2

Buprenorphine Order Set and Rapid Access Referral



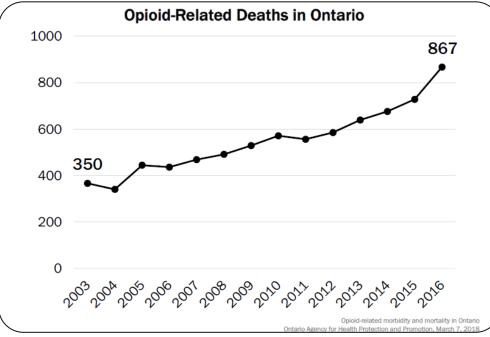
Agenda

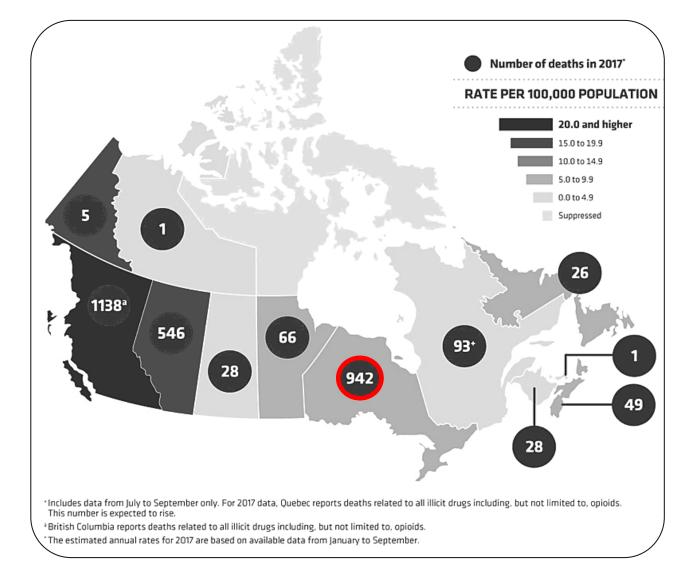
Local Problem	Design and Implementation	How Health IT was Used	Value Derived
Problem Identification / Importance Baseline Workflow Baseline Data	Objectives Solution Selection Interventions End-User Involvement	Revised Workflow Solution Details	Effect of Interventions on Data Post-Implementation Adherence Data Post-Implementation Outcome Data Return on Investment

Local Problem Design and How Health IT Value Derived

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

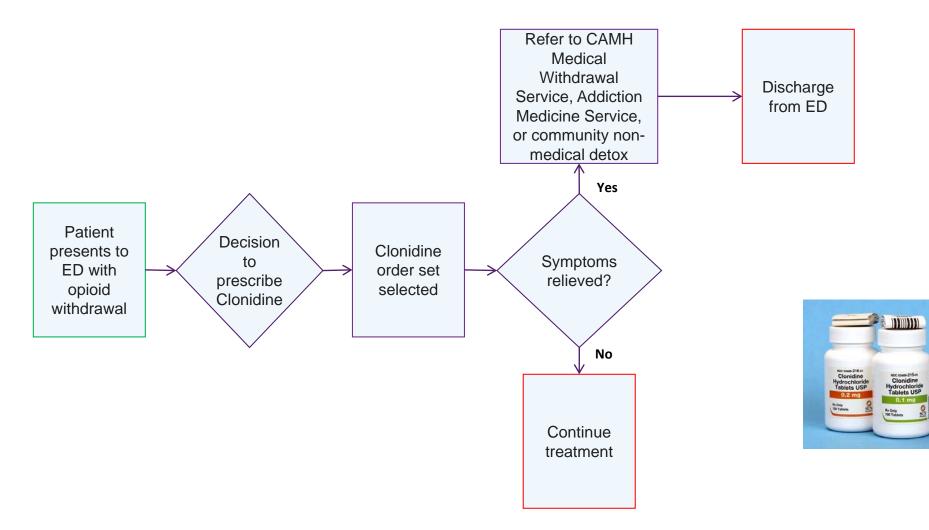
- CAMH provides Clonidine (comfort measure) as a treatment for individuals presenting to the Emergency Department (ED) with opioid withdrawal
- There is an additional treatment for opioid withdrawal (buprenorphine)

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

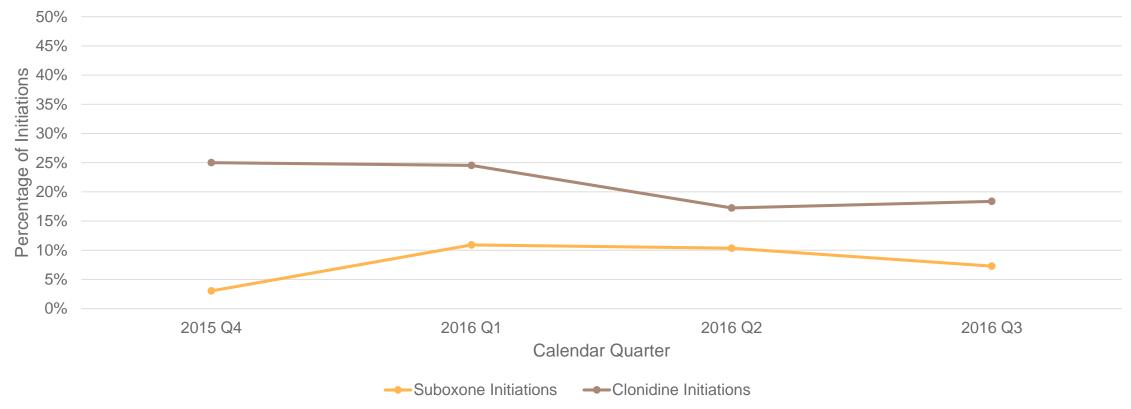


Local Problem	Design and Implementation	How Health IT was Used	Value Derived
---------------	------------------------------	---------------------------	---------------

Baseline Data

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

Percentage of Initiations for Opioid Withdrawal Patients



Local Problem Design and Inplementation How Health IT Value Derived

Objectives



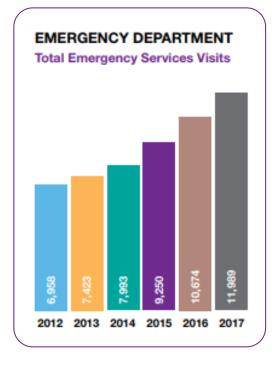
Standardize pathway and treatment protocol for buprenorphine



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

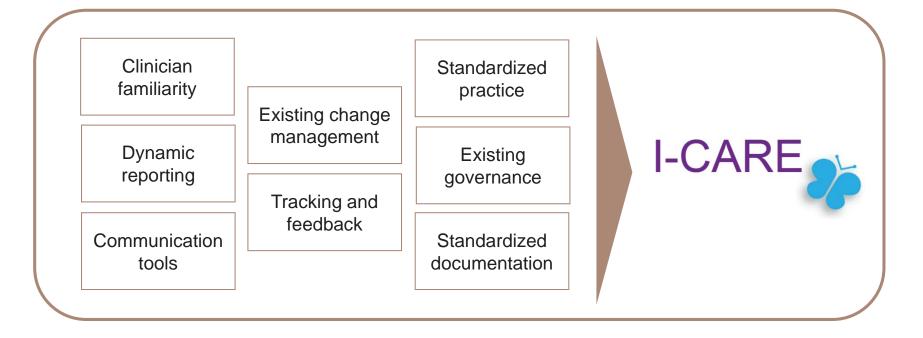


Solution Selection

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)

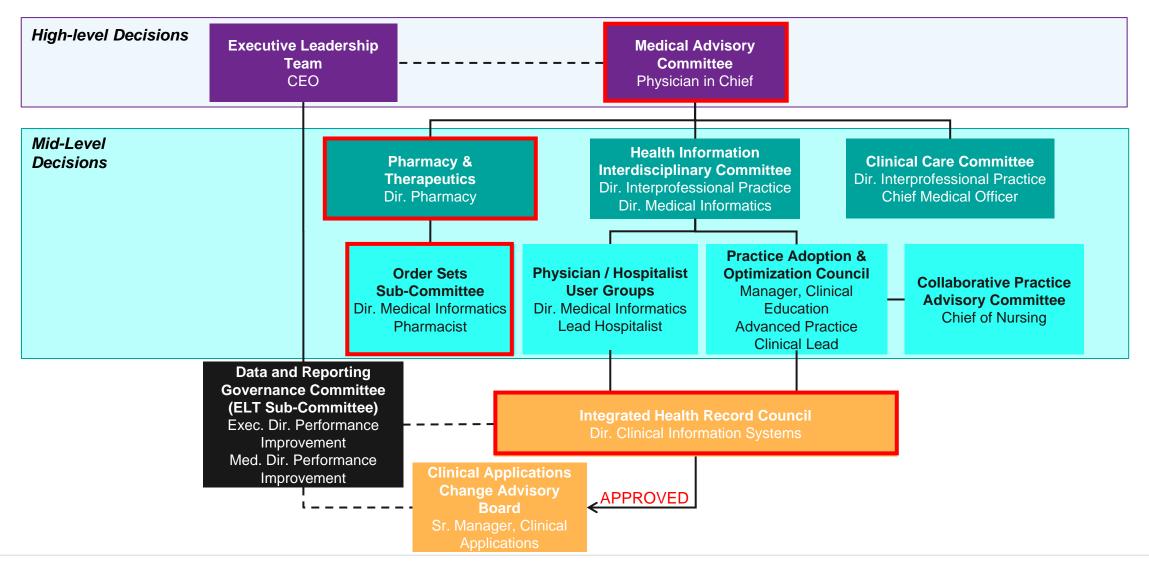


Education Sessions

 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



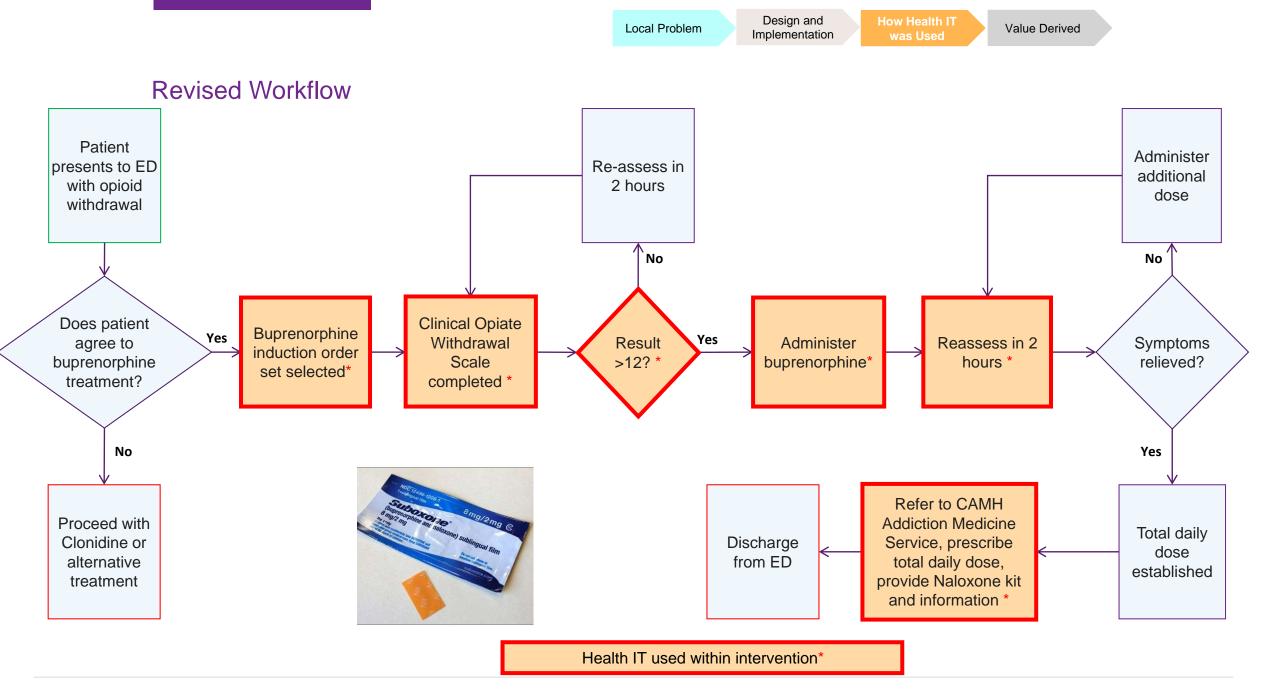
** Advisory / Working Groups established as required

Copyright © 2017, CAMH

Local Problem	Design and	How Health IT	Value Derived
	Implementation	was Used	value Derived

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



	Local Problem Design and Implementation	How Health IT was Used Value Derived
Suboxone Order Set		Buprenorphine Order Set
Withdrawal Scale guid Emergency Department Suboxone Induction Order Set (Initiated Pending) △ △ Assessment & Monitoring ◇ ◇ Note: Suboxone may be initiated for opioid use disorder treatment even after acute ◇ For pregnant women: Methadone historically has been the preferred choice, but Su Service (AMS) to discuss all available opiate maintenance therapy options at first m	boxone is also a possibility. Suboxone may be initiated in ED after discussion of risks and eeting with Client/Patient. hould be ordered. Treatment may be modified by the AMS physician if pregnancy test is T;N, Routine, g2hr, Discontinue Suboxone Order Set when COWS score 12 or less and T;N, Routine, g2hr	
 Medications ***DO NOT order benzodiazepine to control opiate withdrawal*** Administer buprenorphine/naloxone if: COWS score more than 12 Client/Patient is not on methadone or buprenorphine/naloxone 		
 Administer buprenorphine/naloxone 2 mg if: elderly on high benzodiazepine dose or if not sure that Client/Patient is in withdrawal Continue to re-assess q1-2hr. Administer another buprenorphine/naloxone 2 - 4 mg 	n SL if still in significant withdrawal.	
COWS score not needed for second dose Cows score not needed for second dose buprenorphine-naloxone (Suboxone) Laboratory Services	2 mq, Sublingual, Form: Tab-SL, q2hr, PRN symptoms of opioid withdrawal, 24hr Ma 4 mq, Sublingual, Form: Tab-SL, q2hr, PRN symptoms of opioid withdrawal, 24hr Ma	
Immunoassay Drug Screen (Urine Drug Screen) Immunoassay Drug Screen (Urine Drug Screen) Immunoassay Drug Screen (Urine) Immunoassa		
Referral to Addiction Medicine Service (Request to Ad Rapid Access Referral Free Naloxone kit flyer	Not available in the order catalog. Dosage options	

was Used

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 Tota	al Score	Score: 5-12 = mild; 13-24 = moderate; 25-36 = moderately severe; More than 36 = severe withdrawal
	Automated scoring K	ey

COWS

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

Local Problem	Design and	How Health IT	Value Derived
	Implementation	was Used	value Derived

Rapid Access Referral

■ Details for Refe	Details for Referral to Addiction Medicine Service				
🚰 Details 膭 Order (Comments 🛛 🕐 Offset Details 🗋 🗟 Diagnoses				
+ * h. 🗜	$\mathbf{\hat{\mathbf{x}}}$				
Date/Time:	**/**/****	*Priority:	Routine 🗸		
*Area of Concern:	Rapid Access 🗸	*Referral Reason:	Treatment for Opioid Use 🗸		
Special Instructions:	Alcohol Benzoid Opioid GHB Pain and Chemical ICP-Major Depression & Alc. Dep (16 wk) MWS Follow-up Rapid Access Other				
		Rapid access auto- populates			

Local Problem	Design and Implementation	How Health IT was Used	Value Derived	
---------------	------------------------------	---------------------------	---------------	--

Effect of Interventions on Data



AMS Partnership



Education Sessions

Order Set and Pathway

- Partnership between CAMH ٠ Addiction Medicine Service and Emergency Department to build capacity for addictions treatments, including buprenorphine (Nov 2016 – Mar 2017)
- Effect

16

Intervention

- Created clinical awareness ۰
- Generated familiarity and comfort with prescribing opioid agonist therapy

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)

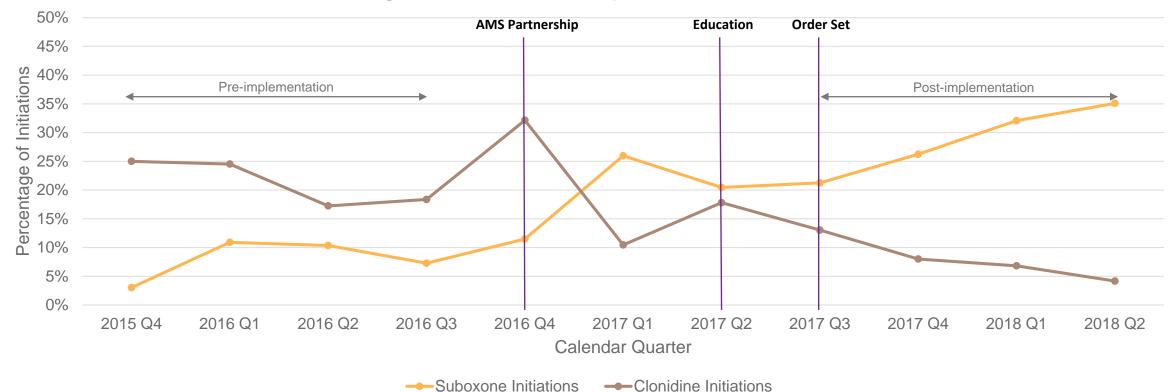
Created practice guidelines to educate staff about buprenorphine and its use within opioid withdrawal and maintenance therapy

- Created clinical awareness and enforced regulations to standardize practice for buprenorphine patients
- Provided rapid access referral option to support evidencebased 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%

Percentage of Initiations for Opioid Withdrawal Patients

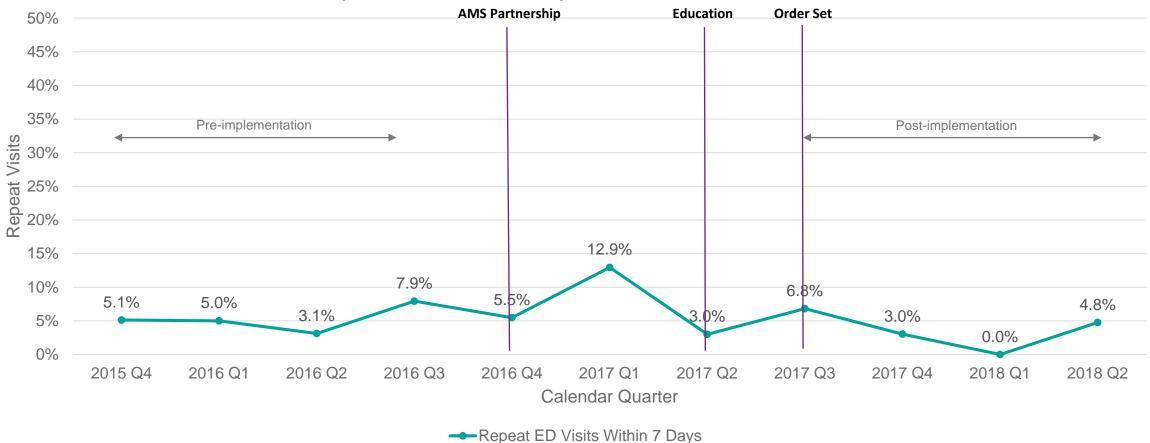


Local Problem	Design and Implementation	How Health IT was Used	Value Derived	
---------------	------------------------------	---------------------------	---------------	--

Post-Implementation Outcome Data

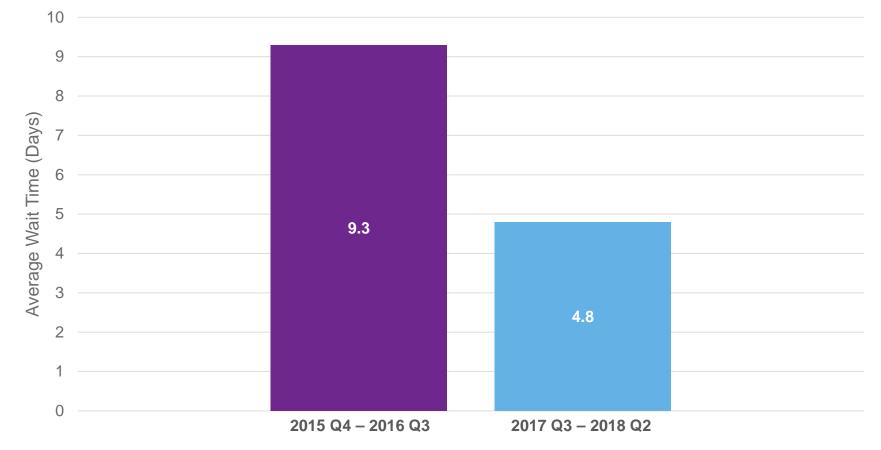
	2015 Q4 – 2016 Q3	2017 Q3 – 2018 Q2
Repeat ED Visits within 7 days	5.31%	3.96%

Repeat ED Visits for Opioid Withdrawal Patients



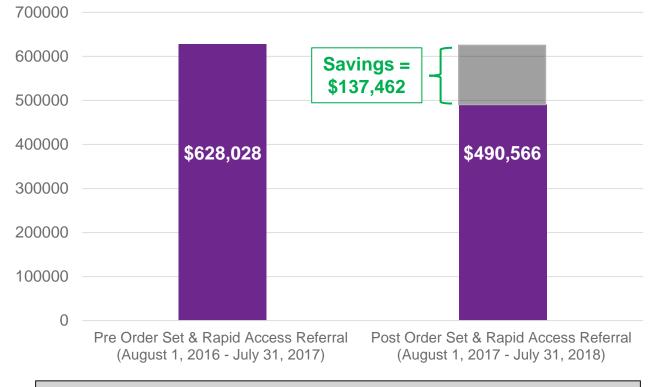
Post-Implementation Outcome Data

Average wait time between ED and CAMH AMS rapid access service for Opioid Withdrawal patients



Return on Investment

Cost of Treating Patients Presenting in ED with an Opioid Diagnosis who were Admitted to Inpatient

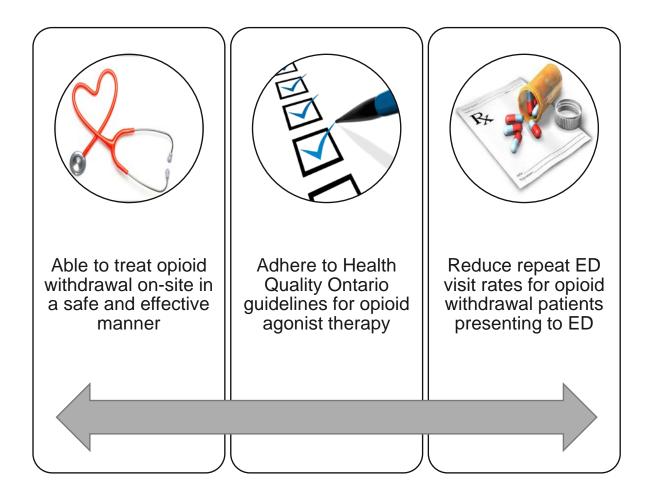


Twenty-four fewer patients with opioid withdrawal diagnoses were admitted to inpatient after improvements in care due to buprenorphine initiations.

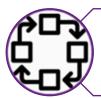
(Cost of ED visit * # ED visits) + (# admitted to IP * LOS * IP day cost)

Local Problem Design and Implementation Was Used	Value Derived	
--	---------------	--

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

