Prescription Drug Diversion

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Prescription drug diversion involves the unlawful channeling of regulated pharmaceuticals from legal sources to the illicit marketplace (GAO 2002).
DEA has estimated that the diversion and illegal trafficking in prescription drugs is a $25 billion-a-year industry (Blumenschein 1997; DEA 2000).
Mechanisms of Diversion

- Illegal sale of prescriptions by physicians;
- Illegal sale of prescriptions by pharmacists;
- Illegal substitutions or “shorting” by pharmacists;
- “Doctor shopping” by individuals who visit numerous physicians to obtain multiple prescriptions;
Mechanisms of Diversion

- Robberies and thefts from pharmacies and thefts of institutional drug supplies;

- Supply-chain theft
  - In-production losses
  - In-transit losses
  - Returns/reverse distributors

- Internet sales
Mechanisms of Diversion

- Theft, forgery, or alteration of prescriptions by patients;

- Medicaid fraud
  - “pill mills”
  - patients
  - drug dealers
Residential Burglary

- **2003 Uniform Crime Reports**
  - 2,153,464 burglaries “known to the police”
  - 740.5 per 100,000 population

- **2003 National Crime Survey**
  - 3,395,620 residential burglaries
  - 54.1% not reported to police
Primary Items Stolen in Burglaries

- Cash
- Jewelry
- Guns
- Prescription drugs
Burglary and Diversion

- “Obituary shopping”
- Thefts by patients’ relatives
- Filing of false police reports
Mechanisms of Diversion by High School Students

- Thefts from family medicine cabinets
- Drug “switching” at home
- Drug trading at school
- Thefts and robberies of medications from classmates
To determine the extent of the diversion of selected drugs in a national sample of law enforcement jurisdictions.

To identify diversion “signal sites” for specific drugs. A “signal site” is currently defined as any participating jurisdiction that registers a rate of 5 or more diversions, of any given drug, per hundred thousand population, during any quarter of the calendar year.
## Targeted Drugs

<table>
<thead>
<tr>
<th>Alprazolam</th>
<th>Methadone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine</td>
<td>Morphine</td>
</tr>
<tr>
<td>Carisoprodol</td>
<td>OxyContin</td>
</tr>
<tr>
<td>Diazepam</td>
<td></td>
</tr>
<tr>
<td>Fentanyl</td>
<td></td>
</tr>
<tr>
<td>Hydrocodone</td>
<td></td>
</tr>
<tr>
<td>Hydromorphone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Generic extended-</td>
</tr>
<tr>
<td></td>
<td>release (Teva)</td>
</tr>
<tr>
<td></td>
<td>Other Oxycodone</td>
</tr>
<tr>
<td></td>
<td>Products</td>
</tr>
<tr>
<td></td>
<td>Palladone (1/05)</td>
</tr>
</tbody>
</table>
METHODS

- 250 – 300 investigators
- All 50 states, D.C., and U.S. territories
- Quarterly questionnaires
- Honoraria to reporters
- Conducted by the University of Delaware
- Funded by Purdue Pharma, L.P.
QUESTIONNAIRE

- Total new cases that were officially logged in during the previous quarter

- Total “mentions” of the all targeted drugs

- Dosage size/form

- Next 5 most diverted drugs
National Diversion Survey Sites, Fourth Quarter 2003
N=238
Fentanyl Diversion Mentions
All Four Quarters 2002 & 2003

Total Mentions

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Total</th>
<th>Patch</th>
<th>Liquid</th>
<th>Actiq</th>
<th>Tablet</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Quarter 03</td>
<td>43</td>
<td>48</td>
<td>31</td>
<td>11</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Second Quarter 03</td>
<td>52</td>
<td>55</td>
<td>39</td>
<td>9</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Third Quarter 03</td>
<td>48</td>
<td>52</td>
<td>34</td>
<td>7</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Fourth Quarter 03</td>
<td>55</td>
<td>55</td>
<td>34</td>
<td>8</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Legend:
- First Quarter 03
- Second Quarter 03
- Third Quarter 03
- Fourth Quarter 03
Hydromorphone Diversion Mentions
2002 and 2003

Total Mentions

1st Quarter 2002
2nd Quarter 2002
3rd Quarter 2002
4th Quarter 2002
1st Quarter 2003
2nd Quarter 2003
3rd Quarter 2003
4th Quarter 2003

All Sites
Consistent Sites
Last Four Consistent Quarters
Methadone Diversion Mentions 2002 and 2003

<table>
<thead>
<tr>
<th>Quarter</th>
<th>All Sites</th>
<th>Consistent Sites</th>
<th>Last Four Consistent Quarters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Quarter 2002</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Quarter 2002</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Quarter 2002</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th Quarter 2002</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Quarter 2003</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Quarter 2003</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Quarter 2003</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th Quarter 2003</td>
<td>122</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Methadone Diversion Mentions
All Four Quarters 2002 & 2003

Total Liquid Tablet Wafers
First Quarter 03  Second Quarter 03  Third Quarter 03  Fourth Quarter 03

Total Mentions:
- Total: 86 (Q1), 93 (Q2), 109 (Q3), 122 (Q4)
- Liquid: 17 (Q1), 18 (Q2), 34 (Q3), 29 (Q4)
- Tablet: 68 (Q1), 71 (Q2), 88 (Q3), 78 (Q4)
- Wafers: 1 (Q1), 4 (Q2), 0 (Q3), 2 (Q4)
Methadone Mentions 2003

- Red = 1st Quarter
- Yellow = 2nd Quarter
- Blue = 3rd Quarter
- Orange = 4th Quarter
Other Oxycodone Diversion Mentions
2002 and 2003

Total Mentions


- All Sites
- Consistent Sites
- Last Four Consistent Quarters
Other Oxycodone Mentions 2003

- Red circle = 1st Quarter
- Yellow circle = 2nd Quarter
- Blue circle = 3rd Quarter
- Orange circle = 4th Quarter

Map of the United States with various colored circles indicating the mentions of Oxycodone in different quarters of 2003.
CONCLUSIONS

- The most widely diverted prescription opioid was hydrocodone, followed by oxycodone.

- This and other studies indicate that the typical diversion case involves a variety of different prescription drugs.
CONCLUSIONS

- Although the diversion of prescription opioids is apparent in every state, it is clustered in the Appalachian region and other rural areas of the United States.
Next Steps

- Increased number of reporters
- Expansion into U.S. territories and Canada
- Identification of “epicenters” of diversion
- Focused studies
  - “Swat team” or “rapid assessment” approach
  - Examination of longitudinal data bases
  - Examination of local surveys
  - Offender characteristics
  - Successful control methods
Next Steps (continued)

- Identification of “Key Informants” in the same jurisdictions where diversion investigations are active
- Studies of “new drugs on the street”
- Case studies and systematic surveys of prescription drug abusers and diverters
ACKNOWLEDGEMENTS

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