Emerging Changes in Opioid Diversion in Canada and the United States

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Prescription drug diversion involves the unlawful channeling of regulated pharmaceuticals from legal sources to the illicit marketplace.

Examples:
- Doctor shopping
- Shared medication
- Theft
- Direct trade / sale in street markets
Methods

• RADARS® System Drug Diversion Program
• Quarterly survey of Rx drug diversion of new cases opened by law enforcement and regulatory agencies
• Survey includes new cases of:
  • Target prescription opioids (e.g., buprenorphine, fentanyl, hydrocodone, hydromorphone, methadone, morphine, oxycodone, oxymorphone, tramadol), as well as prescription stimulants and benzodiazepines
  • Heroin, illicitly manufactured fentanyl (since 2016)
  • New drug trends
• Participation is voluntary and confidential
• Stipends offered
Drug Diversion Study – U.S.

Study history:
  • Initiated in 2002
  • Includes approximately 250 investigators in 49 states (excl. HI)

Coverage:
  • Drug Diversion Study participants include:
    • State regulatory boards
    • Law enforcement agencies
      • Large cities
      • Small towns and cities
      • Regional drug task forces
      • State police
Drug Diversion Study – Canada

Study history:
• Initiated in 2016 (Ontario only 2014-2016)
• Includes approximately 35 investigators

Coverage:
• Drug Diversion Study participants include:
  • Provincial regulatory boards
  • Law enforcement agencies
    • Large cities
    • Small town and cities
    • Regional agencies
Provinces represented in the Canada Drug Diversion Program

Active participants

No active participants
Comparison of data from the United States and Canada

Trends in prescription drug diversion

Trends in heroin and illicitly manufactured fentanyl cases
Top diverted Rx opioids – U.S. and Canada, 2018

<table>
<thead>
<tr>
<th>United States</th>
<th>Population rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxycodone</td>
<td>0.442</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>0.337</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>0.309</td>
</tr>
<tr>
<td>Codeine</td>
<td>0.139</td>
</tr>
<tr>
<td>Tramadol</td>
<td>0.090</td>
</tr>
</tbody>
</table>

*per 100,000 population

<table>
<thead>
<tr>
<th>Canada</th>
<th>Population rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydromorphone</td>
<td>0.835</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>0.757</td>
</tr>
<tr>
<td>Codeine</td>
<td>0.426</td>
</tr>
<tr>
<td>Morphine</td>
<td>0.284</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>0.079</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>0.079</td>
</tr>
</tbody>
</table>
Top diverted non-opioid drugs—U.S. and Canada, 2018

<table>
<thead>
<tr>
<th>API</th>
<th>Population rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzodiazepines</td>
<td>0.487</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>0.134</td>
</tr>
<tr>
<td>Gabapentin</td>
<td>0.087</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>API</th>
<th>Population rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzodiazepines</td>
<td>1.340</td>
</tr>
<tr>
<td>Gabapentin</td>
<td>0.229</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>0.134</td>
</tr>
</tbody>
</table>

*per 100,000 population
Population rates of Rx opioid diversion by quarter – United States, 1Q2002 to 4Q2018
Population rates of Rx opioid diversion by quarter – Canada, 1Q2016 to 4Q2018
Population rates of heroin and illicitly manufactured fentanyl cases by quarter – United States, 1Q2016 to 4Q2018
Population rates of heroin and illicitly manufactured fentanyl cases by quarter – Canada, 1Q2016 to 4Q2018
Data from the Canada Diversion Survey

Heroin and illicitly manufactured fentanyl

Street prices of diverted drugs in Ontario

New drug trends
Heroin mentions in Canada 2Q2016 – 4Q2018
Illicitly manufactured fentanyl mentions in Canada 2Q2016 – 4Q2018
Prescription opioid street price per milligram Ontario, 4Q2014 – 4Q2018
“Marked downward trend. Much fewer seizures and diversion records in general, specifically in benzodiazepines and hydromorphone.”

– 3Q2018, Québec

“Xanax ordered on the Internet, according to information heard. Website unknown.”

– 1Q2018, Québec
New Drug Trends in Canada – Non-Rx opioids

• “We recently received a case where cyclopropylfentanyl was analysed at the Health Canada lab and was found in a counterfeit TEC 3 [codeine] pill.”
  – 4Q2018, Alberta

• “Intelligence information that carfentanil is making its way to streets in our area mixed in Percocet pills.”
  – 1Q2018, Ontario
New Drug Trends in Canada – Non-Rx opioids

• “We entered 191 (illicitly manufactured) fentanyl tablets. There seems to be an upsurge of this substance in our territory.”
  – 1Q2018 Québec

• “Although officers are seizing ‘heroin,’ most certificates are returning with fentanyl mixed.”
  – 1Q2018, Ontario
New Drug Trends in Canada - methamphetamine

• “We are currently experiencing a crystal methamphetamine crisis. The majority of all drug investigations/seizures are crystal methamphetamine.”
  – 4Q2018, Ontario

• “Influx in crystal methamphetamine cases that has only occurred in the past two years.”
  – 3Q2018, Ontario

• “We are seeing an increase in methamphetamine seizures. 29 cases – mostly crystal. Over 100 pounds recovered this reporting period.”
  – 4Q2018, British Columbia
Public health implications and Future directions
Publications

• Documented declines following implementation of state Prescription Drug Monitoring Program and regulation of pain clinics.

• Provide evidence of positive impact of these interventions.
Publications

• Systematic data collection showed diversion trends of an emerging drug of abuse.

• Qualitative data from law enforcement represent first reports of use practices.
Future

• Examining prescription opioid diversion cases and cases involving illicitly manufactured opioids in Canada
  College on Problems of Drug Dependence, June 15-19

• Street prices of prescription opioids diverted to the illicit market: Examining trends over time in Ontario
  Canadian Center on Substance Use and Addiction, November 25-27, 2019
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Questions?

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