New Trends in Prescription Drug Use and Abuse

USA Issues on Prescription Opioids

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Prescription Opioid Consumption, 1964 - 2010

http://www.painpolicy.wisc.edu/home
More Drug Production = More Drug Abuse
But - the Slope Varies by Drug

### Overdose Deaths Involving Opioids, Cocaine and Heroin: United States, 1999–2010

#### Number of Deaths

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
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<th>2008</th>
<th>2009</th>
<th>2010</th>
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<tbody>
<tr>
<td>Opioid Analgesic</td>
<td>4030</td>
<td>4400</td>
<td>5528</td>
<td>7456</td>
<td>8517</td>
<td>9857</td>
<td>10928</td>
<td>13723</td>
<td>14408</td>
<td>14800</td>
<td>15597</td>
<td>16651</td>
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<tr>
<td>Cocaine</td>
<td>3822</td>
<td>3544</td>
<td>3833</td>
<td>4599</td>
<td>5199</td>
<td>5443</td>
<td>6208</td>
<td>7448</td>
<td>6512</td>
<td>5129</td>
<td>4350</td>
<td>4183</td>
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<td>Heroin*</td>
<td>1963</td>
<td>1843</td>
<td>1784</td>
<td>2092</td>
<td>2084</td>
<td>1879</td>
<td>2010</td>
<td>2089</td>
<td>2402</td>
<td>3041</td>
<td>3279</td>
<td>3038</td>
</tr>
</tbody>
</table>

#### % Change 2006–10

- Opioid Analgesic: +21%
- Cocaine: -44%
- Heroin*: +45%

Source: CDC

[http://www.whitehouse.gov/blog/2014/02/10/5-things-know-about-opioid-overdoses](http://www.whitehouse.gov/blog/2014/02/10/5-things-know-about-opioid-overdoses)
What is the RADARS® System?

History

- 2002, Purdue Pharma
- 2006, Denver Health and Hospital Authority
  - Rocky Mountain Poison and Drug Center
  - Denver Public Hospital for 150 years
  - State sanctioned independent authority
- Most companies with an opioid product on the US market are subscribers.

Conflict of Interest Statement

- RADARS System is the property of Denver Health and Hospital Authority, a political subdivision of the State of Colorado.
- Subscribers receive information, but do not participate in developing the System, data collection, or analysis of the data. They do not have access to the raw data.
- Employees are prohibited from personal financial relationships with any company.
Mosaic Surveillance of Prescription Drug Abuse

Acute Health Events
- 49 Poison centers
- 46 states
- 456,610 cases
- 491,874 opioid mentions

Drug Transactions
- Criminal Justice
- 260 agency; 49 states
- 145,090 cases with 146,786 opioid mentions

Illicit Market Price
- StreetRx.com
- Users/Buyers, 50 states
- 8,441 price entries for an opioid

Entering Treatment
- Opioid Tx Program
- 66 programs; 34 states
- 41,031 cases with 183,573 opioid mentions

SKIP
- 109 practices, 45 states
- 10,214 cases with 64,678 opioid mentions

New Initiates
- College Survey
- 2000 students, 50 states
- 3,564 cases with 11,871 opioid mentions

Entering Treatment
- Opioid Treatment Program
- Survey of Key Intervenists’ Patients Program
- College Survey Program

Acute Health Events
- Poison Center Program
- Drug Delivery Program

Web Monitoring
- > 150 million sites monitored
- > 35,000 posts coded for analysis

> 49 Poison centers
> 46 states
> 456,610 cases
> 491,874 opioid mentions
Poison Center Program

**Population – Rate per 100,000 people**

- Rate per 100,000 population
- Year Quarter

**URDD = Number of People Filling Prescription**

- Rate per 1,000 URDD
- Year Quarter

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Abuse Deterrent Formulations in the United States

OxyContin, Opana ER, Exalgo, Oxecta, Nucynta ER
Abuse Deterrent Formulations

Population of People with Addiction Risk → Exposed to Opioid

Swallow

Chew

Crush

Snort

Can ADFs Minimize Progression?

Currently Approved ADFs
Mosaic Surveillance on Opana ER and OxyContin

Poison Center Program

Drug Diversion Program

Treatment Programs COMBINED

StreetRx

Population

Price per milligram
Mosaic Surveillance on Opana ER and OxyContin

Poison Center Program

Drug Diversion Program

Treatment Programs COMBINED

StreetRx

URDD – Unique Recipients of Dispensed Drug
Buprenorphine and Methadone
Drug Diversion Program

**Description**

1. Patients per provider 30 - 100
2. “Generic Subutex” enters market
3. Branded Subutex voluntarily removed from market
4. Branded Suboxone voluntarily removed from the market
5. Generic Bup-Nalox tablets introduced
6. Changes the amount of time before take-home privilege can be started
Drug Diversion Program

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Treatment Programs Combined

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Conclusions

• Misuse, abuse and diversion are nearly always related to availability through prescriptions.
• While some progress has occurred in US, there is very far yet to go.
• Hydrocodone and oxycodone dominate in volume, but buprenorphine predominate after adjusting for availability.
• It is important to assess the impact of drug availability (e.g. URDD).
• The buprenorphine-naloxone combination film has the lowest rates based on drug prescribing.
Thank You!

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