The Opioid Crisis And The New HQO Opioid Prescribing for Acute Pain Quality Standard

Lakehead Summer School 2018

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SEPTEMBER 14, 2018

Health Quality Ontario

Let's make our health system healthier

Conflict of Interest Statement

I have no commercial or financial interest which would have any impact on, or be related to, this subject matter

Objectives

- To understand the role of physician prescribing practice in the development of the opioid crisis
- To review the opioid prescribing practices of emergency physicians and family physicians in Ontario
- To review the new HQO Opioid Prescribing for Acute Pain Quality Standard

About me

- Longstanding member of the Mount Sinai Hospital P&T Committee
- Researcher – interest in addictions
- Background in pharmacology
- Co-chair HQO Quality Standards Committee on opioid prescribing for acute pain

The Institute for Safe Medication Practices Canada (ISMP Canada) is an independent Canadian nonprofit agency established for the collection and analysis of medication error reports and the development of recommendations for the enhancement of patient safety.

The Healthcare Insurance Reciprocal of Canada (HIROC) is a member-owned expert provider of professional and general liability coverage and risk management support.

Volume 4, Issue 6

ISMP Canada Safety Bulletin

June, 2004

An Omnipresent Risk of Morphine-Hydromorphone Mix-ups

The following bulletin is written jointly by ISMP Canada and ISMP (US). This article also appears in the July 1, 2004 issue of the ISMP Medication Safety Alert!

ISMP Canada recently received an error report in which a 69-year-old patient was given 10 mg of hydromorphone IM instead of 10 mg of morphine. The error may have contributed to the patient's death. The patient presented to the emergency department (ED) with a chest injury sustained while horseback riding. Prior to discharge, the ED

Limit access. Reduce stock amounts of hydromorphone wherever possible, and eliminate it from floor stock entirely if usage is low. For example, the health system where this error occurred has now removed all hydromorphone from every ED in the health region. If the drug is needed on patient care units, only the 2 mg/mL strength is available, except in palliative care units. The distribution of other high potency narcotics is also being revised. The pharmacy will continue to stock hydromorphone for compounding PCA or continuous infusions.

Institute for Safe Medication Practices Canada
REPORT MEDICATION INCIDENTS
Online: www.ismp-canada.org/err_index.htm
Phone: 1-866-544-7672

A KEY PARTNER IN
CMIRPS SCDPIM

ISMP Canada Safety Bulletin

All opioid medications require attention to ensure patient safety. HYDROmorphone, a potent opioid, is the most common medication associated with harmful medication incidents voluntarily reported to ISMP Canada. From January 2000 to September 2013, ISMP Canada received 233 incidents involving HYDROmorphone with an outcome of harm or death via AnalyzeERR®* and individual practitioner reports. Over the past 5 years, 256 incidents, also with an outcome of harm or death, were reported to the National System for Incident Reporting (NSIR).†[1-2]

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examiner, have recognized the need for additional safeguards with HYDROmorphone and have supported initiatives such as removal of high-concentration HYDROmorphone from patient care areas, use of TALLman lettering, and implementation of independent double checks. Despite dissemination of information about these and other harm-reduction strategies, medication incidents involving

a hierarchy of effectiveness[7] and the area of the medication-use system targeted. A team of medication safety experts reviewed the recommendations and used them to develop a set of 5 actions (see Table 1) that would focus on the target concerns and that had not previously been recommended by ISMP Canada. The actions selected had to be suitable for implementation within a 3 month time period.

* AnalyzeERR®, available from ISMP Canada, is a web-based medication incident and near miss reporting system for healthcare facilities.
† The NSIR (provided by the Canadian Institute for Health Information) is a component of the Canadian Medication Incident Reporting and Prevention System (CMIRPS) Program. More information about the NSIR is available from: http://www.cmirps-scdpim.ca/?p=12 (NSIR data extraction period from Nov 13, 2008 to Sept 30, 2013)

Key Knowledge Deficits

- Greatest deficit is related to understanding the pharmacology of opioids
- Errors in mathematical calculations
- Ability to distinguish between drug names and potency (HYDROmorphone and morphine)

The Beginning of the Opioid Crisis

ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients[1] who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,[2] Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

JANE PORTER
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Waltham, MA 02154 Boston University Medical Center

1. Jick H, Miettinen OS, Shapiro S, Lewis GP, Siskind Y, Slone D. Comprehensive drug surveillance. JAMA. 1970; 213:1455-60.
2. Miller RR, Jick H. Clinical effects of meperidine in hospitalized medical patients. J Clin Pharmacol. 1978; 18:180-8.

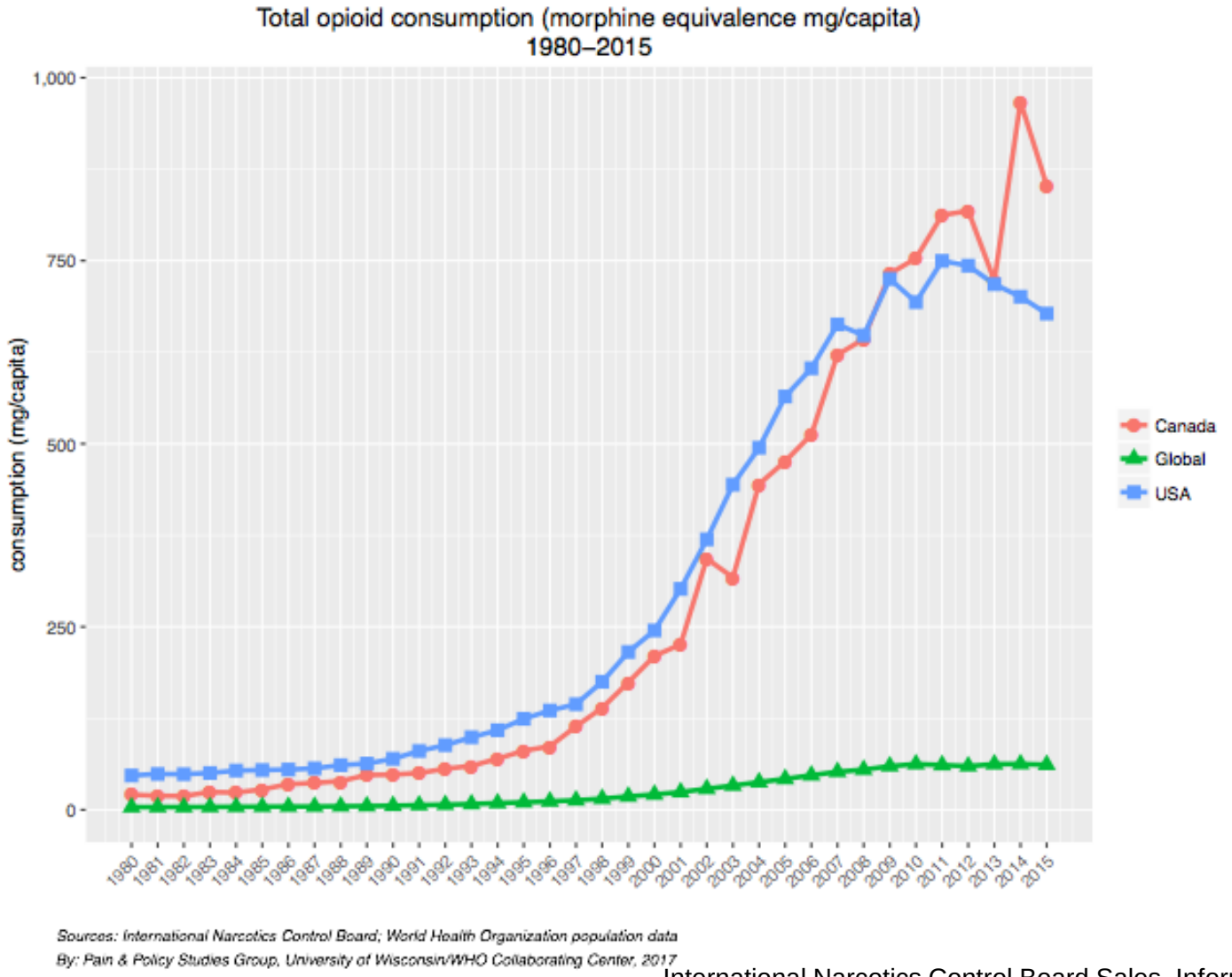
NEJM 302(2):123, 1980

The Opioid Crisis - Basics

- North Americans consume the highest amount of prescription opioids in the world
- In 2010, enough opioids were sold in the US to dose every adult in the US with 5mg hydrocodone every 4 hours for 1 month*
- In 2015, 276,000 adolescents (12-17) were regular users of non-medical prescription pain medication. Most obtained from a friend or relative**

*537-542CDC MMWR. July 5, 2013 (62):537-542
**American academy of Addiction Medicine Opioid Fact Sheet 2016. https://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf accessed Oct 14, 2017

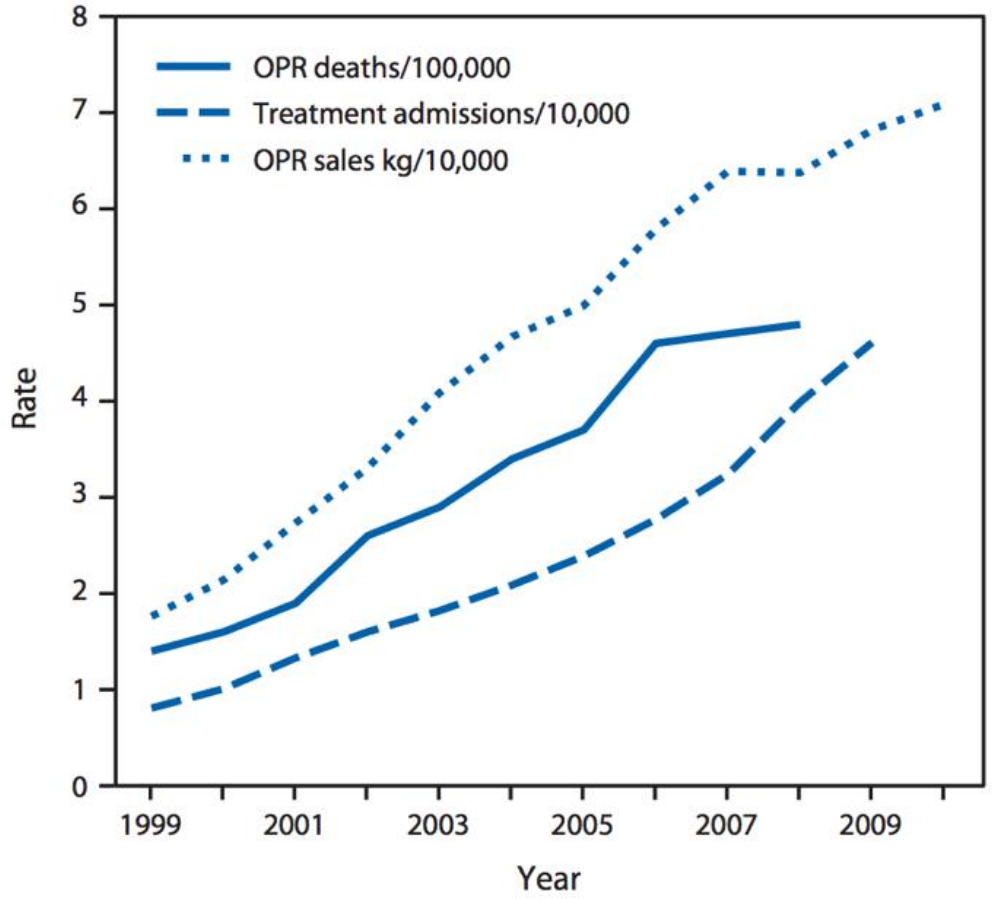
The Opioid Crisis - Basics



International Narcotics Control Board Sales. Informatics group, UW Madison Dept of Medicine. https://ppsg-chart.medicine.wisc.edu Accessed Oct 14, 2017

The Opioid Crisis - Basics

FIGURE 2. Rates* of opioid pain reliever (OPR) overdose death, OPR treatment admissions, and kilograms of OPR sold — United States, 1999–2010

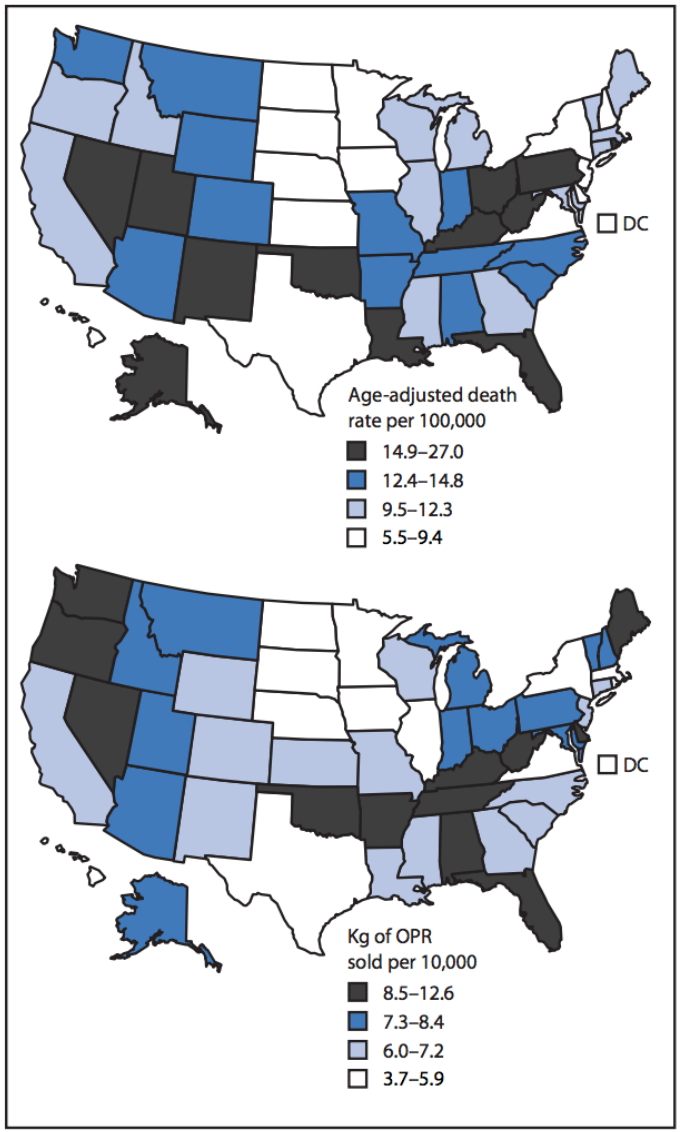


* Age-adjusted rates per 100,000 population for OPR deaths, crude rates per 10,000 population for OPR abuse treatment admissions, and crude rates per 10,000 population for kilograms of OPR sold.

*https://www.cdc.gov/mmwr/pdf/wk/mm64501.pdf

The Opioid Crisis - Basics

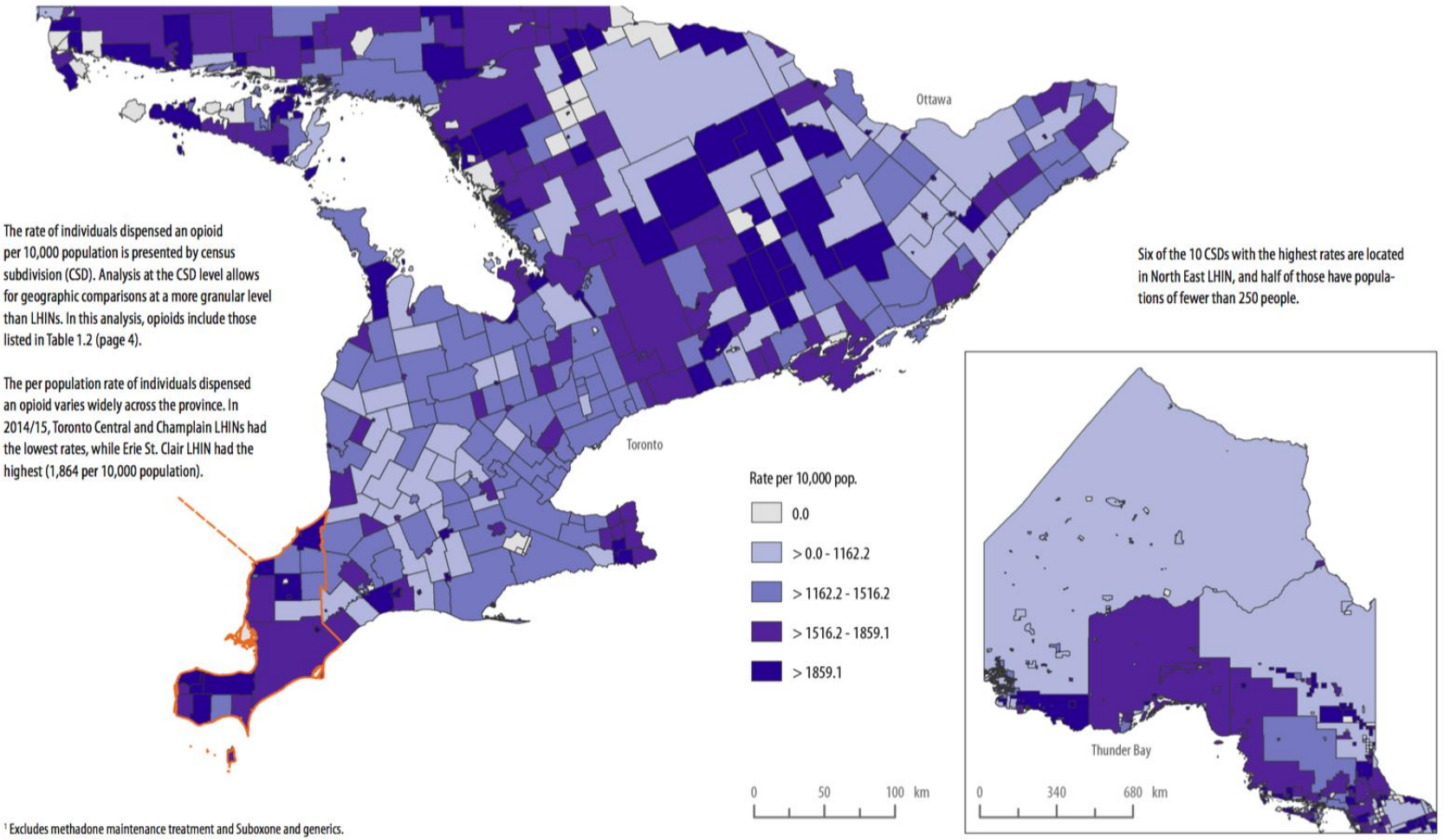
FIGURE 1. Drug overdose death rate in 2008 and rate of kilograms (kg) of opioid pain relievers (OPR) sold in 2010 — United States



CDC MMWR Nov 4, 2011/Vol 60/No 43 pp 1487

The Opioid Crisis - Basics

Figure 1.7: Rate of individuals dispensed an opioid[1] per 10,000 population, by CSD, FY 2014/15



The rate of individuals dispensed an opioid per 10,000 population is presented by census subdivision (CSD). Analysis at the CSD level allows for geographic comparisons at a more granular level than LHINs. In this analysis, opioids include those listed in Table 1.2 (page 4).

The per population rate of individuals dispensed an opioid varies widely across the province. In 2014/15, Toronto Central and Champlain LHINs had the lowest rates, while Erie St. Clair LHIN had the highest (1,864 per 10,000 population).

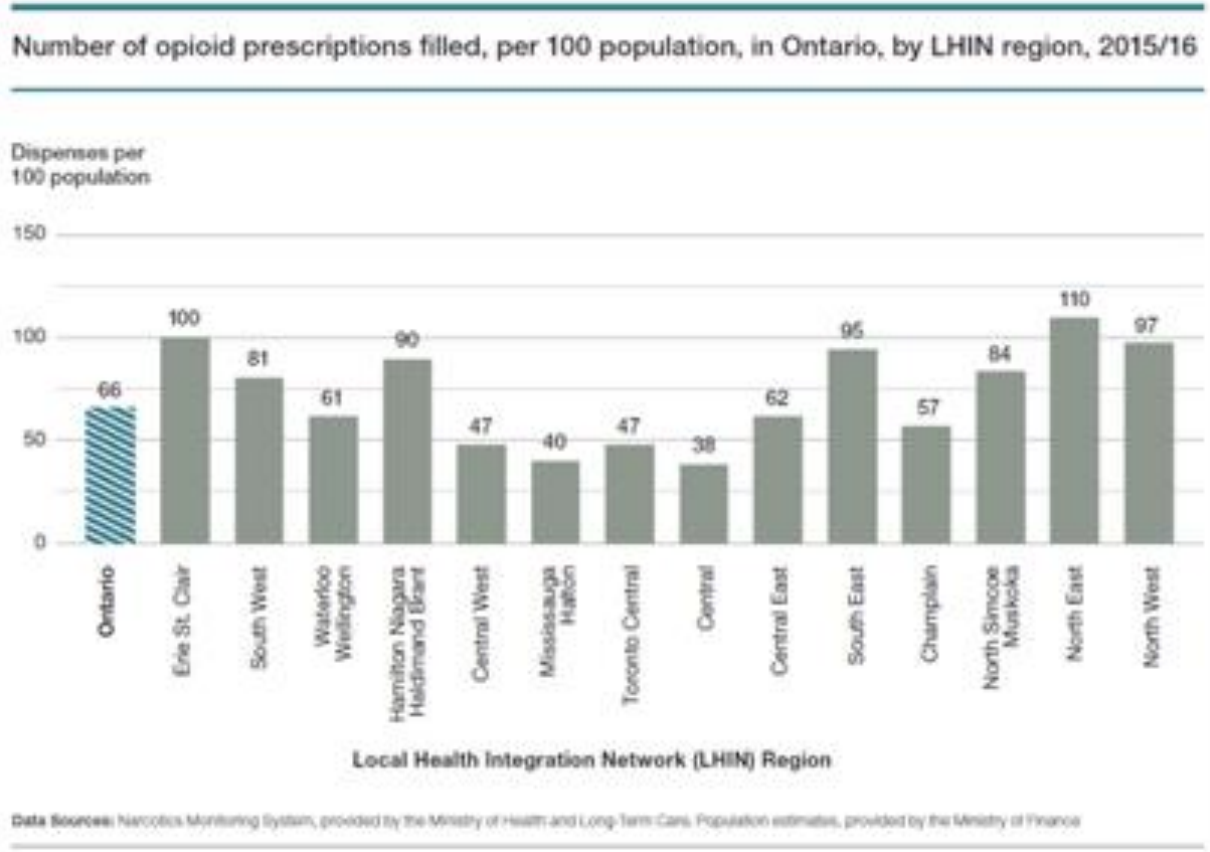
Six of the 10 CSDs with the highest rates are located in North East LHIN, and half of those have populations of fewer than 250 people.

[1] Excludes methadone maintenance treatment and Suboxone and generics.

Data source: Narcotics Monitoring System (NMS), MOHLTC, 2014/15.

Health Analytics Branch HSIM MOHLTC 2017

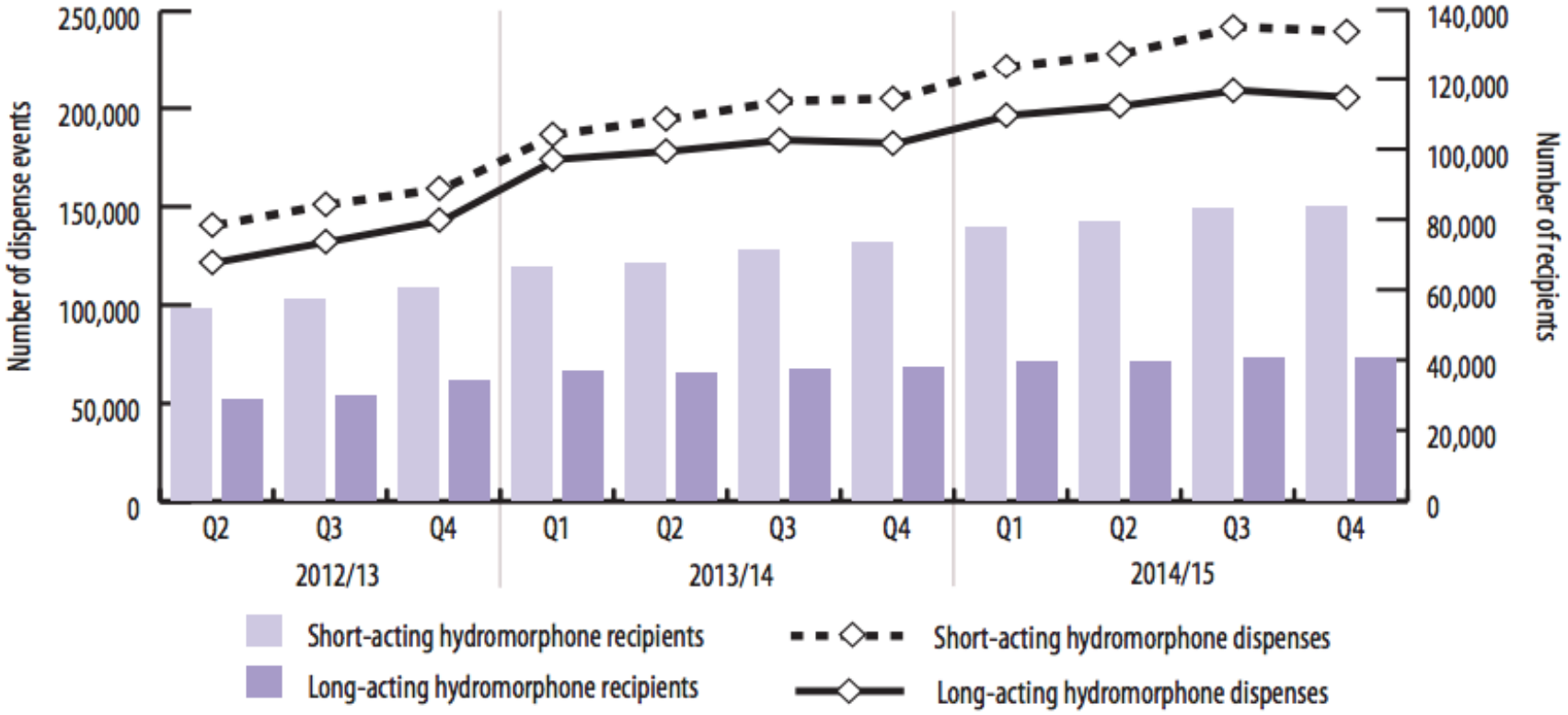
The Opioid Crisis - Basics



MMWR/Nov 4, 2011/Vol 60/#43 pp1487

The Opioid Crisis - Basics

Figure 2c.1: Number of hydromorphone dispenses and recipients, by fiscal quarter, Q2 2012/13[1] to Q4 2014/15



[1] Q1 2012/13 data are incomplete and have been excluded. The NMS was not fully operational until mid-Q1 (May 12, 2012).

The Opioid Crisis - Basics

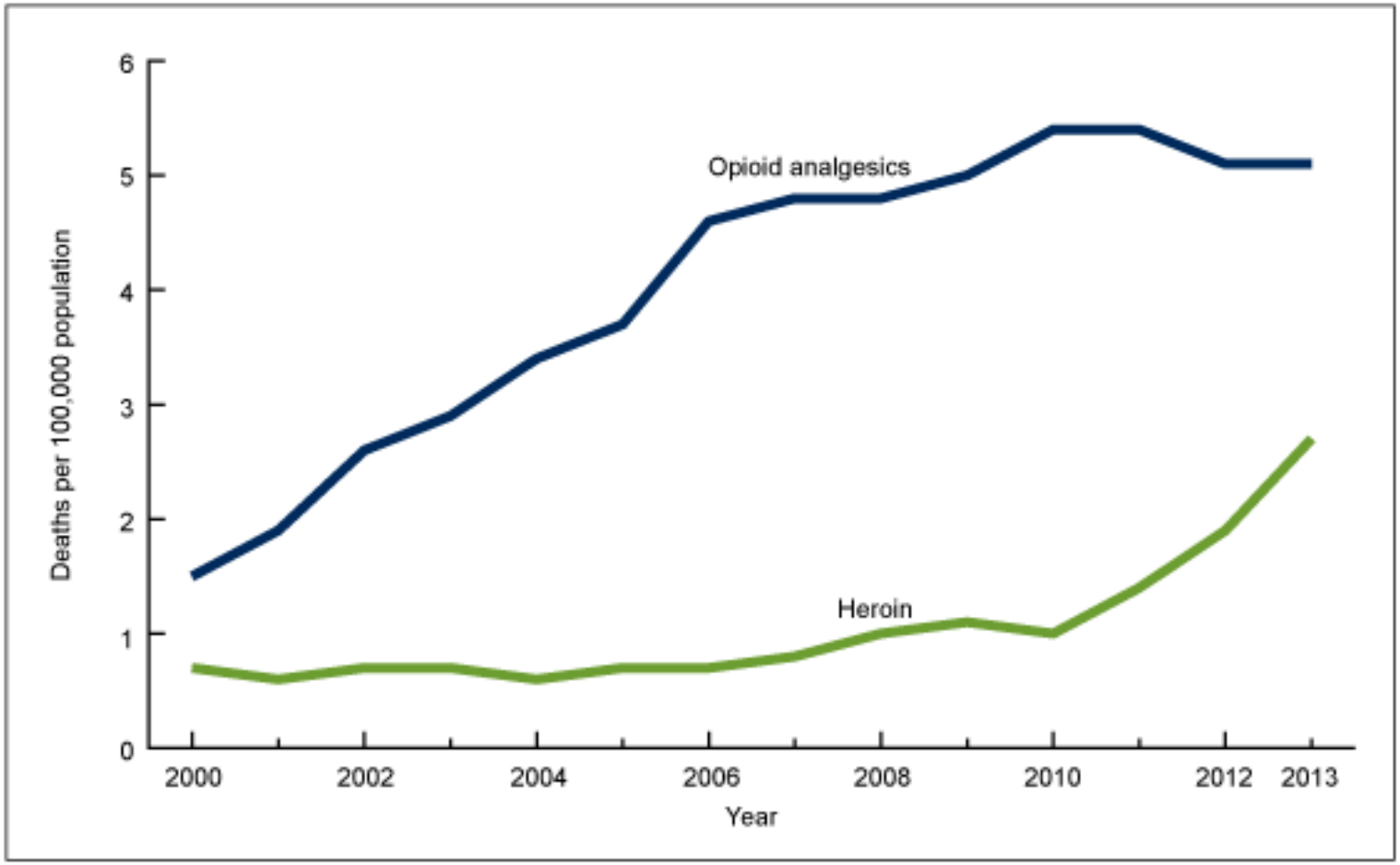
Table 5 New starts of opioids, by opioid type, in Ontario, 2013 and 2016

Opioid type	2013		2016	
	Number	Percent	Number	Percent
Codeine	26,643	2.0%	23,069	1.8%
Codeine combo (such as Tylenol 3)	729,728	56.1%	643,522	50.5%
Fentanyl	2,541	0.2%	1,093	0.1%
Hydromorphone	**86,982**	**6.7%**	**140,004**	**11.0%**
Meperidine	5,070	0.4%	2,604	0.2%
Morphine	48,360	3.7%	56,449	4.4%
Other	12,162	0.9%	11,275	0.9%
Oxycodone	23,095	1.8%	27,818	2.2%
Oxycodone combo (such as Percocet)	264,583	20.4%	244,966	19.2%
Tramadol	**99,776**	**7.7%**	**124,008**	**9.7%**
Methadone for pain	1,033	0.1%	682	0.1%

Health Quality Ontario. Starting on Opioids:
Opioid prescribing patterns in Ontario by family doctors, surgeons, and dentists, for people starting to take opioids.
Toronto: Queen's Printer for Ontario; 2018.

The Opioid Crisis - Basics

Figure 1. Age-adjusted rates for drug-poisoning deaths, by type of drug: United States, 2000–2013



https://www.cdc.gov/nchs/data/databriefs/db190.htm

The Opioid Crisis - Basics

- 4/5 new heroin users started out with prescription opioids
- Almost all (>90%) of heroin addicted patients say they switched to it because it is less expensive and easier to obtain

*American academy of Addiction Medicine Opioid Fact Sheet 2016. https://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf accessed Oct 14, 2017

Summary thus far

- Patients in North America are prescribed more opioid pain relievers than anywhere else
- There is wide variation in how these medications are prescribed
- Exposure of patients to opioid pain medications results in unintentional patient harm:
  - Addiction
  - Death
- Despite this, prescribing of hydromorphone and Tramadol continue to increase
- Sudden interruption of opioids to patients drives them to the illicit opioid market, and exposes them to risk of death/other harms

cmajOPEN

Research

Opioid prescribing and adverse events in opioid-naive patients treated by emergency physicians versus family physicians: a population-based cohort study

Bjug Borgundvaag MD PhD, Shelley McLeod MSc, Wayne Khuu MPH, Catherine Varner MD MSc, Mina Tadrous PharmD PhD, Tara Gomes PhD

Objectives

- Primary Objective: Compare rates of hospital admission for opioid toxicity in opioid naïve patients with index prescriptions from EP vs. FP
- Secondary Objective: Compare frequency of dose escalation to >200 mg MEQ in opioid naïve patients with index prescriptions from EP vs. FP

Methods

- Population-based cohort of Ontario residents 15-64 yrs eligible for ODB
- April 1 2008 – March 31, 2012
- Data obtained from ICES (ODB, RPDB, OHIP, NACRS, DAD, SDS, OMHRS etc)
- New users of prescription opioids (no cancer/palliative)
- Linked visits within 2 prior days with new scripts
- Prescriber type determined using location where service was provided, and physician provider type
- Patients followed to the first instance of death, hosp. admission for toxicity, does escalation > 200 mg MEQ (2 years)

Results

- 80,665 unique patients
  - 34,713 (43%) issued by emergency physicians
  - 45,952 (57%) prescriptions issued by family physicians

Results - Demographics

Demographic Variable	ED Initiators (n=34,713)	FP Initiators (n=45,952)	Standardized Difference
Age (Mean + SD)	41.32 ± 13.96	46.05 ± 12.81	0.35*
Female Sex	20,305 (58.5%)	28,178 (61.3%)	0.06
Health Services Utilization (prior 1 year)			
Number of ED visits	2.30 ± 3.79	0.90 ± 2.14	0.45*
Number of physician visits	8.84 ± 8.36	11.61 ± 9.78	0.3*
Inpatient Hospitalization	3,957 (11.4%)	4,090 (8.9%)	0.08
Mental Health Disorders			
Affective Disorder	3,609 (10.4%)	3,723 (8.1%)	0.08
Anxiety/Sleep Disorder	15,176 (43.7%)	20,226 (44.0%)	0.01
Psychosis/Agitation	3,261 (9.4%)	3,201 (7.0%)	0.09
Hospital visit for alcohol abuse (past 1 year)	1,621 (4.7%)	1,384 (3%)	0.09
Intentional Self Harm (past 1 year)	420 (1.2%)	333 (0.7%)	0.05
Hospital visit – other drug toxicity (past 1 year)	649 (1.9%)	513 (1.1%)	0.06

Results – Other Medications

Variable	ED Initiators (n=34,713)	FP Initiators (n=45,952)	Standardized Difference
Medication Class (prior 180 days)			
Antidepressants (SSRI)	6,644 (19.1%)	8,407 (18.3%)	0.02
Antidepressants (other)	7,145 (20.6%)	10,250 (22.3%)	0.04
Antipsychotics	5,517 (15.9%)	6,267 (13.6%)	0.06
Benzodiazepines	6,745 (19.4%)	10,158 (22.1%)	0.07
Other psychotropic drugs and CNS depressants	1,031 (3.0%)	998 (2.2%)	0.05
Drugs for neuropathic pain	379 (1.1%)	666 (1.4%)	0.03

SD = difference in means or proportions divided by standard error; imbalance defined as absolute value > 0.20

Results – Most Common Diagnoses

ED Initiators (n=34,713)		FP Initiators (n=45,952)	
Diagnosis (ICD10-CA)	**N (%)**	**Diagnosis (OHIP Dx)**	**N (%)**
Dorsalgia	3,113 (9%)	Back pain	4,170 (9.1%)
Abdominal/pelvic pain	2,127 (6.1%)	Joint pain/arthralgia	3,899 (8.5%)
Diseases of the pulp/periapical tissues	1,150 (3.3%)	Anxiety/neurosis	2,061 (4.5%)
Pain in throat and chest	978 (2.8%)	Diabetes mellitus	1,962 (4.3%)
Other disorders of teeth/supporting structure	848 (2.4%)	Osteoarthritis	1,736 (3.8%)
Renal colic	827 (2.4%)	Coccyx/neck/low back strain	1,669 (3.6%)
Soft tissue disorders not specified	776 (2.2%)	Abdo pain	1,644 (3.6%)
Fractures of the forearm	689 (2.0%)	Nasopharyngitis/URI	1,599 (3.5%)
Fracture of the lower leg (inc ankle)	666 (1.9%)	Essential/benign hypertension	1,494 (3.3%)
Fracture of shoulder and upper arm	610 (1.9%)	Neuro/headache NYD	1,005 (2.2%)

Results – Drug by Prescriber Type

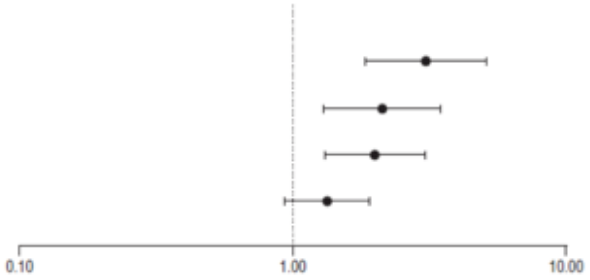
Variable	ED Initiators (n=34,713)	FP Initiators (n=45,952)	Standardized Difference
Combination Products	31,991 (92.6%)	41,941 (91.8%)	0.03
Codeine combinations	20,117 (62.9%)	35,005 (83.5%)	0.48
Oxycodone combinations	11,874 (37.1%)	6,936 (16.5%)	0.48
Single Agent Products	2,539 (7.4%)	3,766 (8.2%)	0.03
Codeine	328 (12.9%)	1,563 (41.5%)	0.68
Morphine	804 (31.7%)	592 (15.7%)	0.38
Fentanyl	Censored	Censored	Censored
Oxycodone	Censored	Censored	Censored
Hydromorphone	1,128 (44.4%)	813 (21.6%)	0.5
Meperidine	242 (9.5%)	315 (8.4%)	0.04

Results – Dose (mgMEQ) by Prescriber Type

Variable	ED Initiators (n=34,713)	FP Initiators (n=45,952)	Standardized Difference
Median (IQR)	**38 (25-50)**	**19(13-32)**	**0.90**
< 20 mg MEQ	5,782 (16.7)	23,596 (51.35)	0.79
20-49 mg MEQ	19,123 (55.1)	17,684 (38.5%)	0.34
50-99 mg MEQ	8,739 (25.2)	4,238 (9.2%)	0.43
100-199 mg MEQ	1,069 (3.1%)	434 (0.9%)	0.15

Opioid Dose and Risk of Overdose Death

	Cases, n/N	Controls, n/N	Adjusted OR (95% CI)
Primary analysis: overlapping opioid prescriptions (Reference: 1-19 mg morphine equivalents)			
≥200 mg	116/498	223/1714	2.88 (1.79-4.63)
100-199 mg	82/498	181/1714	2.04 (1.28-3.24)
50-99 mg	97/498	273/1714	1.92 (1.30-2.85)
20-49 mg	118/498	514/1714	1.32 (0.94-1.84)



Doses between 50 and 200 mg MEQ ➡ Double risk of overdose death

Doses higher than 200 mg MEQ ➡ Triple risk of overdose death

ODPRN ONTARIO DRUG POLICY RESEARCH NETWORK

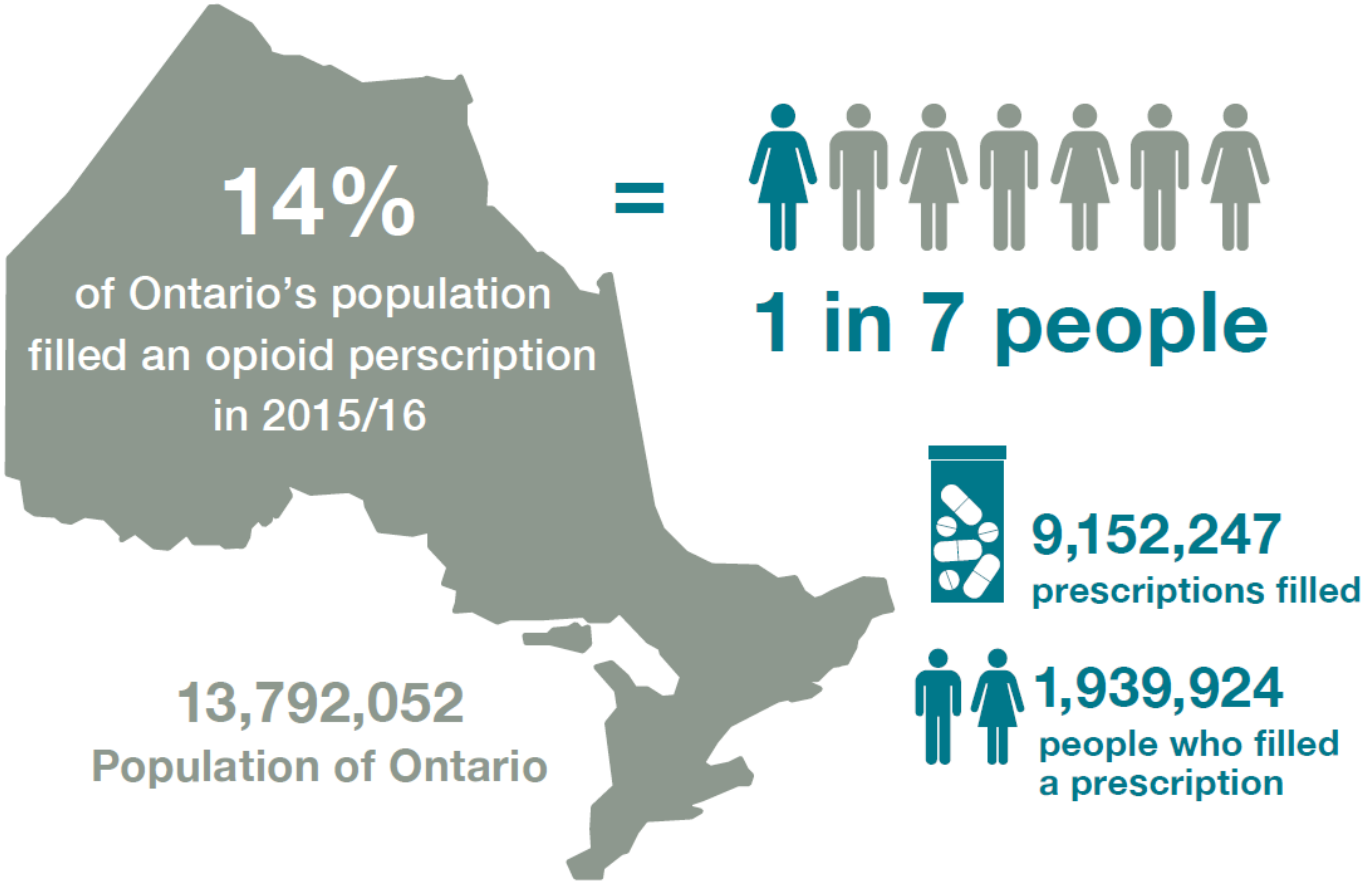
Gomes et al. Arch Int Med. 2011

Results – Primary Endpoints

Outcome	ED Initiators (n=34,713)		FP Initiators (n=45,952)		
	Number (%) of patients with outcome	Median (IQR) time to outcome (days)	Number (%) of patients with outcome	Median (IQR) time to outcome (days)	95% CI
Opioid Toxicity	**172 (0.5%)**	301 (98-525)	129 (0.3%)	304 (139-493)	0.2% (0.1-0.3)
Dose Escalation	46 (0.1%)	45.5 (14-173)	**301 (0.7%)**	111 (33-298)	0.5% (0.4-0.6)

Results – Primary Endpoints

Number of people who filled an opioid prescription and number of prescriptions filled, 2015/16



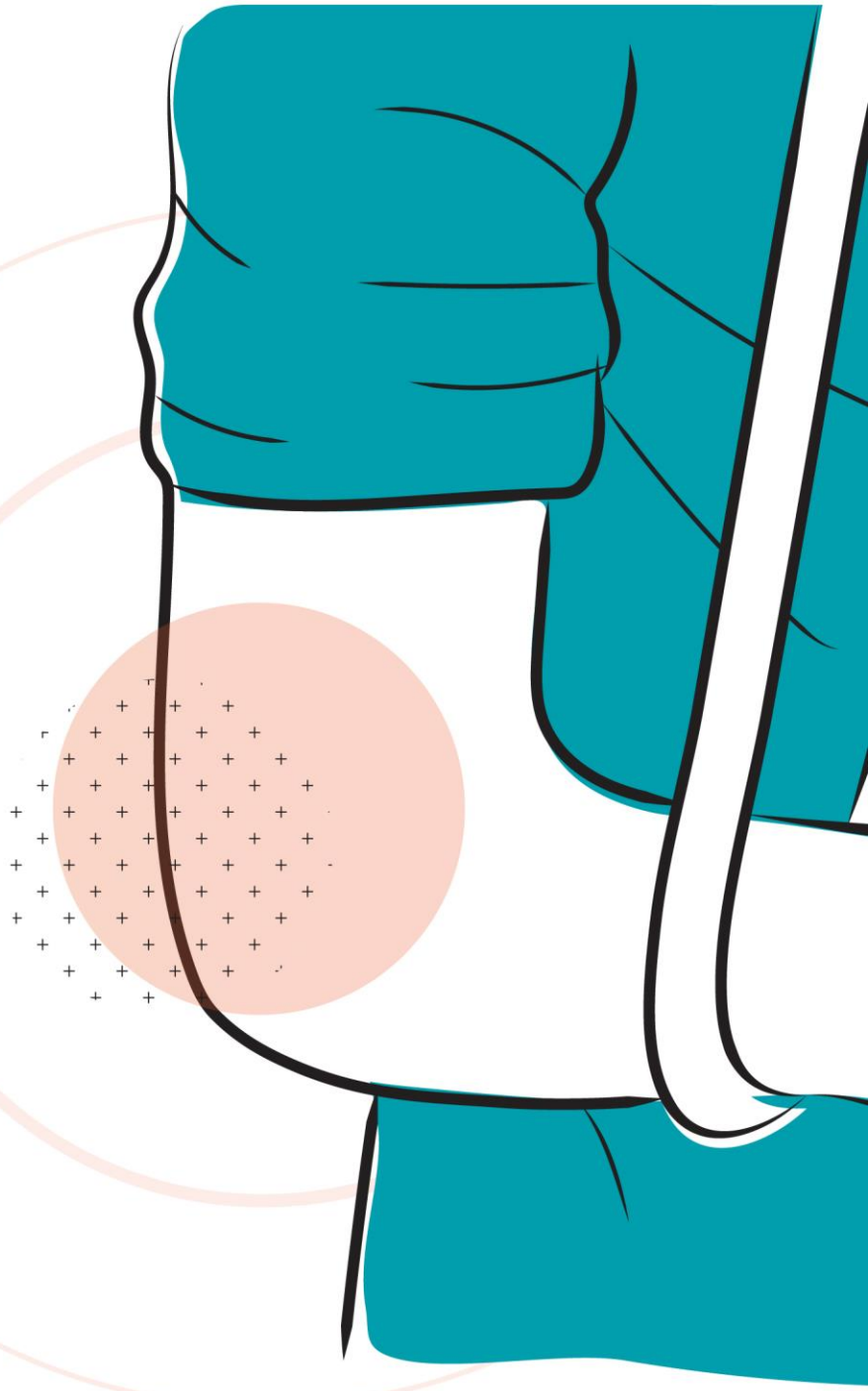
Data Sources: Narcotics Monitoring System, provided by the Ministry of Health and Long-Term Care; Population estimates, provided by the Ministry of Finance

Summary and Conclusions

- EP's write a large number of prescriptions for opioid naïve ODB patients < 65 years of age
- EP's prescribe higher potency medications at significantly higher daily mg MEQ's
- More than ¼ of EP scripts exceed new recommendations for max daily dose
- Many patients have profiles which place them at high risk for adverse events
- We can likely do better!

The Opioid Prescribing for Acute Pain Quality Standard

Guiding evidence-based care for prescribing opioids for acute pain in Ontario



Health Quality Ontario

Let's make our health system healthier

Quality Standards

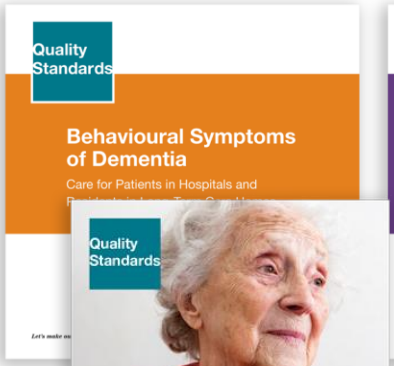
Help patients, residents, families, and caregivers know what to ask for in their care

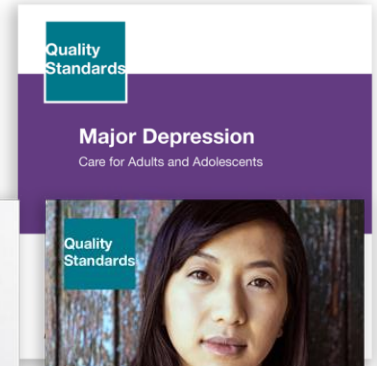
Help health care professionals know what care to offer, based on evidence and expert consensus

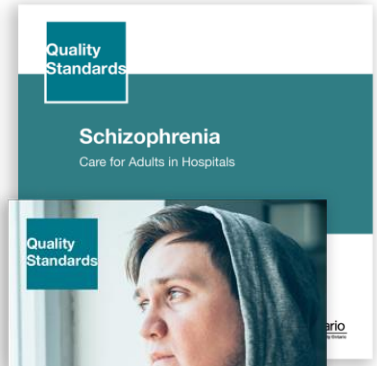
Help health care organizations measure, assess, and improve the quality of care they provide

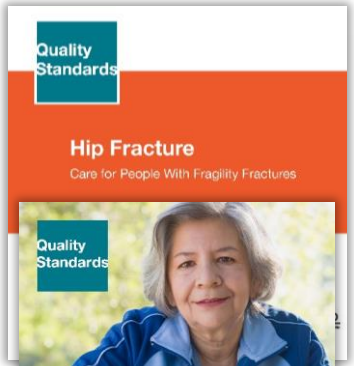
Help ensure consistent, high quality care across the province

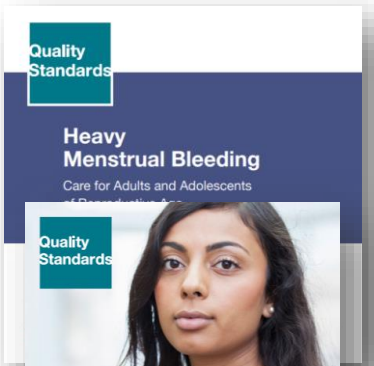
Quality Standards

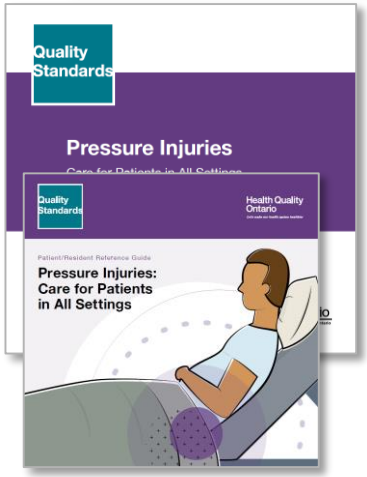


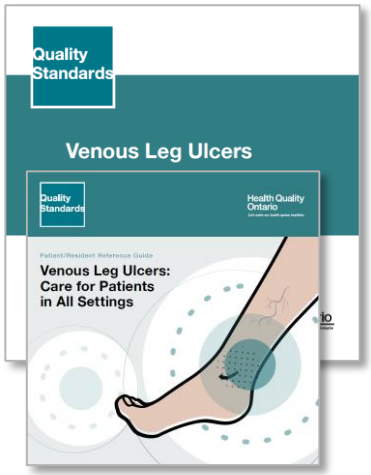


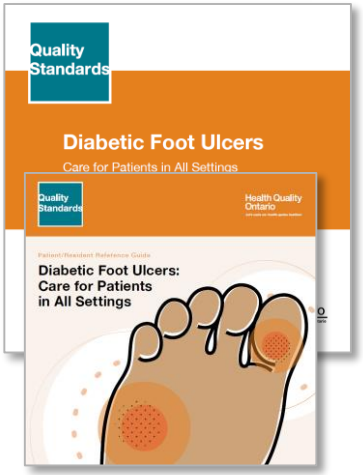


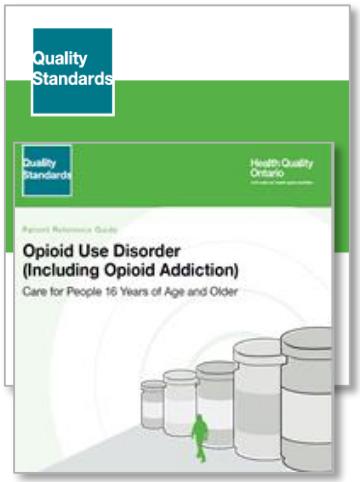




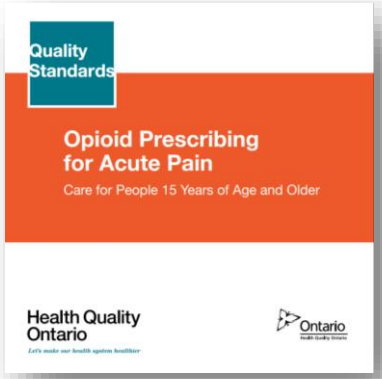




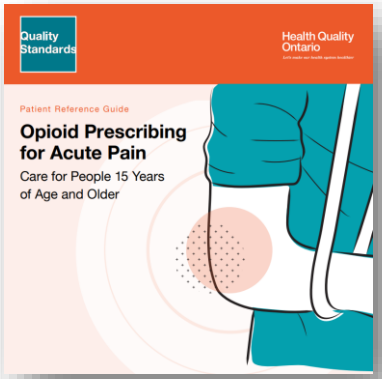




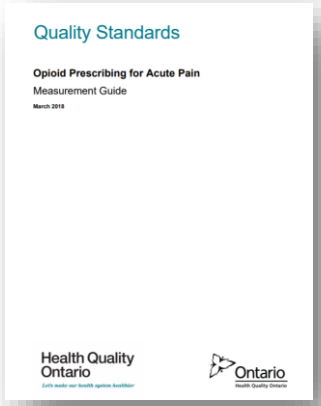
The Opioid Prescribing for Acute Pain Quality Standard



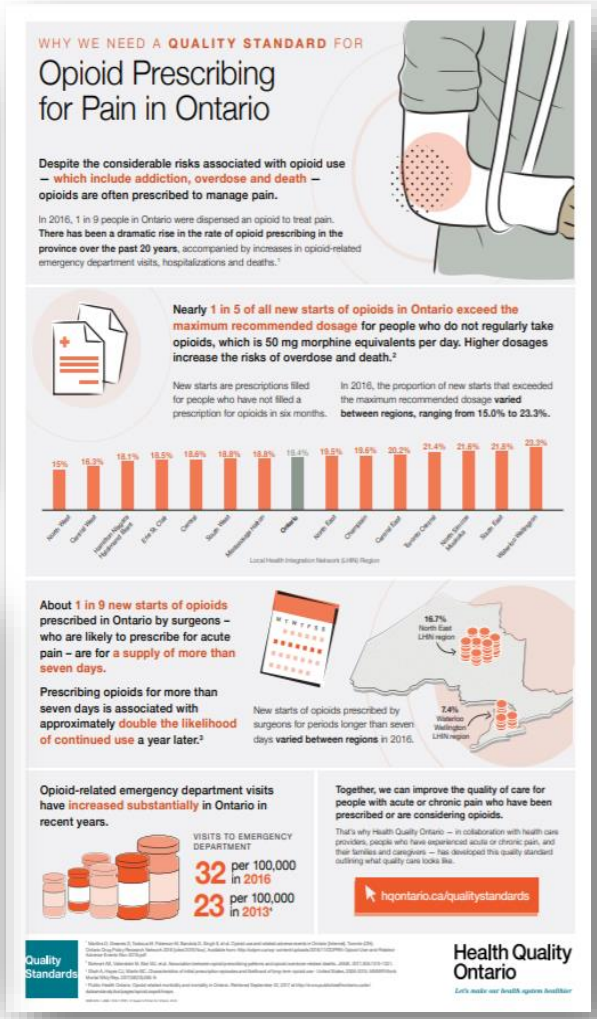
Quality Standard



Patient Reference Guide



Indicator Guide



Infographic

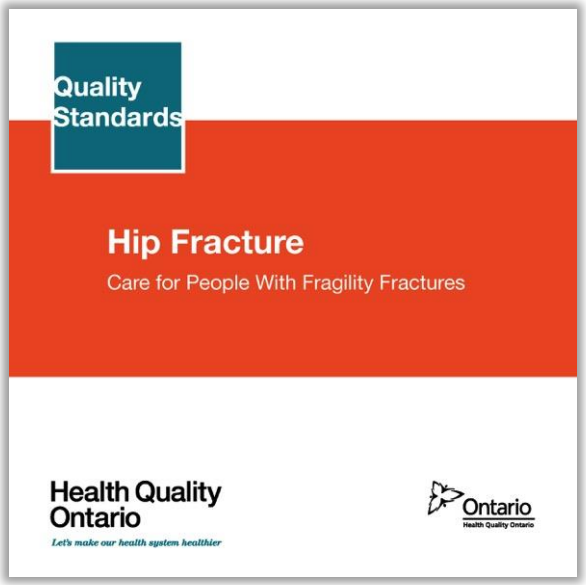
Recommendations for Adoption

Getting Started Guide

Find these resources here:
http://www.hqontario.ca/Evidence-to-Improve-Care/Quality-Standards/View-all-Quality-Standards/Opioid-Prescribing-for-Acute-Pain

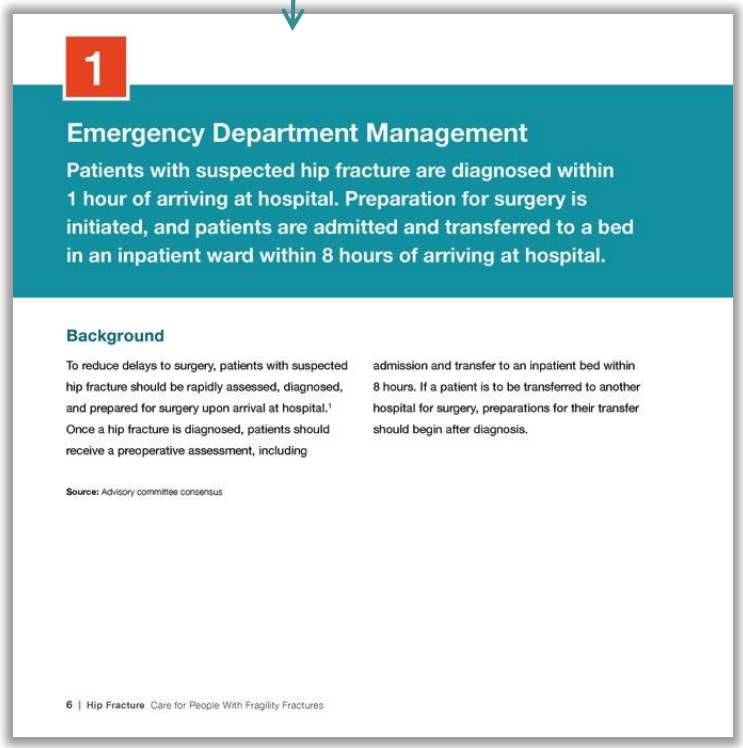
Clinical Guide

- **A guide for health care professionals** clearly outlining what high quality care looks like based on the evidence



Clinical Guide

The Statement



1

Emergency Department Management

Patients with suspected hip fracture are diagnosed within 1 hour of arriving at hospital. Preparation for surgery is initiated, and patients are admitted and transferred to a bed in an inpatient ward within 8 hours of arriving at hospital.

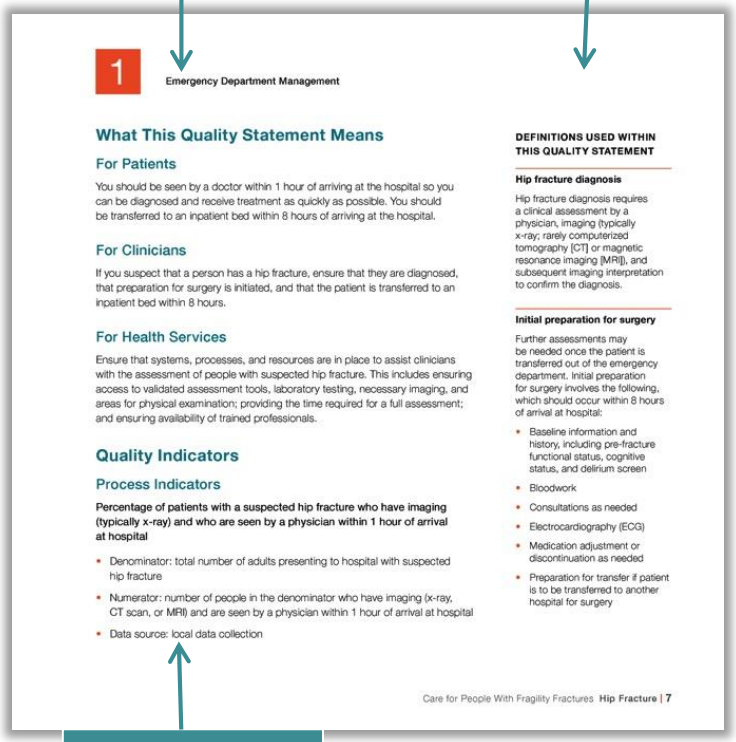
Background

To reduce delays to surgery, patients with suspected hip fracture should be rapidly assessed, diagnosed, and prepared for surgery upon arrival at hospital.[1] Once a hip fracture is diagnosed, patients should receive a preoperative assessment, including admission and transfer to an inpatient bed within 8 hours. If a patient is to be transferred to another hospital for surgery, preparations for their transfer should begin after diagnosis.

Source: Advisory committee consensus

The Audience

Definitions



1 Emergency Department Management

What This Quality Statement Means

For Patients

You should be seen by a doctor within 1 hour of arriving at the hospital so you can be diagnosed and receive treatment as quickly as possible. You should be transferred to an inpatient bed within 8 hours of arriving at the hospital.

For Clinicians

If you suspect that a person has a hip fracture, ensure that they are diagnosed, that preparation for surgery is initiated, and that the patient is transferred to an inpatient bed within 8 hours.

For Health Services

Ensure that systems, processes, and resources are in place to assist clinicians with the assessment of people with suspected hip fracture. This includes ensuring access to validated assessment tools, laboratory testing, necessary imaging, and areas for physical examination; providing the time required for a full assessment; and ensuring availability of trained professionals.

Quality Indicators

Process Indicators

Percentage of patients with a suspected hip fracture who have imaging (typically x-ray) and who are seen by a physician within 1 hour of arrival at hospital

- Denominator: total number of adults presenting to hospital with suspected hip fracture
- Numerator: number of people in the denominator who have imaging (x-ray, CT scan, or MRI) and are seen by a physician within 1 hour of arrival at hospital
- Data source: local data collection

DEFINITIONS USED WITHIN THIS QUALITY STATEMENT

Hip fracture diagnosis

Hip fracture diagnosis requires a clinical assessment by a physician, imaging (typically x-ray; rarely computerized tomography [CT] or magnetic resonance imaging [MRI]), and subsequent imaging interpretation to confirm the diagnosis.

Initial preparation for surgery

Further assessments may be needed once the patient is transferred out of the emergency department. Initial preparation for surgery involves the following, which should occur within 8 hours of arrival at hospital:

- Baseline information and history, including pre-fracture functional status, cognitive status, and delirium screen
- Bloodwork
- Consultations as needed
- Electrocardiography (ECG)
- Medication adjustment or discontinuation as needed
- Preparation for transfer if patient is to be transferred to another hospital for surgery

The Indicators

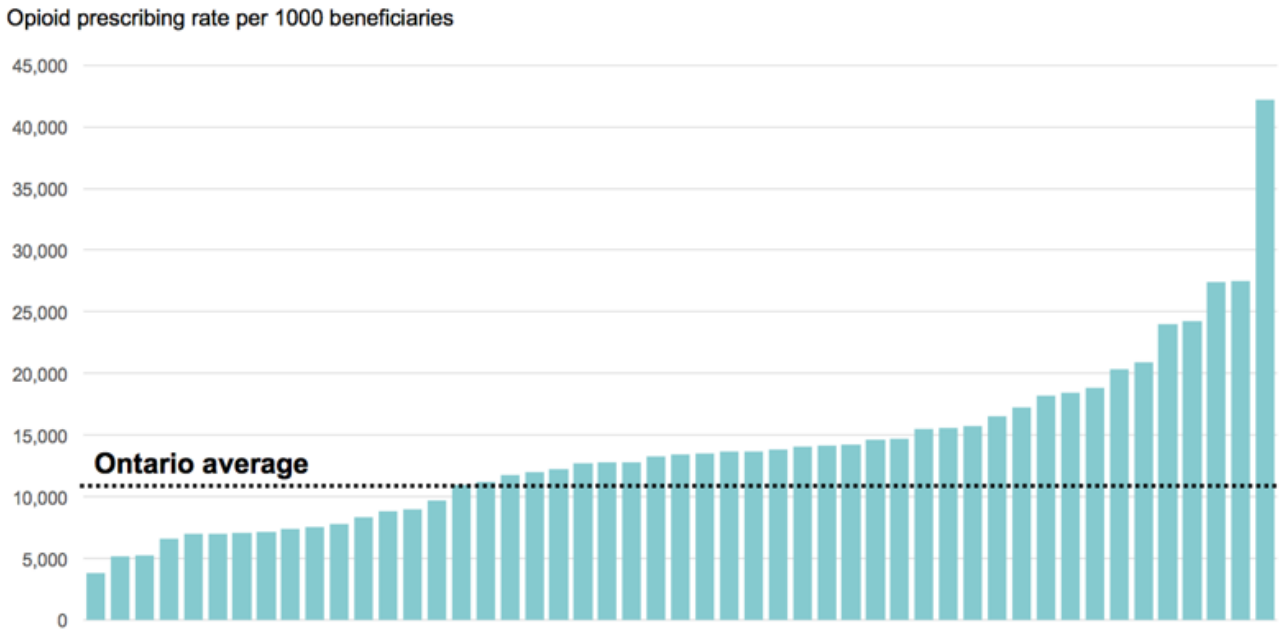
Health Quality Ontario
Quality Standards

Why Do We Need Quality Standards On Opioid Prescribing in Ontario?

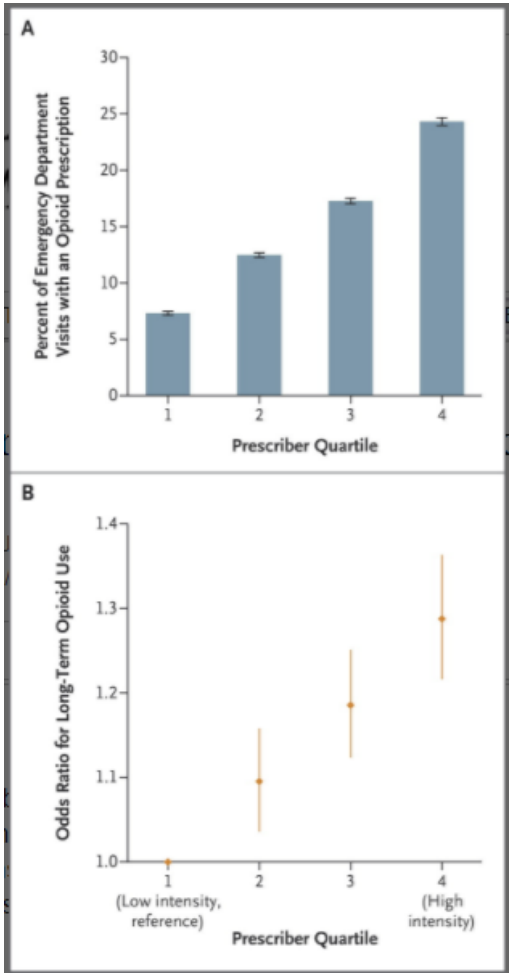
PRESCRIBING PATTERNS IN ONTARIO

Across Ontario counties, the rate of annual opioid prescribing per 1000 public drug plan beneficiaries aged 15-64 varied from 3,808 to 42,201

Opioid prescribing rate per 1000 beneficiaries



Opioid-Prescribing Patterns of Emergency Physicians and Risk of Long-Term Use



- Included patients who had not used prescription opioids in the 6 months before the visit
- Substantial variation in prescribing patterns of emergency physicians within the same hospital
- Intensity of prescribing positively associated with whether a patient would become a long-term opioid user over the next year
- Association was consistent across subgroups and across all quartiles of prescribing

Why we developed a quality standard for opioid prescribing for acute pain

- Increased harms from opioids
- Variation in prescribing rates by LHIN
- Risk of long-term opioid use after acute pain Rx
- Main source of misused opioids are through diversion from a friend or family member

Quality Statement 1:
Comprehensive Assessment

People with acute pain receive a comprehensive assessment to guide pain management.

Quality Statement 2:
Multimodal Therapies

People with acute pain receive multimodal therapy consisting of non-opioid pharmacotherapy with physical and/or psychological interventions, with opioids added only when appropriate.

Quality Statement 3:
Opioid Dose and Duration

People with acute pain who are prescribed opioids receive the ***lowest effective dose of the least potent immediate-release opioid***. A ***duration of 3 days*** or less is often sufficient. A duration of ***more than 7 days is rarely indicated***.

Quality Statement 4:
Information on Benefits and Harms of Opioid Use and Shared Decision-Making

People with acute pain and their families and caregivers receive information about the potential benefits and harms of opioid therapy, safe storage, and safe disposal of unused medication at the times of both prescribing and dispensing.

Quality Statement 5:
Acute Pain in People who Regularly Take Opioids

People with acute pain who regularly take opioids receive care from a health care professional or team with expertise in pain management. Any short-term increase in opioids to treat acute pain is accompanied by a plan to taper to the previous dose.

Quality Statement 6:
Acute Pain in People with Opioid Use Disorder

People taking buprenorphine/naloxone or methadone for the treatment of opioid use disorder continue their medication during acute-pain events.

Quality Statement 7:
Prescription Monitoring Systems

Health care professionals who prescribe or dispense opioids have access to a real-time prescription monitoring system at the point of care. Prescription history is checked when opioids are prescribed and dispensed to avoid duplicate prescriptions, potentially harmful medication interactions, and diversion.

Quality Statement 8:
Tapering and Discontinuation

People prescribed opioids for acute pain are aware of the potential for experiencing physical dependence and symptoms of withdrawal and have a plan for tapering and discontinuation.

Quality Statement 9:
Health Care Professional Education

Health care professionals have the knowledge and skills to appropriately assess and treat acute pain using a multimodal approach; appropriately prescribe, monitor, taper, and discontinue opioids; and recognize and treat opioid use disorder.

Putting these standards into practice

- Intended to provide guidance and demonstrate what good care looks like for providers and patients
- Overall goal is to reduce patient exposure to opioid medications in order to minimize harms
  - Addiction, overdose, death
- Acute pain is a normal, predicted response to surgery, acute illness, trauma or injury, but opioids are not always the most appropriate treatment
- Unused opioid medications in the community are a public health/safety concern

General Principals

- “Universal precautions” approach
- Comprehensive assessment including history of opioid use, sleep aids, alcohol, substance use disorder. Some patients with opioid use disorder will have strong preferences
- Use lowest dose of least potent opioid for the shortest time possible
- Discuss risks vs. benefits with patients
- Make use of NMS
- Have a plan for tapering and discontinuation if you anticipate patients being treated longer than 5 days

Effect of these standards on me

- Better understanding of the value of comprehensive assessment and risk factors for harm
- Much more emphasis on discussions surrounding potential harms, drug choice/dosage/duration
- Try harder to use limit dosage and duration of opioids
- More consideration for the value of multimodal therapies
  - Alternative medications to opioids where possible
  - Non-pharmacological interventions
    - Splints
    - Activity/exercises/heat/cold etc
    - Physio/massage

The results?

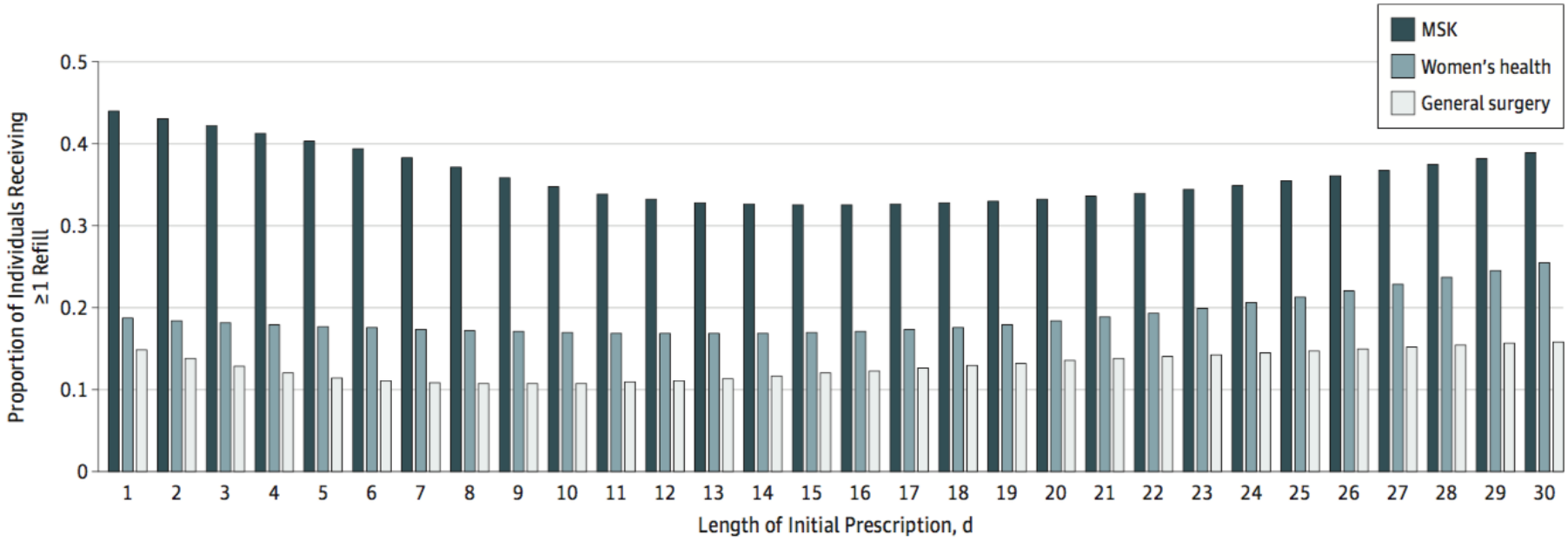
- More enjoyable patient interactions
  - Patients genuinely interested in having a conversation
  - Very little confrontation
  - Dramatic reduction in the number and type of prescriptions for opioids that I write
    - Lower potency drugs
    - Fewer pills/script
    - Reduction in IV narcotic use, especially for opioid naive patients

Specific Scenarios: Discharge

- Discharge prescriptions
  - IF I am going to prescribe opioids (usually do not) I like to give a trial prior to discharge.
  - Minimum number of min potency (appropriate pain control) pills. 3 days or less is often adequate, more than 7 rarely indicated
  - I generally set the tone when I discharge patients, that this should be enough pain medication. I don't want them coming back to the ED (explain why, multiple prescribers etc), and I don't think they will need to obtain more from their primary care provider

Discharge Prescriptions

Figure 2. Modeled Proportion of Individuals Requiring Opioid Pain Medication Refill by Length of Initial Prescription by Procedure Group



Adjusted proportion of individuals requiring repeated opioid prescription after procedure by duration of initial prescription. Risk was adjusted for age, sex, race/ethnicity, socioeconomic status, and postoperative complications. The modified Charlson Comorbidity Index was used to adjust for comorbidities. MSK indicates musculoskeletal.

Ongoing work at our hospital

- Opioid stewardship committee
- Development of a Transitional Pain Service which includes a multidisciplinary approach
- Clarify electronic orders to minimize confusion, reduce high potency opioid use
- Ongoing work to develop strategies for reducing post-operative opioid prescribing

Thank you.

LET'S CONTINUE THE CONVERSATION:

- hqontario.ca
- @HQOntario
- HealthQualityOntario
- @HQOntario
- Health Quality Ontario

Health Quality Ontario

Let's make our health system healthier

Clinical Scenarios
&
Additional Slides

Specific Scenarios

- Discharge prescriptions – Cont.
- When patients DO return to the ED for additional prescriptions, I use it as an opportunity to revisit a discussion regarding harms vs. benefits
- I do not write prescriptions for opioids for patients on chronic treatment. This is bad care, and will only lead to trouble
  - Excellent opportunity to use NMS
  - If I think the patient has an opioid use disorder, I tell them that I don't want them to suffer from withdrawal, and I offer Suboxone and referral to Rapid Access Addictions Clinic

Specific Scenarios

- Non-opioid Adjunct Pharmacotherapy
  - NSAIDS/Acetaminophen/Gabapentin/Amitriptyline
  - Ketamine for painful procedures
  - Regional anesthesia/peripheral nerve blockade
  - Trigger point injections

Methadone Maintenance therapy/Chronic Pain

- Methadone analgesic action is only 8 hours (dosing is typically q24 for OAT). Tricky for non-experts to adjust dosage and frequency to satisfactory effect
- Hyper-algesia effect for all patients on chronic therapy
- Competitive agonist, so short acting opioids still effective
- Start at standard dosing, may need to increase more than usual, so will require more frequent reassessment (I would use the same strategy for patients on high dose OAT)
- PCA is a good option
- Work on non-opioid analgesia including nerve blocks/injections

Illicit Opioid Users

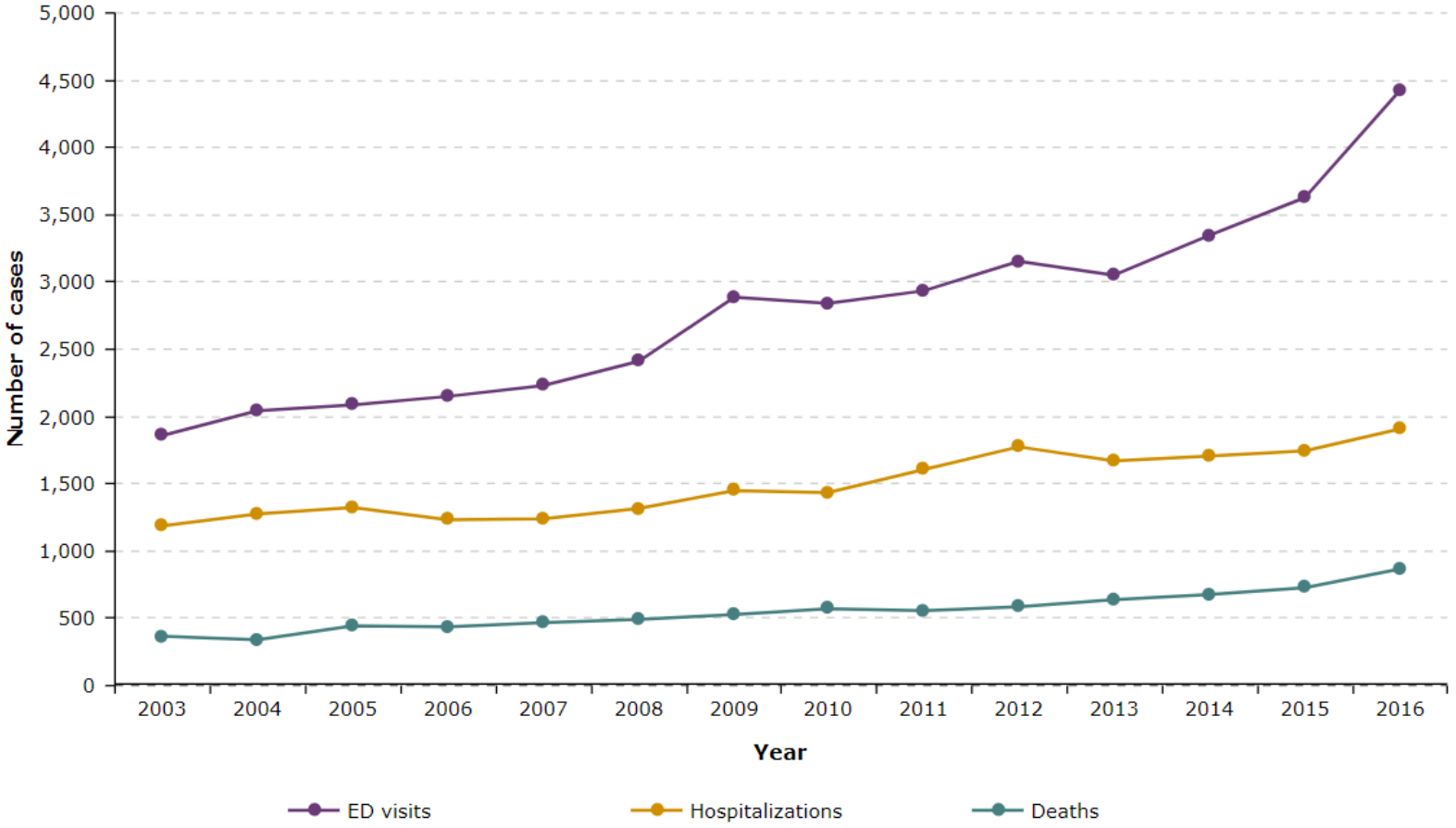
- Start with standard doses of opioids as usual, but variable response will require more frequent reassessment
- Offer Suboxone (2 X 2 mg tabs q2h to max of 16 mg/day) (actually should do this regardless of reason for visit)
- Need to wait at least 12 hours from last use or you will precipitate acute withdrawal
- Buprenorphine is a reasonable analgesic in the setting of illicit drug use , however tricky to use because you have to wait until actually in withdrawal to administer, and variably affinity/blockade for opioid receptors

Patients on Suboxone

- Potentially most difficult group due to complex pharmacology
- Buprenorphine is a partial agonist at mu receptors so there is a ceiling effect of dose (very high affinity)
- Contains Naloxone as well – prevent overdose
- Can try regular opioids and reassess frequently
- Affinity of Fentanyl for mu receptors is higher than buprenorphine, so can overcome blockade if really necessary

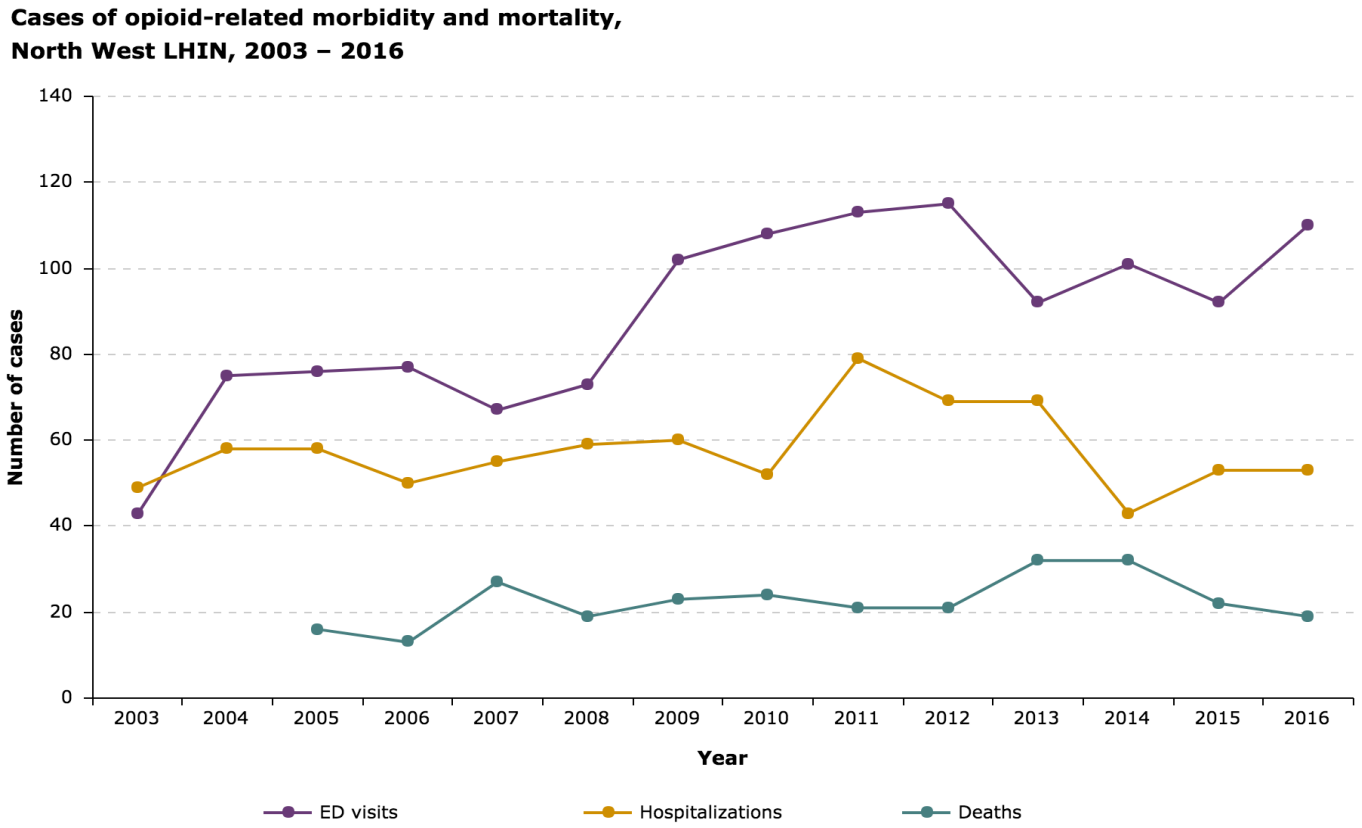
Opioids in Ontario

Cases of opioid-related morbidity and mortality, Ontario, 2003 – 2016



Northwest LHIN

Saved from:
https://www.publichealthontario.ca/en/dataandanalytics/pages/opioid.aspx#/trends



1.3 Million New Prescriptions in Ontario

1. Many Ontarians continue to be started on opioids

- 1 in 6 opioid prescriptions were new starts. There were almost 1.3 million new starts of opioids prescriptions in 2016.
- Number and rate of new starts down from 2014 to 2016 – good to be decreasing, but still work to do.
- 56% of new starts were prescribed by family doctors, 18% by surgeons, 14% by dentists.

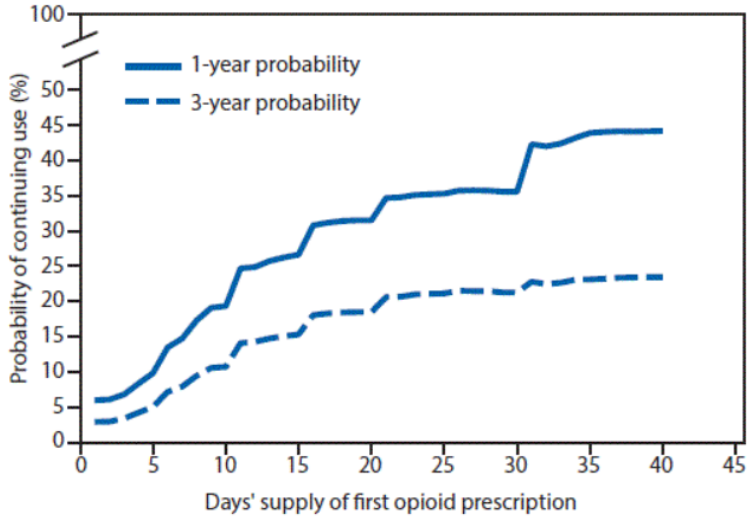
2. Most high-dose starts of opioids are prescribed by surgeons

- High doses (over 90 MEQ) constitute 8% of surgeon new starts, 1.7% of family doctors new starts and 0.7% of dentists new starts.

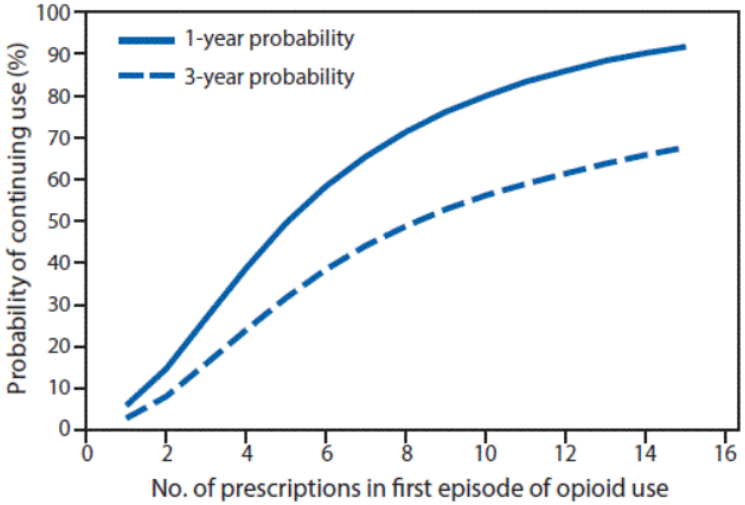
3. New starts of hydromorphone by family doctors and surgeons are increasing

- Least potent immediate-release opioids are recommended . Extended-release opioids such as hydromorphone increase the risk of harm.
- Hydromorphone increased from 6.2% of prescriptions in 2013 to 10.0% in 2016, for surgeons: 9.0-12.2%.

Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use



Among persons prescribed at least 1 day of opioids, the probability of continued opioid use at 1 year was 6.0% and at 3 years was 2.9%



Patients who continued opioid therapy for ≥1 year were more likely to be older, female, have a pain diagnosis before opioid initiation, or be initiated on higher doses of opioids

General Principals

- Comprehensive assessment including history of opioid use, sleep aids, alcohol, substance use disorder. Some patients will have strong preferences
- Use lowest dose of least potent opioid
- Discuss risks vs. benefits with patients
- Make use of NMS
- Have a plan for tapering and discontinuation if you anticipate that

The Opioid Crisis

Opioid use in Ontario, 2014/15

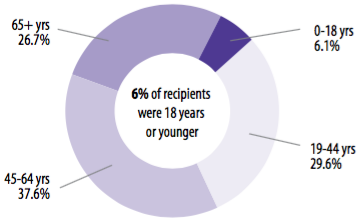
Opioids are monitored drugs that are most often used to relieve pain; use and misuse of opioids is a significant health and policy issue in Ontario.

The Narcotics Monitoring System collects dispensing data on monitored drugs from outpatient pharmacies across Ontario.

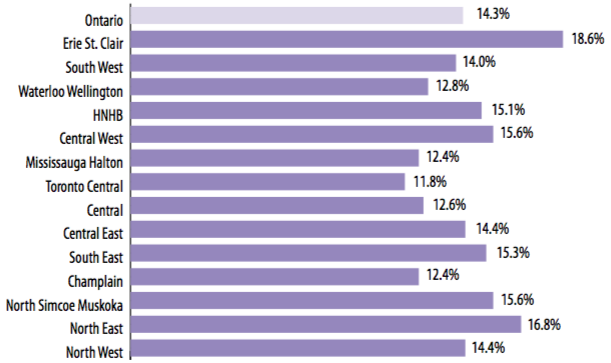
1.96 million Ontarians were dispensed an opioid [56% had a **single** dispense] → Totaling **9 million** dispenses

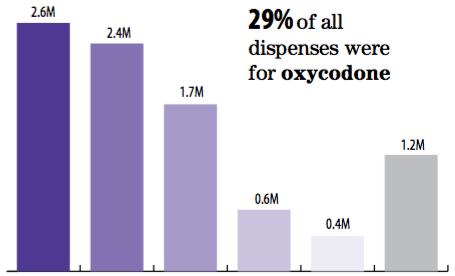
55% of recipients were female

41% of recipients had a mental health condition



Percent of Ontarians dispensed an opioid, by LHIN





29% of all dispenses were for **oxycodone**

Nearly **2 out of every 1,000** Ontarians visited the **emergency department** within 7 days of being dispensed an opioid

The **top prescribers** of opioids were

Family physicians – 38%
[mainly codeine, oxycodone, and hydromorphone]

and **Dentists – 17%**
[mainly codeine]

Treatment for addiction to prescription or illegal opioids may include **methadone maintenance treatment (MMT) or Suboxone**

4% 2013/14 to 2014/15 — **42,000** Ontarians were dispensed MMT [11.4 million dispenses]

29% 2013/14 to 2014/15 — **11,000** Ontarians were dispensed Suboxone [almost 1 million dispenses]

45% of recipients of MMT or Suboxone were **males under 45**

MMT and Suboxone were mainly prescribed by **family physicians and psychiatrists**

Health Analytics Branch, HSIM, MOHLTC