Twelve year prescribing trends for fifteen different opioid, benzodiazepine, amphetamine, and barbiturate prescription drugs correlated with reports of prescription medication abuse and diversion

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Division of Workplace Programs
Center for Substance Abuse Prevention
Substance Abuse and Mental Health Services Administration (SAMHSA)
U.S. Department of Health and Human Services (HHS)
Prescription Drug Use

Medical and nonmedical (use without a prescription or solely for the feeling or experience caused by the drug) prescription drug use is increasing in the U.S.
Prescription Drug Misuse/Abuse and Diversion

- Because of the increase in the number of prescriptions drugs, more medications are available for misuse/abuse and diversion
- Prescription drug misuse/abuse and diversion have tremendous impacts on the healthcare and judicial systems
What is the prevalence of legitimate prescription drug use in the U.S.?
Prescription Drug Use

- Legitimate prescription drug use in the U.S. for adults ≥18 years
  - 50% took at least 1 prescription drug in the previous week
  - 7% took 5 or more prescription drugs in the previous week
  - 81% took either a prescription and/or nonprescription drug in the previous week

What is the volume of prescription drugs being dispensed in the U.S.?
## Number of Prescriptions Written

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocodone</td>
<td>127,800,081</td>
<td>Methadone</td>
<td>845%</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>49,528,578</td>
<td>Amphetamine</td>
<td>533%</td>
</tr>
<tr>
<td>Alprazolam</td>
<td>45,685,484</td>
<td>Fentanyl</td>
<td>386%</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>23,336,174</td>
<td>Oxycodone</td>
<td>212%</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>22,634,097</td>
<td>Clonazepam</td>
<td>145%</td>
</tr>
<tr>
<td>Codeine</td>
<td>19,296,817</td>
<td>Hydrocodone</td>
<td>101%</td>
</tr>
<tr>
<td>Propoxyphene</td>
<td>18,298,253</td>
<td>Alprazolam</td>
<td>85%</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>15,944,538</td>
<td>Temazepam</td>
<td>46%</td>
</tr>
<tr>
<td>Diazepam</td>
<td>14,363,330</td>
<td>Lorazepam</td>
<td>32%</td>
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<tr>
<td>Temazepam</td>
<td>9,084,187</td>
<td>Diazepam</td>
<td>21%</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>5,295,576</td>
<td>Phenobarbital</td>
<td>-28%</td>
</tr>
<tr>
<td>Methadone</td>
<td>4,417,871</td>
<td>Codeine</td>
<td>-39%</td>
</tr>
<tr>
<td>Phenobarbital</td>
<td>2,628,129</td>
<td>Propoxyphene</td>
<td>-40%</td>
</tr>
<tr>
<td>Butalbital</td>
<td>233,979</td>
<td>Butalbital</td>
<td>-63%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>16,188</td>
<td>Methamphetamine</td>
<td>-70%</td>
</tr>
</tbody>
</table>
Production Quotas for Selected Schedule II Controlled Prescription Drugs, 2004-2008

<table>
<thead>
<tr>
<th>Drug</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine for sale</td>
<td>40k</td>
<td>40k</td>
<td>40k</td>
<td>40k</td>
<td>40k</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>5k</td>
<td>5k</td>
<td>5k</td>
<td>5k</td>
<td>5k</td>
</tr>
<tr>
<td>Hydrocodone for sale</td>
<td>30k</td>
<td>30k</td>
<td>30k</td>
<td>30k</td>
<td>30k</td>
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<tr>
<td>Hydromorphone</td>
<td>10k</td>
<td>10k</td>
<td>10k</td>
<td>10k</td>
<td>10k</td>
</tr>
<tr>
<td>Hydrochloride</td>
<td>2k</td>
<td>2k</td>
<td>2k</td>
<td>2k</td>
<td>2k</td>
</tr>
<tr>
<td>Methadone for sale</td>
<td>5k</td>
<td>5k</td>
<td>5k</td>
<td>5k</td>
<td>5k</td>
</tr>
<tr>
<td>Morphine for sale</td>
<td>20k</td>
<td>20k</td>
<td>20k</td>
<td>20k</td>
<td>20k</td>
</tr>
<tr>
<td>Oxycodone for sale</td>
<td>80k</td>
<td>80k</td>
<td>80k</td>
<td>80k</td>
<td>80k</td>
</tr>
</tbody>
</table>
### Extended Units Dispensed

<table>
<thead>
<tr>
<th>Prescription Drug</th>
<th>Total Extended Units: 2009</th>
<th>%Δ in Extended Units: 1998-2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocodone</td>
<td>8,409,041,900</td>
<td>Methadone</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>3,880,950,427</td>
<td>Fentanyl</td>
</tr>
<tr>
<td>Alprazolam</td>
<td>2,852,814,635</td>
<td>Oxycodone</td>
</tr>
<tr>
<td>Codeine</td>
<td>1,886,520,667</td>
<td>Amphetamine</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>1,378,286,065</td>
<td>Hydrocodone</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>1,230,362,331</td>
<td>Clonazepam</td>
</tr>
<tr>
<td>Propoxyphene</td>
<td>1,053,673,794</td>
<td>Alprazolam</td>
</tr>
<tr>
<td>Methadone</td>
<td>744,414,415</td>
<td>Temazepam</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>733,054,881</td>
<td>Lorazepam</td>
</tr>
<tr>
<td>Diazepam</td>
<td>722,501,967</td>
<td>Diazepam</td>
</tr>
<tr>
<td>Temazepam</td>
<td>306,249,958</td>
<td>Codeine</td>
</tr>
<tr>
<td>Phenobarbital</td>
<td>302,265,856</td>
<td>Propoxyphene</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>78,803,304</td>
<td>Phenobarbital</td>
</tr>
<tr>
<td>Butalbital</td>
<td>10,931,150</td>
<td>Methamphetamine</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>2,939,389</td>
<td>Butalbital</td>
</tr>
</tbody>
</table>

*Verispan, 2010*
Cumulative Distribution of Opioids, Methylphenidate, and Amphetamine, in Grams, per 100,000 Population
What are the demographics of those using prescription drugs?
<table>
<thead>
<tr>
<th>Prescription Drug</th>
<th>Majority Age Range (years)</th>
<th>Ratio Females:Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alprazolam</td>
<td>51-60 (both)</td>
<td>2.1</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>21-30 (females) 11-20 (males)</td>
<td>0.9</td>
</tr>
<tr>
<td>Butalbital</td>
<td>41-50 (females) 51-60 (males)</td>
<td>3.8</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>51-60 (both)</td>
<td>1.8</td>
</tr>
<tr>
<td>Codeine</td>
<td>51-60 (both)</td>
<td>1.7</td>
</tr>
<tr>
<td>Diazepam</td>
<td>51-60 (both)</td>
<td>1.5</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>71+ (females) 51-60 (males)</td>
<td>1.9</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>51-60 (both)</td>
<td>1.4</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>71+ (females) 51-60 (males)</td>
<td>2.3</td>
</tr>
<tr>
<td>Methadone</td>
<td>51-60 (both)</td>
<td>1.0</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>51-60 (both)</td>
<td>0.8</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>41-50 (females) 51-60 (males)</td>
<td>1.1</td>
</tr>
<tr>
<td>Phenobarbital</td>
<td>0-10 (both)</td>
<td>1.0</td>
</tr>
<tr>
<td>Propoxyphene</td>
<td>61-70 (females) 71+ (males)</td>
<td>2.5</td>
</tr>
<tr>
<td>Temazepam</td>
<td>71+ (both)</td>
<td>1.7</td>
</tr>
</tbody>
</table>
Use of Prescription Drugs During the Preceding Week by Gender and Age
What is the prevalence of prescription drug abuse in the U.S.?

How does prescription drug abuse compare to the abuse of other illicit drugs?
Nonmedical Use of Prescription Drugs

- ~7.0 million individuals ≥12 years are current (past month) nonmedical users of prescription psychotherapeutic drugs
  - Psychotherapeutic drugs: opioid pain relievers, tranquilizers, sedatives, and stimulants
  - Current nonmedical users has remained relatively stable from 2003 (6.5 million) to 2009 (7.0 million)
Past Month Illicit Drug Use among Persons Aged 12 or Older: 2009

Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

- 8.7% of population used Illicit Drugs
- 6.6% of population used Marijuana
- 2.8% of population used Psychotherapeutics
- 7.0 million people used Psychotherapeutics
- 0.8 million people used Cocaine
- 0.2 million people used Heroin
- 0.6 million people used Inhalants
- 0.6 million people used Hallucinogens

Total population: 21.8 million
Past Month Nonmedical Use of Types of Psychotherapeutic Drugs among Persons Aged 12 or Older: 2002-2009
What are the demographics of those abusing prescription drugs?

How do the demographics of those abusing prescription drugs compare to those abusing illicit drugs?
Percentage of Past Month Nonmedical Use of Psychotherapeutics by Age

- 2003: 6.1%
- 2004: 6.1%
- 2005: 6.3%
- 2006: 6.5%
- 2007: 6.0%

12 to 17: 4.0%
18 to 25: 2.0%
26 and older: 3.6%
18 to 25: 1.8%
26 and older: 3.3%
18 to 25: 1.9%
26 and older: 3.3%
18 to 25: 2.2%
26 and older: 3.3%
18 to 25: 2.2%
Past Month Illicit Drug Use among Persons Aged 12 or Older, by Age: 2008 and 2009
Past Month Use of Selected Drugs among Persons ≥12 Years by Gender

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Male (Percent)</th>
<th>Female (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana</td>
<td>8.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Psychotherapeutics</td>
<td>2.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Pain Relievers</td>
<td>1.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Cocaine</td>
<td>0.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Tranquilizers</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Stimulants</td>
<td>0.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>0.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Inhalants</td>
<td>0.4</td>
<td>0.2</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>0.4</td>
<td>0.2</td>
</tr>
</tbody>
</table>
Percentages of Past Month Illicit Drug Use among Persons ≥12 Years by Race/Ethnicity

Nonmedical Use of Prescription-Type Drugs**
Past Month Illicit Drug Use among Persons Aged 12 or Older, by Race/Ethnicity: 2009
Past Month Illicit Drug Use among Persons Aged 18 or Older, by Employment Status: 2008

Rate of Use

Percent Using in Past Month

Full Time  Part Time  Unemployed  Other

2008  8.0  11.5  19.6  4.9+
2009  8.0  10.2  17.0  6.0

SAMHSA 2010
2009 National Survey on Drug Use and Health
At what age are new initiates beginning to abuse prescription drugs and what drugs are they abusing? How does this compare to new initiates’ use of other illicit drugs?
Mean Age at First Use for Specific Illicit Drugs among Past Year Initiates Aged 12 to 49: 2009

- PCP: 16.8 years
- Inhalants: 16.9 years
- Marijuana: 17.0 years
- LSD: 18.4 years
- Sedatives: 19.7 years
- Cocaine: 20.0 years
- Ecstasy: 20.2 years
- Pain Relievers: 20.8 years
- Stimulants: 21.5 years
- Tranquilizers: 22.4 years
- Heroin: 25.5 years
Mean Age at First Use for Specific Illicit Drugs among Past Year Initiates:
12 to 49 Years

- Marijuana: 17.1 years
- Cocaine: 17.6 years
- LSD: 18.3 years
- Ecstasy: 20.2 years
- Heroin: 20.2 years
- Stimulants: 21.2 years
- Pain Relievers: 21.8 years
- OxyContin®: 21.9 years
- Sedatives: 24.0 years
- Tranquilizers: 24.5 years

2006 National Survey on Drug Use and Health
SAMHSA 2007
First Specific Drug Associated with Initiation of Illicit Drug Use among Past Year Illicit Drug Initiates Aged 12 or Older: 2009

28.6% reported first drug as psychotherapeutic

3.1 Million Initiates of Illicit Drugs
Number of New Nonmedical Users in Past Year by Drug Type in U.S.

- Pain relievers
- Tranquilizers
- Cocaine
- Stimulants
- Heroin

Numbers in Thousands

SAMHSA 2006
What is the geographical distribution of prescription drug abuse in the U.S.?

How does it compare to illicit drug use in general?
Nonmedical Use of Pain Relievers by State in Past Year among Persons ≥12 Years

Average: 5.1%

Percentages of Persons:
- 6.08 - 7.29
- 5.36 - 6.07
- 4.77 - 5.35
- 4.22 - 4.76
- 3.41 - 4.21

SAMHSA 2006-2007
http://www.oas.samhsa.gov/2k7State/Ch2.htm
Illicit Drug Use in Past Month among Persons Aged 12 or Older, by State: Percentages, 2005-2006
Past Month Illicit Drug Use among Persons Aged 12 or Older, by County Type: 2009

- Large Metropolitan: 2.4%
- Small Metropolitan: 2.9%
- Nonmetropolitan Urbanized: 7.9%
- Nonmetropolitan Less Urbanized: 7.3%
- Nonmetropolitan Completely Rural: 4.6%
From where are these abused prescription drugs obtained?
Sources of Nonmedical Prescription Drugs

Source Where Respondent Obtained:

- More than One Doctor: 3.3%
- One Doctor: 19.1%
- Bought/Took from Friend/Relative: 14.8%
- Drug Dealer/Stranger: 3.9%
- Bought on Internet: 0.1%
- Other 2: 4.9%
- Free from Friend/Relative: 55.3%

Source Where Friend/Relative Obtained:

- More than One Doctor: 3.3%
- Free from Friend/Relative: 7.3%
- Bought/Took from Friend/Relative: 4.9%
- Drug Dealer/Stranger: 1.6%
- One Doctor: 80.7%
- Other 2: 2.2%

1 Most recent nonmedical pain reliever use among past year users ≥12 years.

2 The Other category includes the sources: “Wrote Fake Prescription,” “Stole from Doctor’s Office/Clinic/Hospital/Pharmacy,” and “Some Other Way.”
Internet Sites Advertising or Offering to Sell Controlled Prescription Drugs

![Bar chart showing the number of sites over years (2004-2008)]

- **Sites offering to sell drugs (anchor sites)**
- **Sites advertising drugs (portal sites)**
- **Total sites**

↓37%
WE DON'T JUST TELL YOU TO STARVE A COLD THESE DAYS—WE CAN PRESCRIBE AN APPETITE SUPPRESSANT FOR IT!
What are the most widely diverted prescription drugs?
Most Frequently Analyzed Drugs in STRIDE 2008

<table>
<thead>
<tr>
<th>Drug</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocaine</td>
<td>15,373</td>
<td>30.13%</td>
</tr>
<tr>
<td>Cannabis/THC</td>
<td>12,667</td>
<td>24.83%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>6,408</td>
<td>12.56%</td>
</tr>
<tr>
<td>Heroin</td>
<td>4,810</td>
<td>9.43%</td>
</tr>
<tr>
<td>MDMA</td>
<td>1,860</td>
<td>3.64%</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>942</td>
<td>1.85%</td>
</tr>
<tr>
<td>Noncontrolled, non-narcotic drug</td>
<td>910</td>
<td>1.78%</td>
</tr>
<tr>
<td>BZP</td>
<td>546</td>
<td>1.07%</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>482</td>
<td>0.94%</td>
</tr>
<tr>
<td>Phencyclidine (PCP)</td>
<td>412</td>
<td>0.81%</td>
</tr>
<tr>
<td>All Other Drugs</td>
<td>6,612</td>
<td>12.96%</td>
</tr>
</tbody>
</table>
# National Estimates for the 25 Most Frequently Identified Drugs 2008

<table>
<thead>
<tr>
<th>Drug</th>
<th>National Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis/THC</td>
<td>592,053</td>
<td>33.47%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>534,324</td>
<td>30.21%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>138,551</td>
<td>7.83%</td>
</tr>
<tr>
<td>Heroin</td>
<td>103,326</td>
<td>5.84%</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>41,130</td>
<td>2.33%</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>36,188</td>
<td>2.05%</td>
</tr>
<tr>
<td>Alprazolam</td>
<td>34,919</td>
<td>1.97%</td>
</tr>
<tr>
<td>MDMA</td>
<td>22,891</td>
<td>1.29%</td>
</tr>
<tr>
<td>Norcontrolled, non-narcotic drug</td>
<td>12,150</td>
<td>0.69%</td>
</tr>
<tr>
<td>Methadone</td>
<td>10,459</td>
<td>0.59%</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>8,675</td>
<td>0.49%</td>
</tr>
<tr>
<td>Diazepam</td>
<td>7,347</td>
<td>0.42%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drug</th>
<th>National Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>6,239</td>
<td>0.35%</td>
</tr>
<tr>
<td>Phencyclidine (PCP)</td>
<td>5,968</td>
<td>0.34%</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>5,627</td>
<td>0.32%</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>5,245</td>
<td>0.30%</td>
</tr>
<tr>
<td>Pseudoephedrine**</td>
<td>4,964</td>
<td>0.28%</td>
</tr>
<tr>
<td>BCP</td>
<td>4,629</td>
<td>0.26%</td>
</tr>
<tr>
<td>Cansiprolat</td>
<td>4,251</td>
<td>0.24%</td>
</tr>
<tr>
<td>Codeine</td>
<td>3,967</td>
<td>0.23%</td>
</tr>
<tr>
<td>Psilocin</td>
<td>3,323</td>
<td>0.19%</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>2,047</td>
<td>0.12%</td>
</tr>
<tr>
<td>MDA</td>
<td>1,973</td>
<td>0.11%</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>1,921</td>
<td>0.11%</td>
</tr>
<tr>
<td>Methylphenidate</td>
<td>1,751</td>
<td>0.10%</td>
</tr>
</tbody>
</table>
Estimated Number of Total Analyzed Controlled Prescription Drug Items

- **Alprazolam**: ↑118%
- **Clonazepam**: ↑109%
- **Hydrocodone**: ↑111%
- **Codeine**, **Diazepam**, **Lorazepam**, **Methadone**, **Methylphenidate**, **Morphine**, **Oxycodone**: Other drugs showing significant increases.

<table>
<thead>
<tr>
<th>Analgesic</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocodone</td>
<td>36,625</td>
<td>37.92%</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>32,194</td>
<td>33.33%</td>
</tr>
<tr>
<td>Methadone</td>
<td>8,334</td>
<td>8.63%</td>
</tr>
<tr>
<td>Morphine</td>
<td>5,366</td>
<td>5.56%</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>4,291</td>
<td>4.44%</td>
</tr>
<tr>
<td>Codeine</td>
<td>3,148</td>
<td>3.26%</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>1,773</td>
<td>1.84%</td>
</tr>
<tr>
<td>Propoxyphene</td>
<td>1,256</td>
<td>1.30%</td>
</tr>
<tr>
<td>Dihydrocodeine</td>
<td>1,149</td>
<td>1.19%</td>
</tr>
<tr>
<td>Tramadol*</td>
<td>1,093</td>
<td>1.13%</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>525</td>
<td>0.55%</td>
</tr>
<tr>
<td>Opium</td>
<td>322</td>
<td>0.33%</td>
</tr>
<tr>
<td>Meperidine</td>
<td>300</td>
<td>0.31%</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>116</td>
<td>0.12%</td>
</tr>
<tr>
<td>Pentazocine</td>
<td>71</td>
<td>0.07%</td>
</tr>
<tr>
<td>Butorphanol</td>
<td>11</td>
<td>0.01%</td>
</tr>
<tr>
<td>Nalbuphine*</td>
<td>9</td>
<td>0.01%</td>
</tr>
</tbody>
</table>
# Table 2.2

**Benzodiazepines**

Number and percentage of identified benzodiazepines, 2008.

<table>
<thead>
<tr>
<th>Benzodiazepine</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alprazolam</td>
<td>31,414</td>
<td>65.62%</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>7,771</td>
<td>16.23%</td>
</tr>
<tr>
<td>Diazepam</td>
<td>6,287</td>
<td>13.13%</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>1,846</td>
<td>3.86%</td>
</tr>
<tr>
<td>Temazepam</td>
<td>395</td>
<td>0.82%</td>
</tr>
<tr>
<td>Chlordiazepoxide</td>
<td>90</td>
<td>0.19%</td>
</tr>
<tr>
<td>Triazolam</td>
<td>52</td>
<td>0.11%</td>
</tr>
<tr>
<td>Midazolam</td>
<td>13</td>
<td>0.03%</td>
</tr>
<tr>
<td>Flunitrazepam</td>
<td>6</td>
<td>0.01%</td>
</tr>
</tbody>
</table>
## Table 2.5
**STIMULANTS**

Number and percentage of identified stimulants, 2008.

<table>
<thead>
<tr>
<th>Stimulant</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methamphetamine</td>
<td>131,630</td>
<td>93.59%</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>4,384</td>
<td>3.12%</td>
</tr>
<tr>
<td>Caffeine*</td>
<td>1,654</td>
<td>1.18%</td>
</tr>
<tr>
<td>Methylphenidate</td>
<td>1,474</td>
<td>1.05%</td>
</tr>
<tr>
<td>Phentermine</td>
<td>520</td>
<td>0.37%</td>
</tr>
<tr>
<td>Ephedrine**</td>
<td>339</td>
<td>0.24%</td>
</tr>
<tr>
<td>Cathinone</td>
<td>170</td>
<td>0.12%</td>
</tr>
<tr>
<td>N,N-dimethylamphetamine</td>
<td>95</td>
<td>0.07%</td>
</tr>
<tr>
<td>Phendimetrazine</td>
<td>80</td>
<td>0.06%</td>
</tr>
<tr>
<td>Modafinil</td>
<td>79</td>
<td>0.06%</td>
</tr>
<tr>
<td>Cathine</td>
<td>70</td>
<td>0.05%</td>
</tr>
<tr>
<td>Benzphetamine</td>
<td>38</td>
<td>0.03%</td>
</tr>
</tbody>
</table>

**Other Stimulants**

- Phenylpropanolamine**          | 24     | 0.02%   |
- Diethylpropion                  | 18     | 0.01%   |
- Methcathinone                   | 14     | 0.01%   |
- Fenfluramine                     | 13     | 0.01%   |
- Sibutramine                     | 13     | 0.01%   |
- Fenproporex                     | 7      | 0.00%   |
- Propylhexedrine***              | 6      | 0.00%   |
- Phenmetrazine                   | 3      | 0.00%   |
- Chlorphentermine                | 3      | 0.00%   |
- Mephentermine***                | 3      | 0.00%   |
- Clofazamine***                  | 2      | 0.00%   |
- Mazindol                        | 1      | 0.00%   |
- Pemoline                        | 1      | 0.00%   |
What are the health-related issues associated with prescription drug abuse?
The Prescription Drug Issue

Each year, millions of patients in the U.S. are treated for a variety of serious medication issues related to prescription nonmedical or medical use, whether medical or nonmedical.
Drugs and Motor-Vehicle Fatalities – West Virginia

- 2004-2005 WV drivers data reported to the Fatality Analysis Reporting System of the National Highway Traffic Safety Administration
- 85% of the 784 individuals killed in motor vehicle accidents had drug and/or alcohol positive test results
  - Alcohol: 27.7% (≥0.08 g/dL) of fatalities
  - Drugs: 25.8% of fatalities
    - Prescription opioid analgesics (e.g., hydrocodone, oxycodone, methadone) and depressants (e.g., benzodiazepines, barbiturates, meprobamate/carisoprodol): 15.8% of fatalities
    - Antidepressants and antihistamines: 9.4% of fatalities
    - Illegal drugs – stimulants (e.g., cocaine and amphetamines): 5.5% of fatalities and marijuana: 8.5% of fatalities

MMWR 2006;55:1269
## Drug Substances Involved in Poisonings

<table>
<thead>
<tr>
<th>DRUG SUBSTANCES</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analgesics</td>
<td>5,735</td>
<td>15.4%</td>
</tr>
<tr>
<td>Sedatives/Hypnotics/Antipsychotics</td>
<td>3,467</td>
<td>9.3%</td>
</tr>
<tr>
<td>Antidepressants</td>
<td>1,925</td>
<td>5.2%</td>
</tr>
<tr>
<td>Cardiovascular Drugs</td>
<td>1,652</td>
<td>4.4%</td>
</tr>
<tr>
<td>Antihistamines</td>
<td>1,567</td>
<td>4.2%</td>
</tr>
<tr>
<td>Topical Preparations</td>
<td>1,489</td>
<td>4.0%</td>
</tr>
<tr>
<td>Cold and Cough Preparations</td>
<td>1,240</td>
<td>3.3%</td>
</tr>
<tr>
<td>Antimicrobials</td>
<td>1,129</td>
<td>3.0%</td>
</tr>
<tr>
<td>Vitamins</td>
<td>1,001</td>
<td>2.7%</td>
</tr>
<tr>
<td>Hormones &amp; Hormone Antagonists</td>
<td>860</td>
<td>2.3%</td>
</tr>
<tr>
<td>Others</td>
<td>5,959</td>
<td>16.0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>26,024</td>
<td>69.8%</td>
</tr>
</tbody>
</table>
Drug Misuse and Abuse in ED Visits in the U.S. by Type of Drug Involvement

- Illicit drugs only: 31%
- Alcohol only (age <21): 28%
- Pharmaceuticals only: 28%
- Illicit drugs with alcohol: 16%
- Illicit drugs with pharmaceuticals: 15%
- Alcohol with pharmaceuticals: 2%
- Illicit drugs with alcohol and pharmaceuticals: 3%

Combinations:
- Illicit 55%
- Pharmaceuticals 49%
Trends in Emergency Department (ED) Visits Involving the Nonmedical Use of Narcotic Pain Relievers: 2004 to 2008

Source: 2008 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN)
Emergency Department (ED) Visits Involving the Nonmedical Use of Narcotic Pain Relievers, by Gender and Age Group: 2004-8
Emergency Department (ED) Visits Involving the Nonmedical Use of Selected Narcotic Pain Relievers: 2004 to 2008

Number of ED Visits

- Oxycodeone Products (152%)
- Hydrocodeone Products (123%)
- Methadone (73%)
- Morphine Products (106%)
- Fentanyl Products (105%)
- Hydromorphone Products (259%)

Dependence on or Abuse of Specific Illicit Drugs in the Past Year among Persons Aged 12 or Older: 2009

- **Marijuana**: 4,299
- **Pain Relievers**: 1,854
- **Cocaine**: 1,120
- **Tranquilizers**: 481
- **Heroin**: 399
- **Stimulants**: 371
- **Hallucinogens**: 371
- **Inhalants**: 164
- **Sedatives**: 147

Numbers in Thousands
Treatment Admissions by Primary Substance

- Alcohol: 39%
- Marijuana: 16%
- Cocaine: 14%
- Heroin: 14%
- Stimulants: 9%
- Opioid analgesics*: 4%
- Other: 4%

*N = 1.8 million

* Includes admissions where primary substance was reported as Other opiates/synthetics. Excludes admissions for non-prescription use of methadone.
Substances for Which Most Recent Treatment Was Received in the Past Year among Persons Aged 12 or Older: 2009

- Alcohol: 2,894
- Marijuana: 1,243
- Cocaine: 787
- Pain Relievers: 739
- Stimulants: 517
- Heroin: 507
- Hallucinogens: 443
- Tranquilizers: 421
Received Most Recent Treatment in the Past Year for the Use of Pain Relievers among Persons Aged 12 or Older: 2002-2009

2002: 360,000
2003: 415,000
2004: 424,000
2005: 466,000
2006: 547,000
2007: 558,000
2008: 601,000
2009: 739,000
Percent Increase in Admissions for Specific Opioid Analgesics\(^1\): 2000-2006

\(^1\) Includes admissions where primary, secondary, or tertiary substance was reported as Other opiates/synthetics. Excludes admissions for non-prescription use of methadone. Analysis restricted to 13 States that reported detailed drug codes for 2000 and 2006.
% Increase in Admissions for Heroin and Opioid Analgesics¹: 1997-2006

- Total admissions: 12%
- Heroin (primary): 4%
- Opioid analgesics (primary): 367%
- Opioid analgesics (any): 295%

¹ Includes admissions where primary, secondary, or tertiary substance was reported as Other opiates/synthetics. Excludes admissions for non-prescription use of methadone.
Treatment Admissions Involving Opioid Analgesics

1 Includes admissions where primary, secondary, or tertiary substance was reported as *Other opiates/synthetics*. Excludes admissions for non-prescription use of methadone.

*OxyContin introduced*
### Characteristics of Opioid Analgesic Admissions: 1997 and 2006

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>1997</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>56%</td>
<td>57%</td>
</tr>
<tr>
<td>White (non-Hispanic)</td>
<td>83%</td>
<td>88%</td>
</tr>
<tr>
<td>Less than 20 years of age</td>
<td>5%</td>
<td>11%</td>
</tr>
<tr>
<td>20 to 29 years</td>
<td>16%</td>
<td>37%</td>
</tr>
<tr>
<td>30 years or more</td>
<td>79%</td>
<td>52%</td>
</tr>
<tr>
<td>New users (≤3 yr of use)</td>
<td>20%</td>
<td>28%</td>
</tr>
<tr>
<td>Oral</td>
<td>78%</td>
<td>74%</td>
</tr>
<tr>
<td>Injected</td>
<td>14%</td>
<td>10%</td>
</tr>
<tr>
<td>Inhaled</td>
<td>3%</td>
<td>13%</td>
</tr>
</tbody>
</table>

1 Includes admissions where primary, secondary, or tertiary substance was reported as Other opiates/synthetics. Excludes admissions for non-prescription use of methadone.
Primary Non-heroin Opiates/Synthetics Admission Rates

Per 100,000 population, ≥12 years

continued. See notes at end of figure.
Primary Non-heroin Opiates/Synthetics Admission Rates

Per 100,000 population, ≥12 years

KEY YEAR: 1996

- 7 - 10
- 11 - 13
- 14 - 27
- ≥1
- 28 or more
- Incomplete data
- Received through 10.9.07.

NOTES: See Chapter 2.

SOURCE: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS); Data received through 10.9.07.
Opioid Analgesic\(^1\) Treatment Admission Rates by Urbanization

<table>
<thead>
<tr>
<th></th>
<th>Total US</th>
<th>Large MSA, in Central City</th>
<th>Large MSA, Not in Central City</th>
<th>Small MSA</th>
<th>Non-MSA, Small City</th>
<th>Non-MSA, No City</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>23</td>
<td>16</td>
<td>23</td>
<td>30</td>
<td>28</td>
<td>26</td>
</tr>
<tr>
<td>2006</td>
<td>55</td>
<td>31</td>
<td>58</td>
<td>68</td>
<td>76</td>
<td>71</td>
</tr>
</tbody>
</table>

MSA = Metropolitan Statistical Area

\(^1\) Includes admissions where primary, secondary, or tertiary substance was reported as Other opiates/synthetics. Excludes admissions for non-prescription use of methadone.
Figure 1: Rate of unintentional drug overdose death in the United States, 1970-2007

Source: National Vital Statistics System
Figure 2: Unintentional drug overdose deaths by major type of drug, United States, 1999-2007.

Source: National Vital Statistics System

Opioid analgesic
Cocaine
Heroin

Number of deaths
0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

Unintentional Drug Poisoning in the United States

CDC 2010
Poisoning Deaths in North Carolina, 1999-2008

CDC 2010

In 1999, the number of unintentional poisoning deaths was 279; in 2008, the number of deaths was 1,016.
Number of deaths from motor vehicle traffic, suicide, and unintentional drug poisonings by year, Ohio 1999-2008

For first time, in 2007 unintentional drug poisoning exceeds MV traffic and suicide as the overall leading cause of injury death in Ohio.
What are the crime-related issues associated with prescription drug abuse?
Percentage of Law Enforcement Agencies Reporting High Availability by Drug Nationwide 2004-2008

- Marijuana: '04: 41%, '08: 48%

 DEA 2010
 National Prescription Drug Threat Assessment, 2009
2009 Greatest Drug Threat, as Reported by State and Local Agencies

- Cocaine: 36.9%
- Heroin: 12.9%
- Methamphetamine: 27.6%
- Marijuana: 12.1%
- Controlled Prescription Drugs: 9.8%

Percentage of Law Enforcement Agencies Reporting Greatest Drug Threat by Drug Nationwide

- Methamphetamine: 40.0% in 2004, 45.0% in 2009
- Powder Methamphetamine: 35.0% in 2004, 40.0% in 2009
- Ice Methamphetamine: 25.0% in 2004, 30.0% in 2009
- Crack Cocaine: 20.0% in 2004, 25.0% in 2009
- Marijuana: 15.0% in 2004, 20.0% in 2009
- Heroin: 10.0% in 2004, 15.0% in 2009
- Powder Cocaine: 5.0% in 2004, 10.0% in 2009
- Pharmaceuticals: 2.0% in 2004, 7.0% in 2009

2004: 3.1%
2009: 9.8%
Percentage of Law Enforcement Agencies Reporting Association Between Drug Type and Violent Crime Nationwide 2004-2008

'04: 2.2%
'09: 4.8%
Percentage of State and Local Law Enforcement Agencies Reporting Street Gang Involvement in Pharmaceutical Distribution and an Association Between Pharmaceutical Diversion and Crime, 2008-2009

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Gang Involvement</td>
<td>44.2%</td>
<td>48.0%</td>
</tr>
<tr>
<td>Property Crime</td>
<td>6.0%</td>
<td>8.4%</td>
</tr>
<tr>
<td>Violent Crime</td>
<td>3.5%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>
Comment

- Balance must be achieved between:

  reducing the availability of prescription medications for misuse/abuse and diversion
  and
  the need to protect access to pharmaceuticals for those with genuine medical need
Sean J. Belouin, Pharm.D.
Commander, United States Public Health Service
Division of Workplace Programs, Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration

Janine Denis Cook, Ph.D.
Clinical Chemist
Division of Workplace Programs, Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration

Hina Mehta, Pharm.D.
Drug Use Data Analyst
Division of Epidemiology, Office of Surveillance and Epidemiology, Center for Drug Evaluation and Research, Food and Drug Administration
Questions?

THIS DRUG WON'T HELP, BUT ITS SIDE EFFECTS WILL PUT YOUR PROBLEM TO SHAME!
Past Month Use of Selected Illicit Drugs among Persons Aged 12 or Older: 2002-2009

SAMHSA 2010
2009 National Survey on Drug Use and Health
Past Year Initiates for Specific Illicit Drugs among Persons Aged ≥12

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Numbers (in Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana</td>
<td>2,147</td>
</tr>
<tr>
<td>Cocaine</td>
<td>2,090</td>
</tr>
<tr>
<td>Tranquilizers</td>
<td>1,232</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>906</td>
</tr>
<tr>
<td>Stimulants</td>
<td>781</td>
</tr>
<tr>
<td>Inhalants</td>
<td>775</td>
</tr>
<tr>
<td>OxyContin®</td>
<td>642</td>
</tr>
<tr>
<td>Sedatives</td>
<td>554</td>
</tr>
<tr>
<td>LSD</td>
<td>270</td>
</tr>
<tr>
<td>Heroin</td>
<td>198</td>
</tr>
<tr>
<td>Pain Relievers</td>
<td>106</td>
</tr>
</tbody>
</table>
Past Year Initiates of Specific Illicit Drugs among Persons Aged 12 or Older: 2009

- Pain Relievers
- Marijuana
- Tranquilizers
- Ecstasy
- Inhalants
- Stimulants
- Cocaine
- LSD
- Sedatives
- Heroin
- PCP
Figure 5: Total Number of Dispensed Prescriptions for Various Agents Through U.S Outpatient Retail Pharmacies, 1998-2007

- Hydrocodone Products
- Codeine Products
- Propoxyphene Products
- Alprazolam
- Lorazepam
- Oxycodone Products
- Diazepam
- Clonazepam
- Temazepam
- Phenobarbital
- Amphetamine
- Fentanyl
- Butalbital
- Methadone
- Methamphetamine

Verispan, 2008
Databases

- National Survey on Drug Use & Health (NSDUH)
  - http://www.oas.samhsa.gov/nhsda.htm
- The Treatment Episode Data Set (TEDS)
  - http://www.oas.samhsa.gov/2k2/TEDS/TEDS.cfm
- Drug Abuse Warning Network (DAWN)
  - http://dawninfo.samhsa.gov/
- National Poison Data System (NPDS)

Databases

- Department of Justice National Drug Intelligence Center (NDIC)
  - http://www.usdoj.gov/ndic/index.htm#Top
  - National Prescription Drug Threat Assessment 2009

- Quest Diagnostics, Inc. Drug Testing Index®
  - http://www.questdiagnostics.com/employersolutions/drug_testing_index_index_es.html

- National Forensic Laboratory Information System (NFLIS)
  - http://www.deadiversion.usdoj.gov/nflis

- System to Retrieve Information From Drug Evidence II (STRIDE)
Databases

- National Study Center for Trauma and Emergency Medical Systems
  - http://medschool.umaryland.edu/NSCforTrauma/
- Verispan, LLC: Vector One®: National (VONA)
- IMS Health, IMS National Sales Perspectives™
  - http://www1.imshealth.com
- U.S. Census Bureau
Databases

- National Laboratory Certification Program (NLCP)
- National Prescription Drug Threat Assessment 2009
  - http://www.usdoj.gov/ndic/
- Maryland Poison Center
  - http://www.mdpoison.com/
- Department of Defense
- Medical Review Officer (MRO) Database
  - 2008 Society of Forensic Toxicologists annual meeting
What is the incidence of laboratory-positive prescription drugs?
Positivity Rates By Drug Category - Urine Drug Tests
(For Combined U.S. Workforce, as a percentage of all such tests)
(More than 7.3 million tests from January to December 2008)

- Amphetamines
- Barbiturates
- Benzodiazepines
- Cocaine
- Marijuana
- Methadone
- Opiates
- Oxycodones
- PCP
- Propoxyphene

http://www.questdiagnostics.com/employersolutions/dti/2009_05/dti_index.html
Positivity by Prescription Drug in General Workforce

- **Oxycodone**
- **Methadone**
- **Barbiturates**
- **Benzodiazepines**
- **Propoxyphene**

Yearly positivity rates for each drug type from 2003 to 2007 are shown in the graphs.
## Expanded Opiate Panel Drug Positivity

### General Workforce

<table>
<thead>
<tr>
<th>Drug</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (Thousands)</td>
<td>153</td>
<td>284</td>
<td>299</td>
<td>344</td>
<td>466</td>
</tr>
<tr>
<td>Codeine</td>
<td>0.20%</td>
<td>0.24%</td>
<td>0.24%</td>
<td>0.21%</td>
<td>0.19%</td>
</tr>
<tr>
<td>Morphine</td>
<td>0.36%</td>
<td>0.39%</td>
<td>0.46%</td>
<td>0.38%</td>
<td>0.42%</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>0.57%</td>
<td>0.85%</td>
<td>0.91%</td>
<td>0.99%</td>
<td>1.23%</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>0.19%</td>
<td>0.37%</td>
<td>0.44%</td>
<td>0.51%</td>
<td>0.71%</td>
</tr>
</tbody>
</table>

Source: Quest Diagnostics, 2007

Overall Illicit Drug Positivity

Combined overall:
1988: 13.6%
2008: 3.6%

Federally-Mandated General Workforce

1988: 13.6%
2008: 3.6%

http://www.questdiagnostics.com/employersolutions/dti/2009_05/dti_index.html

Quest Diagnostics, 2008

http://www.questdiagnostics.com/employersolutions/
Positivity Rates By Testing Reason - Urine Drug Tests
(For General U.S. Workforce)
(More than 5.7 million tests from January to December 2008)

<table>
<thead>
<tr>
<th>Follow-Up</th>
<th>For Cause</th>
<th>Periodic</th>
<th>Post-Accident</th>
<th>Pre-Employment</th>
<th>Random</th>
<th>Returned to Duty</th>
</tr>
</thead>
</table>

- For cause
- Follow-up
- Post-accident

http://www.questdiagnostics.com/employersolutions/dti/2009_05/dti_index.html
What constitutes a confirmed positive drug test result?
MRO-verified Positive Prescription Drug Test Result

- A confirmed positive laboratory prescription drug result is reported as positive if:
  - There is verifiable illegal use
  - It cannot be verified that the medication has been legally obtained
- The MRO may not be able to verify or obtain prescription documentation
**Federally-Regulated Testing**

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Laboratory Confirmed + %</th>
<th>MRO Verified + %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total All Drugs</td>
<td>1.43</td>
<td>85.07</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>0.19</td>
<td>41.35</td>
</tr>
<tr>
<td>Cocaine</td>
<td>0.37</td>
<td>99.86</td>
</tr>
<tr>
<td>Marijuana</td>
<td>0.79</td>
<td>99.55</td>
</tr>
<tr>
<td>Phencyclidine</td>
<td>&lt;0.01</td>
<td>100.00</td>
</tr>
<tr>
<td>Opioids</td>
<td>0.13</td>
<td>17.80</td>
</tr>
</tbody>
</table>

- Number of FR specimens = 199,966 in 2007
- FR opioid data includes codeine, morphine and 6-acetylmorphine
## Non-Regulated Testing

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Laboratory Confirmed +</th>
<th>MRO Verified +</th>
<th>MRO Reversed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Total Opioids*</td>
<td>0.55</td>
<td>23.20</td>
<td>76.80</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>0.36</td>
<td>14.43</td>
<td>85.57</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>0.21</td>
<td>16.73</td>
<td>83.27</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>0.34</td>
<td>26.61</td>
<td>73.39</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>0.46</td>
<td>32.41</td>
<td>67.59</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>0.33</td>
<td>19.24</td>
<td>80.76</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>0.67</td>
<td>27.51</td>
<td>72.49</td>
</tr>
</tbody>
</table>

Denominator for NR total opioids = 1,037,473 in 2007

*Total opioids include: codeine, morphine, 6-AM, hydrocodone, hydromorphone, oxycodone and oxymorphone
Figure 5.2 Percentage of analyzed drug items identified as hydrocodone, by state, 2007.

Figure 5.4 Percentage of analyzed drug items identified as oxycodone, by state, 2007.
Figure 2.1  Distribution of narcotic analgesics within region, 2008.

West  Midwest  Northeast  South

100%

80%

60%

40%

20%

0%

Total Number

- Hydrocodone
- Oxycodone
- Methadone
- Morphine
- Other
Figure 2.2 Distribution of benzodiazepines within region, 2008.
% of Law Enforcement Agencies Reporting an Association Between Diverted Prescription Drugs and Crime
Treatment Admissions Involving Opioid Analgesics¹ by Age and Route of Administration: 2006

¹ Includes admissions where primary, secondary, or tertiary substance was reported as Other opiates/synthetics. Excludes admissions for non-prescription use of methadone.
Post Accident vs. Pre-employment Positivity

Oxycodone
- 2003: 0.00% 2004: 0.05% 2005: 0.10% 2006: 0.15% 2007: 0.20%

Barbiturates
- 2003: 0.0% 2004: 0.1% 2005: 0.2% 2006: 0.3% 2007: 0.4%

Benzodiazepines
- 2003: 0.0% 2004: 0.2% 2005: 0.4% 2006: 0.6% 2007: 0.8%

Propoxyphene
- 2003: 0.0% 2004: 0.2% 2005: 0.4% 2006: 0.6% 2007: 0.8%

Methadone
- 2003: 0.0% 2004: 0.2% 2005: 0.4% 2006: 0.6% 2007: 0.8%

Quest Diagnostics, 2008
Most Common Drug Class Exposures by Age

Age vs. Drug Type Frequency

- Analgesics (pain relievers)
- Sleep medicines and antipsychotics
- Antidepressants
- Stimulants and street drugs
- Alcohols

Frequency:

- <6 yr
- 6-19 yr
- ≥20 yr
Figure 5: Estimated numbers of ED visits involving legal drugs used nonmedically and illegal drugs, United States, 2008

Source: Drug Abuse Warning Network
Rates of ED visits per 100,000 population involving nonmedical use of pharmaceuticals, by age and gender, 2007
Substance Dependence or Abuse in the Past Year, by Age and Gender: 2009
Trends in Nonmedical Use of Prescription Pain Relievers among Persons Aged 12 or Older: 2002 to 2009
Primary Substance of Abuse at Admissions

SAMHSA 2008

Treatment Episode Data Set 1996-2006
Poisoning Deaths in the U.S.

13.6% of all poisoning deaths

Methadone (390%)
Other Opioids* (90%)
Other Synthetic Narcotics**
Cocaine

*Other opioids include drugs like morphine, oxycodone, hydrocodone, hydromorphone
**Other synthetic narcotics include drugs like propoxyphene, Fentanyl, meperidine

Methadone prescriptions:
‘97: 0.3 M
‘06: 3.9 M
Prescription Opioid Analgesic Deaths Nationwide, 2001-2005

- 2001: 3,994
- 2002: 5,547
- 2003: 6,524
- 2004: 7,547
- 2005: 8,541

Source: DEA, 2010
National Prescription Drug Threat Assessment, 2009
Unintentional Prescription Opioid Analgesic, Cocaine, and Heroin Deaths Nationwide

114% overall increase
Figure 4: Drug overdose mortality rates by sex and age group, United States, 2007

Source: National Vital Statistics System

CDC 2010
Nonmedical Use of Pain Relievers in Past Year among Persons Aged 12 or Older, by Substate Region: Percentages, 2006-2008
Illicit Drug Use in Past Month among Persons Aged 12 or Older, by Substate Region: Percentages, 2006-2008
Admissions by Age, Gender, and Race/Ethnicity for Other Opiates