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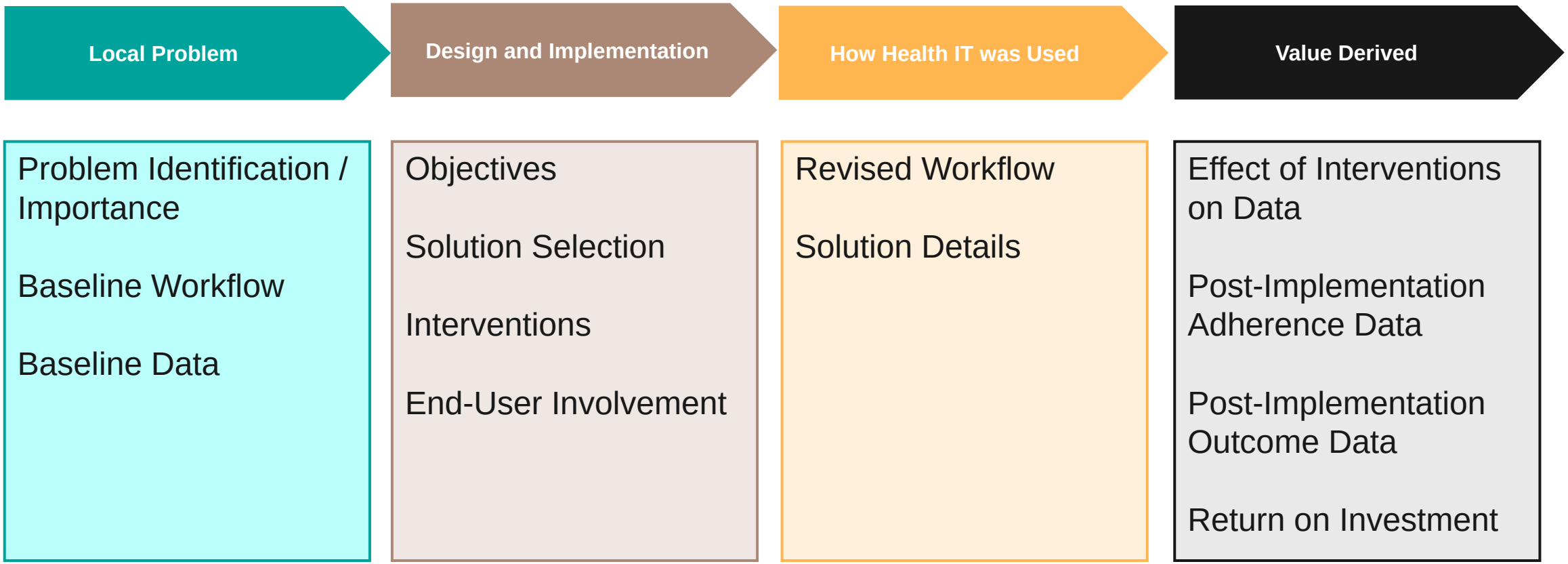
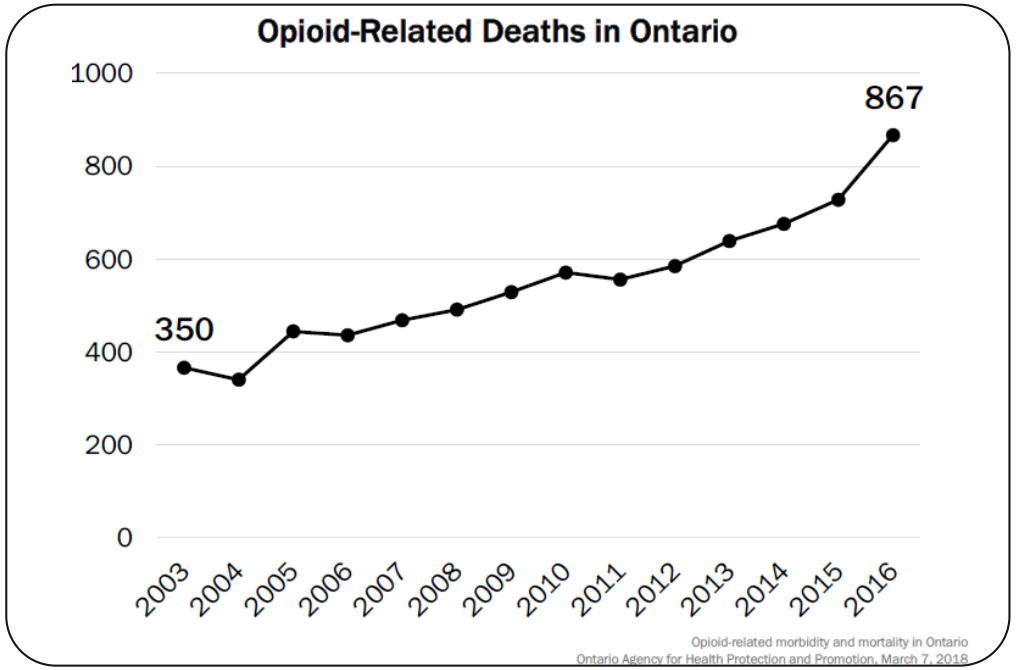
Buprenorphine Order Set and Rapid Access Referral

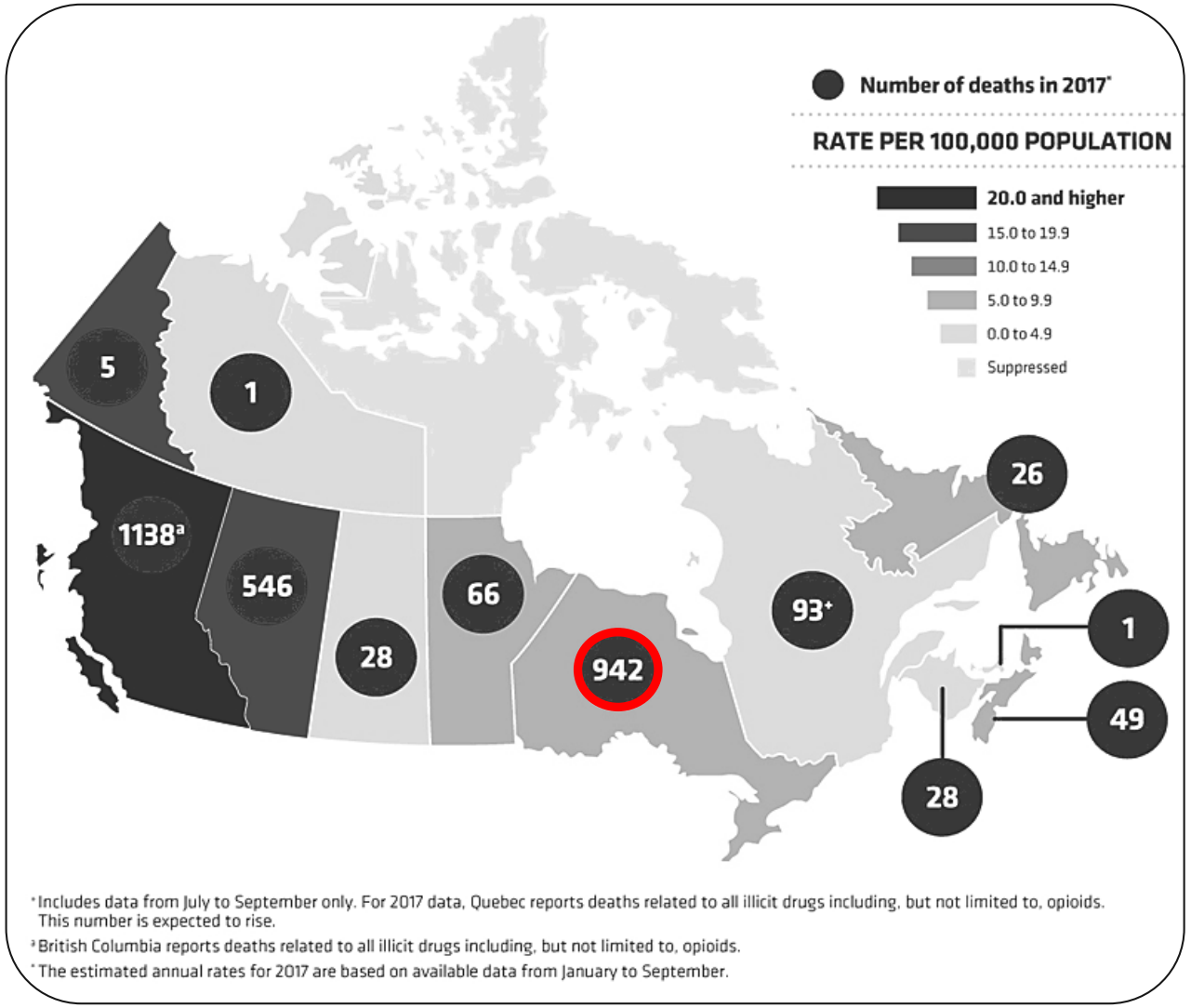
Agenda



Opioid Crisis in Canada

- Canada is facing a national opioid crisis
- Over recent years, there has been an alarming increase in the number overdoses and deaths caused by opioids





Number (January to September) and estimated annual rate (per 100,000 population) of apparent opioid-related deaths by province or territory, 2017

Source: Health Canada. **Apparent opioid-related deaths**. Retrieved from: https://www.canada.ca/en/health-canada/services/substance-abuse/prescription-drug-abuse/opioids/apparent-opioid-related-deaths.html

Problem Identification

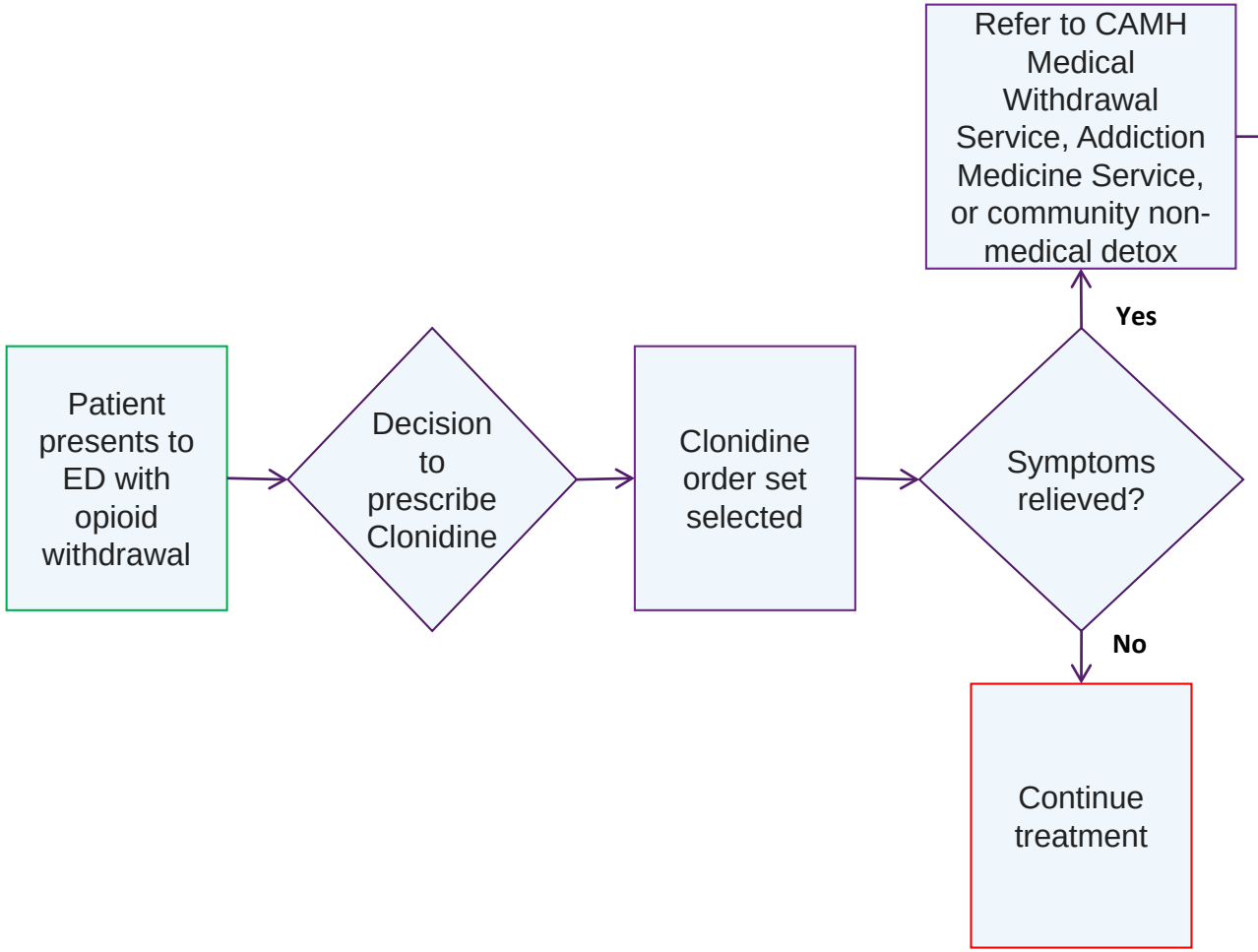
Problem Identification

- CAMH provides Clonidine (comfort measure) as a treatment for individuals presenting to the Emergency Department (ED) with opioid withdrawal
- There is an additional treatment for opioid withdrawal (buprenorphine)

Why is this Important?

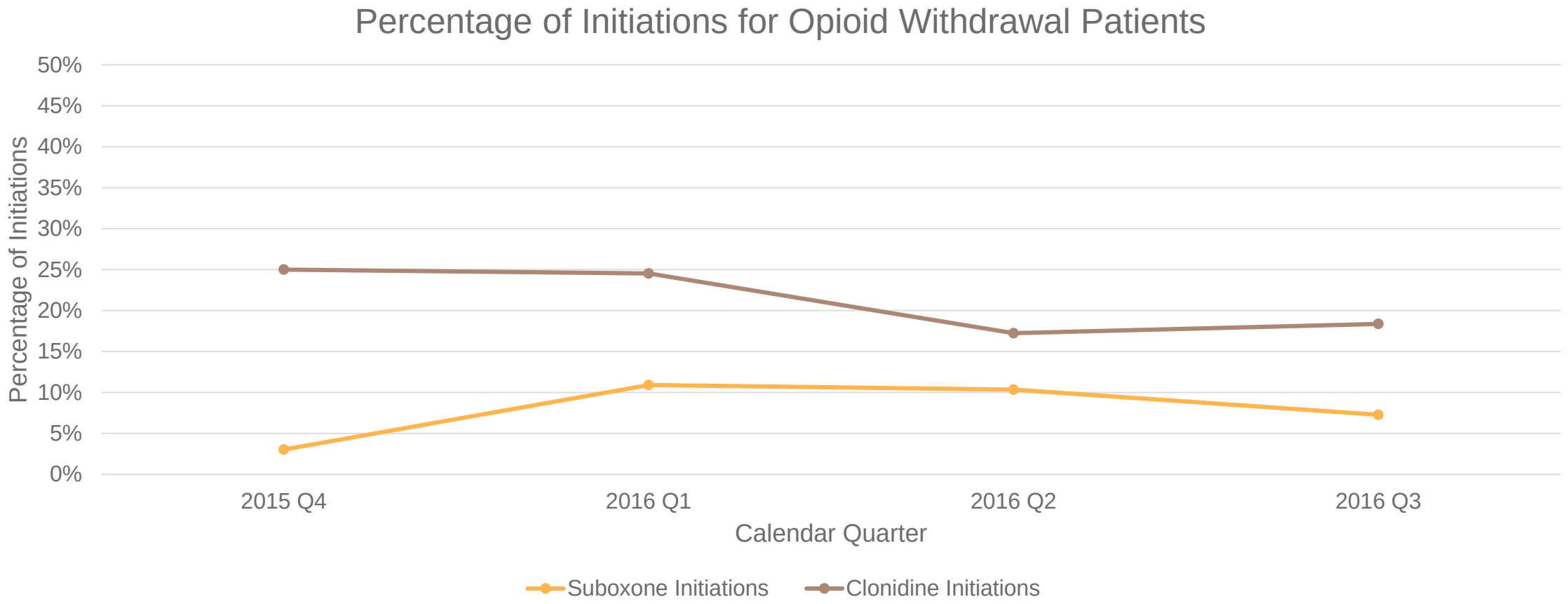
- CAMH identified new Health Quality Ontario opioid use disorder standards including:
  - Administration of opioid agonist therapy within 3 days of presentation
  - Opioid agonist therapy should be administered within 2 hours
  - Distribution of take-home naloxone kits
- As the leading academic mental health and addictions hospital, CAMH must lead the way with best-practice treatments
- Buprenorphine has a “ceiling effect” and slow action onset, meaning minimal overdose risk
- Patients on a maintenance dose may have a blunted analgesic and euphoric response if they take other opioids concurrently

Baseline Workflow



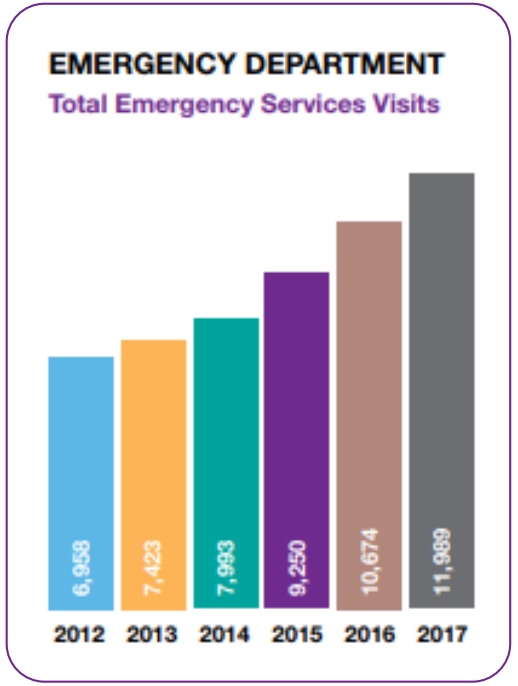
Baseline Data

	2015 Q4 – 2016 Q3
Clonidine Initiations	20.8%
Buprenorphine Initiations	8.5%



Objectives

- Standardize pathway and treatment protocol for buprenorphine
- Create barrier-free and timely access to continuing care
- Streamline ordering process to save clinician time and prevent errors
- Adhere to new Health Quality Ontario standards for opioid withdrawal and opioid use disorder

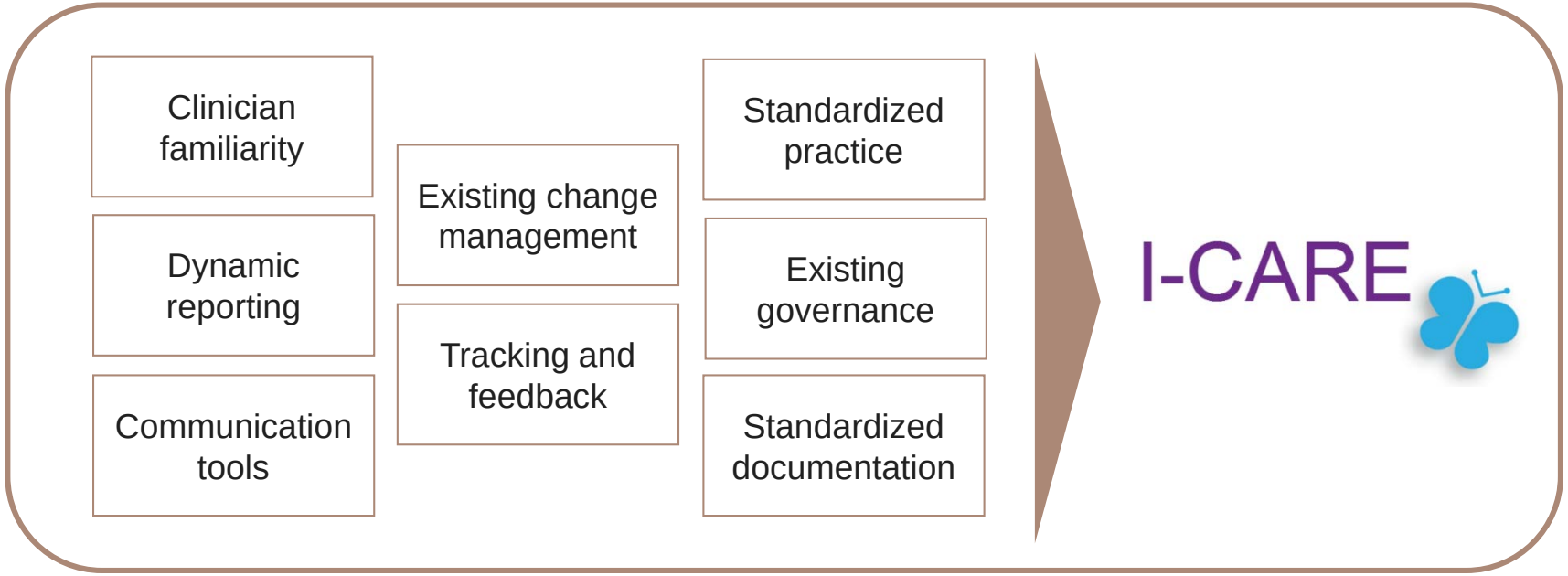


Solution Selection

CAMH identified a method to drive increased use of buprenorphine within the ED.

Options reviewed and selected by CAMH Addiction Medicine Service and ED management with staff consultation:

-Experience with other order sets showed positive practice change



Interventions

Addiction Medicine Service Partnership

- Partnership between CAMH Addiction Medicine Service and Emergency Department to build capacity for addictions treatments, including buprenorphine (Nov 2016 – Mar 2017)

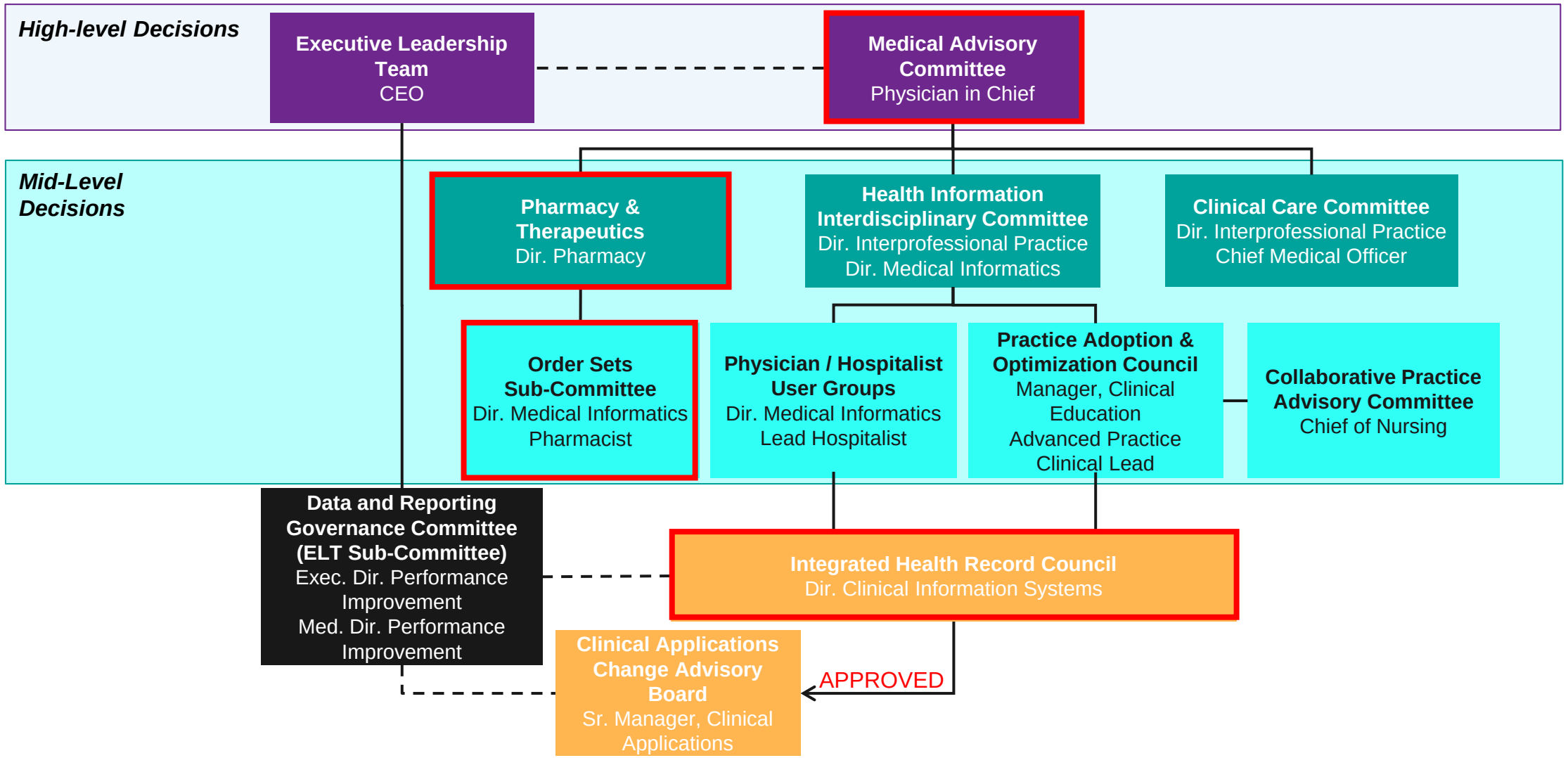
Education Sessions

- Education sessions including benefits, initiation, and administration of buprenorphine for all ED staff (May – June 2017)

Order Set And Pathway

- Creation of an interdisciplinary buprenorphine pathway and buprenorphine order set (August 2017 go-live)

Strategic Governance



**** Advisory / Working Groups established as required***

End-User Involvement

Integrated Health Record Committee

- Chairs: Dir. Interprofessional Practice, Dir. Medical Informatics
- Includes clinicians and other stakeholders
- Initial approval of need

Pharmacy & Therapeutics

- Co-chairs: Appointed Physician and Dir. Pharmacy
- Owners and approvers of Order Set
- Includes a minimum of 6 physicians, 4 pharmacists

Order Sets Sub-Committee

- Chairs: Dir. Medical Informatics, Pharmacist
- Assembled subject matter clinical experts for review of order sets

Medical Advisory Committee

- Chair: Physician in Chief
- High-level review and recommendations regarding the practice of medicine at CAMH

Revised Workflow

Patient presents to ED with opioid withdrawal

Does patient agree to buprenorphine treatment?

Yes

Buprenorphine induction order set selected*

Clinical Opiate Withdrawal Scale completed *

Result >12? *

No

Re-assess in 2 hours

Yes

Administer buprenorphine*

Reassess in 2 hours *

Symptoms relieved?

No

Administer additional dose

Yes

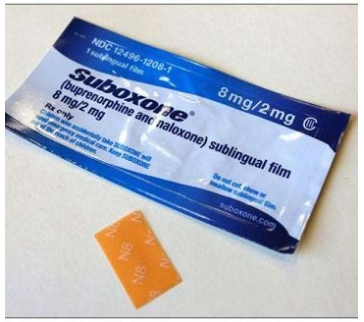
Total daily dose established

Refer to CAMH Addiction Medicine Service, prescribe total daily dose, provide Naloxone kit and information *

Discharge from ED

No

Proceed with Clonidine or alternative treatment



Health IT used within intervention*

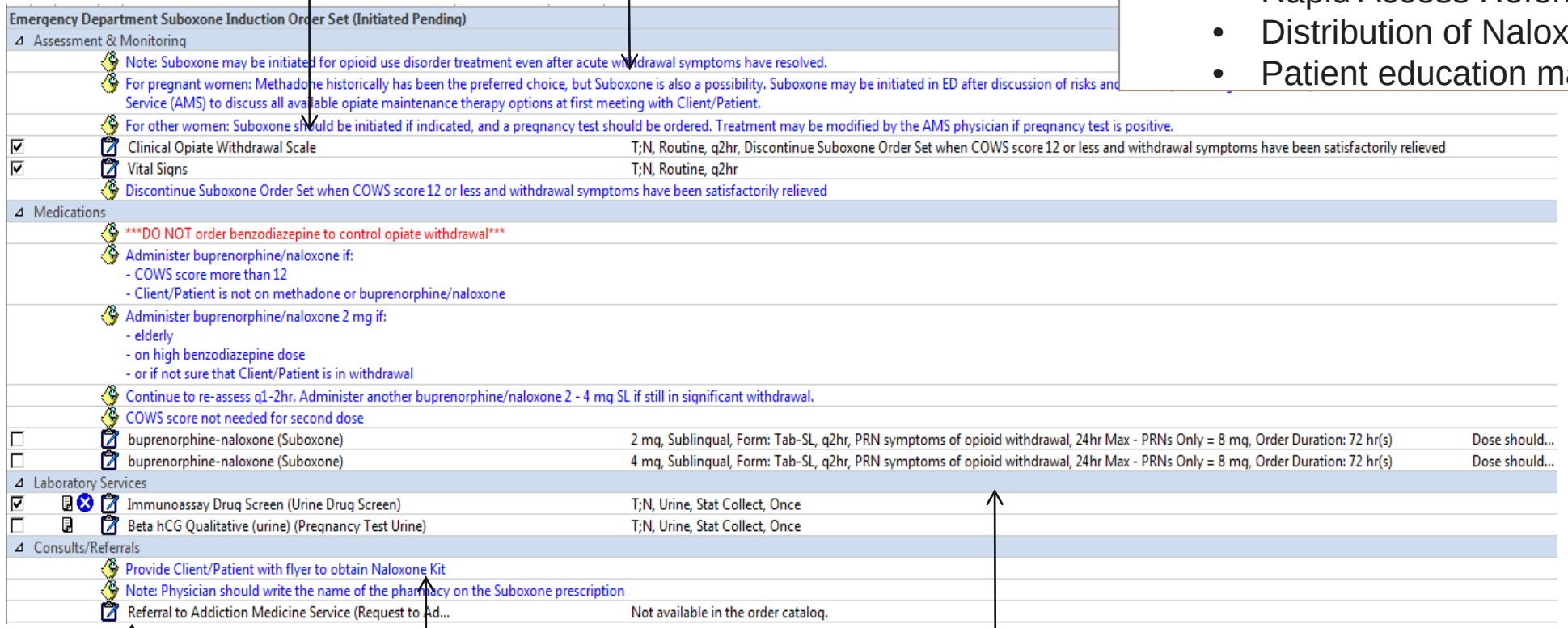
Suboxone Order Set

Buprenorphine Order Set

- Standardized Lab orders
- Vital signs
- Clinical Opiate Withdrawal Scale
- Rapid Access Referral
- Distribution of Naloxone kits
- Patient education materials

Clinical Opiate Withdrawal Scale

Administration guidelines



Rapid Access Referral

Free Naloxone kit flyer

Dosage options

Clinical Opiate Withdrawal Scale (COWS)

Tremor	○ No tremor (0) ○ Tremor can be felt, but not observed (1) ○ Slight tremor observable (2) ○ Gross tremor or muscle twitching (4)	**Observation of outstretched hands**
Yawning	○ No yawning (0) ○ Yawning once or twice during assessment (1) ○ Yawning three or more times during assessment (2) ○ Yawning several times per minute (4)	**Observation during assessment**
Anxiety or Irritability	○ None (0) ○ Patient reports increasing irritability or anxiousness (1) ○ Patient obviously irritable or anxious (2) ○ So irritable,anxious,participation in assessment difficult (4)	**Observation during assessment**
Gooseflesh Skin	○ Skin is smooth (0) ○ Piloerection of skin can be felt or hairs standing on arms (3) ○ Prominent piloerection (5)	**Observation during assessment**
COWS Total Score		**Score:** **5-12 = mild;** **13-24 = moderate;** **25-36 = moderately severe;** **More than 36 = severe withdrawal**

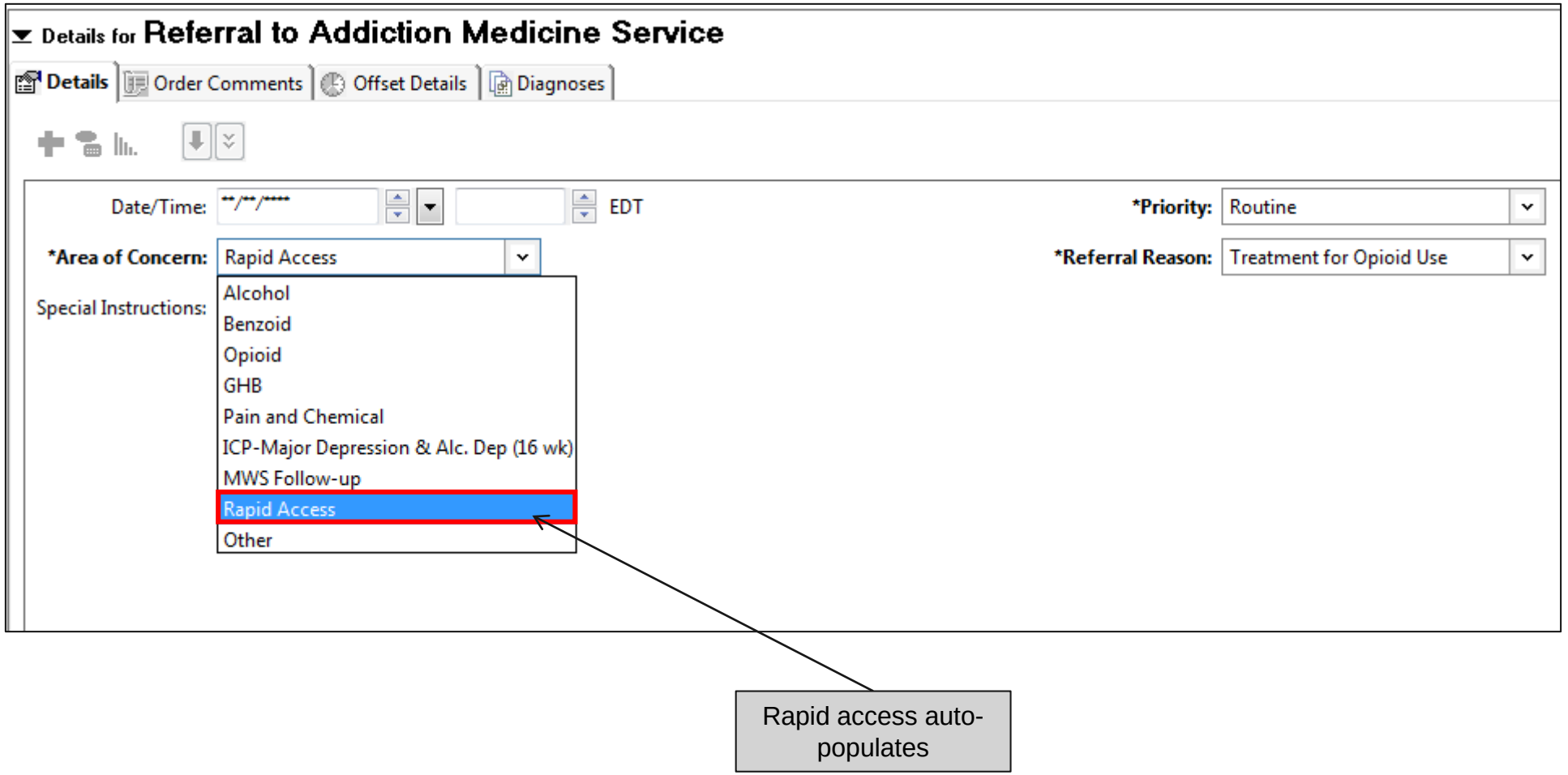
Automated scoring

Key

COWS

- Used in ED for patients presenting with opiate withdrawal symptoms
- Recommended for use during buprenorphine induction
- <2 minutes for completion

Rapid Access Referral

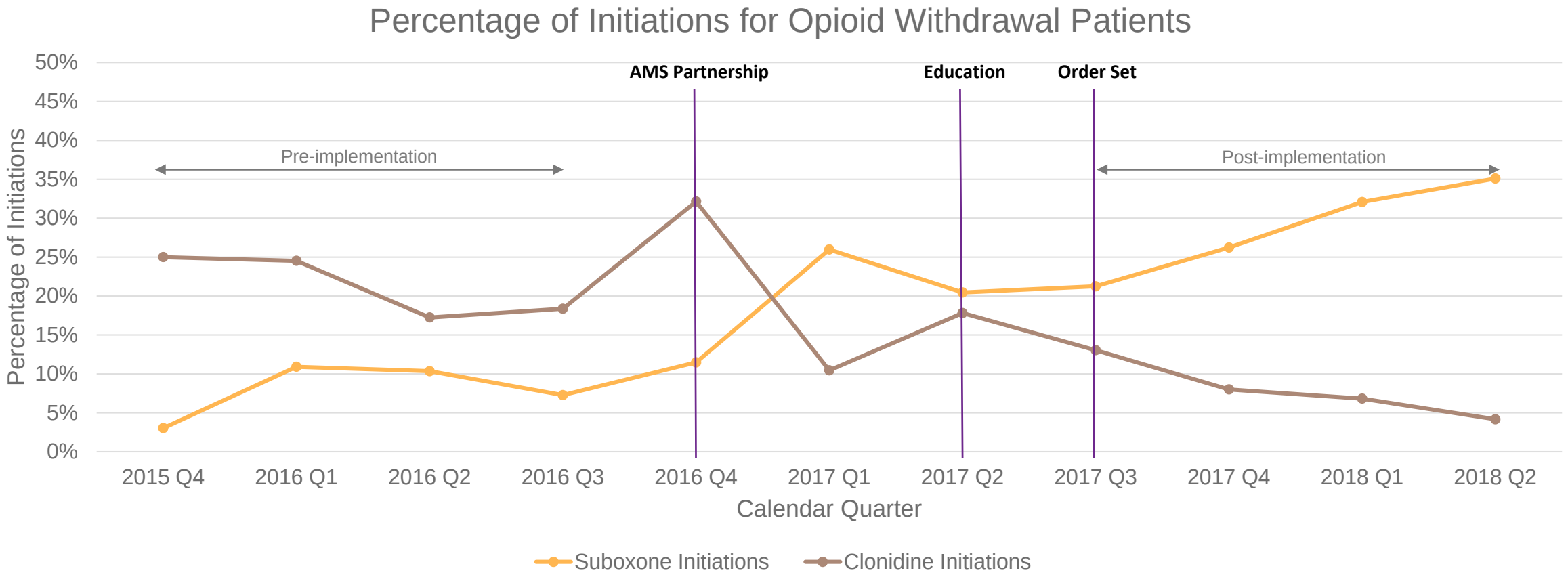


Effect of Interventions on Data

	AMS Partnership	Education Sessions	Order Set and Pathway
Intervention	• Partnership between CAMH Addiction Medicine Service and Emergency Department to build capacity for addictions treatments, including buprenorphine (Nov 2016 – Mar 2017)	• Education sessions including benefits, initiation, and administration of buprenorphine for all ED staff (May – June 2017)	• Creation of an interdisciplinary buprenorphine pathway and buprenorphine order set (August 2017 go-live)
Effect	• Created clinical awareness • Generated familiarity and comfort with prescribing opioid agonist therapy	• Created practice guidelines to educate staff about buprenorphine and its use within opioid withdrawal and maintenance therapy	• Created clinical awareness and enforced regulations to standardize practice for buprenorphine patients • Provided rapid access referral option to support evidence-based practice

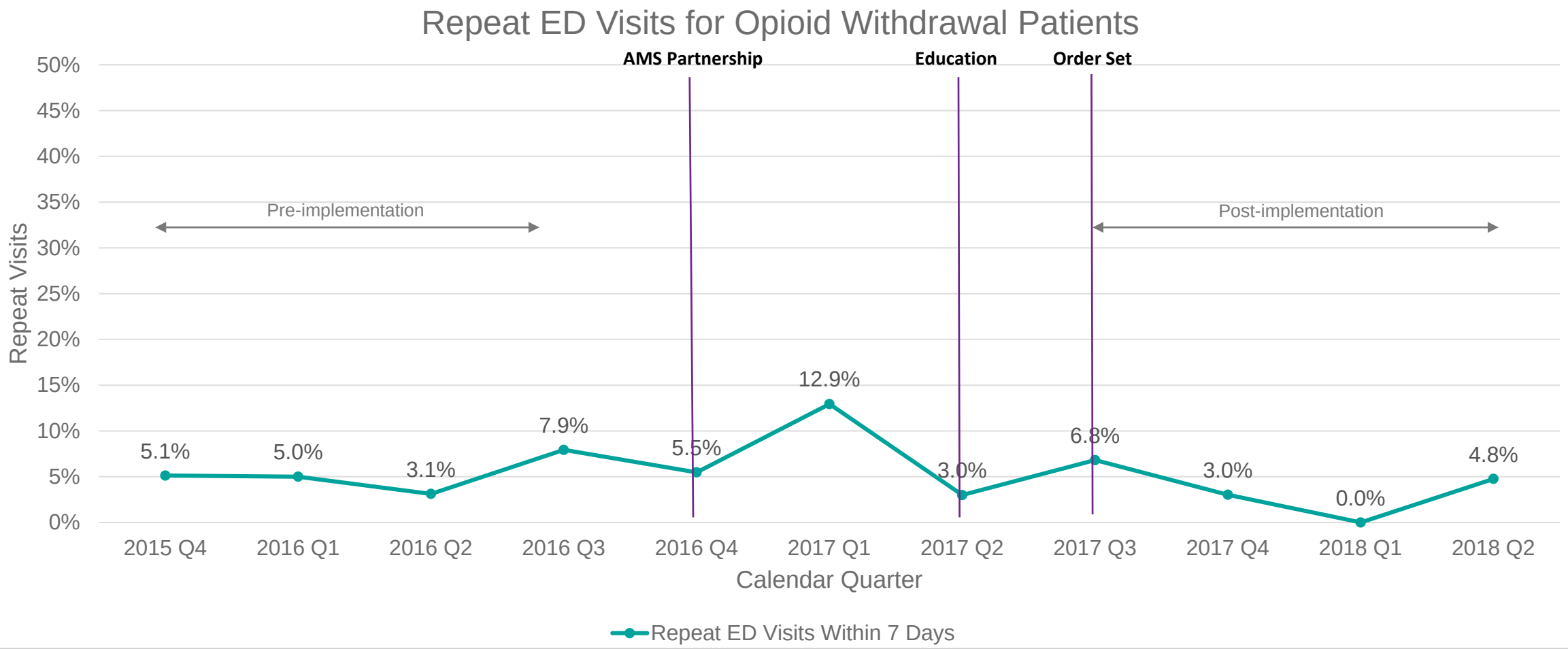
Post-Implementation Adherence Data

	2015 Q4 – 2016 Q3	2017 Q3 – 2018 Q2
Clonidine Initiations	20.8%	8.5%
Buprenorphine Initiations	8.5%	28.4%

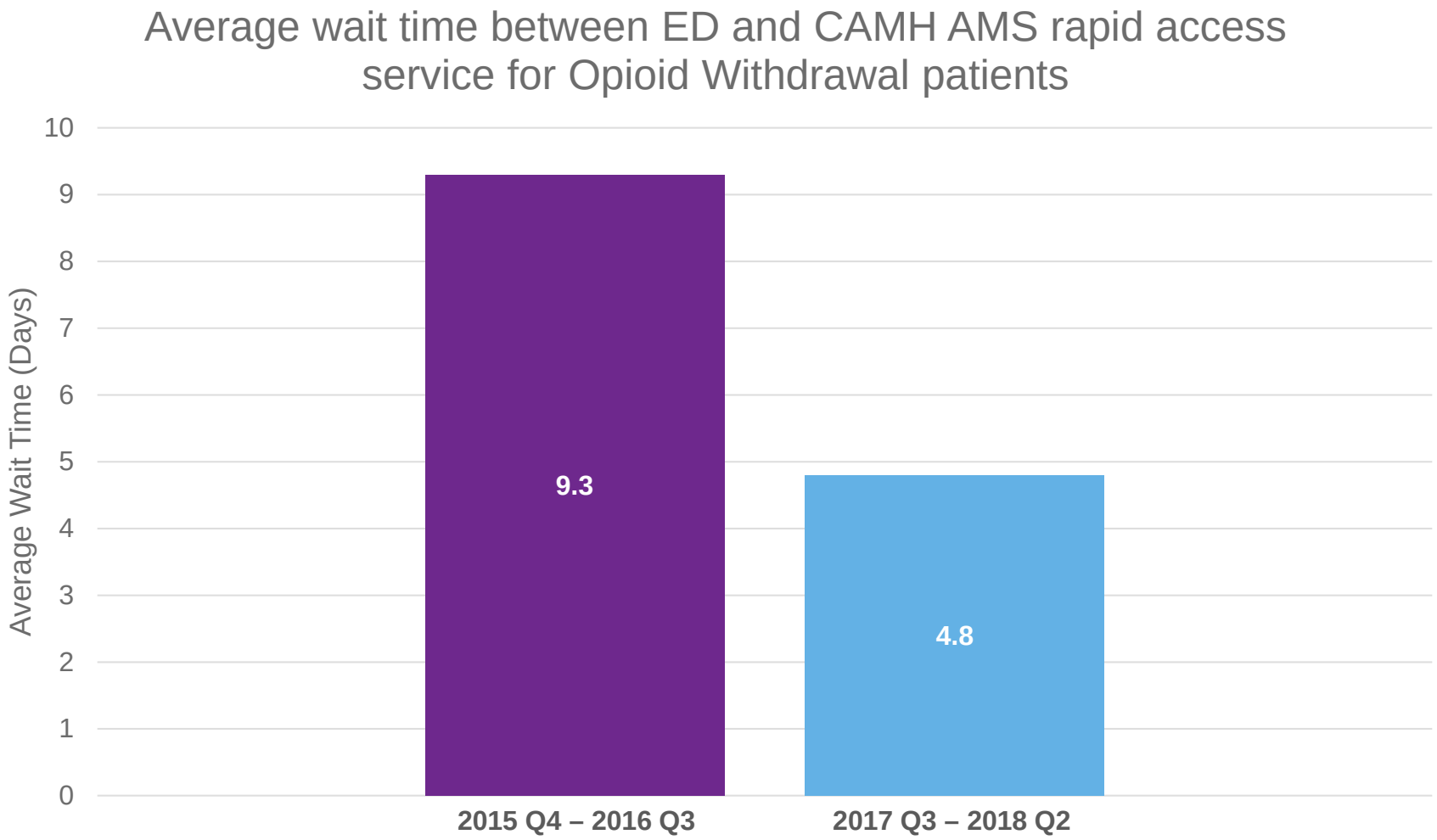


Post-Implementation Outcome Data

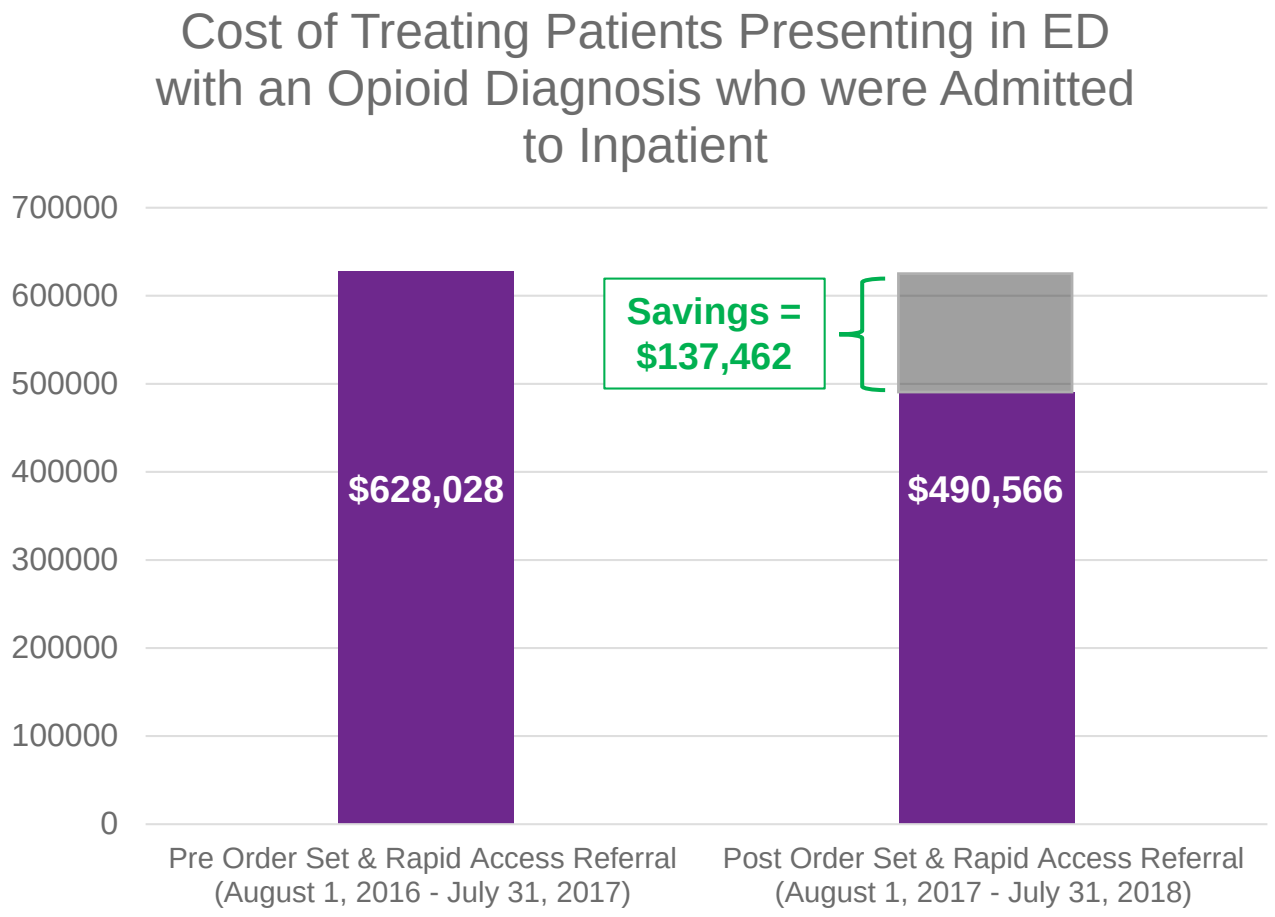
	2015 Q4 – 2016 Q3	2017 Q3 – 2018 Q2
Repeat ED Visits within 7 days	5.31%	3.96%



Post-Implementation Outcome Data



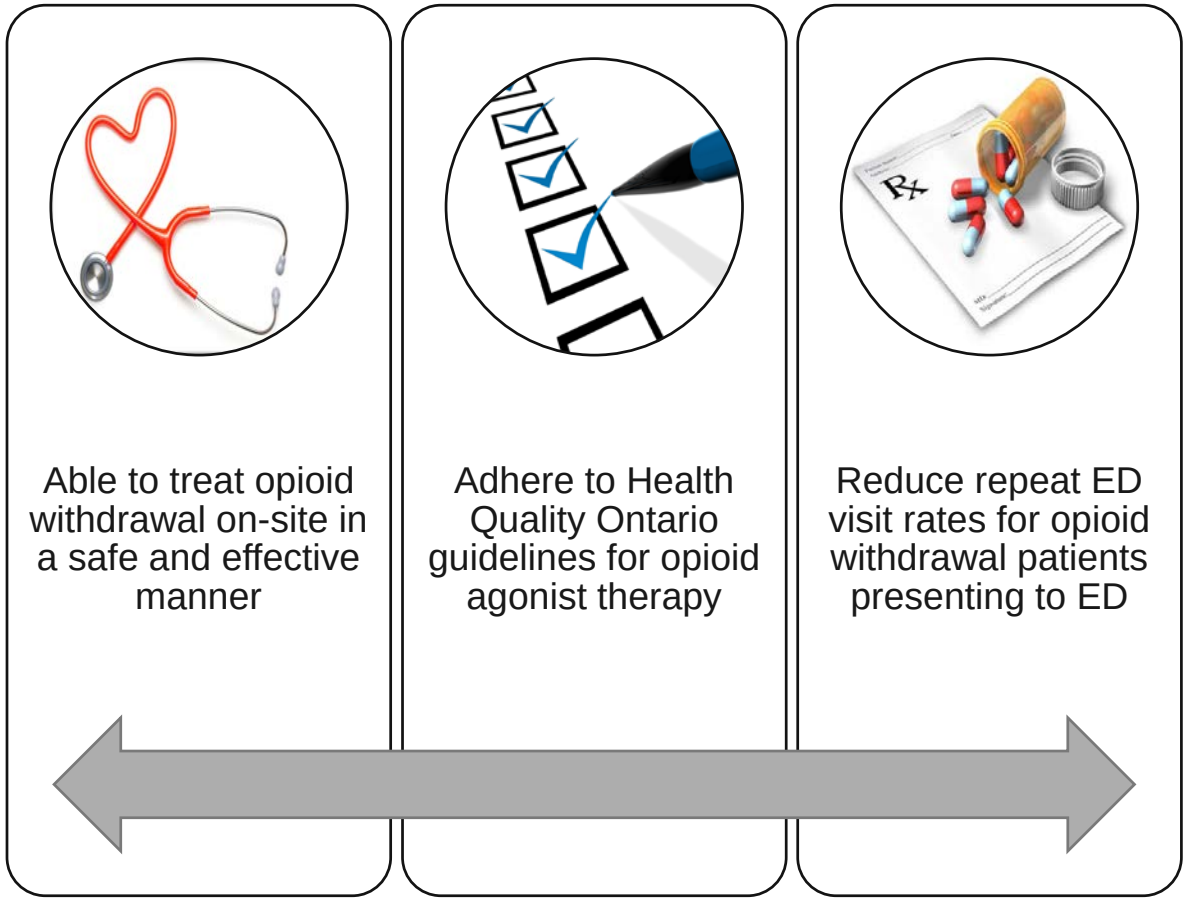
Return on Investment



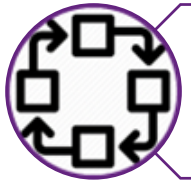
Twenty-four fewer patients with opioid withdrawal diagnoses were admitted to inpatient after improvements in care due to buprenorphine initiations.

(Cost of ED visit * # ED visits) + (# admitted to IP * LOS * IP day cost)

Return on Investment



Lessons Learned



Streamlining the ordering process has been beneficial to clinicians while emergency volumes increase

Ongoing efforts are required to ensure residents and clinicians are confident initiating treatments

Buprenorphine is the most supported treatment through research, but other medications are appropriate for some patients

Thank You

camh