The Prescription Opioid and Heroin Crisis: Responding to An Epidemic of Addiction

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The Opium Poppy

*Papaver Somniferum*
Opium
Opioids

- Morphine
- Codeine
- Thebaine
- Heroin
- Hydrocodone (Vicodin)
- Oxycodone (Oxycontin)
- Oxymorphone (Opana)
- Hydromorphone (Dilaudid)

Naturally occurring opioids—also called opiates

Semi-synthetic opioids
43,982 drug overdose deaths in 2013

Unintentional Drug Overdose Deaths
United States, 1970–2007

Drug Overdose Deaths by Major Drug Type, United States, 1999–2010

- **Opioids**
- **Heroin**
- **Cocaine**
- **Benzodiazepines**

Opioid Related Overdose Deaths
United States, 1999-2013

Year

Opioid Related Overdose Deaths
- Painkillers
- Heroin
- Total Opioid

Heroin admissions, by age group & race/ethnicity: 2001-2011

Figure 21. Heroin admissions aged 12 and older, by age group and race/ethnicity: 2001-2011

NON-HISPANIC WHITE

NON-HISPANIC BLACK

Percent of all heroin admissions aged 12 and over

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 10.10.11.
Primary non-heroin opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

1999 (range 1 - 50)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroine opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2001 (range 1 – 71)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroin opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2003
(range 2 – 139)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroin opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2005
(range 0 – 214)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroin opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2007 (range 1 – 340)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Primary non-heroin opiates/synthetics admission rates, by State (per 100,000 population aged 12 and over)

2009 (range 1 – 379)

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Non-heroin opioid admissions, by gender, age, race/ethnicity: 2011

Figure 9. Non-heroin opiate admissions, by gender, age, and race/ethnicity: 2011

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 10.10.11.
Unintentional overdose deaths involving opioid analgesics parallel per capita sales of opioid analgesics in morphine equivalents by year, U.S., 1997-2007

Source: National Vital Statistics System, multiple cause of death dataset, and DEA ARCOS
* 2007 opioid sales figure is preliminary.
Rates of Opioid Sales, OD Deaths, and Treatment, 1999–2010

- Opioid Sales KG/10,000
- Opioid Deaths/100,000
- Opioid Treatment Admissions/10,000

CDC. MMWR 2011
New York Consumption of Oxycodone
1980 - 2006

Sources: U.S. Dept of Justice, Drug Enforcement Administration, Office of Diversion Control
New York Consumption of Hydrocodone
1980 - 2006

Sources: U.S. Dept of Justice, Drug Enforcement Administration, Office of Diversion Control
Dollars Spent Marketing OxyContin (1996-2001)

Figure 1: Promotional Spending for Three Opioid Analgesics in First 6 Years of Sales

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
<th>Percentage increase</th>
<th>Number of prescriptions</th>
<th>Percentage increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>$44,790,000</td>
<td>N/A</td>
<td>316,786</td>
<td>N/A</td>
</tr>
<tr>
<td>1997</td>
<td>125,464,000</td>
<td>180</td>
<td>924,375</td>
<td>192</td>
</tr>
<tr>
<td>1998</td>
<td>286,486,000</td>
<td>128</td>
<td>1,910,944</td>
<td>107</td>
</tr>
<tr>
<td>1999</td>
<td>555,239,000</td>
<td>94</td>
<td>3,504,827</td>
<td>83</td>
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<tr>
<td>2000</td>
<td>981,643,000</td>
<td>77</td>
<td>5,932,981</td>
<td>69</td>
</tr>
<tr>
<td>2001</td>
<td>1,354,717,000</td>
<td>38</td>
<td>7,183,327</td>
<td>21</td>
</tr>
<tr>
<td>2002</td>
<td>1,536,816,000</td>
<td>13</td>
<td>7,234,204</td>
<td>7</td>
</tr>
</tbody>
</table>
Industry-funded “education” emphasizes:

• Opioid addiction is rare in pain patients.

• Physicians are needlessly allowing patients to suffer because of “opiophobia.”

• Opioids are safe and effective for chronic pain.

• Opioid therapy can be easily discontinued.
Industry-funded organizations campaigned for greater use of opioids

- Pain Patient Groups
- Professional Societies
- The Joint Commission
- The Federation of State Medical Boards
“The risk of addiction is much less than 1%”


Cited 824 times (Google Scholar)
ADDICTION RARE IN PATIENTS TREATED
WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients, Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

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Long-term Opioid Treatment of Nonmalignant Pain

A Believer Loses His Faith

Chronic Noncancer Pain Management and Opioid Overdose: Time to Change Prescribing Practices

Facing up to the prescription opioid crisis

Deaths resulting from prescription opioids tripled in the United States between 1999 and 2007 and are also increasing in many other countries, including the United Kingdom. Irfan A Dhalli, Navindra Persaud, and David N Juurlink describe how this situation developed and propose several ways to reduce morbidity and mortality from opioids.

Long-Term Opioid Therapy Reconsidered

A Flood of Opioids, a Rising Tide of Deaths

Patient Satisfaction, Prescription Drug Abuse, and Potential Unintended Consequences

Susan Okie, M.D.

Aleksandra Zgierska, MD, PhD; Michael Miller, MD; David Rabago, MD
Urine Tox Results in Chronic Pain Patients on Opioid Therapy

Overall test results (n = 938,420)

Controlling the epidemic: A Three-pronged Approach

• **Prevent** new cases of opioid addiction.

• **Treatment** for people who are already addicted

• **Supply control**- Reduce over-prescribing and black-market availability.
Perceived Risk by 8th Graders

Occasional heroin use without a needle is high risk: 73%
Occasional Vicodin use is high risk: 26%

Occasional Vicodin use perceived as less risky than:
• Occasional marijuana use
• Moderate alcohol use
• Smoking 1–5 cigarettes per day

How the opioid lobby frames the problem:

Who Will Be Affected by Rescheduling?

Source: Slide presented by Lynn R. Webster MD at FDA meeting on hydrocodone up-scheduling, January 25th, 2013.
Non-medical use down since 2002, yet opioid OD deaths still rising

This is a **false dichotomy**
Aberrant drug use behaviors are common in pain patients

Pain Patients
- 35% met DSM V criteria for addiction\(^2\)
- 92% of opioid OD decedents were prescribed opioids for chronic pain.

“Drug Abusers”
- 63% admitted to using opioids for purposes other than pain\(^1\)

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The Prescription Opioid and Heroin Crisis: A Public Health Approach to an Epidemic of Addiction

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Keywords
prescription drug abuse, heroin, overdose deaths, chronic pain, opioid, addiction

Abstract
Public health authorities have described, with growing alarm, an unprecedented increase in morbidity and mortality associated with use of opioid pain relievers (OPRs). Efforts to address the opioid crisis have focused mainly on reducing nonmedical OPR use. Too often overlooked, however, is the need for preventing and treating opioid addiction, which occurs in both medical and nonmedical OPR users. Overprescribing of OPRs has led to a sharp increase in the prevalence of opioid addiction, which in turn has been associated with a rise in overdose deaths and heroin use. A multifaceted public health approach that utilizes primary, secondary, and tertiary opioid addiction prevention strategies is required to effectively reduce opioid-related morbidity and mortality. We describe the scope of this public health crisis, its historical context, contributing factors, and lines of evidence indicating the role of addiction in exacerbating morbidity and mortality, and we provide a framework for interventions to address the epidemic of opioid addiction.
Summary

• The United States is in the midst of the worst drug addiction epidemic in its history.

• Ending the epidemic requires:
  – PREVENTING new cases of opioid addiction
  – TREATMENT for people who are already addicted
Questions?