

Emerging Changes in Opioid Diversion in Canada and the United States

Mance E. Buttram
Steven P. Kurtz
Maria A. Levi-Minzi
Zachary R. Margolin

NSU
Florida

Center for Applied Research on Substance
Use and Health Disparities
Nova Southeastern University

RADARS® System 13th Annual Scientific Meeting
International Pre-Symposium
May 15, 2019

Funding and Disclosures

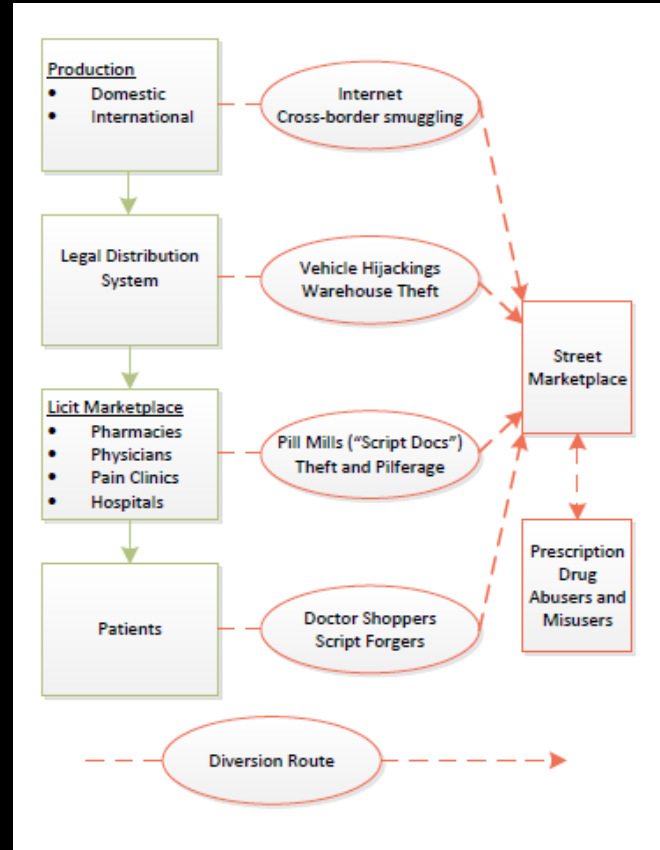
- This research is supported by a contract from Denver Health and Hospital Authority.
- The authors report no financial conflicts of interest.
- The RADARS[®] System is supported by subscriptions from pharmaceutical manufacturers, government and non-government agencies for surveillance, research and reporting services and RADARS[®] System is the property of Denver Health and Hospital Authority, a political subdivision of the State of Colorado. Denver Health and Hospital Authority retains exclusive ownership of all data, databases and systems. Subscribers do not participate in data collection or analysis, nor do they have access to the raw data.

Prescription drug diversion

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

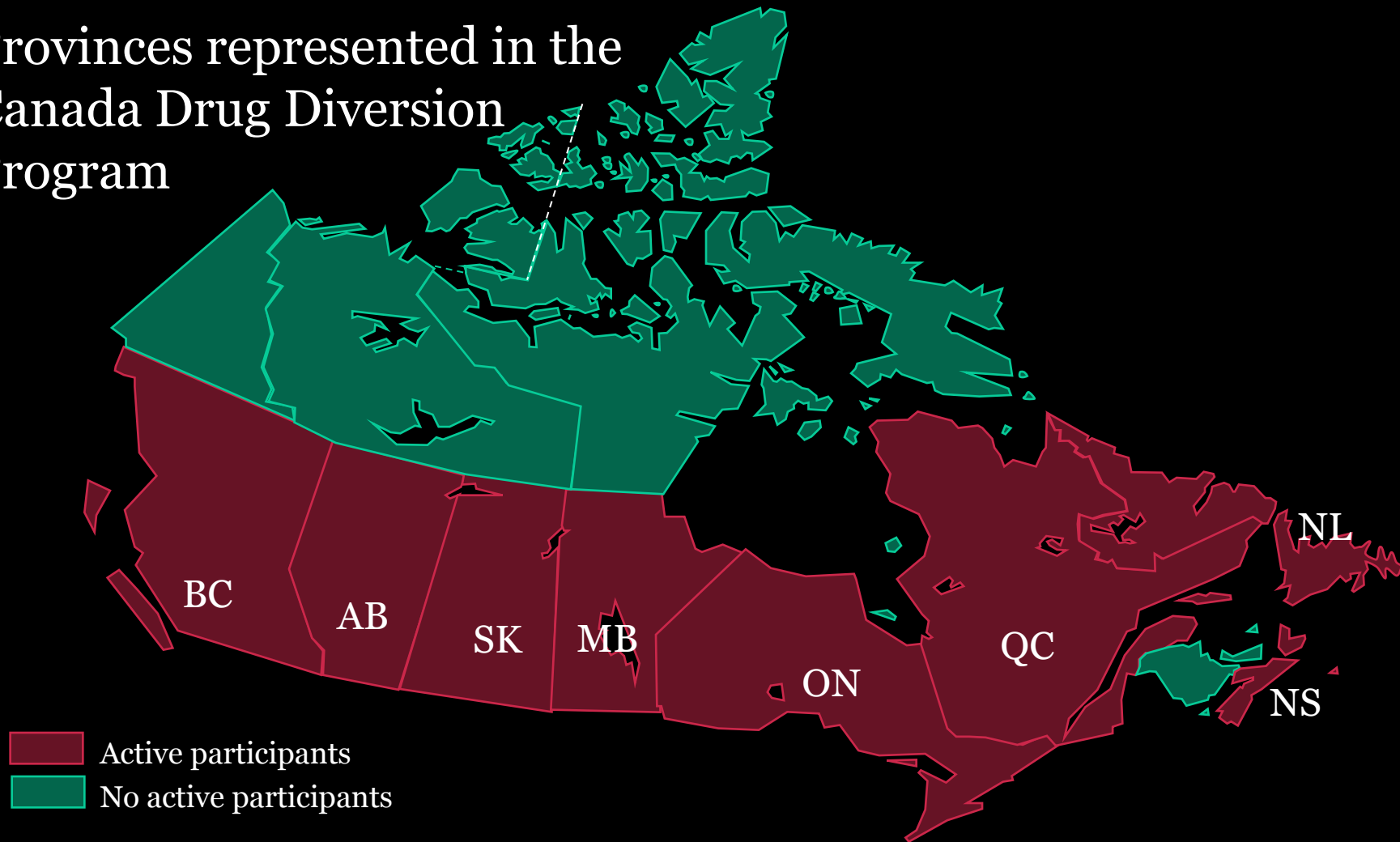
Study history:

- 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



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

United States	
API	Population rate*
Oxycodone	0.442
Hydrocodone	0.337
Buprenorphine	0.309
Codeine	0.139
Tramadol	0.090

*per 100,000 population

Canada	
API	Population rate*
Hydromorphone	0.835
Oxycodone	0.757
Codeine	0.426
Morphine	0.284
Fentanyl	0.079
Buprenorphine	0.079

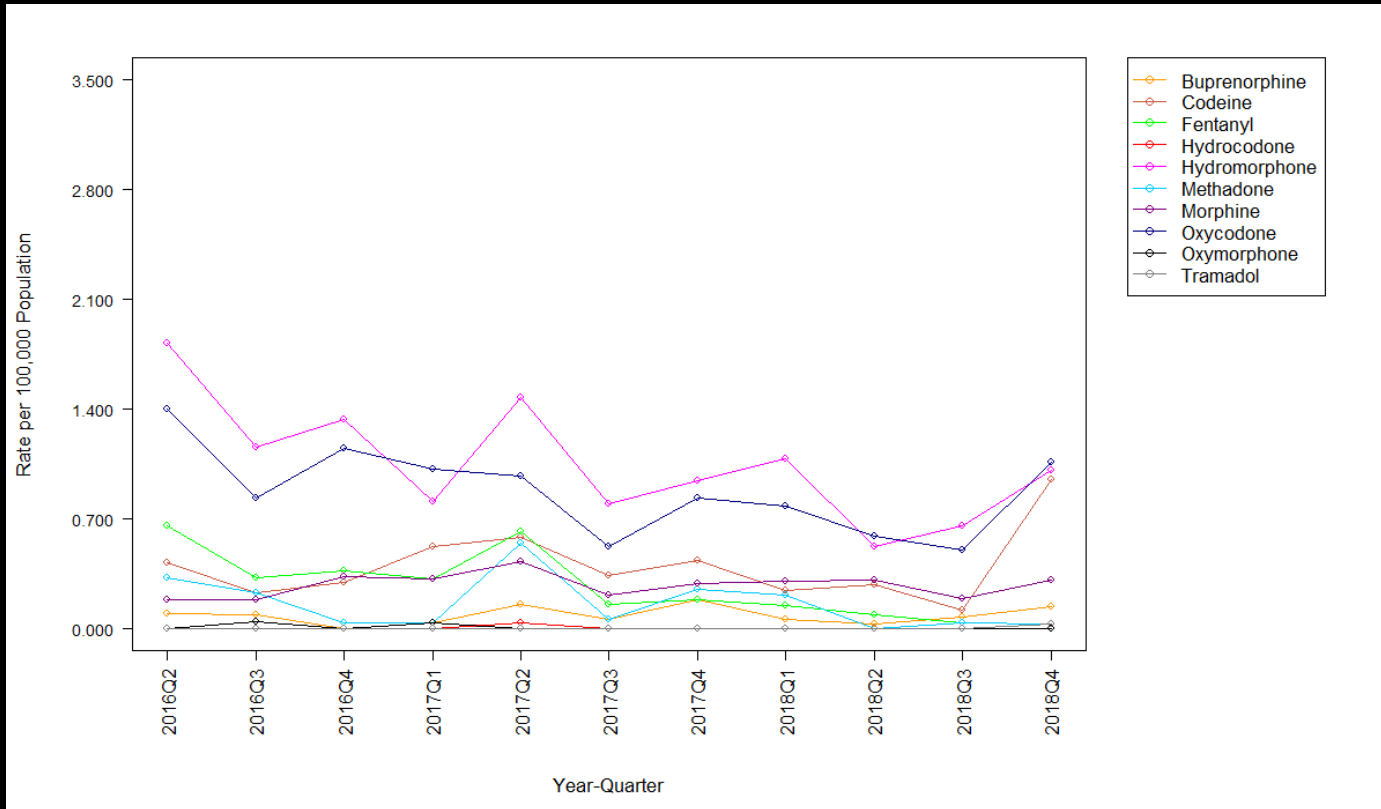
Top diverted non-opioid drugs– U.S. and Canada, 2018

United States	
API	Population rate*
Benzodiazepines	0.487
Amphetamines	0.134
Gabapentin	0.087

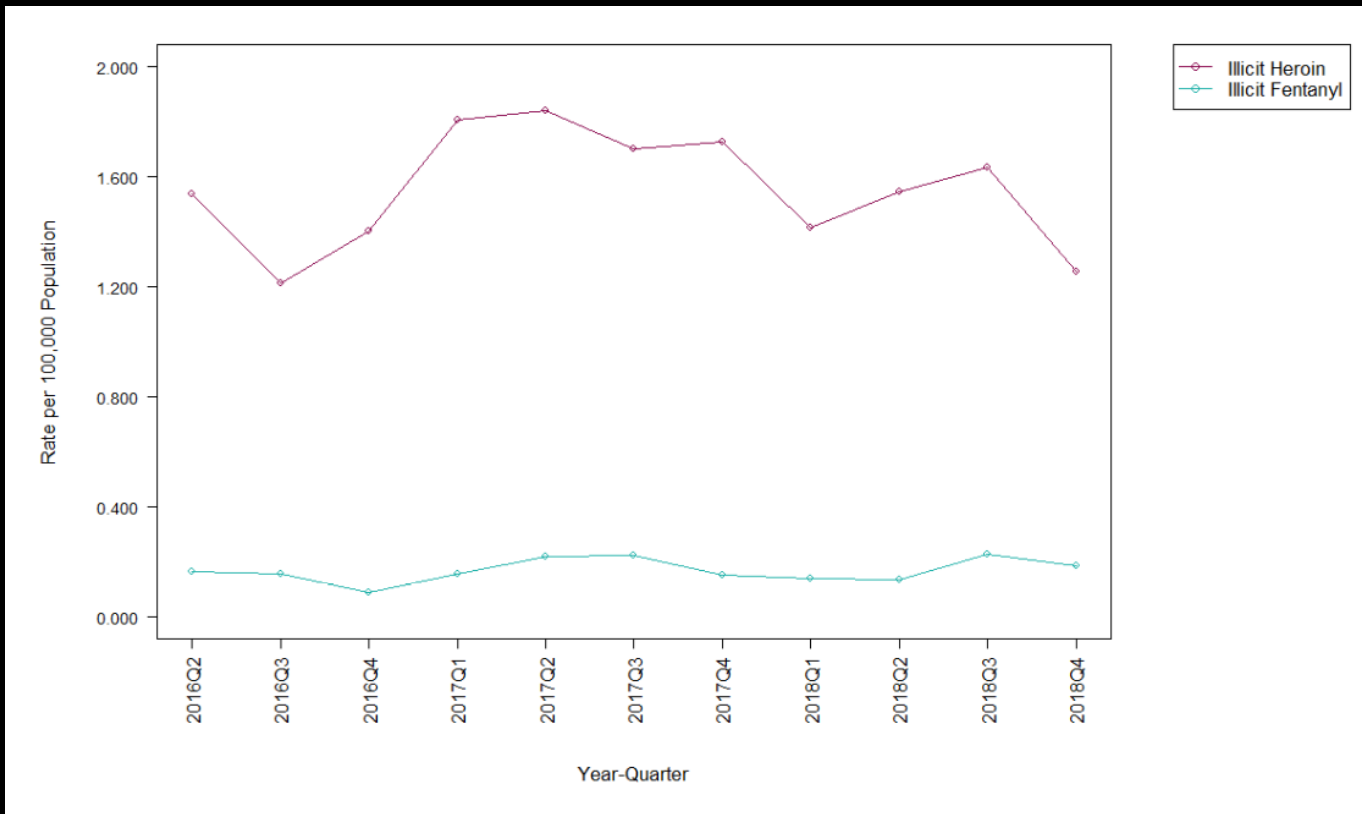
*per 100,000 population

Canada	
API	Population rate*
Benzodiazepines	1.340
Gabapentin	0.229
Amphetamines	0.134

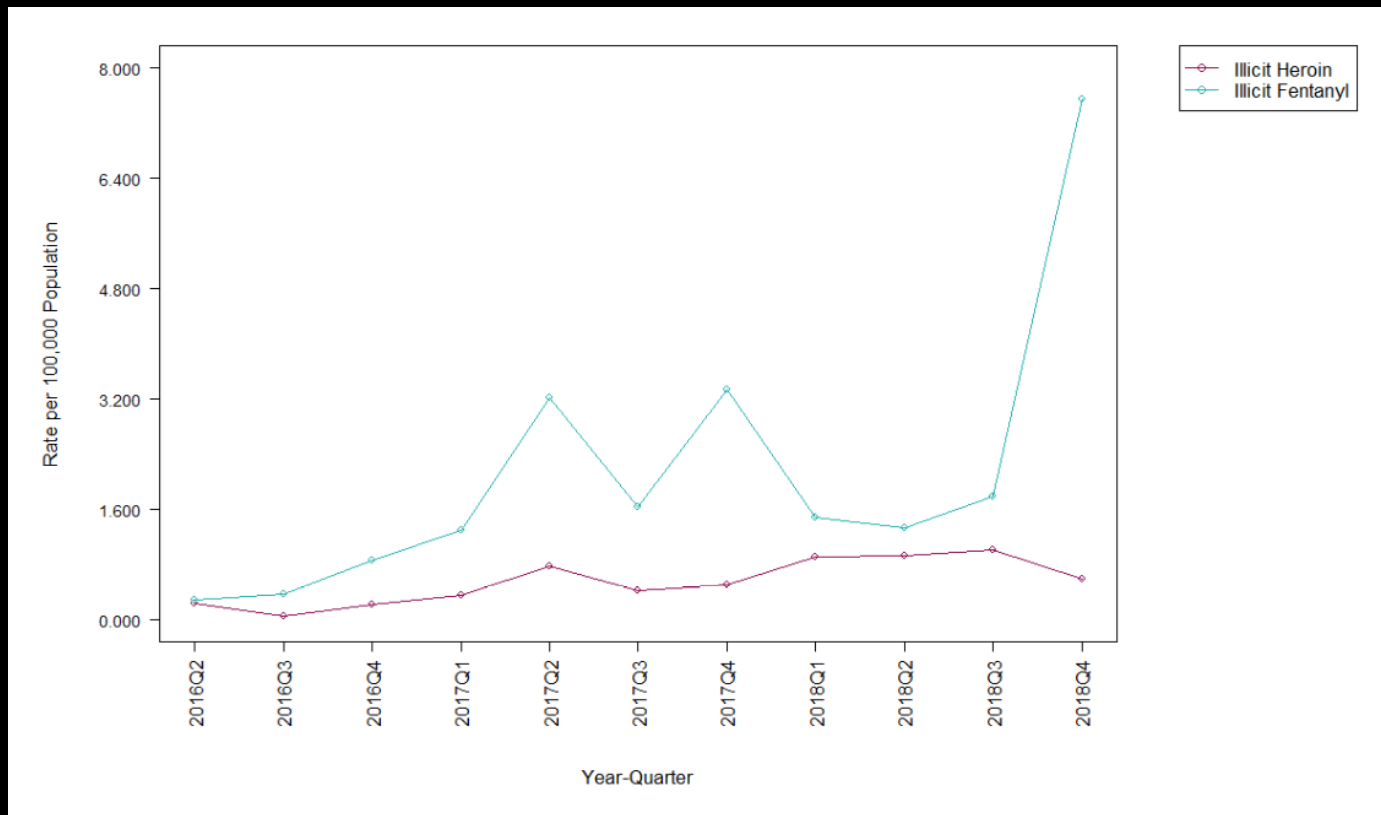
Population rates of Rx opioid diversion by quarter – Canada, 1Q2016 to 4Q2018



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



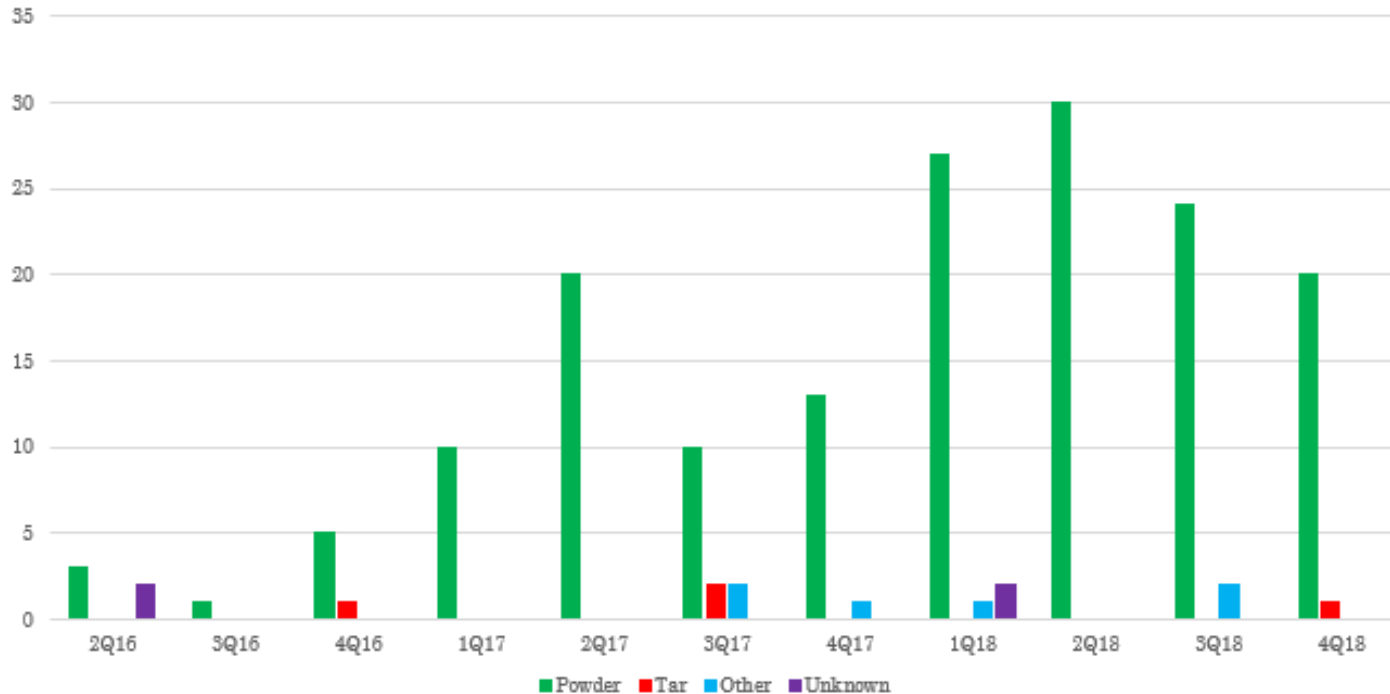
Data from the Canada Diversion Survey

Heroin and illicitly manufactured fentanyl

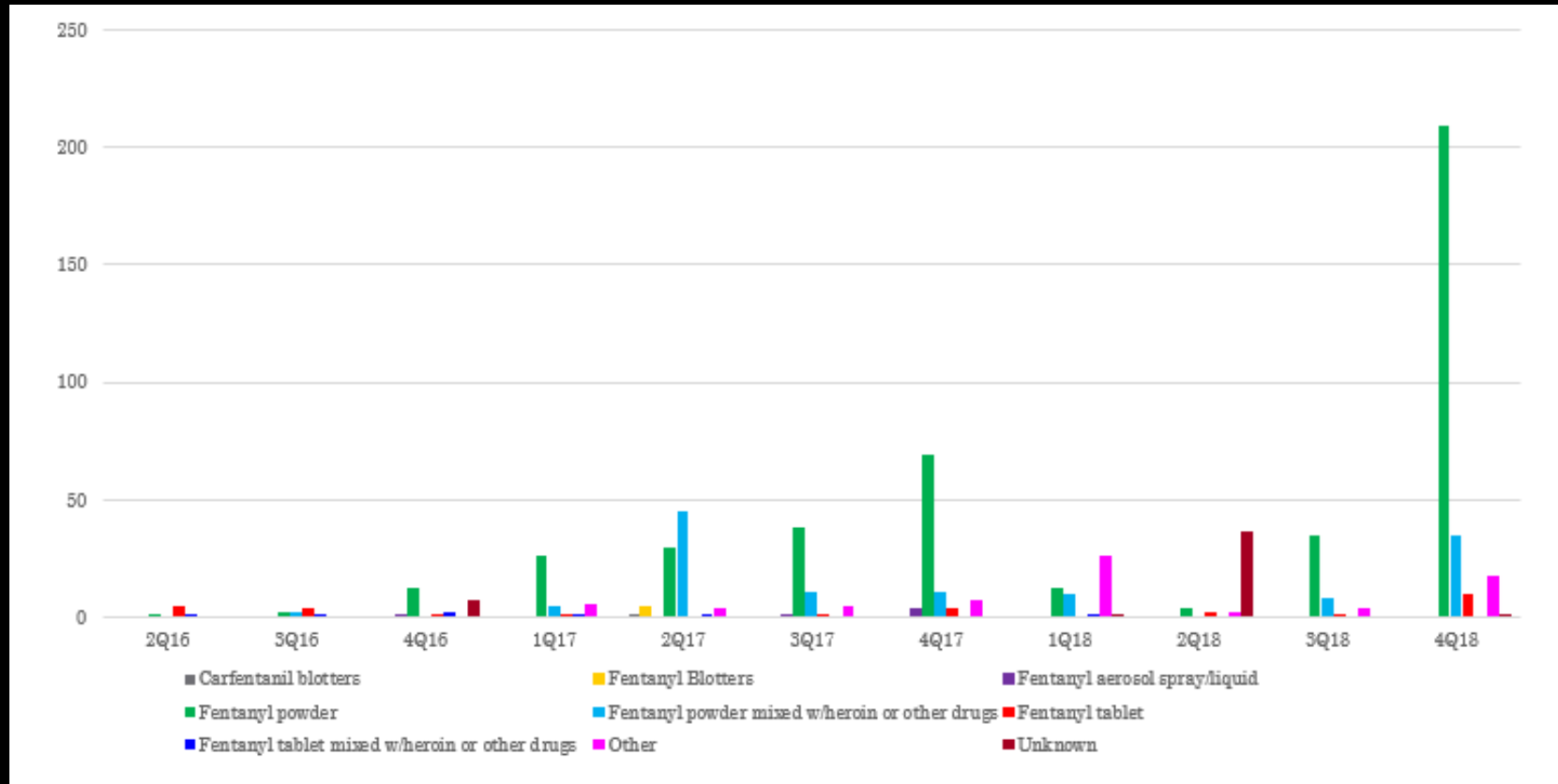
Street prices of diverted drugs in Ontario

New drug trends

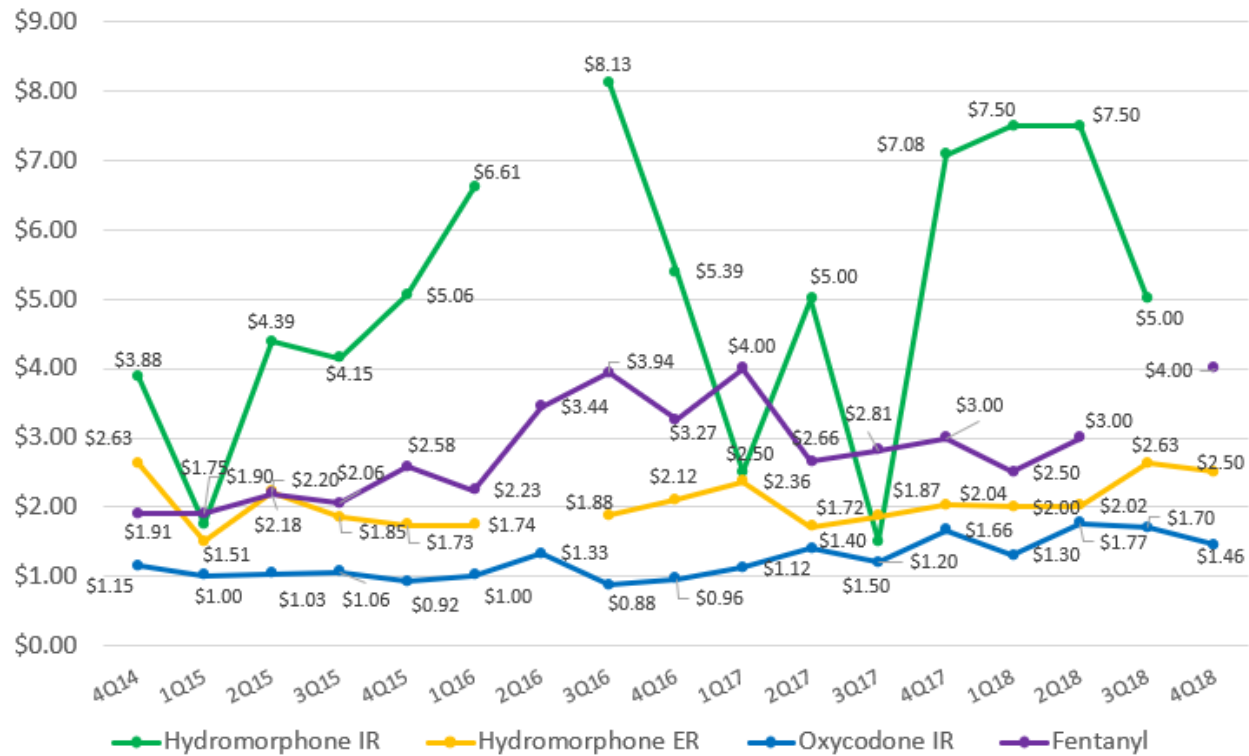
Heroin mentions in Canada 2Q2016 – 4Q2018



Illicitly manufactured fentanyl mentions in Canada 2Q2016 – 4Q2018



Prescription opioid street price per milligram Ontario, 4Q2014 – 4Q2018



New Drug Trends in Canada – Rx drugs

- “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

PHARMACOEPIDEMOLOGY AND DRUG SAFETY 2014; 23: 314–320
Published online 13 December 2013 in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/pds.3553

BRIEF REPORT

Reductions in prescription opioid diversion following recent legislative interventions in Florida

Hilary L. Surratt^{1*}, Catherine O'Grady¹, Steven P. Kurtz¹, Yamilka Stivers¹, Theodore J. Cicero², Richard C. Dart³ and Minxing Chen⁴

- Documented declines following implementation of state Prescription Drug Monitoring Program and regulation of pain clinics.
- Provide evidence of positive impact of these interventions.

Publications


Received: 14 July 2016 | Revised: 29 March 2017 | Accepted: 17 April 2017

DOI: 10.1002/pds.4230

WILEY

BRIEF REPORT

Law enforcement-derived data on gabapentin diversion and misuse, 2002-2015: diversion rates and qualitative research findings

Mance E. Buttram¹  | Steven P. Kurtz¹ | Richard C. Dart² | Zachary R. Margolin²

- 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

Special Thanks

Steven P. Kurtz

Maria A. Levi-Minzi

Yamilka Stivers

Genevieve Martin

Zachary R. Margolin

Questions?

Mance E. Buttram

Mance.Buttram@nova.edu

NSU
Florida

Center for Applied Research on Substance Use
and Health Disparities
Nova Southeastern University