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# Opioid Surveillance and Policy Evaluation: A Canadian Perspective

May 11, 2017

Tara Gomes

- **Infrastructure for opioid research in Canada**
- **Trends in opioid prescribing and outcomes**
- **Measuring the impact of emerging policies**
  - Tamper-deterrent LA oxycodone
  - Prescription Monitoring Systems
  - Fentanyl Patch-for-Patch Programs
- **Challenges, opportunities and future directions**

# Evolution of opioid concerns in Canada

- CMAJ Publication (Dhalla et al.): 2009

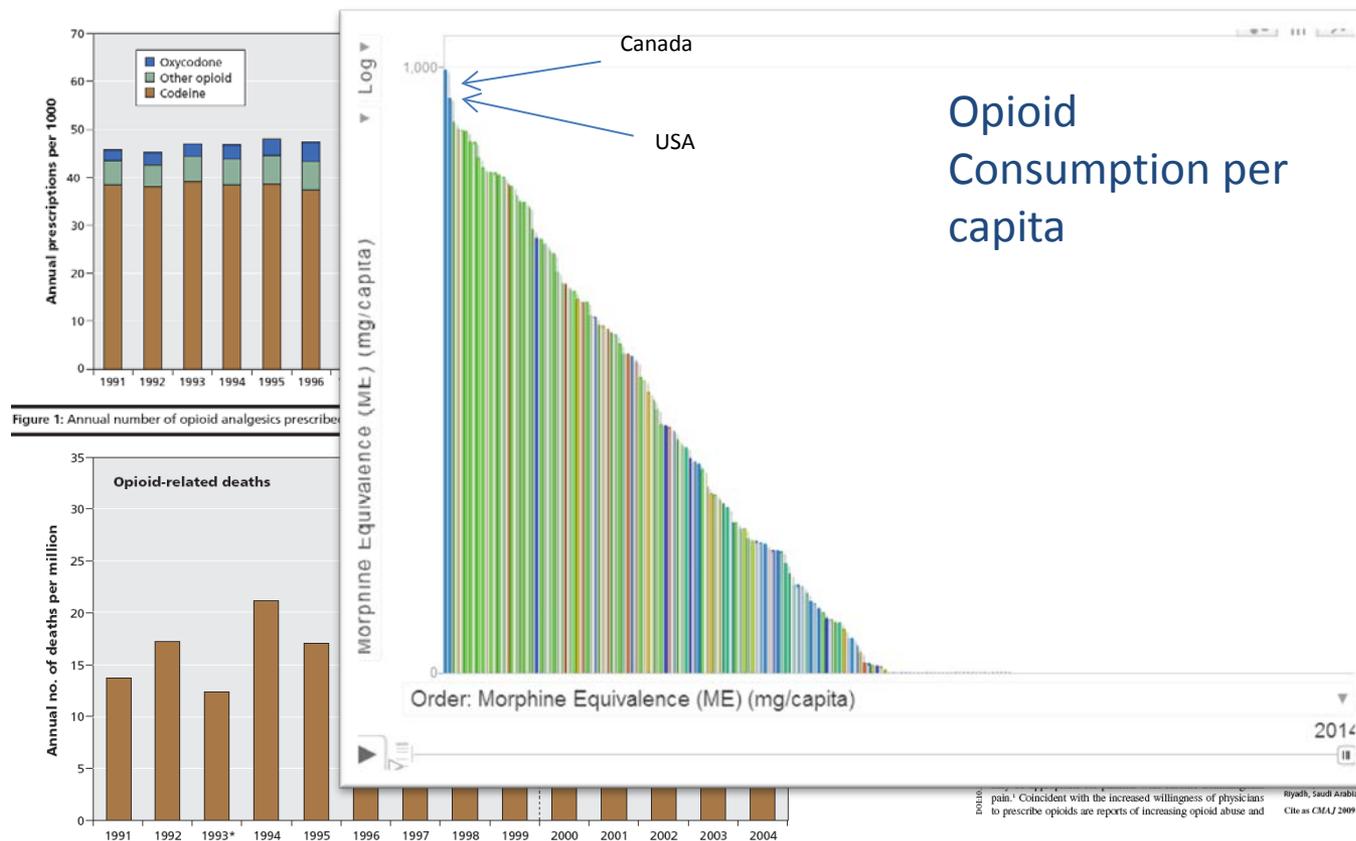


Figure 2: Deaths related to the use of opioids in Ontario, 1991 to 2004.

**RESEARCH**

ated mortality  
g-acting oxycodone

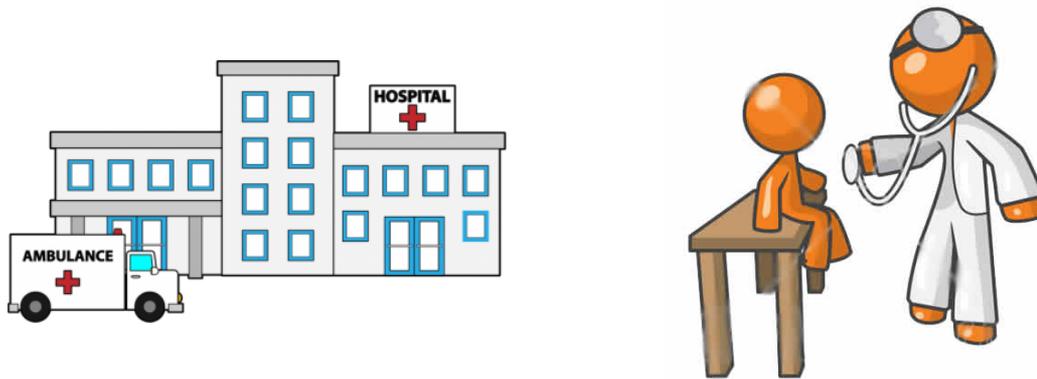
Marco L.A. Sivillotti MD MSc,

s.<sup>1,2\*</sup> Particular attention has been focused on the introduction of oxycodone (OxyContin, Purdue Pharma) into the Canadian drug formulary in 2000.<sup>3</sup> Oxycodone is a mu- and kappa-opioid receptor agonist, with an analgesic potency greater than that of morphine.<sup>4</sup> Although a monograph stated that the long-acting formulation of oxycodone carries a lower risk for abuse compared with morphine, it was quickly recognized that the abuse characteristics could be defeated by crushing the tablets.<sup>5</sup> A study to determine whether opioid-related mortality increased following the introduction of long-acting oxycodone in Ontario between 1991 and 2007. We reviewed all deaths in Ontario between 1991 and 2004. We used data on health care services before death and those deaths were related to opioid use.

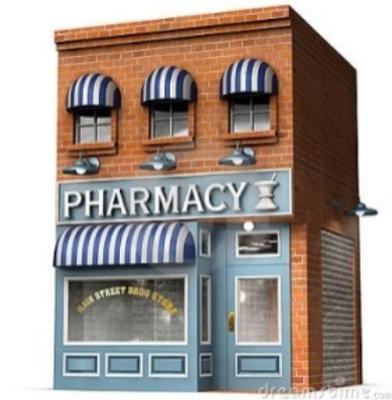
gated prescribing data from IMS Health. These data are monthly prescription records from all Canadian pharmacies. These data are available at the provincial and national levels and are regularly updated.<sup>6</sup> Annual data on per-capita morphine equivalence were available from IMS Health. Annual data were available from 2001 to 2004. Data on all opioid-containing analgesics are available on an outpatient basis.

of Medicine (Dhalla, Jazrawi) and of Health Policy, Management and Law (Dhalla), University of Toronto, Toronto, Ont.; the Keenan Research Centre of the Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, Ont.; the Department of Clinical Epidemiology and Biostatistics (Mandani, Kopp), the Department of Emergency Medicine and of the Department of Family Medicine (Sivillotti), Queen's University, Kingston, Ont.; the Department of Family Medicine (Cureish), State University of New York at Stony Brook Health Sciences Centre (Lauritsen), Stony Brook, N.Y.; and the Department of Medicine (Mandani), King Saud University, Riyadh, Saudi Arabia.

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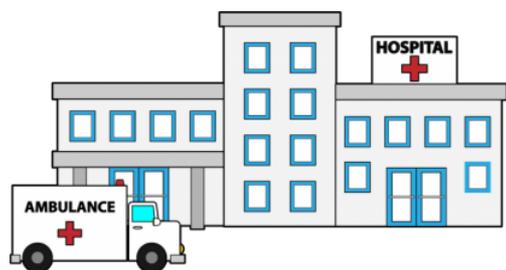


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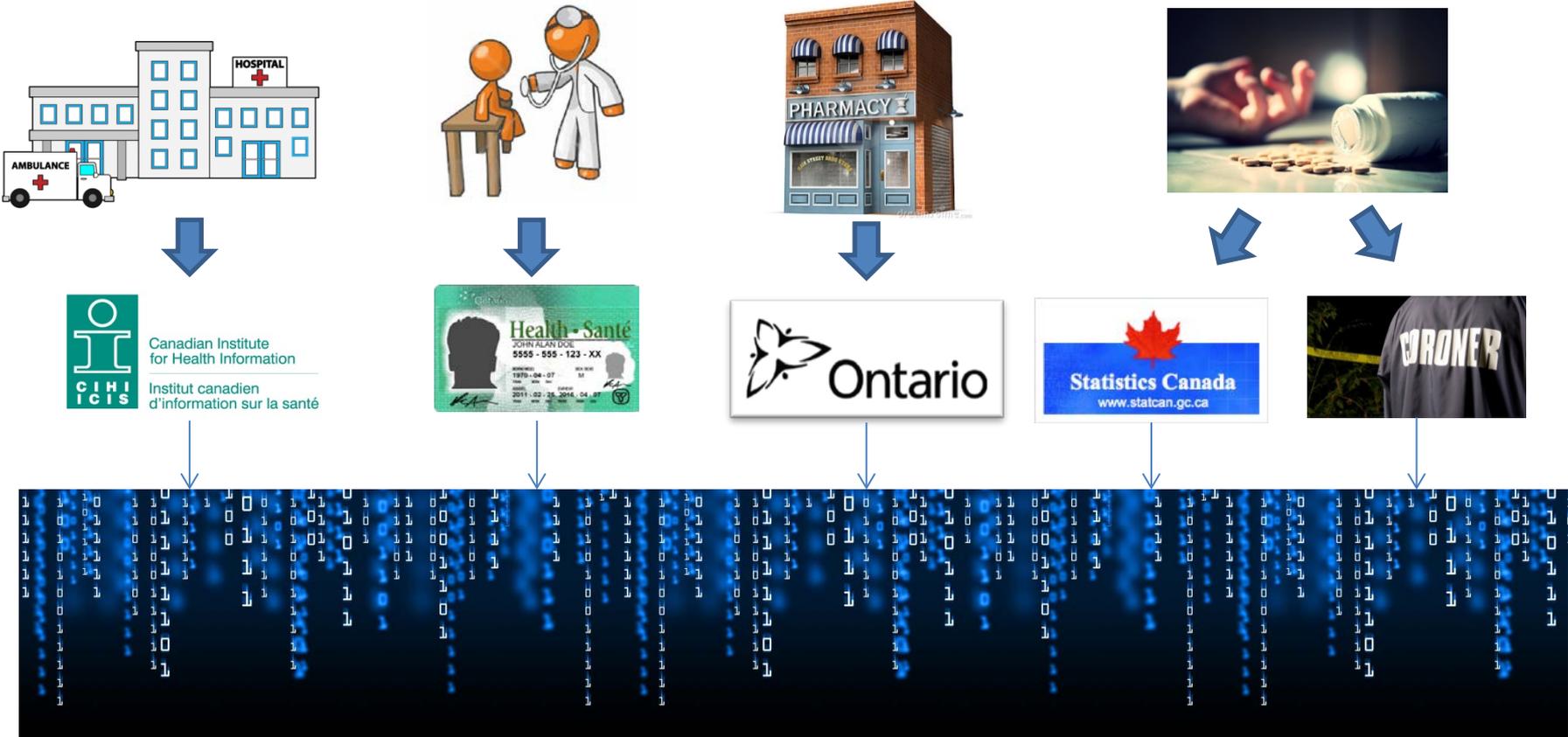


- No national data collection
- Fragmented access between and within provinces
- **Aggregated prescription counts:**  
QuintilesIMS
- **Linked data:**  
Provincial researchers

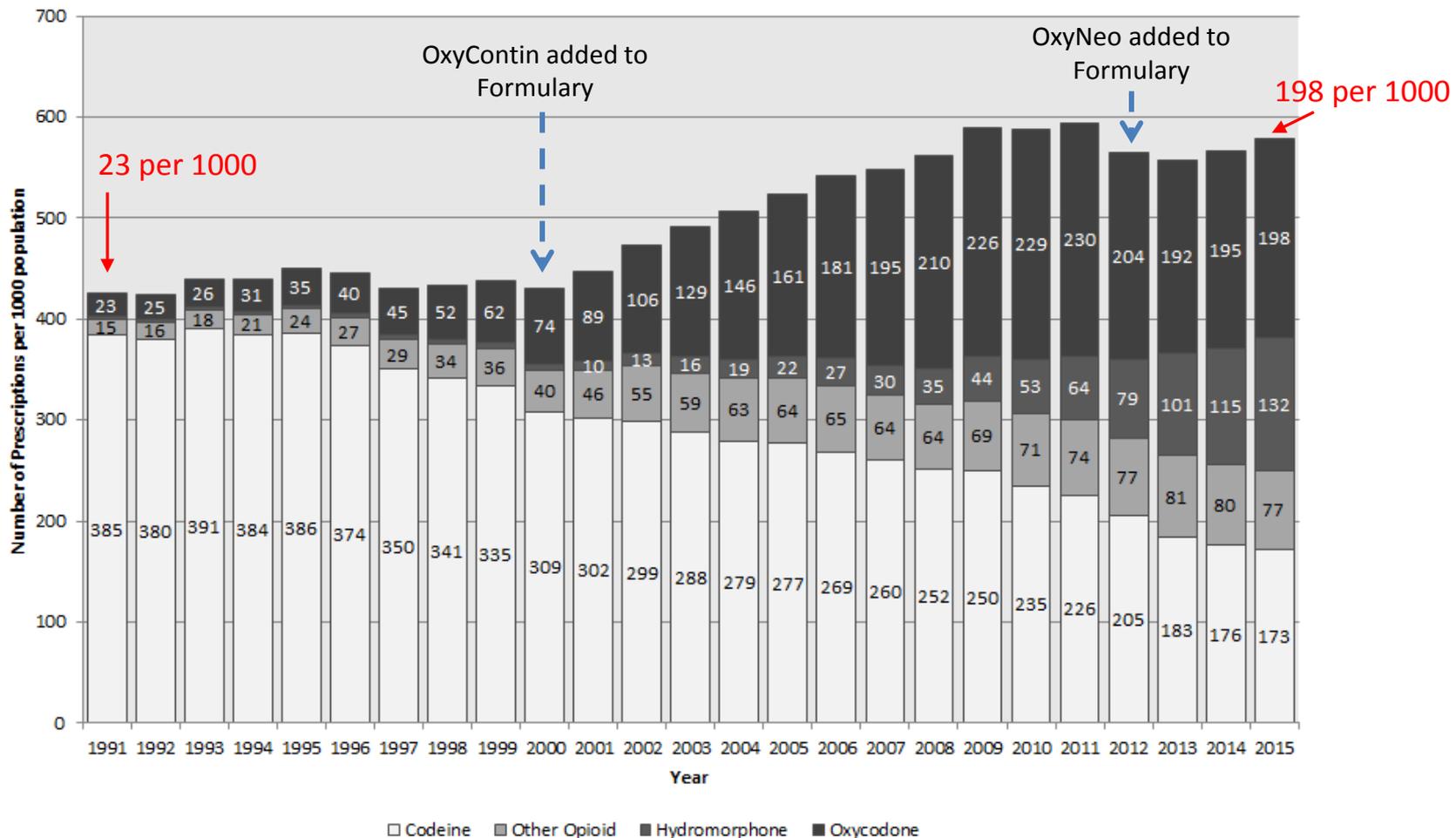


# Data Linkage in Ontario

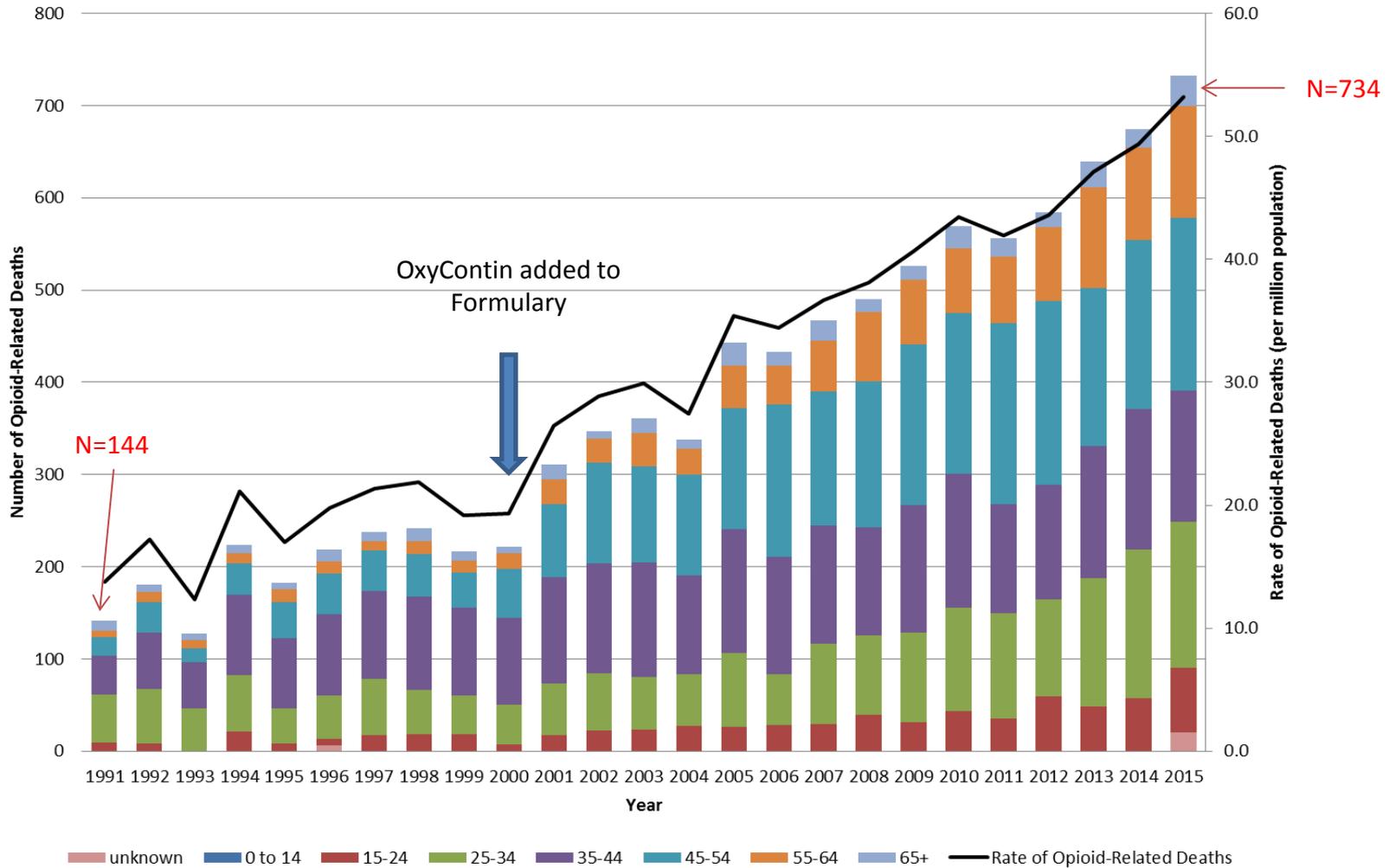
# ODPRN



# Opioid Prescribing Trends in Ontario, Canada



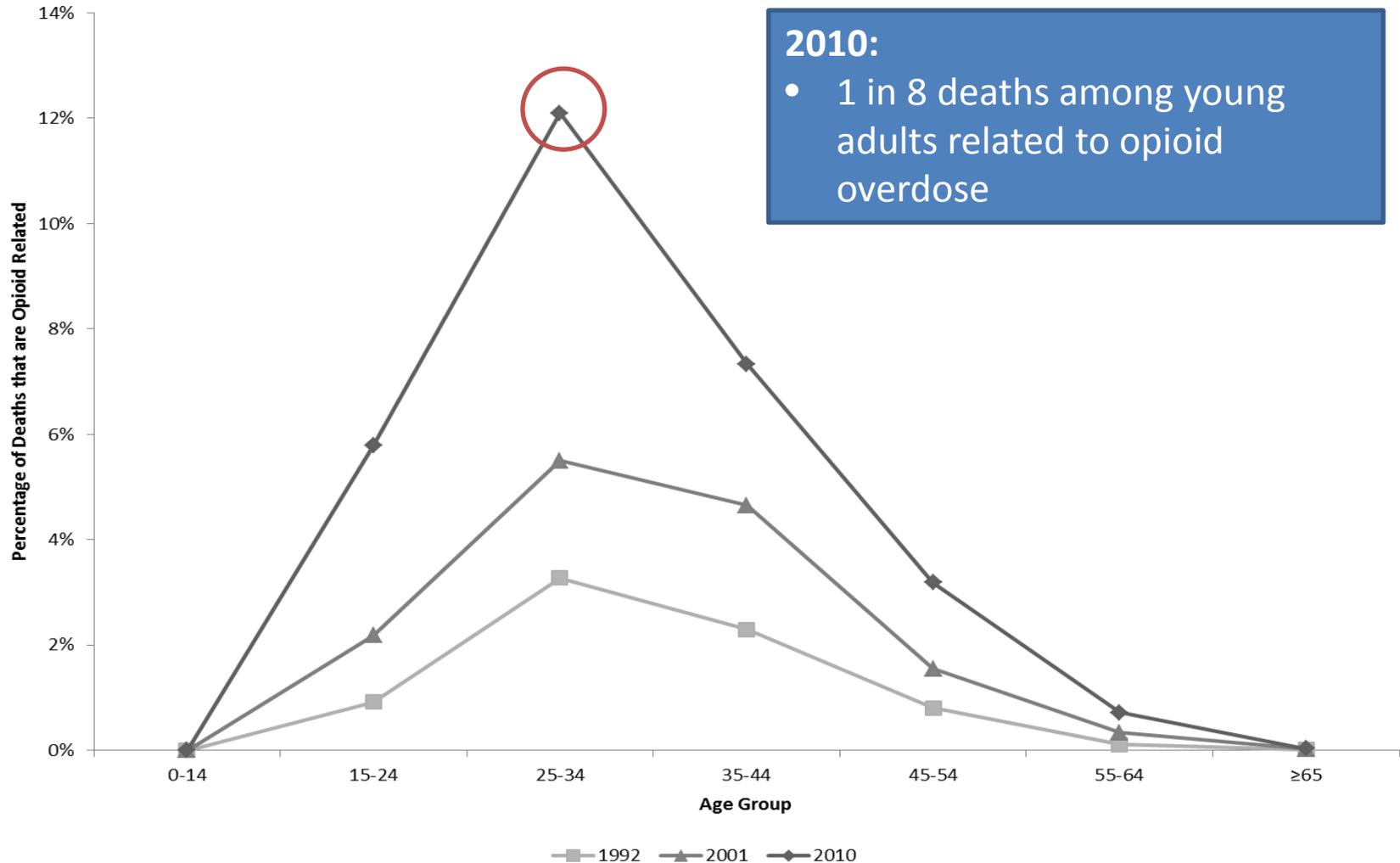
# Increasing Rates of Opioid Related Deaths



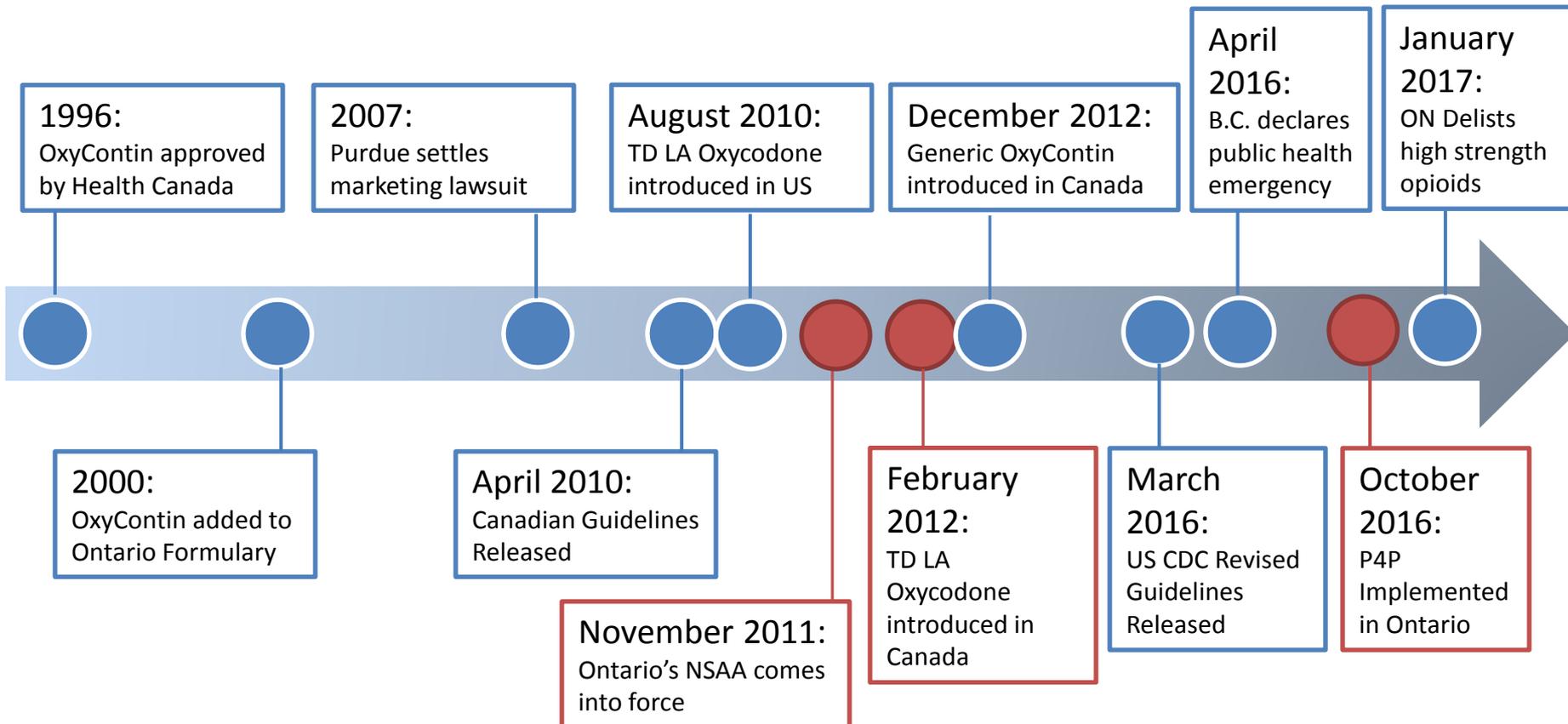
Source: ODPRN, Latest Trends in Opioid-Related Deaths in Ontario.

[http://odprn.ca/wp-content/uploads/2017/04/ODPRN-Report\\_Latest-trends-in-opioid-related-deaths.pdf](http://odprn.ca/wp-content/uploads/2017/04/ODPRN-Report_Latest-trends-in-opioid-related-deaths.pdf)

# Impact in Youth and Young Adults

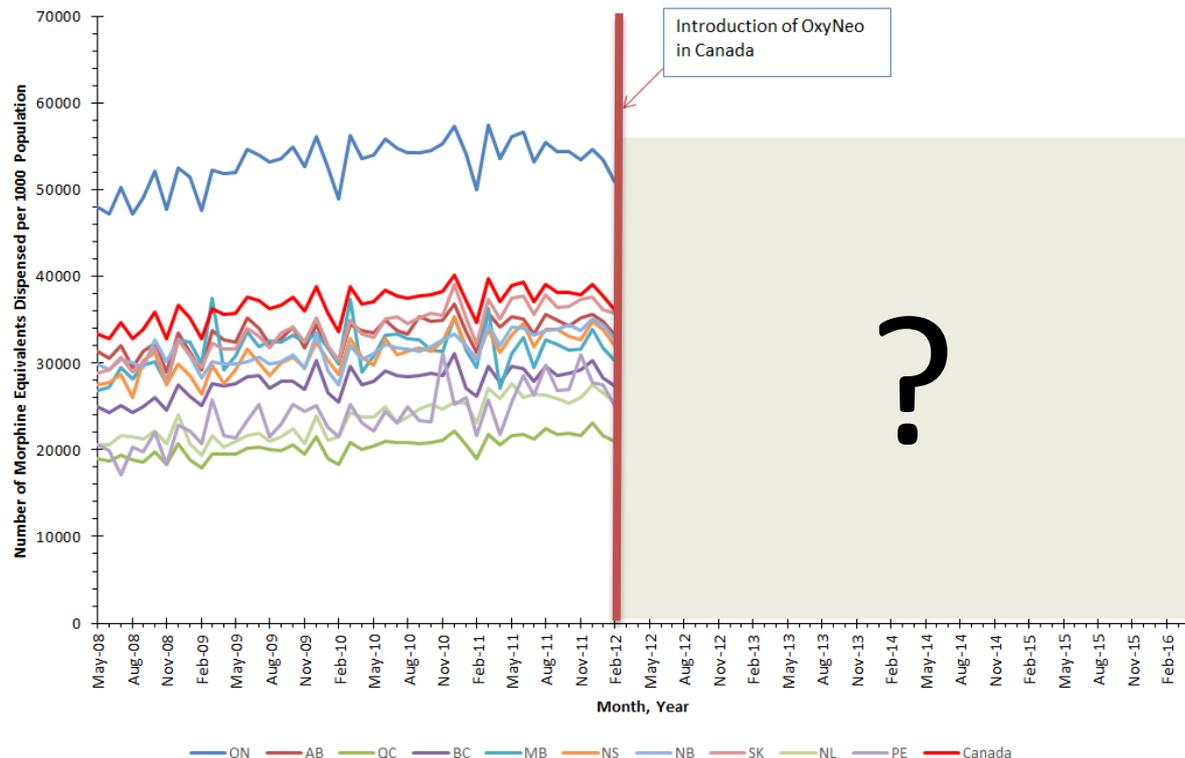


# Ongoing Evolution of Policies, Programs and Drug Availability

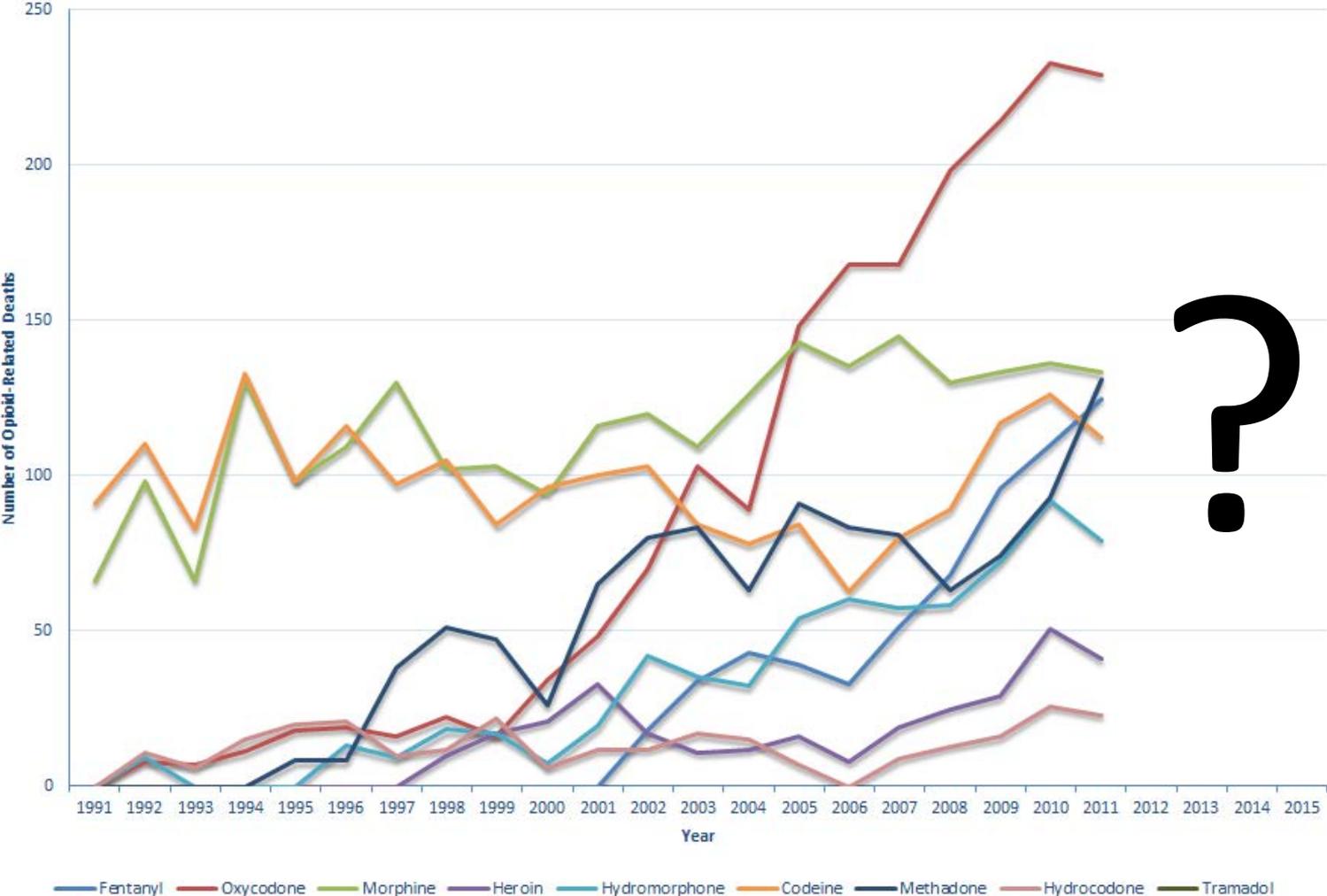


# OxyContin Reformulation: Canadian Implications

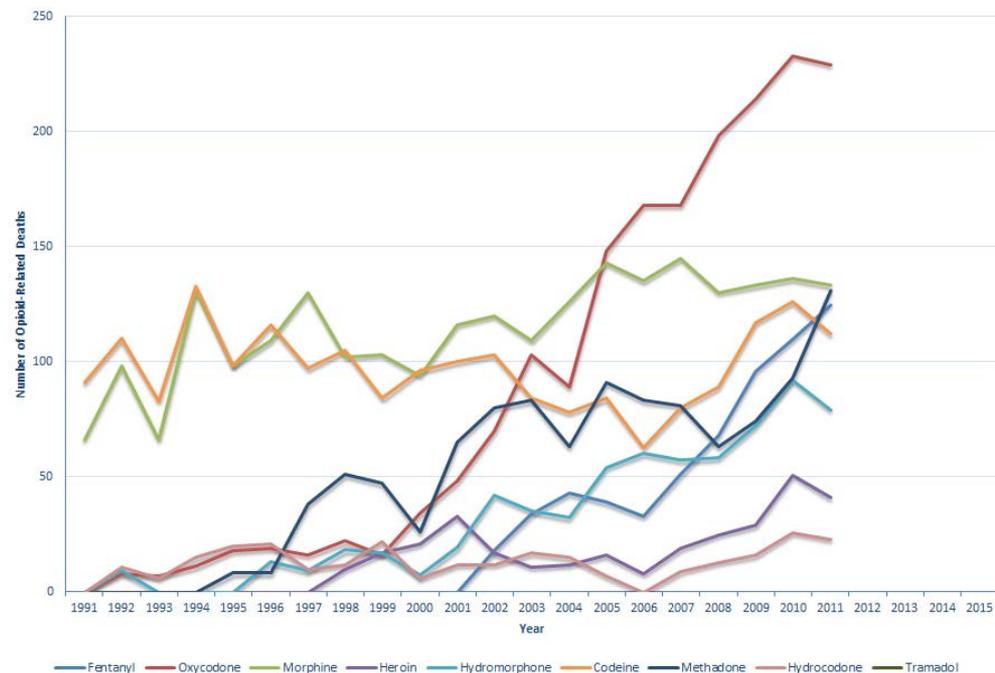
- How did the introduction of OxyNeo lead to changes in prescribing practices in Canada?



# Impact on Opioid-Related Deaths



- After the introduction of tamper-deterrent long-acting oxycodone in Ontario, what opioid became most frequently involved in opioid-related deaths?
  - Fentanyl
  - Heroin
  - Hydromorphone
  - Methadone
  - Oxycodone (i.e. unchanged)
  - Other



# Impacts on Opioid-Related Deaths



Source: ODPRN, Latest Trends in Opioid-Related Deaths in Ontario. 15

- **Objectives:**

- Promote appropriate prescribing and dispensing practices for narcotics and other controlled substances
- Identify and reduce the abuse, misuse and diversion of these drugs
- Reduce the risk of addiction and death from the abuse or misuse of these drugs.

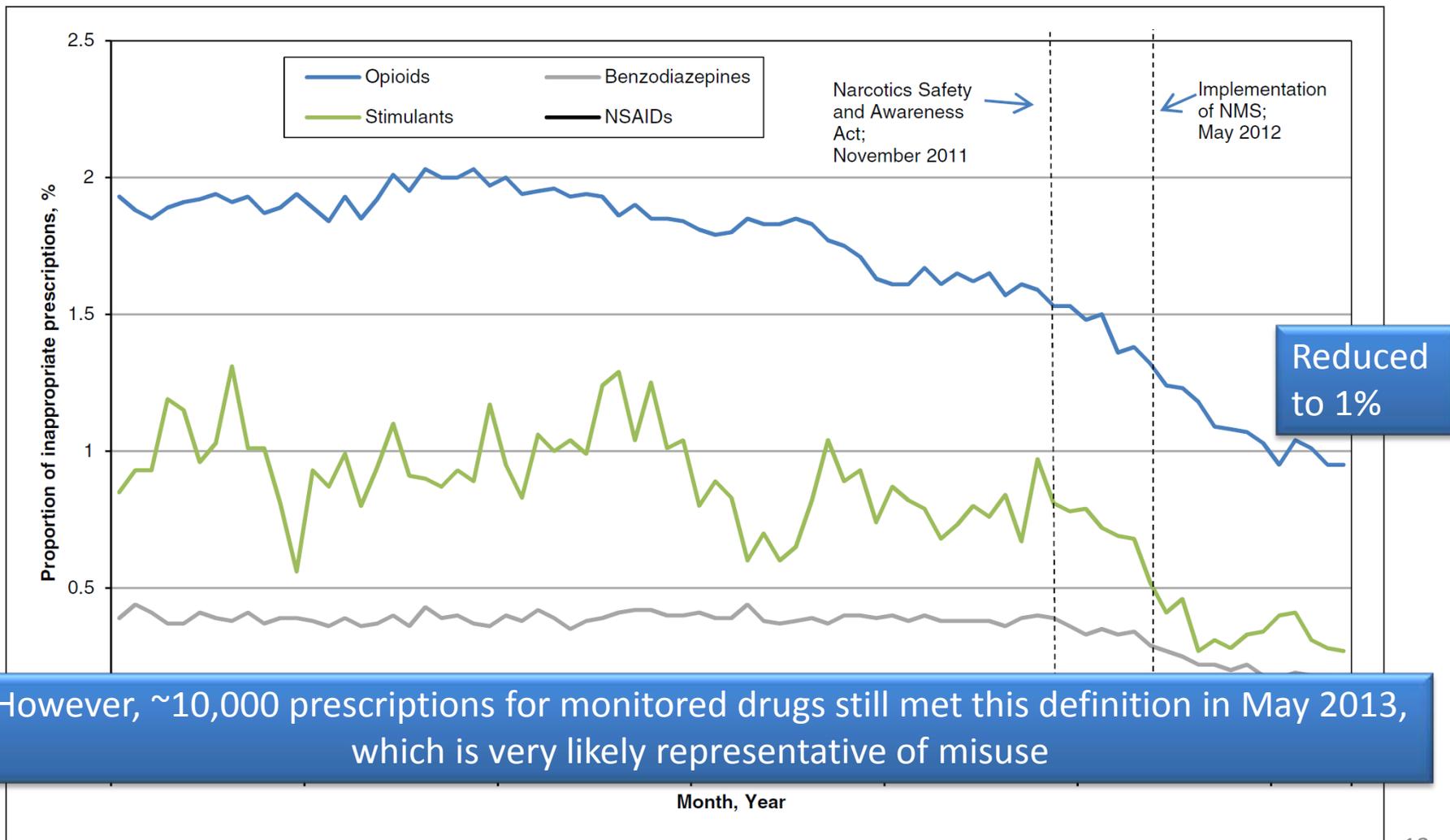
- **Key Initiatives:**

- Ministry of Health can collect, use, and disclose information that relates to the prescribing and dispensing of monitored drugs – **Narcotics Monitoring System (March 2012)**
- Prescriber must be identified on prescriptions
- Warnings in effect for double doctoring and polypharmacy

- **Did Ontario's policies lead to any shifts in inappropriate prescribing of monitored drugs?**
  - Opioids
  - Benzodiazepines
  - Stimulants
- **“Potentially inappropriate use”**
  - Early refill (ie prescription dispensed within 7 days of a previously filled Rx of 30 day duration or higher)
  - Different pharmacy dispensed the drug
  - Different prescriber wrote prescription for drug



# Prevalence of Inappropriate Prescribing of Monitored Drugs in Ontario



However, ~10,000 prescriptions for monitored drugs still met this definition in May 2013, which is very likely representative of misuse

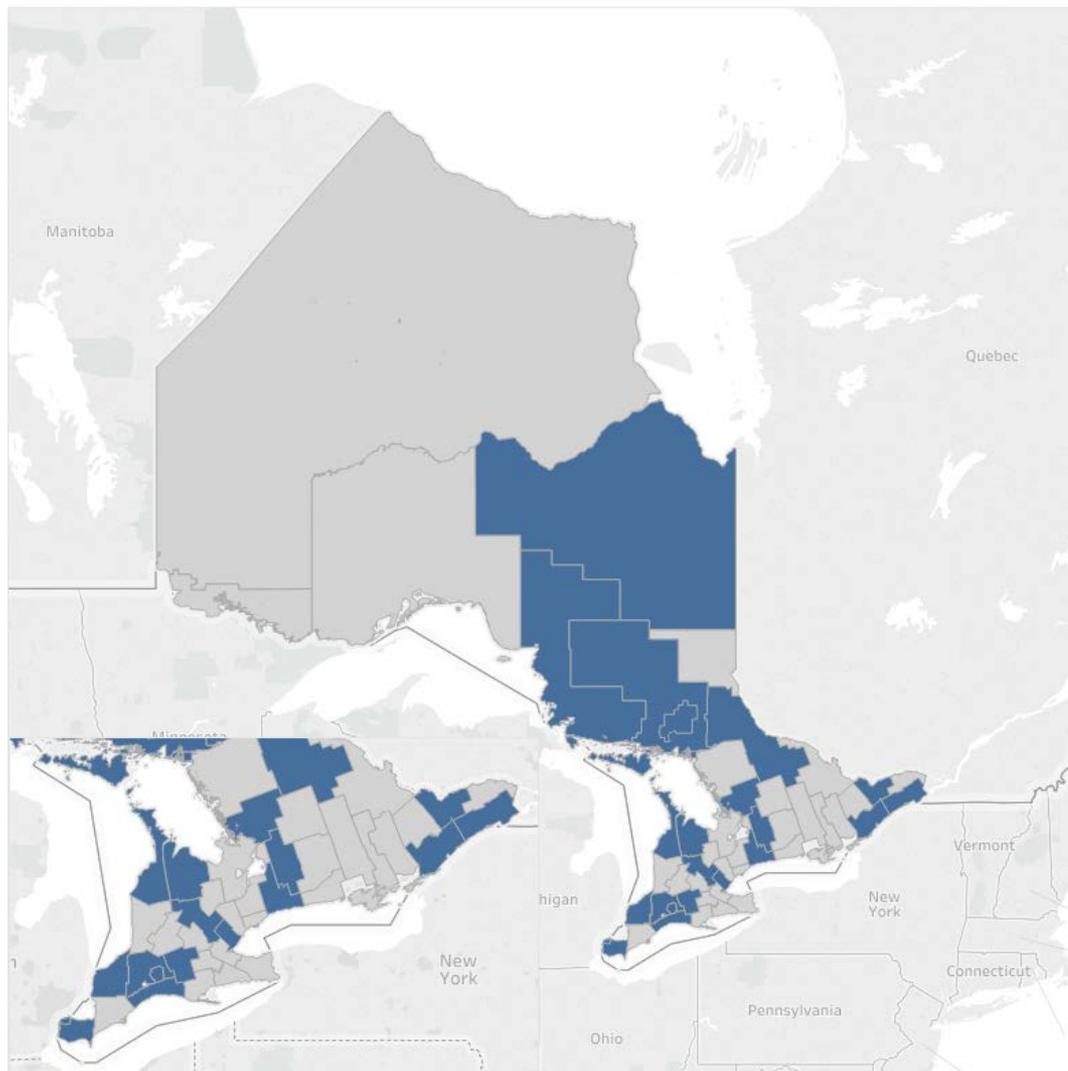
- **Improved data access and enhanced warnings for pharmacists** led to measurable reductions in potentially inappropriate dispensing behaviour
- **But...still high degree of potentially inappropriate prescribing. Due to?**
  - Prescribers not having access to database
  - Too many different forms of ID allowed
  - Poor use of data for monitoring/surveillance

# Fentanyl Patch-4-Patch Programs

- P4P program requires patients prescribed fentanyl to return their used patches to the pharmacy before receiving a refill



- As of October 1, 2016, province-wide implementation of P4P Programs across the province.
- **Between Feb 2013 and April 2016, several jurisdictions across Ontario implemented P4P programs**



## OUTCOMES

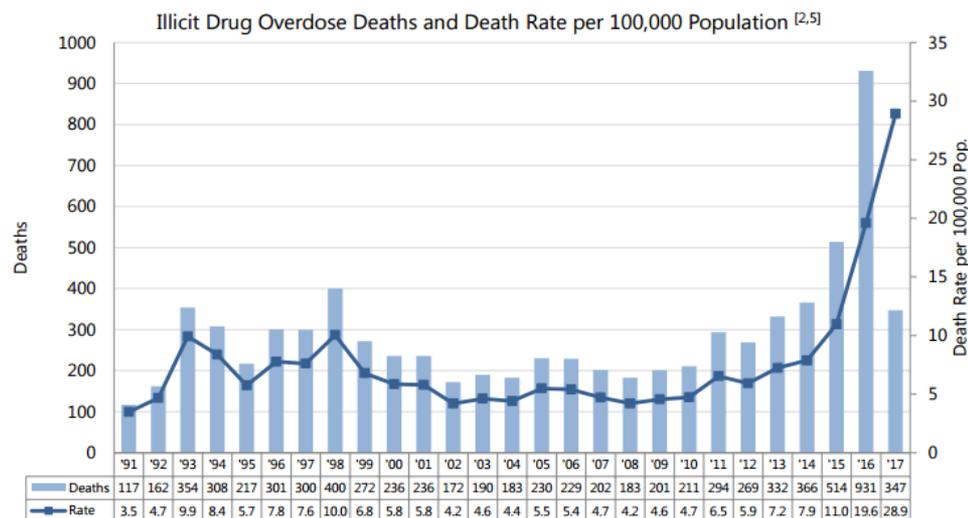
- Dispensing of Fentanyl (publicly-funded)
- Dispensing of non-Fentanyl Opioids (publicly-funded)
- Hospital visits for opioid toxicity
- Opioid-related deaths
- Police incidents involving fentanyl

Zeroed counties on intervention date and measured rates of outcomes pre- and post-program implementation

- P4P may have been successful in reducing the volume of prescription opioids that were dispensed and diverted for sale illicitly.
- Limited impact on outcomes could be due to:
  - Heroin use
  - Emergence of illicit fentanyl
  - Diversion outside of participating counties
  - Longer follow-up needed

- **CHALLENGES**

- National Statistics and Surveillance
- Geographic Variation
- Inter-relationship between prescribed and illicit drug markets
- Prescriber ‘abandonment’ following dose threshold recommendations



Source: BC Coroners Service

- **OPPORTUNITIES**

- PMP data now linked to broad health services data in Ontario
- National leadership leading to improved infrastructure for national surveillance

- **FUTURE DIRECTIONS**

- Ongoing Monitoring of anticipated and unanticipated impacts of policies/programs:
  - Fentanyl Patch 4 Patch province-wide implementation
  - Delisting of high strength opioid formulations



The screenshot shows the Government of Canada website with the following content:

**Government of Canada / Gouvernement du Canada**

Search Canada.ca

Jobs | Immigration | Travel | Business | Benefits | Health | Taxes | More services

Home → Health → Healthy living → Substance abuse → Opioid conference

### Joint Statement of Action to Address the Opioid Crisis

November 19, 2016

Canada faces a serious and growing opioid crisis. We see its consequences in the rates of addiction, overdoses, and deaths across the country. This is a complex health and social issue with devastating consequences for individuals, families, and communities.

The response to this crisis needs to be comprehensive, collaborative, compassionate and evidence-based.

On November 18, 2016, we heard a number of perspectives on this crisis: from people who use drugs, from families, healthcare providers, first responders, educators and researchers. Today, we have come together to identify specific actions to address this crisis and publicly commit to taking these actions.

This Joint Statement of Action to Address the Opioid Crisis reflects our combined commitment to act on this crisis. We have agreed to work within our respective areas of responsibility to improve prevention, treatment and harm reduction associated with problematic opioid use through timely, concrete actions that deliver clear results and we commit to reporting on our progress in delivering those results.

As Health Ministers, our focus today is on the important actions being taken by players in the health community. We recognize that this is just the beginning. Much work is already underway separately in the areas of law enforcement, corrections, education and elsewhere. We will invite leaders in these communities to join us as we build on the commitments made today.

**The Honourable Jane Philpott**  
Federal Minister of Health

**The Honourable Eric Hoskins**  
Ontario Minister of Health and Long-Term Care

#### Our Actions

To achieve this vision, we commit to taking the following specific actions to address the opioid crisis in Canada

#### Health Canada commits to:

- Providing leadership to address the opioid crisis by working with health professionals, addiction experts, provinces and territories, and other stakeholders, to implement Health Canada's Opioid Action Plan.
- Improving access to buprenorphine/naloxone treatment in rural and remote First Nations communities by taking steps to ensure that the supports are in

# Thank you!

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