3</td>
</tr>
<tr>
<td>35–44 years</td>
<td>2.0</td>
<td>7.6</td>
</tr>
<tr>
<td>45–54 years</td>
<td>0.7</td>
<td>10.7</td>
</tr>
<tr>
<td>55–64 years</td>
<td>0.3</td>
<td>7.5</td>
</tr>
<tr>
<td>65–74 years</td>
<td>1.4</td>
<td>10.7</td>
</tr>
</tbody>
</table>

*Reference:* [SAMHSA](https://www.samhsa.gov)
Rates per 100,000 of Drug-Poisoning Deaths Involving Heroin in the United States: 1999 & 2013

1999
2013

Rate per 100,000

15–24 years: 0.5, 2.9
25–34 years: 1.0, 6.3
35–44 years: 1.8, 4.4
45–54 years: 1.3, 3.8
55–64 years: 0.3, 2.1

SAMHSA

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>1992</th>
<th>2012</th>
</tr>
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<tbody>
<tr>
<td>Heroin</td>
<td>47%</td>
<td>70%</td>
</tr>
<tr>
<td>Other Opiates &amp; Synthetics</td>
<td>84%</td>
<td>90%</td>
</tr>
</tbody>
</table>
Rate for Drug-Poisoning Deaths Involving Heroin, by Selected Age and Race-Ethnicity Groups, United States, 2000 & 2013\textsuperscript{21, 22}

Note: Deaths for Hispanic persons are underreported by 5 percent. See Deaths: Final Data for 2010 (http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf).
Age-Adjusted Opioid Analgesic Poisoning Death Rates by Sex, United States, 2000–2013\textsuperscript{23, 24}
Number of Drug-Poisoning Deaths Involving Heroin, by Sex of Decedent, United States, 2000–2013

- Male
- Female
Number of Opioid Analgesic Poisoning Deaths by Involvement of Benzodiazepines
United States, 2000–2013\textsuperscript{27, 28}

OA with benzodiazepines
OA without benzodiazepines

SAMHSA
Reasons for Drug-Related Emergency Department Visits, by Year: 2004–2011

- Adverse Reactions
- Misuse or Abuse of Pharmaceuticals
- Illicit Drug Use

Data Source: SAMHSA
Substance Abuse Treatment Admissions for Nonheroin Opiates/Synthetics by State or Jurisdiction: TEDS 2006^{30} (rate per 100,000 population aged 12 and over)
2011 Deaths From Opioid Pain Relievers Exceed Those From All Illegal Drugs

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Death Per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>15–24</td>
<td>3.7</td>
</tr>
<tr>
<td>25–34</td>
<td>7.1</td>
</tr>
<tr>
<td>35–44</td>
<td>8.3</td>
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<tr>
<td>45–54</td>
<td>10.4</td>
</tr>
<tr>
<td>55–64</td>
<td>5.0</td>
</tr>
<tr>
<td>&gt;65</td>
<td>1.0</td>
</tr>
</tbody>
</table>

- Opioid Pain Relievers
- Illegal Drugs

SAMHSA
For Every RX Opioid Overdose in 2011 There Were . . . \(^32, 33\)

12 Treatment admissions for opioids

25 Emergency department visits for opioids

105 People who abused or were dependent on opioids

659 Nonmedical opioids users
Additional Needs to Lessen Opioid Abuse

- Apply consistent prescription monitoring programs with real-time data available across state lines to prescribers.
- Use available data, such as ARCOS and NFLIS, to pinpoint areas where prescribing practice rates do not show balance between pain relief and patient safety.
- Limits on the size of patient loads are preventing immediate access to treatment.
- Increase the number of addiction specialists to provide more treatment to patients using medication-assisted therapies.
- The cost of buprenorphine and naltrexone and reimbursement rates can be a limitation on their use.
Questions for Discussion

- Are today’s methadone programs easily accessible and attractive to new young suburban patients?
- Do we need new treatment modalities such as outpatient detoxification to attract aging Baby Boomers addicted to pain pills and benzos?
- Parallel prescribing of naloxone and pain pills could be a good prevention method and also lessen the stigma that naloxone is “soft on drugs.” These dual prescriptions should be targeted to patients who are noncompliant; on high daily doses; have been switched to another opioid; have COPD, sleep apnea, or depression; or are unable cognitively to manage their med, as well as education for families on signs of overdose and use of naloxone.
- Lack of knowledge about new medication-assisted therapies and targets for use and stigma of and by users
References


2 Ibid


References continued


17Ibid
Reference continued

18Ibid

19Ibid


