BRITISH COLUMBIA
CENTRE *for* EXCELLENCE
in HIV/AIDS

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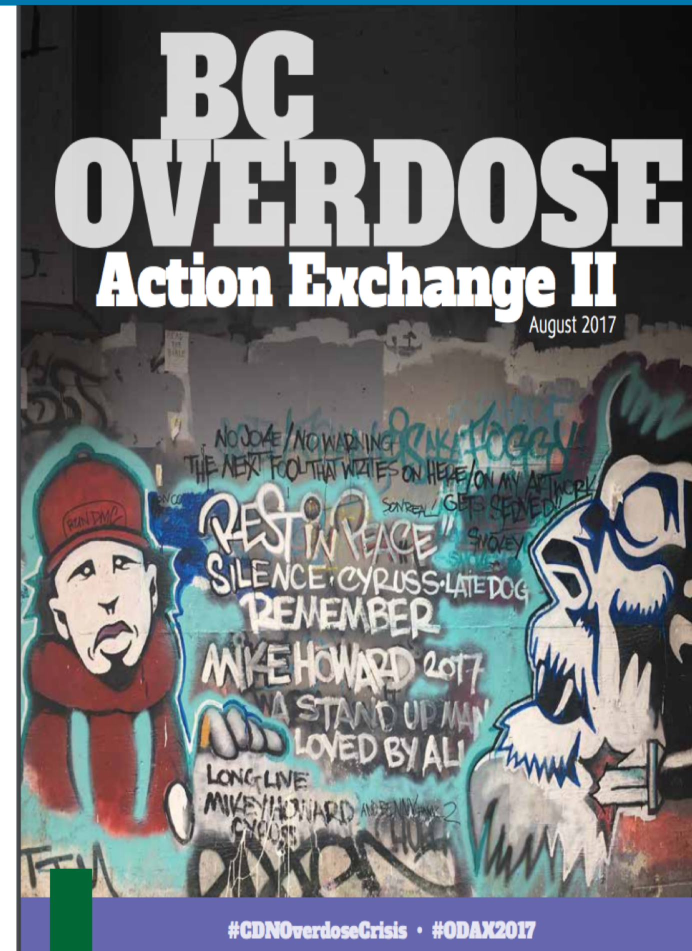
Thursday, January 17th, 2019

Outline

- Science
- Gaps in care
- Quality improvement journey for Vancouver
- What success looks like
- Room for improvement

What can we do about the OD crisis?



http://www.bccdc.ca/resource-gallery/Documents/bccdc-overdose-action-screen.pdf

Health officials eye injectable addiction treatment that could 'turn the tide of the opioid epidemic'

Sublocade has been approved by Health Canada

Jon Hernandez · CBC News · Posted: Jan 17, 2019 3:00 AM PT | Last Updated: 5 hours ago

Sublocade is injected once a month, warding off opioid cravings and withdrawl symptoms. (Sublocade.com)

The science exists...

OPEN ACCESS

Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies

Luis Sordo,[1,2,3] Gregorio Barrio,[4] Maria J Bravo,[1,2] B Iciar Indave,[1,2] Louisa Degenhardt,[5,6]

Opioid Agonist Therapy (methadone or buprenorphine) is effective in suppressing illicit opioid use and reducing all cause and overdose mortality

The induction phase and the time immediately after leaving treatment with both drugs are periods of particularly increased mortality risk.

[6]Melbourne School of Population and Global Health, University of Melbourne, Melbourne, Australia

[7]Sector Best Practices, Knowledge Exchange and Economic Issues, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Lisbon, Portugal

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Additional material is published online only. To view please visit the journal online.

Cite this as: BMJ 2017;357:j1550
http://dx.doi.org/10.1136/bmj.j1550

Accepted: 17 March 2017

causes or overdose during follow-up periods in and out of opioid substitution treatment with methadone or buprenorphine.

DATA EXTRACTION AND SYNTHESIS

Two independent reviewers performed data extraction and assessed study quality. Mortality rates in and out of treatment were jointly combined across methadone or buprenorphine cohorts by using multivariate random effects meta-analysis.

RESULTS

There were 19 eligible cohorts, following 122 885 people treated with methadone over 1.3-13.9 years and 15 831 people treated with buprenorphine over 1.1-4.5 years. Pooled all cause mortality rates were 11.3 and 36.1 per 1000 person years in and out of methadone treatment (unadjusted out-to-in rate ratio 3.20, 95% confidence interval 2.65 to 3.86) and reduced to 4.3 and 9.5 in and

on opioids. The induction phase onto methadone treatment and the time immediately after leaving treatment with both drugs are periods of particularly increased mortality risk, which should be dealt with by both public health and clinical strategies to mitigate such risk. These findings are potentially important, but further research must be conducted to properly account for potential confounding and selection bias in comparisons of mortality risk between opioid substitution treatments, as well as throughout periods in and out of each treatment.

Introduction

Opioid dependence is a rising drug use disorder with substantial contribution to the global disease burden. The absolute number (age standardised prevalence) of people with opioid dependence worldwide increased from 10.4 million (0.20%) in 1990 to 15.5 million (0.22%)

Receiving treatment

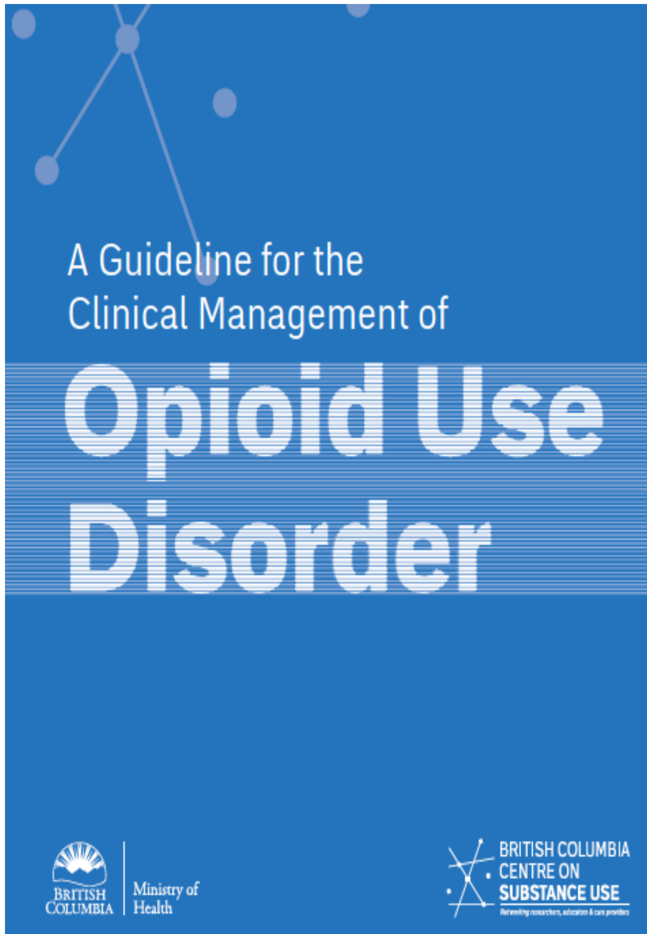
Untreated

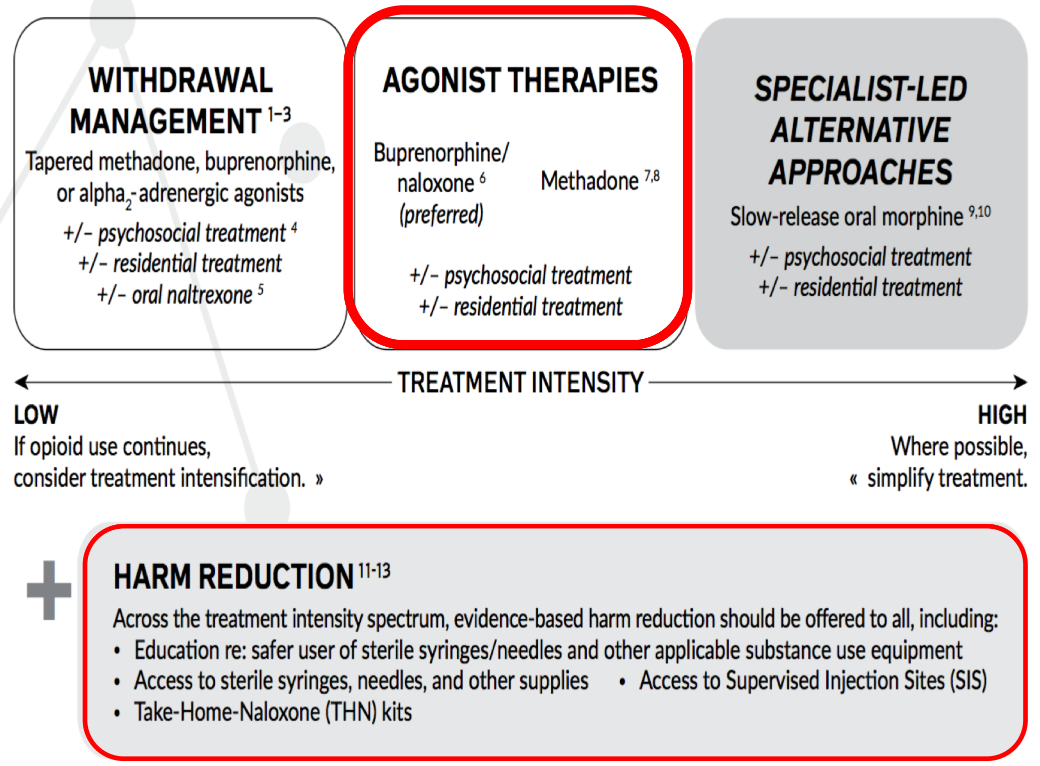
"…the all-cause mortality rate for patients receiving methadone maintenance treatment was similar to the mortality rate for the general population, whereas the mortality rate of untreated individuals using heroin was more than 15 times higher."

Modesto-Lowe et al., 2010; Gibson, 2008; Mattick, 2003; Bell and Zador, 2000; Marsch, 1998

https://www.bmj.com/content/357/bmj.j1550

Clinical Management Guidelines



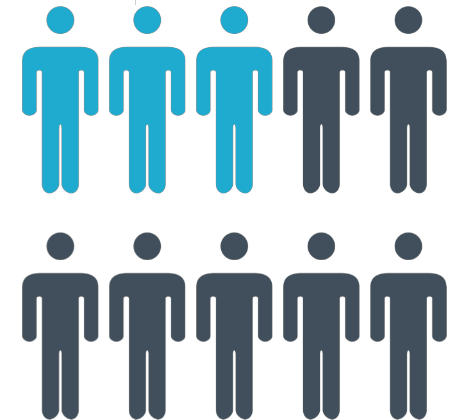


http://www.bccsu.ca/wp-content/uploads/2017/06/BC-OUD-Guidelines_June2017.pdf

BC OPIOID SUBSTITUTION TREATMENT SYSTEM

Performance Measures
2014/2015 - 2015/2016

55%	Receiving a Stabilization Dose of Methadone
42%	Retained at 6 months
32%	Retained at 12 months



March 2017

Office of the Provincial Health Officer

https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/reports-publications/special-reports/bc-ost-system-measures-14-15-and-15-16.pdf

BOOST
Best-Practices in Oral Opioid agoniSt Therapy Provincial Collaborative

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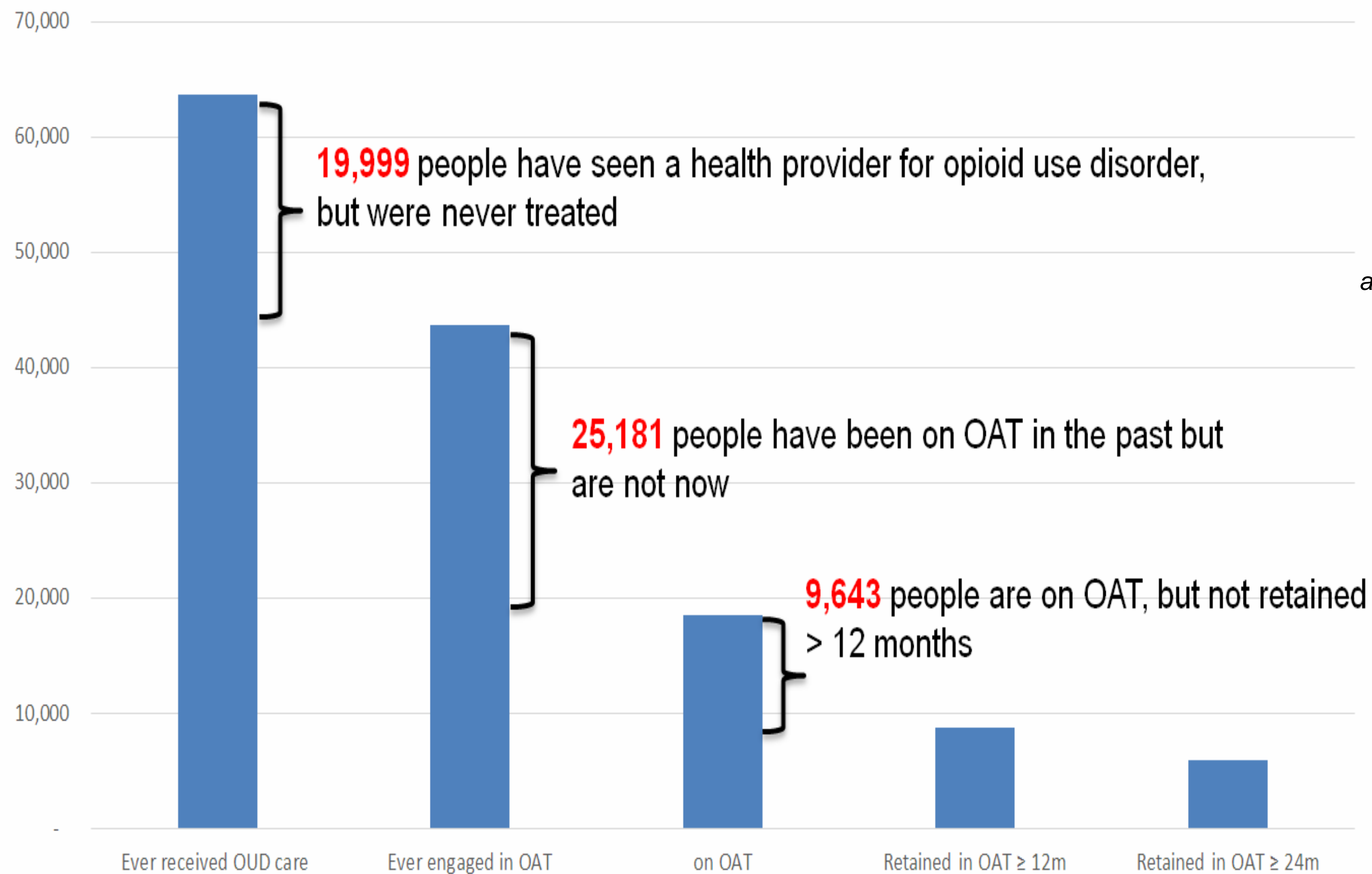
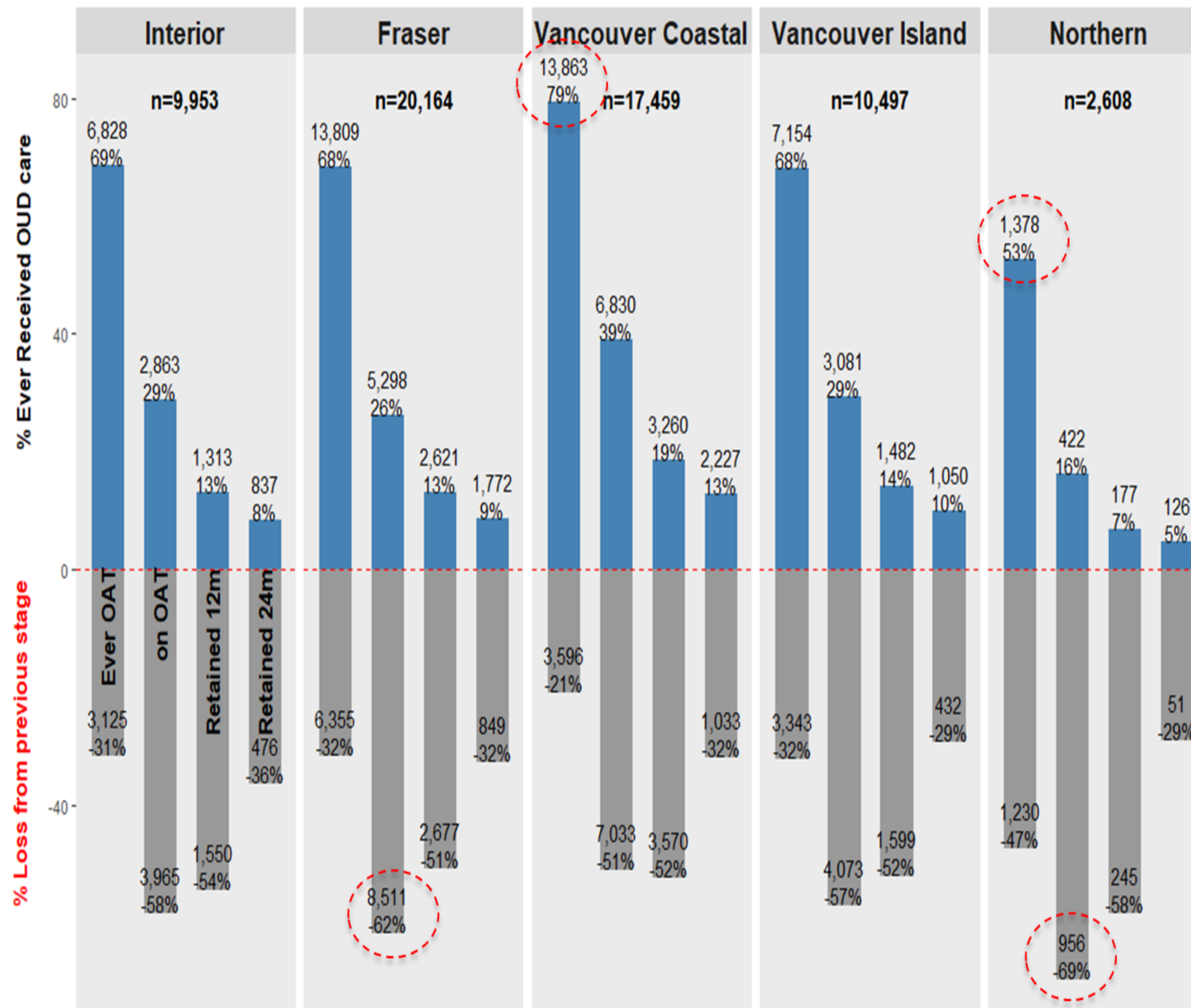
OUD cascade of care: >80% ARE ON OAT



Bohdan Nosyk
On behalf of the Health Economic Research Unit at the BC Centre for Excellence in HIV/AIDS

OUD cascade of care



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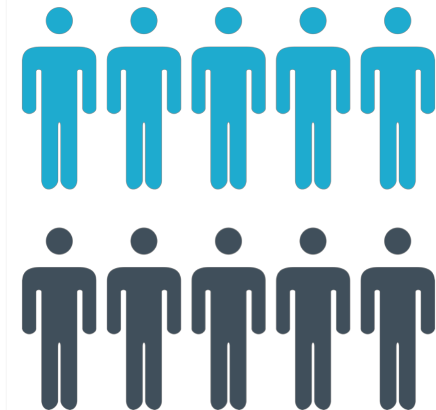
OPEN

Evaluating the Effectiveness of First-Time Methadone Maintenance Therapy Across Northern, Rural, and Urban Regions of Ontario, Canada

Joseph K. Eibl, PhD, Tara Gomes, MHSc, Diana Martins, MSc, Ximena Camacho, MMath, David N. Juurlink, MD, Muhammad M. Mamdani, PharmD, Irfan A. Dhalla, MD, and David C. Marsh, MD

17,211	Patients on the Ontario Drug Database
49%	Retained at 12 months – Northern Rural Region
47%	Retained at 12 months – Northern Rural Region
40.6	Southern Urban and Rural Regions



J Addict Med, 2015; 9(6): 440 -446

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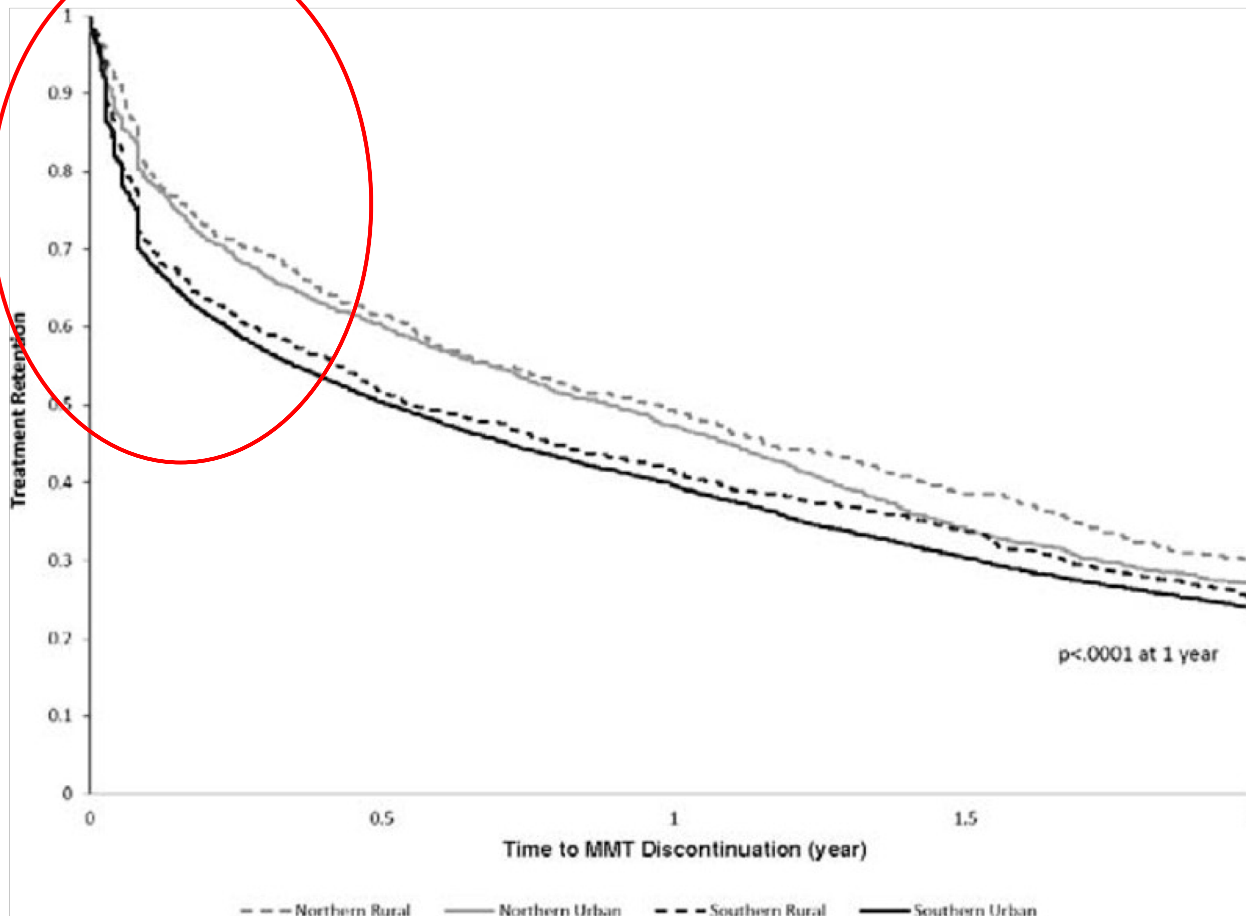
Time to discontinuation



J Addict Med, 2015; 9(6): 440 -446

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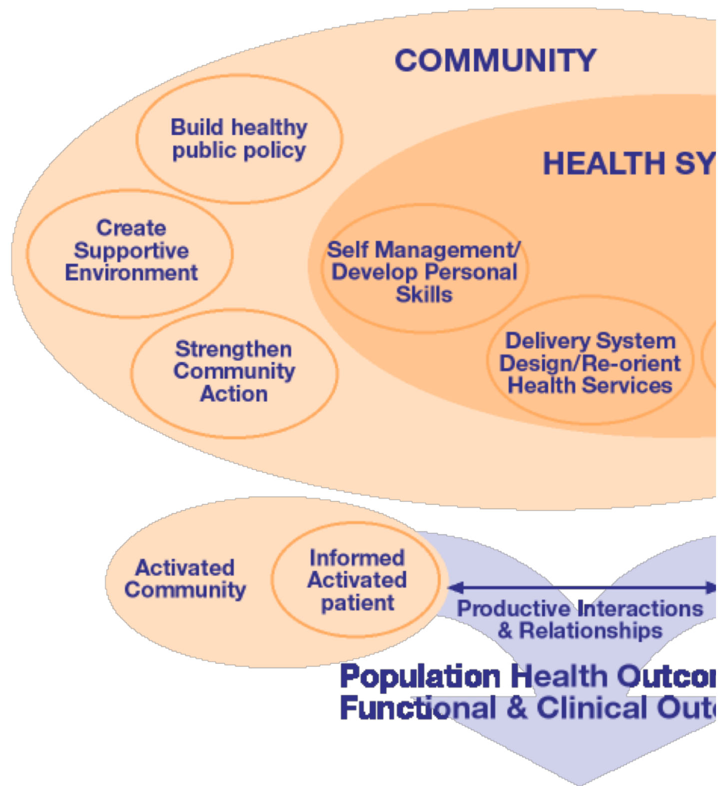
“Opioid use disorder is best conceptualized as a chronic relapsing illness..”



Created by: Victoria Barr, Sylvia Robinson, brenda Marin-Link, Lisa Underhill, An
Adapted from Glasgow, R., Orleans, C., Wagner, E., Curry, S., Solberg, L. (2001). Does t
improving prevention? The Milbank Quarterly. 79(4), and World Health Organization, H
Association. (1986). Ottawa Charter of Health Promotion.

Essential elements of the Chronic Care Model - Health Care Organization

- Self-management support
- Delivery system design
- Decision support
- Clinical information systems
- Community-based treatment and resources

September 2017 – December 2018 QI Journey

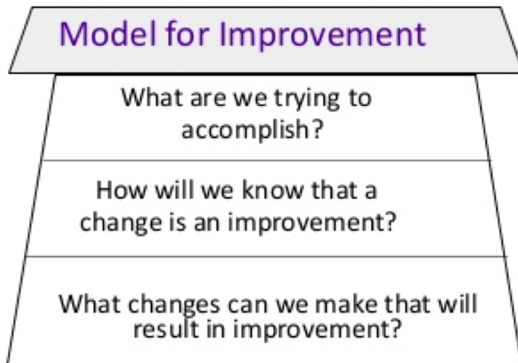
17 teams

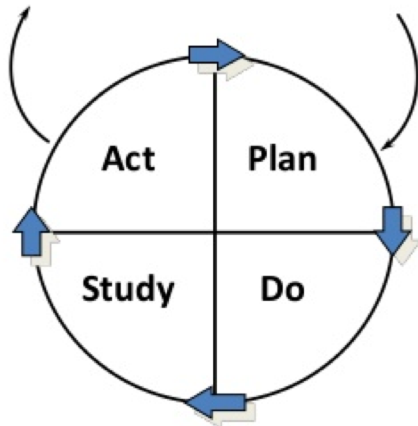
Various services:

- **Primary Care**
- **Substance Use**
- **Mental Health**

Supported by stabilization and outreach services

What were we trying to accomplish?





Aims

To provide equitable access to integrated, evidence-based care to help our population of clients with opioid use disorder

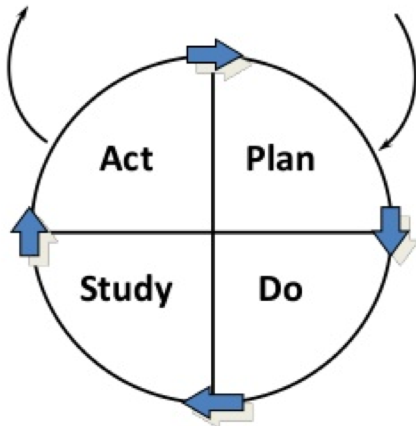
How will we know that a change is an improvement?

Model for Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

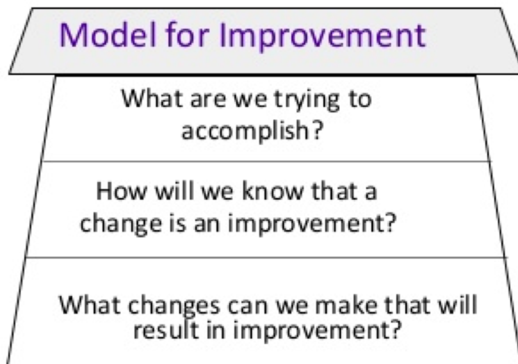
What changes can we make that will result in improvement?



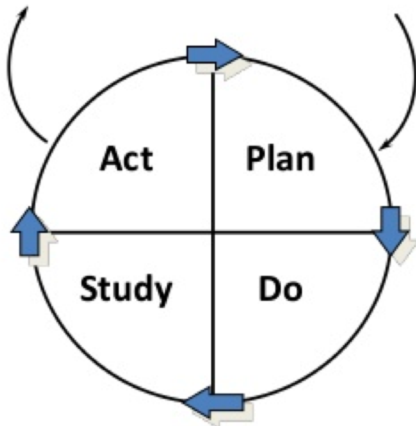
Measurements

- **95% initiated on OAT**
- **95% retained in care (OAT) for ≥3 months**
- **50% average improvement in Quality of Life score**

What changes can we make that will result in improvement?



Change ideas



The Improvement Guide
Langley et al (1996)

Examples of changes ideas tested: Diagnosis and Treatment Initiation

Appointment reminder calls

Open up drop-in times

Liaising with Stabilization clinics

Examples of small changes
Treatment Retention

New starts and lost to care outreach

Develop a process not to end prescriptions on a Friday

Collaboration with other clinics for bridging prescriptions

Sending a letter to the pharmacy with client to ensure notification of missed doses

Decision Support Tools: Standardized clinical data entry

Tracking

- Standard diagnostic code
- Retention on therapy
- THN training
- Pharmacy info

OUD Visit Template for TEST, CABLE
Save | Save and Close | DSI
304.0 Opioid Use Disorder (OUD) added to Problem List (click on checkbox to add)
Primary OAT Site External (not In our EMR) Primary OAT Site Portland Hotel Society

Primary OAT Prescription

		Last Entry1 04 May 2018	Last Entry2 25 Apr 2018
OAT:		Methadone	Methadone
Daily dose (mg):		110 Qty: 1650	100 Qty: 800
Start Day:		04 May 2018	25 Apr 2018
Last Day:		18 May 2018	02 May 2018
Rx Duration (days):		15 (days)	8 (days)
Carry Directions:	DWI CARRIES	DWI	DWI
Witnessed Ingestion:			
Direction For Use:		no carries	no carries
		Dose increase	Dose unchanged
Treatment stage comment		split dosing for two different pharmacies for travelling	

Graph | Copy From Last Entries | Create Rx

Supplementary Prescription Show

		Last Verified Date	Verified Today?
Yes	Has THN kit	04 May 2018	
Yes	Has THN training	24 Nov 2017	
Yes	Has access to harm reduction supplies	20 Oct 2017	
Yes	Aware of supervised consumption sites	20 Oct 2017	

PROMIS Quality of Life Latest score 28 Date 04 May 2018 First score 28 Date 04 May 2018

Linkage to social work/counselling discussed
Last checked: 04 May 2018
plans to see SW for help with housing application

Treatment course
Client ever been on OAT?
First ever start date
Most recent OAT start date
OAT duration

Visit Checklist
Pharmanet Reivewed
Any ORT missed doses in la
If yes, describe:
Current substance use
Last Checked: 04 May 201
small amt crack, heroin on
ODs in the last 30 days?

Care Team Role
Pharmacy (Supplier) - Pre...

Rapid UDS Results Cum
Cocaine: Positive
Amphetamines: Positive
Methadone: Positive
Opioids: Positive
Oxycodone: Positive
Benzodiazepines: Positive
Fentanyl: Positive
Buprenorphine: Positive

Print | Defaults | Set | Reset | 7

PLEASE PRINT
PERSONAL HEALTH NO.
PRESCRIBING DATE 12 Sep 2017
PATIENT NAME FIRST INITIAL LAST
ADDRESS STREET
VANCOUVER BC
DATE OF BIRTH 27 Apr 2000
Rx: DRUG NAME AND STRENGTH METHADONE 10 mg/ml
PRESCRIBER'S SIGNATURE
QUANTITY NUMERIC 700 mg ALPHA SEVEN HUNDRED mg
START DAY: 12 Sep 2017 LAST DAY: 18 Sep 2017
100 mg/day
CIRCLE ONE DWI or CARRIES
SPECIFY NUMBER OF DAYS PER WEEK OF WITNESSED INGESTION IN PHARMACY
7 (SEVEN)
DIRECTIONS FOR USE METHADONE
PRESCRIBER'S SIGNATURE
PRESCRIBER'S INFORMATION
CPSID
FOLIO
PHARMACY USE ONLY
RECEIVED BY: PATIENT OR AGENT SIGNATURE
SIGNATURE OF DISPENSING PHARMACIST

Practice/Patient Reports

20180830_BOOST_ALL_ID-removed.xlsx - Microsoft Excel

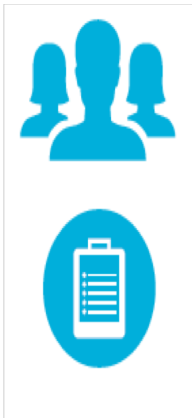
A2041 RAA

1	Primary OAT Si	I	First	PA	Fi	Primary OAT	Daily Dose	Rx Start	Rx End	Treatment Stage	Supp Rx Dat	Supp Rx	Has THN trainin	OAT Duratio	PC POS	Alt POS	MRP	AP	Form Da
2146	RSG												Yes	2	RSG		MNORBURY		5-Ma
2147	RSG												Yes	120	RSG		KBEI		8-Ma
2148	RSG												Yes	482	RSG	EAS,RAS		MVILJOEN	30-A
2149	RSG												Yes	211	RSG	RAS	NEICHHORST		16-Ma
2150	RSG					Suboxone (bup/nal)				Dose unchanged			Yes	290	RSG	PEN,RAS	DCOETSEE		20-Au
2151	RSG												Yes	203	RSG		VKLASSEN		23-Ma
2152	RSG					Methadone				New start on OAT				154	RSG	MMU	CSTANLEY		20-Au
2153	RSG					Kadian (SROM)				Dose increase			Yes	161	RSG	PEN,MMU	CSTANLEY		20-Au
2154	RSG									Declines OAT					RSG	IYC,RAS	CSTANLEY		20-Au
2155	RSG									No prescription given					RSG	RSG	CSTANLEY		20-Au
2156	RSG									Declines OAT					RSG		SJASSAR		28-Au
2157	RSG												Yes	217	RSG	RAS	CDJURFORS		17-Ma
2158	RSG														RSG		NEICHHORST		27-A
2159	RSG												Yes	18	RSG	RAS,RAA			27-A
2160	RSG					Suboxone (bup/nal)				Dose unchanged			Yes	549	RSG	RAS	CSTORY		27-Au
2161	RSG														RSG		VKLASSEN		20-Au
2162	RSG					Methadone	1	1-Jun-18	3-Jun-18	Dose decrease - self-imposed			Yes	1027	RSG		MNORBURY		28-Ma
2163	RSG					Methadone	30	4-Jun-18	11-Jun-18	Restart on OAT			Yes	0	RSG		MNORBURY		4-Ju
2164	RSG					Methadone	30	10-Jun-18	18-Jun-18	Restart on OAT			Yes	0	RSG		AREMOCKER		10-Ju
2165	RSG					Methadone	30	11-Jun-18	18-Jun-18	Restart on OAT			Yes	0	RSG	MMU	MNORBURY		11-Ju
2166	RSG					Suboxone (bup/nal	2	21-Jun-18	27-Jun-18	Dose increase			Yes	112	RSG	STR	VKLASSEN		21-Ju
2167	RSG					Suboxone (bup/nal	14	1-Jul-18	10-Jul-18	Dose unchanged			Yes	50	RSG	IYC,MMU,STP,CPS,RS	CDJURFORS	WCONNORS1	17-J
2168	RSG					Methadone	2	11-Jul-18	17-Jul-18	Dose decrease for planned taper			Yes	101	RSG	PEN,RSG,HMH,DCH	CDJURFORS		10-J
2169	RSG					Suboxone (bup/nal	2	12-Jul-18	18-Jul-18	Restart on OAT	29-Jun-18	Suboxone (bup/nal)	Yes	0	RSG	EAS	DCOETSEE		11-J
2170	RSG					Suboxone (bup/nal	16	21-Jun-18	18-Jul-18	Dose unchanged			Yes	110	RSG		NEICHHORST		20-Ju
2171	RSG					Suboxone (bup/nal	3	17-Jul-18	23-Jul-18	Restart on OAT			Yes	0	TBR	RAS,RAA	MNORBURY		17-J
2172	RSG					Suboxone (bup/nal	16	28-Jun-18	25-Jul-18	Dose unchanged			Yes	10	RSG		DCOETSEE	MVILJOEN	28-Ju
2173	RSG					Suboxone (bup/nal	2	19-Jul-18	25-Jul-18	Restart on OAT			No	0	RSG	SAS,MMU	VMTONG		19-J
2174	RSG					Methadone	37	13-Jul-18	26-Jul-18	Dose decrease - self-impose	12-Jul-18	Methadone	Yes	741	RSG		JBEAVERIDGE		12-J
2175	RSG					Suboxone (bup/nal	16	21-Jul-18	26-Jul-18	Dose unchanged			Yes	80	RSG		DCOETSEE		21-J
2176	RSG					Suboxone (bup/nal	10	12-Jul-18	8-Aug-18	Dose unchanged			Yes	922	RSG		AREMOCKER		11-J
2177	RSG					Methadone	20	2-Aug-18	8-Aug-18	Restart on OAT				0	RSG		AREMOCKER		2-Au
2178	RSG					Kadian (SROM)	1100	22-Jul-18	10-Aug-18	Dose unchanged			Yes	316	RSG	MMU	GKO		22-J
2179	RSG					Kadian (SROM)	1100	22-Jul-18	10-Aug-18	Dose unchanged			Yes	316		MMU	GKO		22-J
2180	RSG					Kadian (SROM)	60	10-Aug-18	13-Aug-18	Restart on OAT			Yes	0	RSG		MNORBURY	KMATTHEIS	10-Au
2181	RSG					Suboxone (bup/nal	10	6-Aug-18	13-Aug-18	Dose increase			Yes	6	TBR	SAS	MNORBURY		5-Au
2182	RSG					Methadone	30	7-Aug-18	14-Aug-18	Restart on OAT			Yes	0	RSG	IYC,DTC	VKLASSEN		7-Au
2183	RSG					Methadone	100	14-Aug-18	14-Aug-18	Dose unchanged			Yes	2141	RSG		CSTANLEY		14-Au
2184	RSG					Suboxone (bup/nal	18	7-Aug-18	14-Aug-18	Dose increase			Yes	273	RSG	RAS	MBURNS		6-Au
2185	RSG					Methadone	30	8-Aug-18	14-Aug-18	Restart on OAT			Yes	0	RSG		DCOETSEE		8-Au

BOOST OUD QUERY

Teams can track improvement

A run chart…



100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

13-Jul 20-Jul 27-Jul 03-Aug 10-Aug 17-Aug 24-Aug 31-Aug 07-Sep 14-Sep

- Proportion with active OAT rx
- Proportion of active rx with MRSD
- Proportion on therapy >90d
- Proportion with recent expiry

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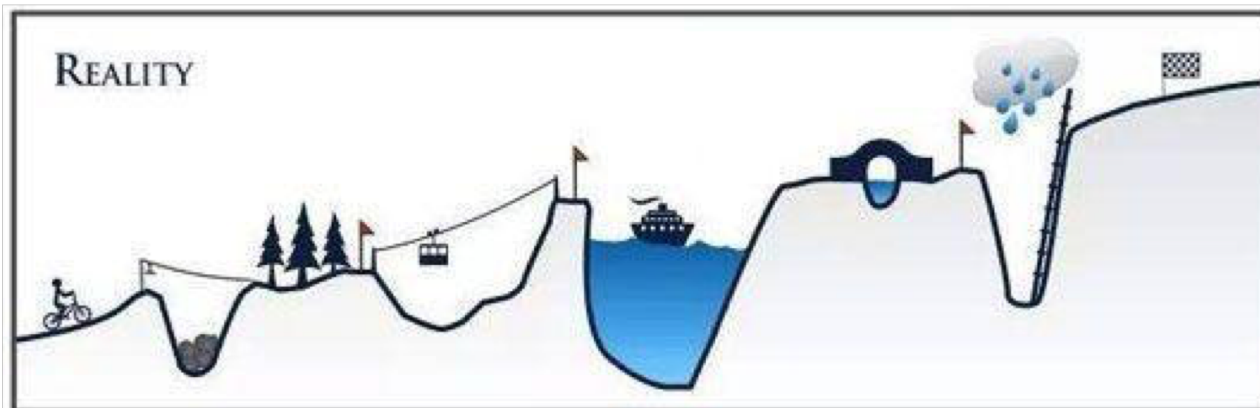
What our plan looks like



FINAL RESULTS (1):

Of those with Active 304.0 OUD: (N = 2532)*

84% With a documented encounter (OUD Form created)

62% With an active Rx for OAT

* Only participating teams from PC and Addictions Services

FINAL RESULTS (2)

30 – 40 % Baseline

~ 50% Ontario

~ 73% BOOST Teams (N= 1120)

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Increased QI Capacity

- Built confidence to test and implement innovative practice changes (PDSA)
- Built awareness on the importance of measurement and the skills to do this effectively in practice

16% are missing the OUD form

48% have no documented active OAT prescription

27% are not retained $\geq$ 3 months

THANK-YOU!

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