Best-Practices in
ORAL OPIOID AGONIST
THERAPY Collaborative

Teams at the frontlines of the opioid crisis are driving system change to improve care

March 21, 2018, 12:00pm

BRITISH COLUMBIA
CENTRE *for* EXCELLENCE
in HIV/AIDS

Vancouver
CoastalHealth

Speakers

Dr. Cole Stanley

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Medical Lead, Continuous Quality Improvement, Vancouver Coastal Health (VCH) Community

Family Physician, Raven Song Community Health Centre, VCH

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Disclosures

- Dr. Stanley
  - Travel grants received for conference attendance from the following
    - 2017 – Gilead Sciences
    - 2016 – Canadian Association for HIV Research (with support from Viiv), Gilead Sciences
- Dr. Barrios
  - 2015 - received speaker's fees from Gilead Sciences and Merck
- Mitigating bias
    - No discussion of specific HIV or Hep C therapy in today's talk


NO
PARKING

The opioid crisis

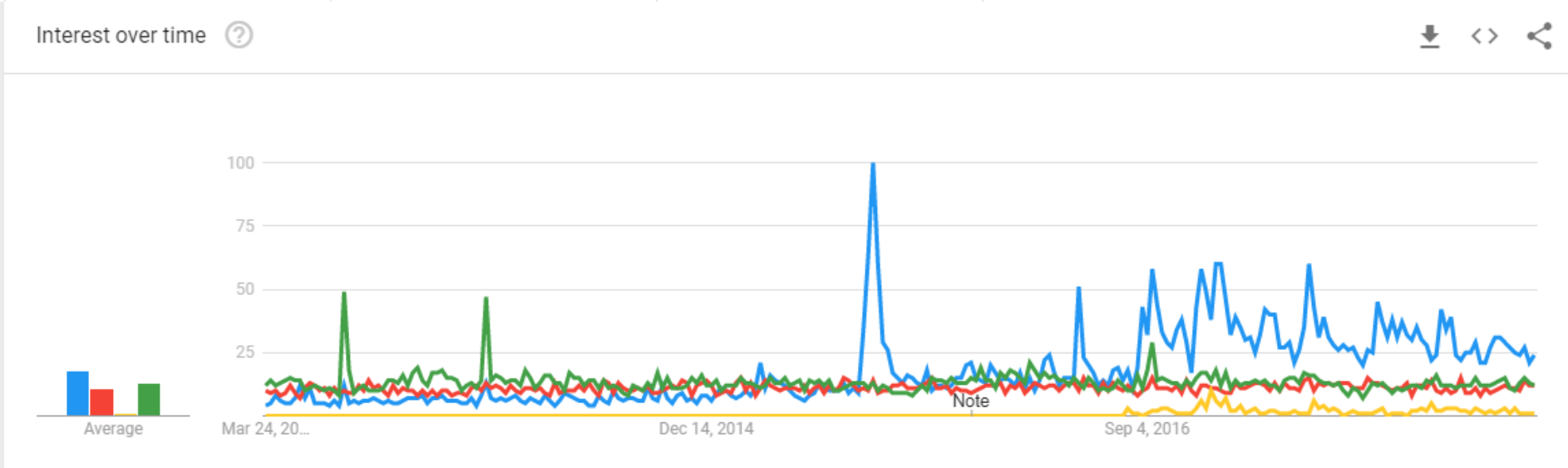
fentanyl
Search term

methadone
Search term

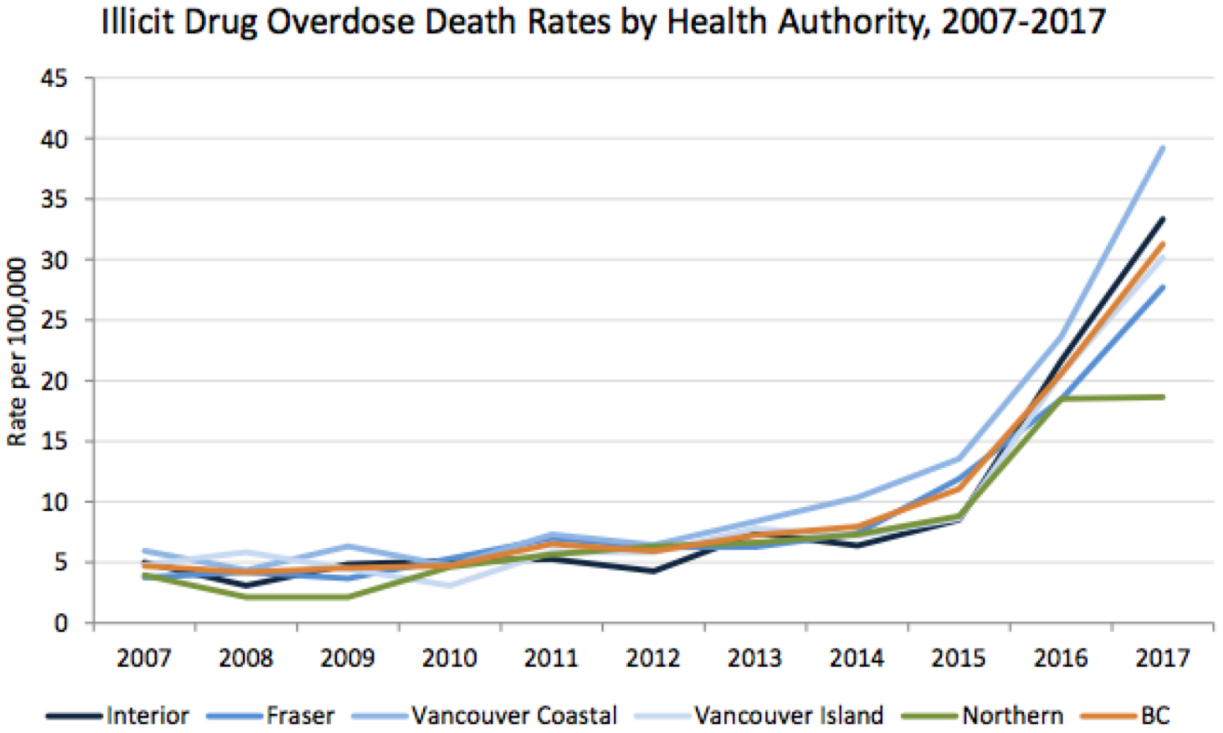
Carfentanil
Search term

heroin
Search term

trends.google.com



The opioid crisis



4 deaths per day in BC
1 per day in Vancouver

http://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/death-investigation/statistical/illicit-drug.pdf

View from the frontlines

- Jake
  - Pleasant male in 50s, history of opioid use disorder but reports being clean for past few years
  - Suffers with chronic low back pain, but reports NSAIDs having some effect
  - Working part-time and enjoys being productive, has goals to visit family in other province
  - Call from coroner, found dead of suspected OD, fake “oxys” that are likely fentanyl are found on scene

View from the frontlines

- Paul
  - Another pleasant male in his 40s, history of HIV, active hepatitis C, and opioid use disorder (previously on methadone), although does not report recent use
  - Back to work, attending HIV clinic appointments, motivated to get curative hepatitis C therapy
  - Start hep C treatment, but only 1.5 weeks in, his primary doc informs me that he died of OD

View from the frontlines

- Dan
  - Male in his 20s, HIV+ MSM, quite marginalized, living on street
  - History of alcohol and stimulant use, with recent onset of opiate use
  - Difficulty with engagement
  - One failed Suboxone start
  - Expresses desire to STOP HIV outreach team to get off opiates and go to detox
  - Found dead of OD only a few days later

View from the frontlines

- Sabrina
  - Female in her 20s, using opiates for past year or two, otherwise healthy
  - We get her on Suboxone a few times
  - Work schedules conflict with her clinic appointments, and she misses some
  - Reverts to opiate use, but we manage to get her restarted on Suboxone 8mg
  - Picks up supply with a friend then they go to their separate homes and use – he doesn't wake up
  - One of the first deaths linked to carfentanil

View from the frontlines

- Alex
  - Male around my age
  - Seen on weekend at Raven Song
  - Comes in disheveled, no shoes, living on street, desperate to get off opiates
  - Difficulties with engagement in past, some history of incarceration
  - A slow clinic day, so I spend one hour with him, confident that at the end he will take his new methadone rx to the pharmacy and start
  - Pharmanet check the next day – rx was never filled

View from the frontlines

- My initial reactions…
  - What could I have done for better patient outcomes?
  - How could I have prevented this?

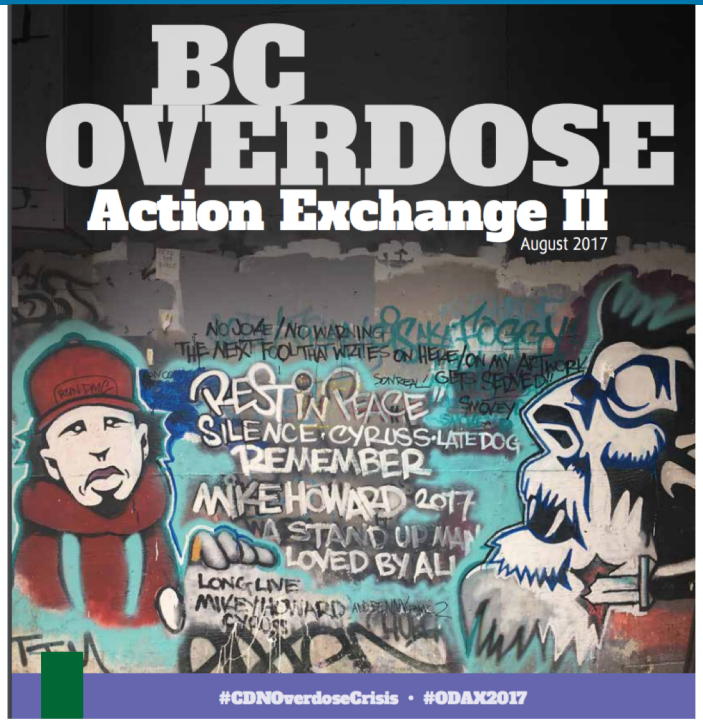
- After some time and rational thinking…
  - I was but one part of the complex healthcare system and society these patients were trying to maneuver in
  - How can we change the system to get better outcomes for people like this?

What is driving this crisis?

- External factors
  - Poisoned drug supply (predominantly fentanyl)
  - Harmful drug laws
  - Public health vs. law enforcement approaches
- Internal factors – our focus
  - *What we CAN change, starting now*

Addressing the crisis

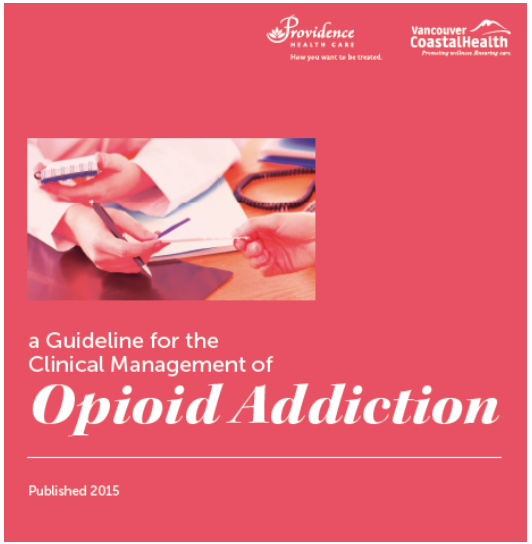
- Engage peers in program development and leadership
- Address contamination of the drug supply
- Support appropriate pain management therapies
- Build on the success of Overdose Prevention Sites
- Expand and improve addiction treatment
- Align law enforcement efforts with public health
- Reform drug laws
- Address structural barriers and upstream factors
- Counter stigma against people who use drugs
- Implement targeted research, surveillance and evaluation initiatives

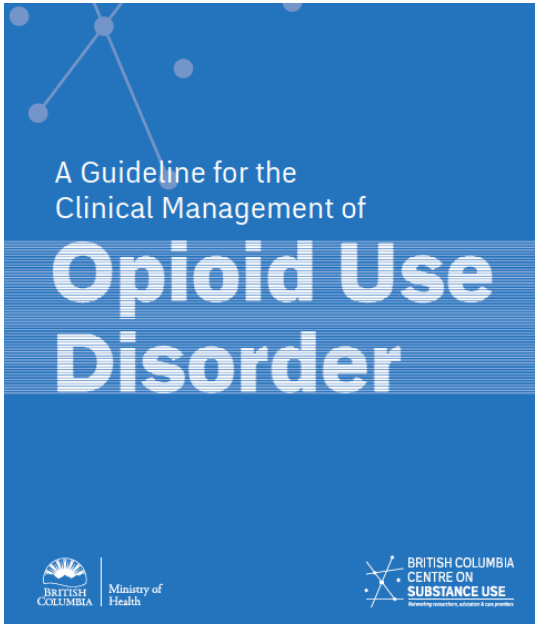


http://www.bccdc.ca/resource-gallery/Documents/bccdc-overdose-action-screen.pdf

What does the research tell us?

The science exists…





What does the research tell us?

Outcomes associated with methadone and buprenorphine

- Treatment retention
- Withdrawal suppression
- Decreased illicit opioid (and cocaine) use
- Reduced risk of HCV/HIV
- Increased antiretroviral adherence, lower HIV viral load
- Decreased criminal activity
- **Significantly reduced mortality (both all-cause and substance-related)**

What does the research tell us?

Retention in methadone and buprenorphine is associated with substantial reductions in the rate of 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.

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] Lucas Wiessing,[7] Marica Ferri,[7] Roberto Pastor-Barriuso[1,2]

ABSTRACT

OBJECTIVE
To compare the risk for all cause and overdose mortality in people with opioid dependence during and after substitution treatment with methadone or buprenorphine and to characterise trends in risk of mortality after initiation and cessation of treatment.

DESIGN
Systematic review and meta-analysis.

DATA SOURCES
Medline, Embase, PsycINFO, and LILACS to September 2016.

STUDY SELECTION
Prospective or retrospective cohort studies in people with opioid dependence that reported deaths from all 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 out of buprenorphine treatment (2.20, 1.34 to 3.61). In pooled trend analysis, all cause mortality dropped sharply over the first four weeks of methadone treatment and decreased gradually two weeks after leaving treatment. All cause mortality remained stable during induction and remaining time on buprenorphine treatment. Overdose mortality evolved similarly, with pooled overdose mortality rates of 2.6 and 12.7 per 1000 person years in and out of methadone treatment (unadjusted out-to-in rate ratio 4.80, 2.90 to 7.96) and 1.4 and 4.6 in and out of buprenorphine treatment.

CONCLUSIONS
Retention in methadone and buprenorphine treatment is associated with substantial reductions in the risk for all cause and overdose mortality in people dependent 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%)

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Additional material is published online only. To view please visit the journal online.
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Accepted: 17 March 2017

http://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/death-investigation/statistical/illicit-drug.pdf

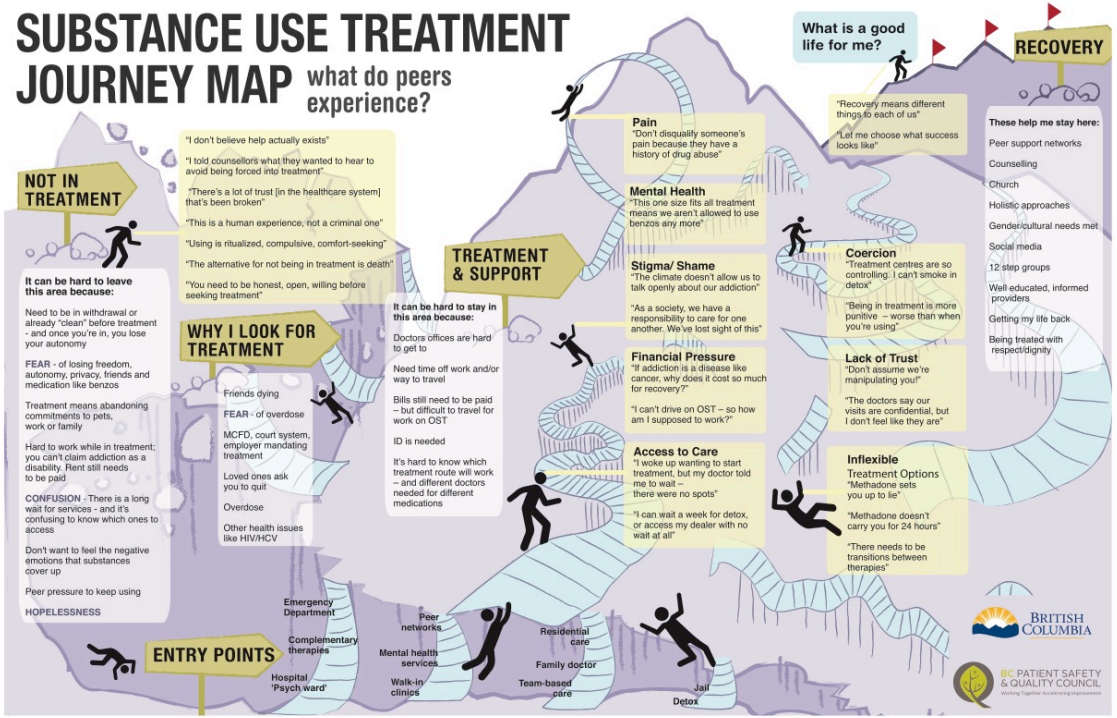
Gaps in our system of care

- Ask the patient
- Ask the family
- Ask the frontline staff

➢ *Inevitably a long list is created…*

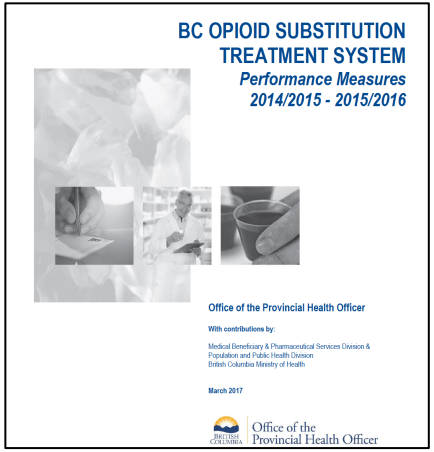
System opportunities

Gaps in our system of care



https://bcpsqc.ca/documents/2017/12/Journey-Mapping-Substance-Use-Treatment-Report.pdf

Gaps in our system of care



Vancouver Coastal Health
Promoting wellness. Ensuring care.

in 2014/15...

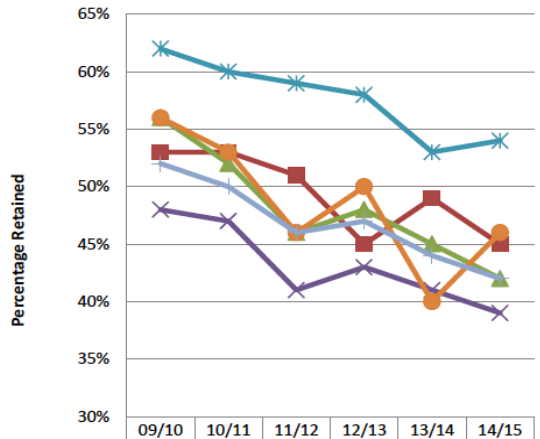
53% Patients receiving a stabilizing dose of methadone >60mg. Down **6%** since 2010.

39% People started on Methadone retained at 6 months. Down **10%** since 2010.

29% People started on Methadone retained at 12 months. Down **10%** since 2010.

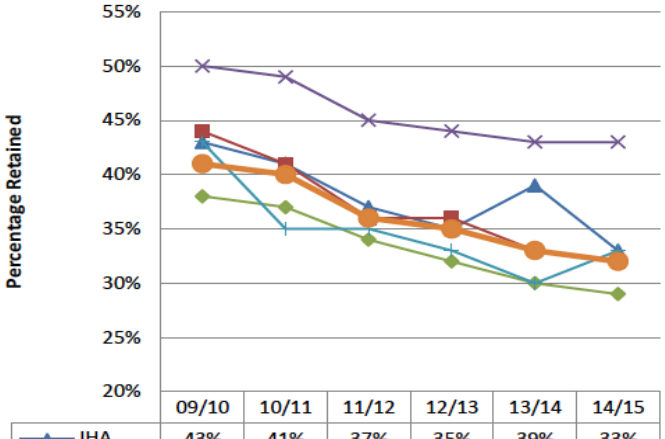
Gaps in our system of care

Figure 15a. Percentage of People Started on Methadone Maintenance Treatment Retained at 6 Months, by Health Authority, BC, 2009/2010 to 2014/2015



	09/10	10/11	11/12	12/13	13/14	14/15
IHA	53%	53%	51%	45%	49%	45%
FHA	56%	52%	46%	48%	45%	42%
VCHA	48%	47%	41%	43%	41%	39%
IslHA	62%	60%	59%	58%	53%	54%
NHA	56%	53%	46%	50%	40%	46%
BC Total	52%	50%	46%	47%	44%	42%

Figure 15b. Percentage of People Started on Methadone Maintenance Treatment Retained at 12 Months, by Health Authority, BC, 2009/2010 to 2014/2015[h]



	09/10	10/11	11/12	12/13	13/14	14/15
IHA	43%	41%	37%	35%	39%	33%
FHA	44%	41%	36%	36%	33%	32%
VCHA	38%	37%	34%	32%	30%	29%
IslHA	50%	49%	45%	44%	43%	43%
NHA	43%	35%	35%	33%	30%	33%
BC Total	41%	40%	36%	35%	33%	32%

Closing the gaps in care

OPIOID CRISIS March 6, 2018 9:03 pm Updated: March 6, 2018 9:05 pm

B.C. doctors look to fight opioids with lessons learned from AIDS crisis

By Jon Azpiri and Aaron McArthur Global News

Comments 4 | Facebook 523 | Twitter | Email | Print | ...

THE GLOBE AND MAIL SUBSCRIBE SIGN IN

B.C. support plan for opioid users modelled after HIV/AIDS strategy

Rolando Barrios, assistant director at the BC-CfE and senior medical director at Vancouver Coastal Health, estimates the program will reach about 3,000 patients in Vancouver currently receiving suboptimal treatment.

Closing the gaps - A QI approach

- Use a “Collaborative”
- It’s been done before
  - HIV Collaborative in B.C.
  - NIATx Collaborative
  - Many more in the literature

Implementation of HIV treatment as prevention strategy in 17 Canadian sites: immediate and sustained outcomes from a 35-month Quality Improvement Collaborative

Christina M Clarke,[1] Tessa Cheng,[2] Kathleen G Reims,[3] Clemens M Steinbock,[4] Meaghan Thumath,[5,6] Robert Sam Milligan,[7] Rolando Barrios[1,8]

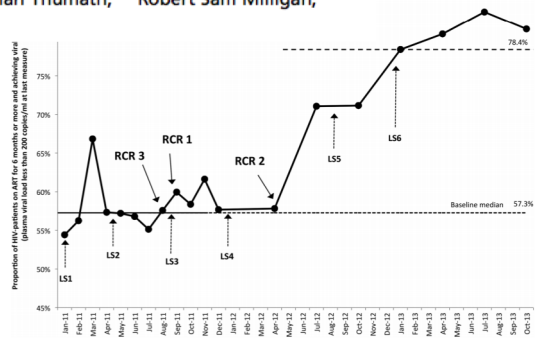
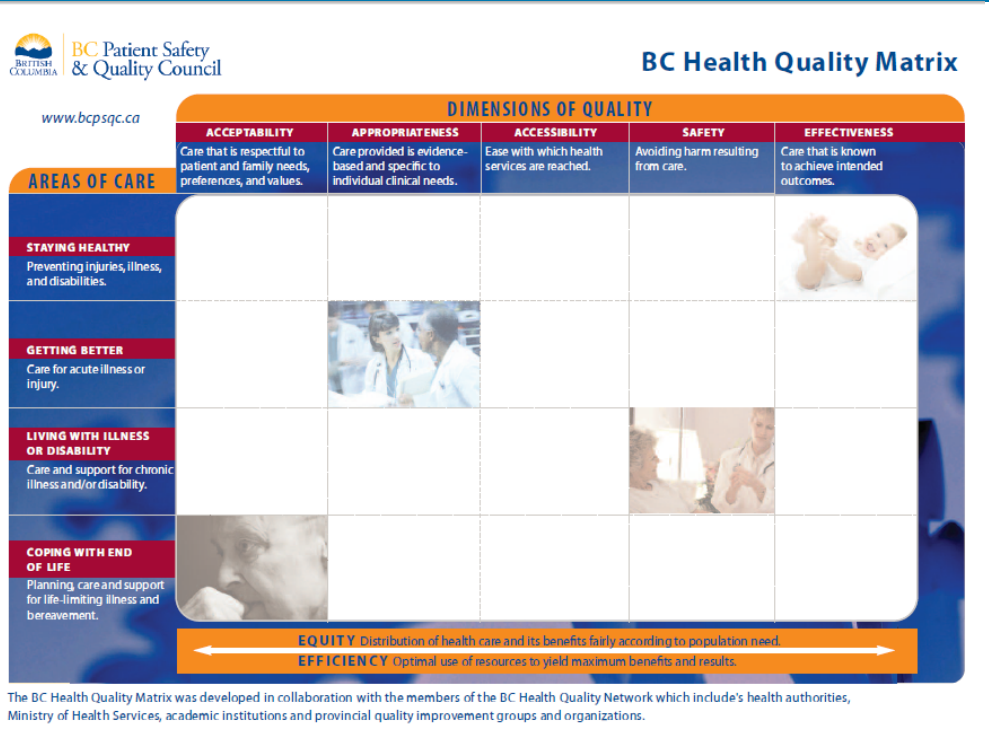


Figure 5 Antiretroviral therapy (ART) uptake for ≥6 months and achieving viral suppression. LS, learning session; RCR, run chart rule.

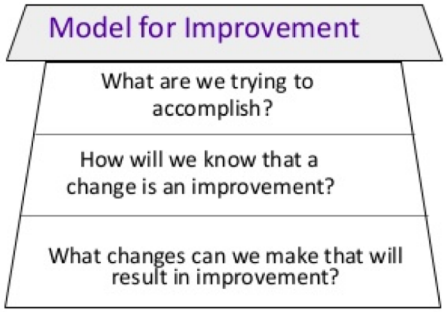
What do we mean by healthcare quality

Safe
Timely
Effective
Efficient
Equitable
Patient-centred

Accessible



What is Quality Improvement?

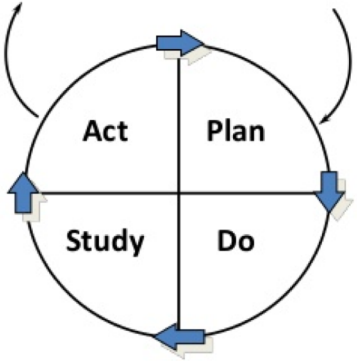


NHS Improving Quality

Aims

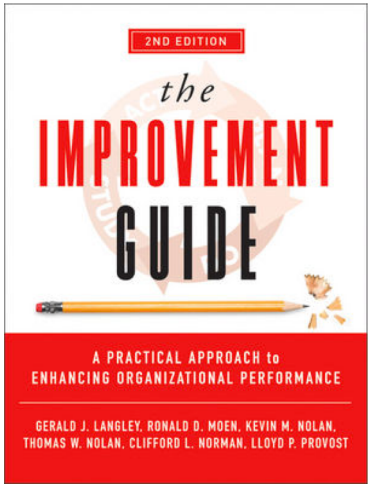
Measurements

Change ideas



Testing ideas before implementing changes

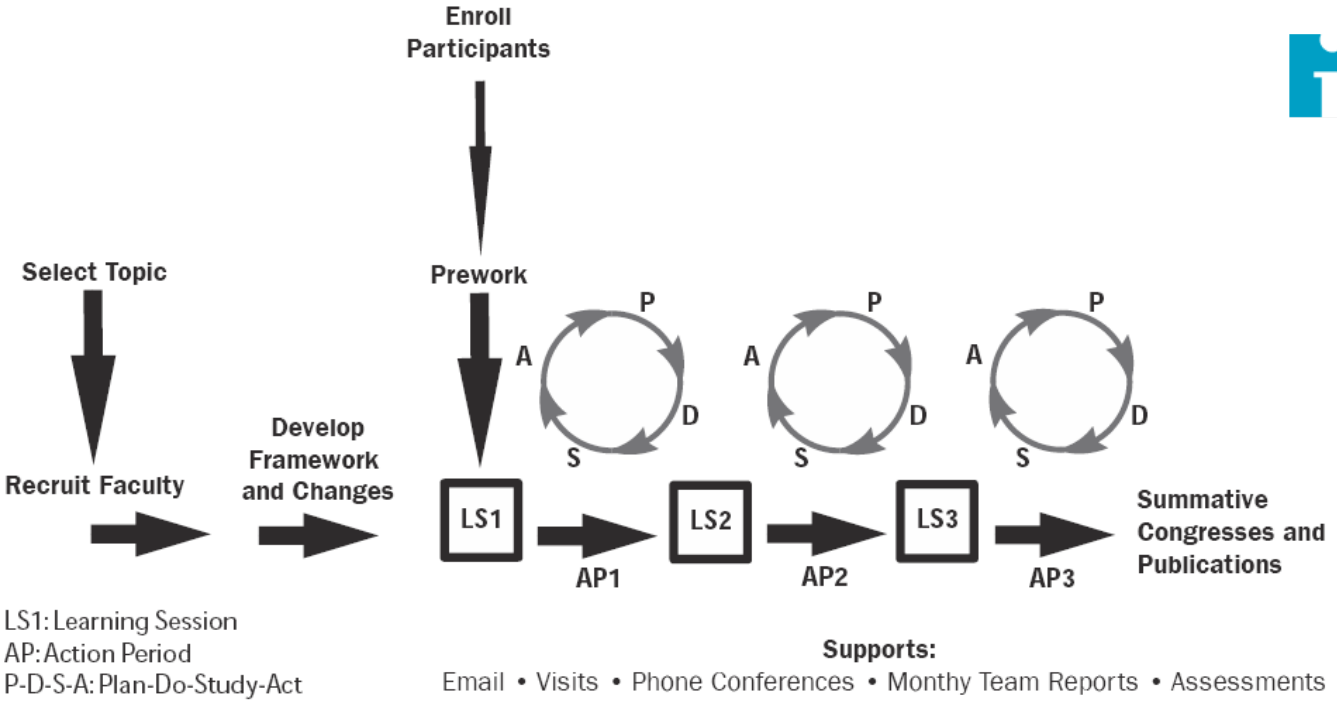
The Improvement Guide
Langley et al (1996)



What is Quality Improvement?

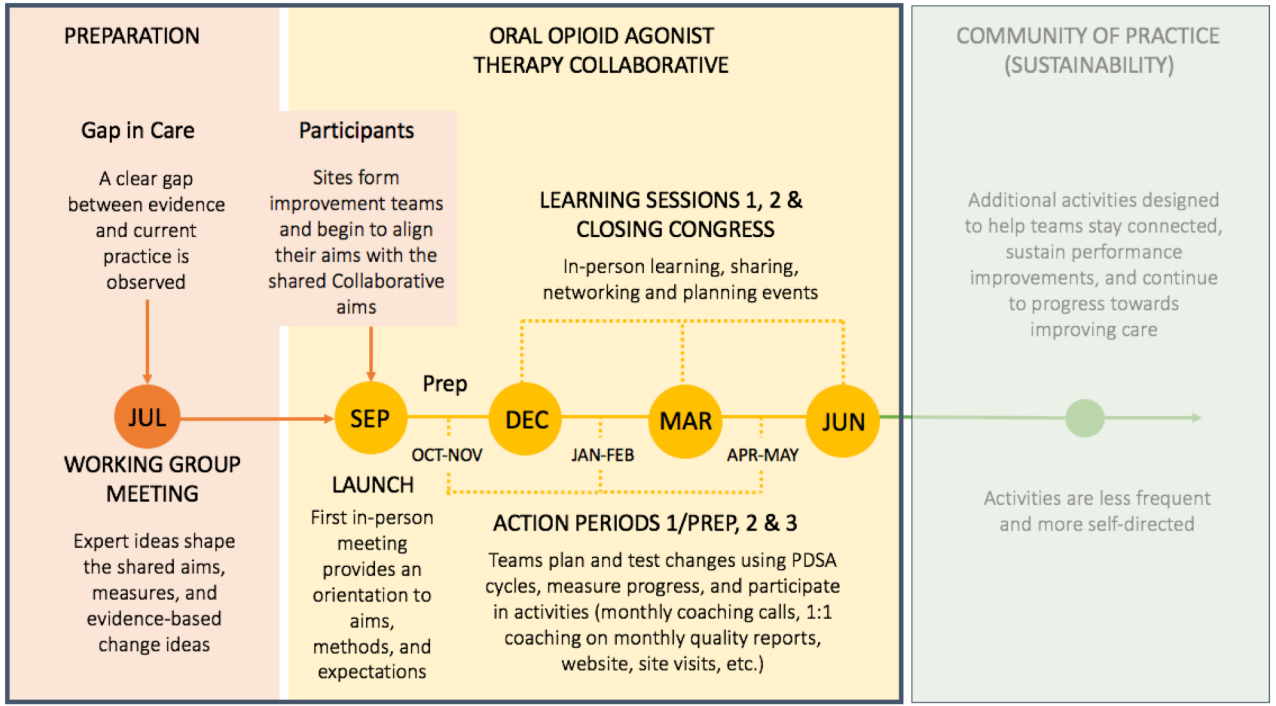
Characteristic	Judgement	Research	Improvement
Aim	Achievement of target	New knowledge	Improvement of service
Testing strategy	No tests	One large, blind test	Sequential, observable tests
Sample size	Obtain 100% of available, relevant data	'Just in case' data	'Just enough' data small, sequential samples
Hypothesis	No hypothesis	Fixed hypothesis	Hypothesis flexible; changes as learning takes place
Variation	Adjust measures to reduce variation	Design to eliminate unwanted variation	Accept consistent variation
Determining if change is an improvement	No change focus	Statistical tests (t-test, F-test, chi-square, p-values)	Run chart or statistical process control (SPC) charts

What is a Structured Learning Collaborative?



Institute for Healthcare Improvement

The BOOST Collaborative



Adapted from The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement. IHI Innovation Series white paper. Boston: Institute for Healthcare Improvement; 2003. (Available at IHI.org)

A joint project of the CFE and VCH

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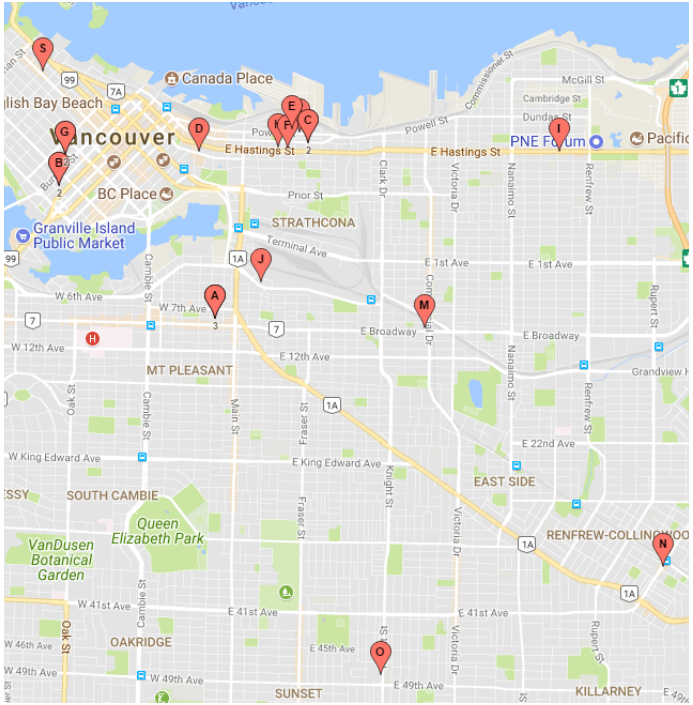
Our Clinical Teams



A - Raven Song Primary Care
B - Three Bridges Primary Care
D - Pender Community Health Centre
E - Downtown Community Health Centre
F - Sheway
G - Immunodeficiency Clinic
H - Vancouver Native Health Society
I - Reach Community Health Centre
J - Vancouver Detox
K - DTES Connections
L - Rapid Access and Assessment Centre
M - Substance Use Treatment and Response Team
N - Evergreen Substance Use
O - South Substance Use
P - Three Bridges Substance Use
Q - Raven Song Substance Use
S - West End Mental Health
T - Raven Song Mental Health

Core Team

Danielle Cousineau, RN

Quality Improvement Consultant, BC Centre for Excellence in HIV/AIDS

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Medical Lead, Continuous Quality Improvement, Vancouver Coastal Health (VCH) Community

Laura Beamish, MSc

Quality Improvement Coordinator, BC Centre for Excellence in HIV/AIDS

Angie Semple

Program Assistant, BC Centre for Excellence in HIV/AIDS

The BOOST Collaborative

- **Goal – data-driven improvement at the frontlines**
  - **Specifically - Improving the care of our clients living with opioid use disorder**
  - **Uses QI and The Model for Improvement**

- Other benefits
  - Collaboration and pooled resources and expertise
  - Chance for advocating for broader system changes

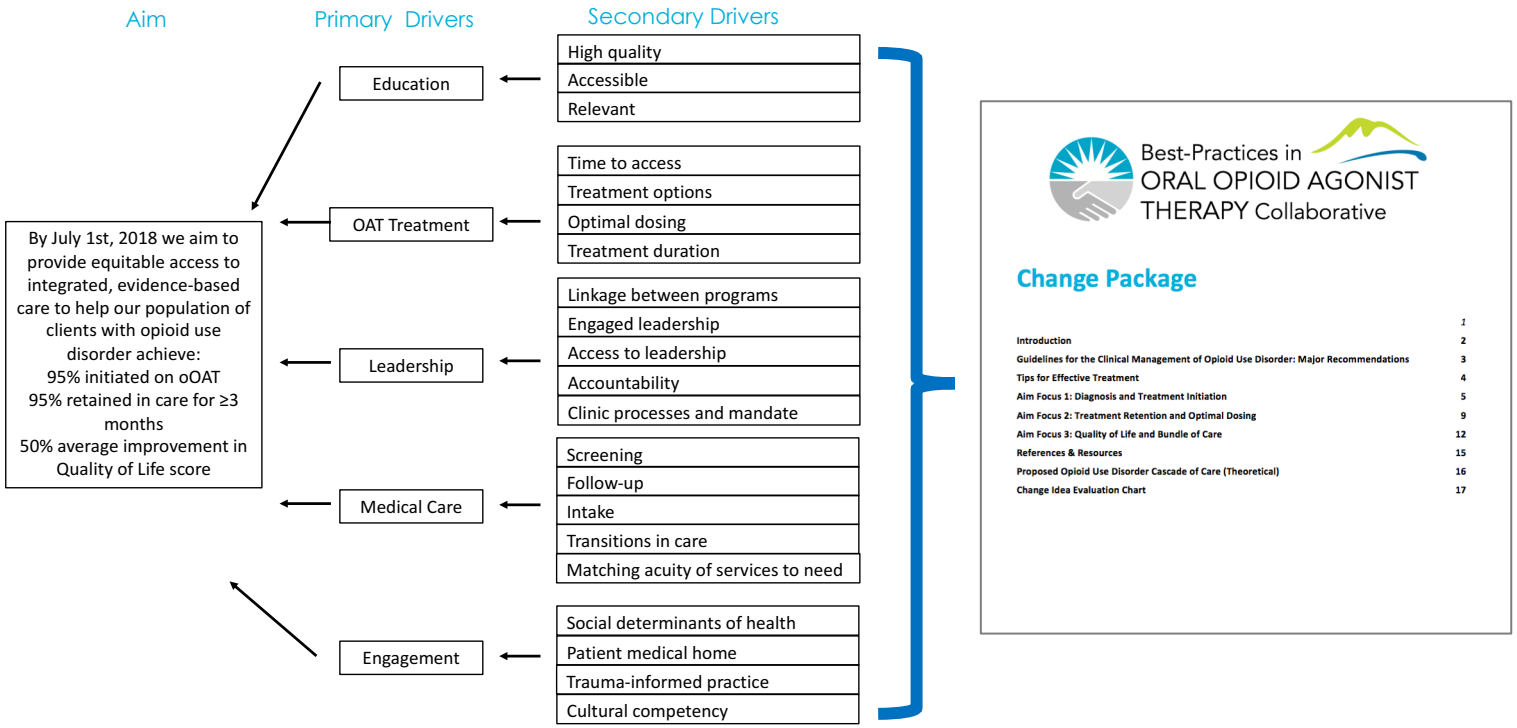
What are we trying to achieve?

By July 1st, 2018 we aim to provide equitable access to integrated, evidence-based care to help our population of clients with opioid use disorder achieve:
95% initiated on oOAT
95% retained in care for ≥3 months
50% average improvement in Quality of Life score

In other words…

- 19/20 patients have attempted oOAT at some point
- 19/20 patients are retained on oOAT for 3 months or more
- We hope to see a large average improvement in Quality of Life
  - Patient-centred
  - Balancing measure

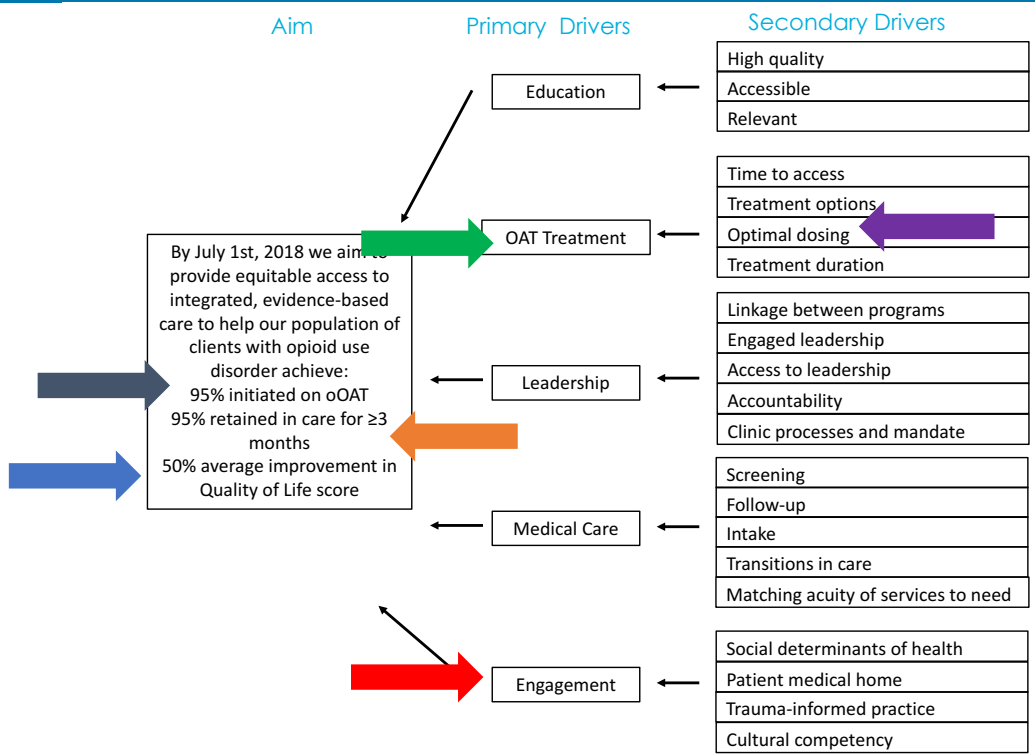
What will it take to reach our aims?



How are we measuring for success?

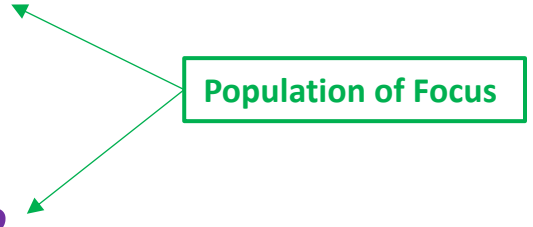
Collaborative-level Measures

- **Engagement**
- **oOAT access**
- **Active oOAT**
- **Optimal oOAT dosing**
- **Retention on oOAT**
- **Quality of Life score**



Who are our patients?

- Empanelment – ***Who is our panel of patients?***
  - Clinic/Point of Care (In Profile EMR = POS)
  - Most Responsible Provider
  - Active clients only
- Accurate Problem Lists – ***Who has OUD?***
  - 304.0 opioid use disorder chosen as standard dx code



Who are our patients?

During Action Period 1, teams worked to ensure their POF had…

- An accurate Point of Service
- Active clients only
- An accurate MRP
- A 304.0 diagnosis code

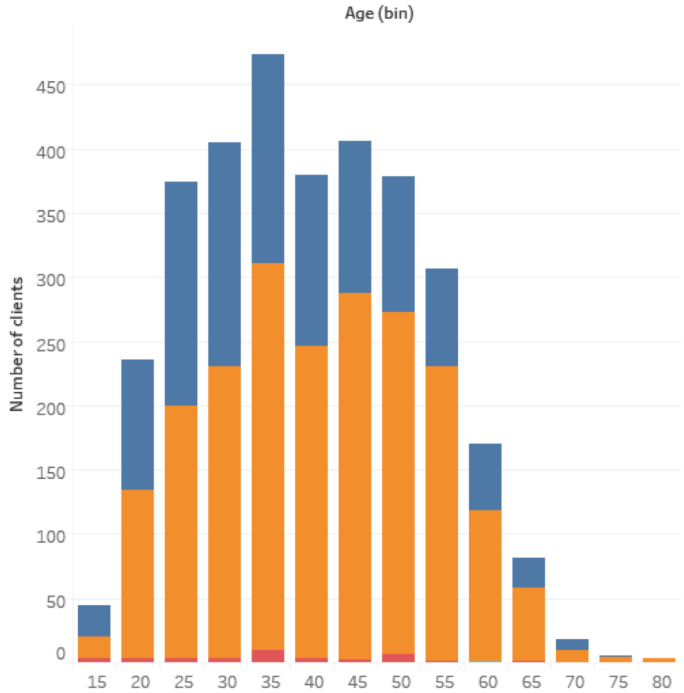
629 clients with a 304.0* Dx code in **October 2017**

↓

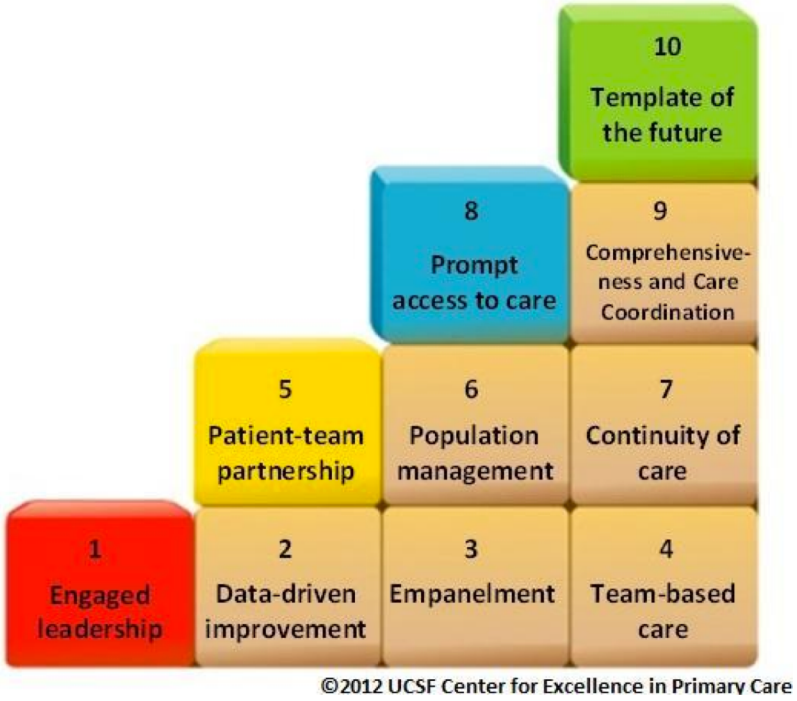
3201 clients with a 304.0* Dx code in **February 2018**

*304.0 is the IDC-9 diagnostic code for Opioid Use Disorder

Age and gender of population of focus



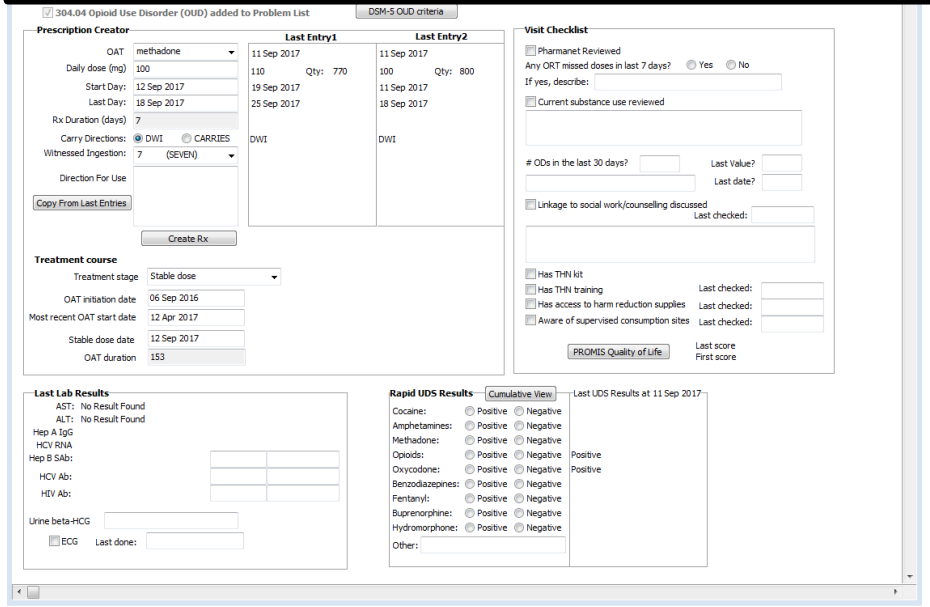
Ingredients for the most effective care

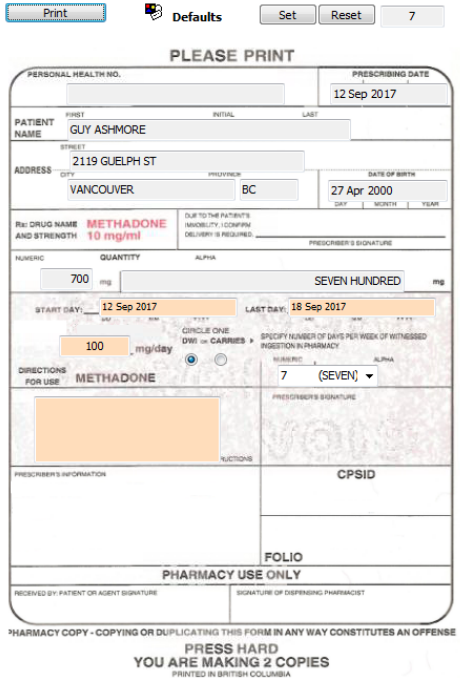


Standardizing clinical data entry

"But I hate EMR forms…"

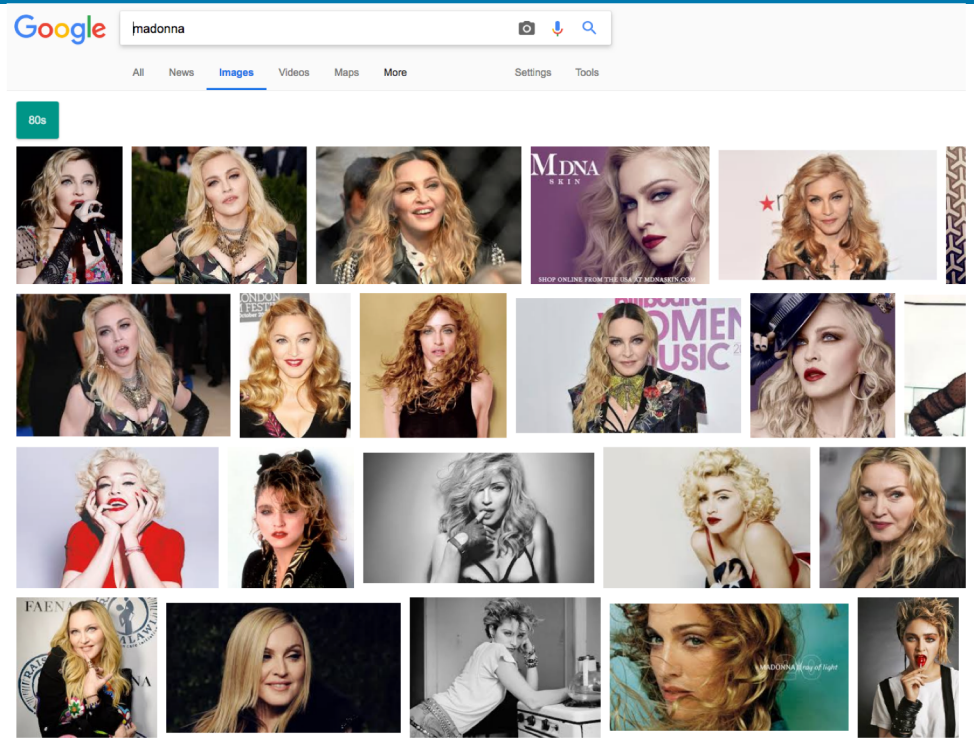
Goal: Use OUD form periodically for all clients with hx of OUD



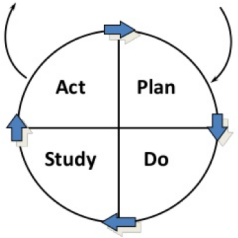


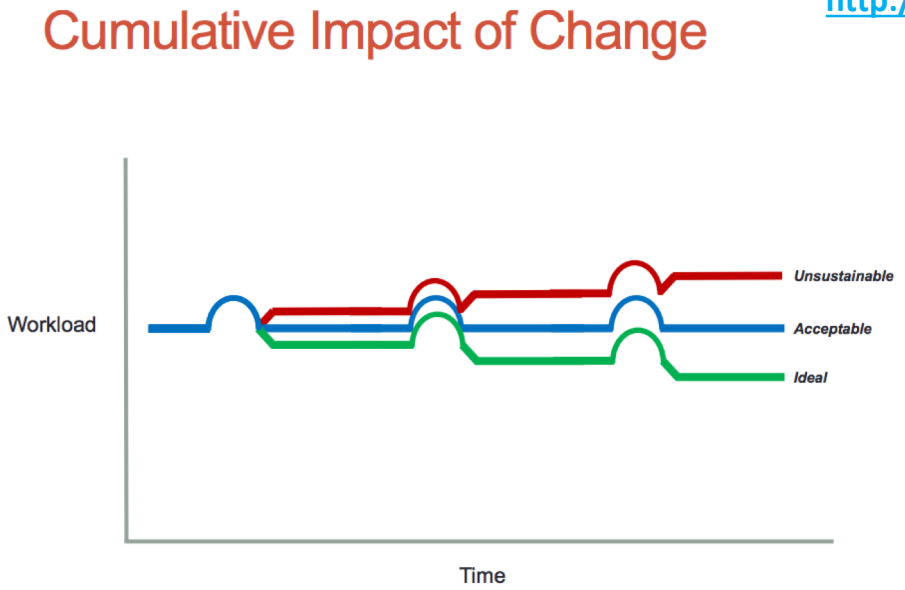
Standardizing clinical data entry

Getting MDs to change

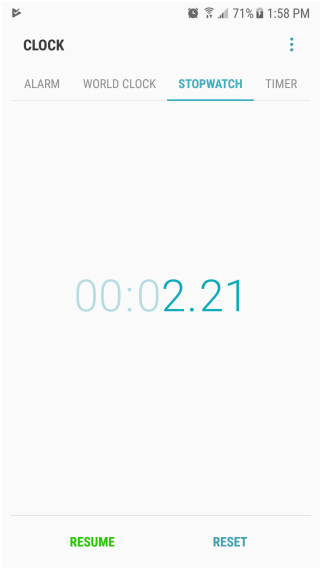


Highly adoptable QI





http://www.highlyadoptableqi.com/



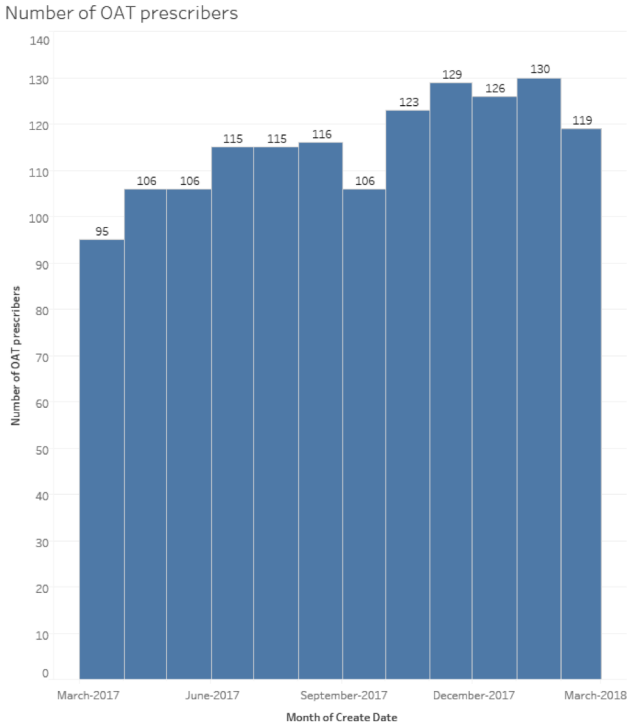
Highly adoptable QI

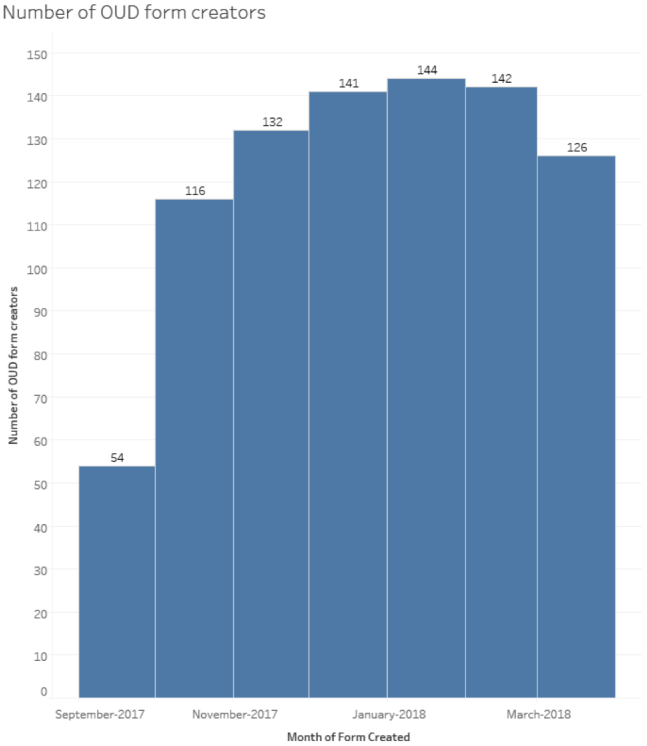
Over 1000 forms per week being created

Primary goal – make a useful clinical tool

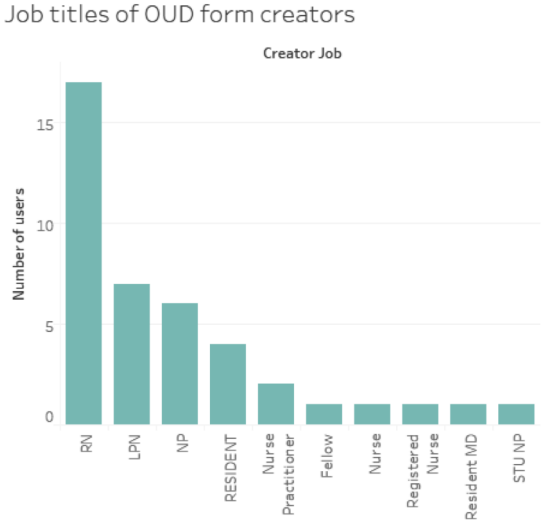
Secondary – standardize data entry and allow measurement strategy

Highly adoptable QI



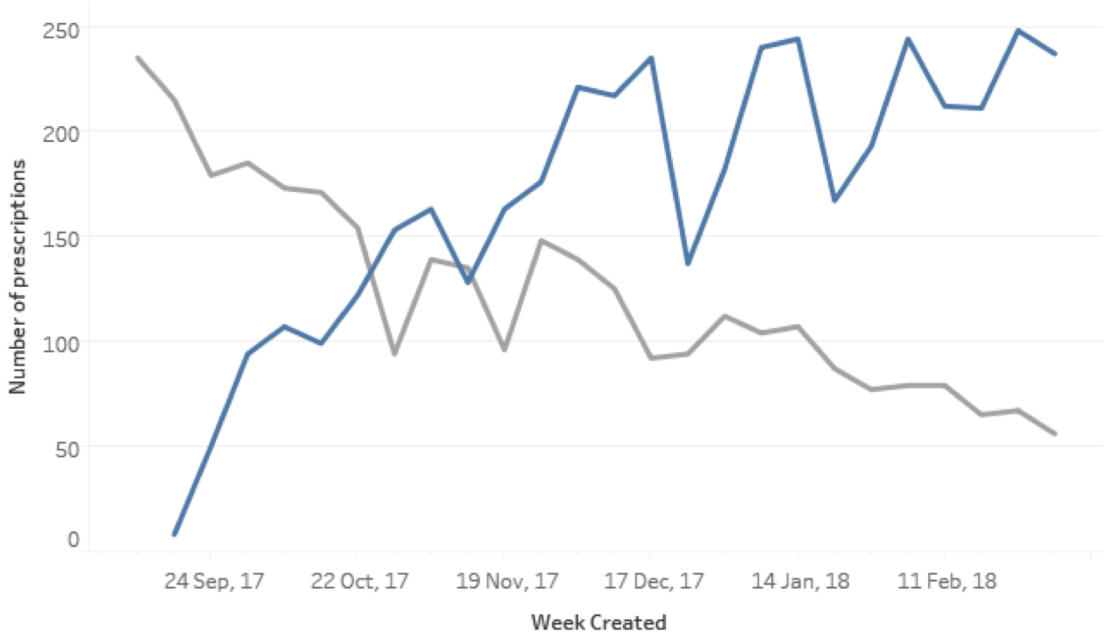


There are now more OUD form creators than OAT prescribers

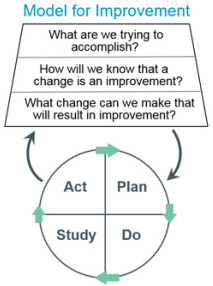


Highly adoptable QI

Suboxone and Kadian rx created per week by BOOST sites using the OUD form (blue) vs. not (grey)



What happens in the Action Periods

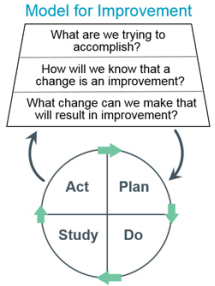


Teams testing changes (PDSA-level measures)

Site-specific aims

Collaborative aims (Collaborative-level measures)

Collaborative outcomes



What changes are we testing?

- Standardize clinical data entry
- Regular client feedback surveys
- Reminder calls for appointments
- Reminder calls for expiring prescriptions
- Assertive outreach for clients lost to care
- Follow-up on missed oOAT dose faxes from pharmacies
- Work-flow changes to support Suboxone inductions

Testing a change - example

- Collaborative aim – increase retention
- Team's aim – reduce number of missed appointments
- Test of change – LPN does reminder call on day before
  - Measures
    - Number of calls made, time taken to make the calls
    - Number picked up
    - Number of clients who attend appointment vs number of No Shows
    - Qualitative info
- Run your PDSA over the next week, then adapt, adopt, or abandon

How do we support our teams?

Profile EMR OUD Prescription generator Form

Monthly Educational Webinars

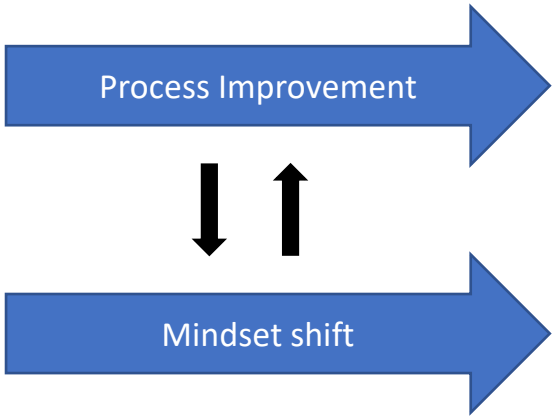
Monthly in-person coaching and feedback

Quarterly in-person Learning Sessions

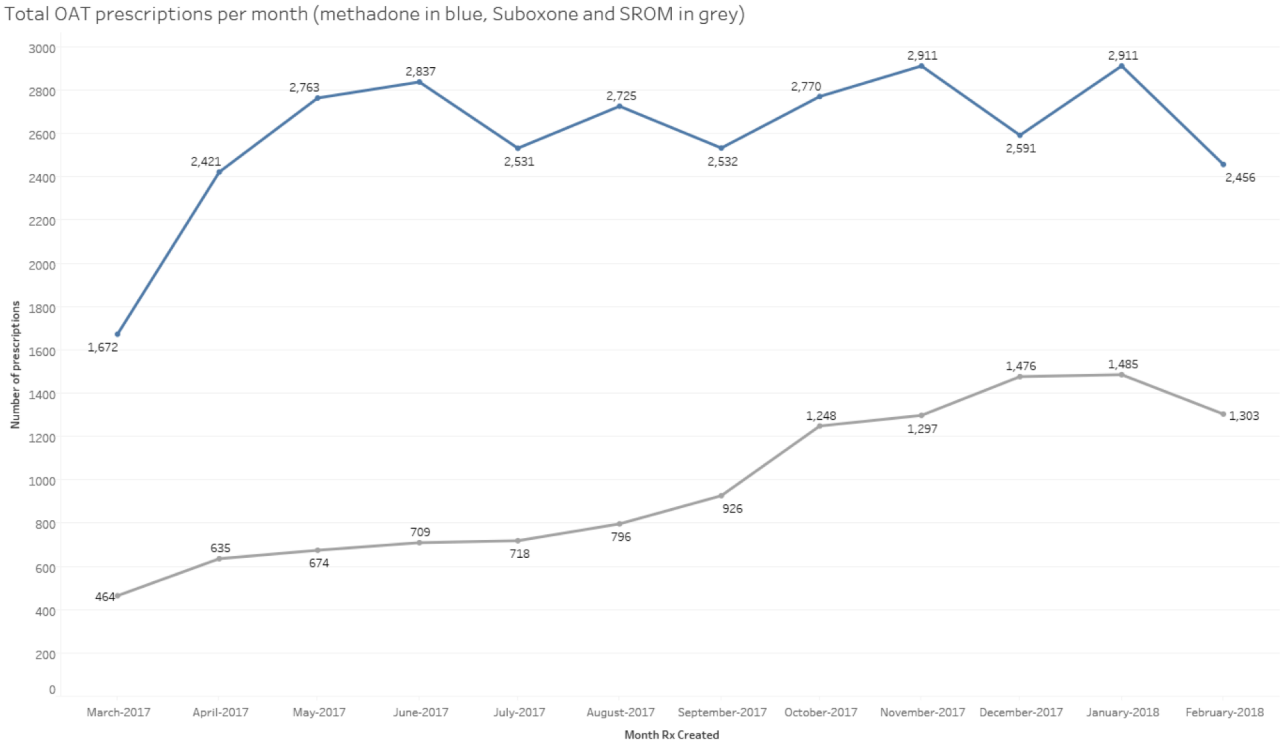
Monthly team-generated qualitative and quantitative reports

Shifting our mindset

- The patients who do NOT show up to our clinic are often the sickest ones, and need MORE support
- Take time to step back from the “whirlwind”
- Expect the following:
  - High quality care for a defined roster of clients
  - Enhanced outreach
  - Focus on engagement
  - Focus on social determinants of health



Collaborative Progress

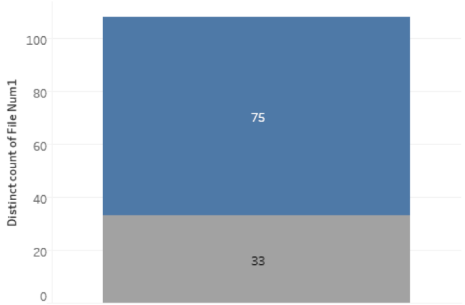


Access to OAT

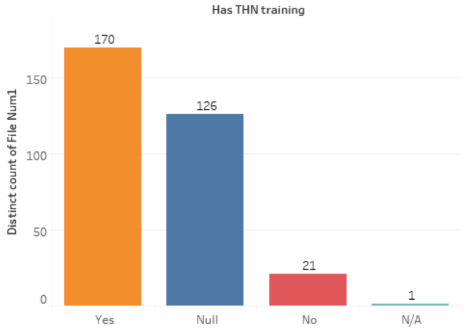
Collaborative Progress

Retention data histogram (looking back 18 months)

Retention greater than 3 months (blue) vs. less than 3 months (grey) for those with active OAT rx



THNtrain



Clinic A's data for March

Coming soon

- Accurate retention data
  - Has taken significant effort to set this up
- Up-to-date roster of clients accessible in EMR with day old data
  - Vital for follow-up, outreach efforts
- Continued efforts to…
  - Improve access
  - Improve retention
  - Improve quality of life

Thinking back to my own patients

Aim for a system that regularly reassesses client's OUD history and chronic pain, and provides necessary education (THN training, risk of OD from fentanyl, access to harm reduction supplies, etc)	Jake, Paul
Aim for a system that places patient engagement as a top priority, and reduces barriers to getting started on OAT, offers outreach when indicated	Dan, Alex
Aim for a system that is accessible so patients can remain engaged and retained on OAT	Sabrina

Questions?

Thank you!

- CONTACT US: boostcollaborative@cfenet.ubc.ca
- VISIT THE WEBSITE: http://www.stophivaids.ca/oud-collaborative

Resources

- Collaborative Website: http://stophivaids.ca/oud-collaborative
- Hosp Q. 2003;7(1):73-82.The expanded Chronic Care Model: an integration of concepts and strategies from population health promotion and the Chronic Care Model. Barr VJ, Robinson S, Marin-Link B, Underhill L, Dotts A, Ravensdale D, Salivaras S. Source: Vancouver Island Health Authority.
- NIATx: https://niatx.net/
- BC Centre on Substance Use- Opioid Use Disorder Clinical Management Guidelines: http://www.bccsu.ca/wp-content/uploads/2017/06/BC-OUD-Guidelines_June2017.pdf
- IHI Open School courses: http://www.ihi.org