BOOST
Best-Practices in Oral Opioid agoniSt Therapy Provincial Collaborative

BRITISH COLUMBIA CENTRE *for* EXCELLENCE *in* HIV/AIDS

PROJECT UPDATE

Rolando Barrios, MD, FRCPC
Senior Medical Director –BCCfE

Thursday, November 21st, 2019

Outline

- Quality improvement journey
- The Evidence
- Where are we in BC
- Our results
- Summary

January 2019
QI Journey

29 teams
Various services:
- **Primary Care**
- **Substance Use**
- **Mental Health**

Supported by stabilization and outreach services

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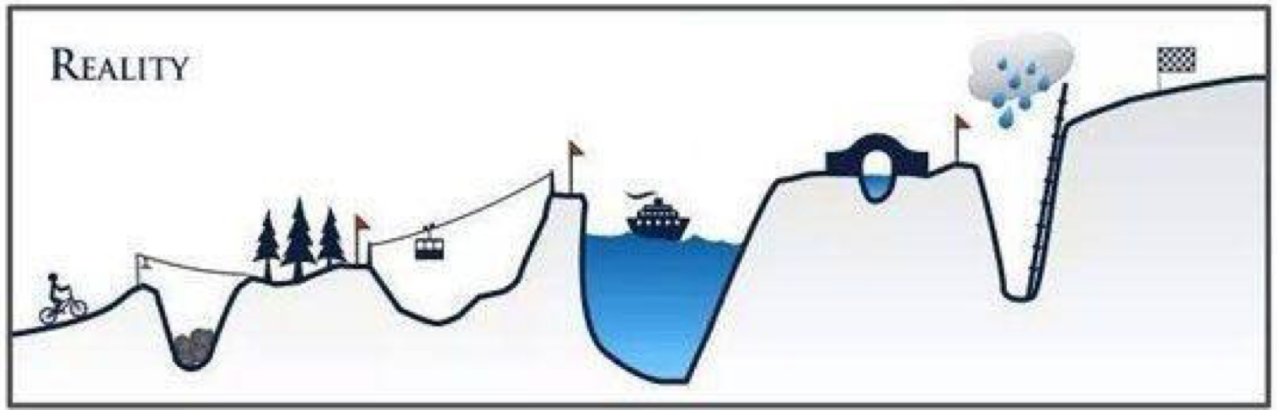
What our plan looks like



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.

[4]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.

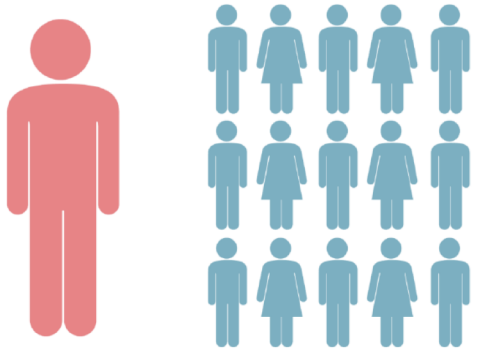
RESULTS

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%)



"…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

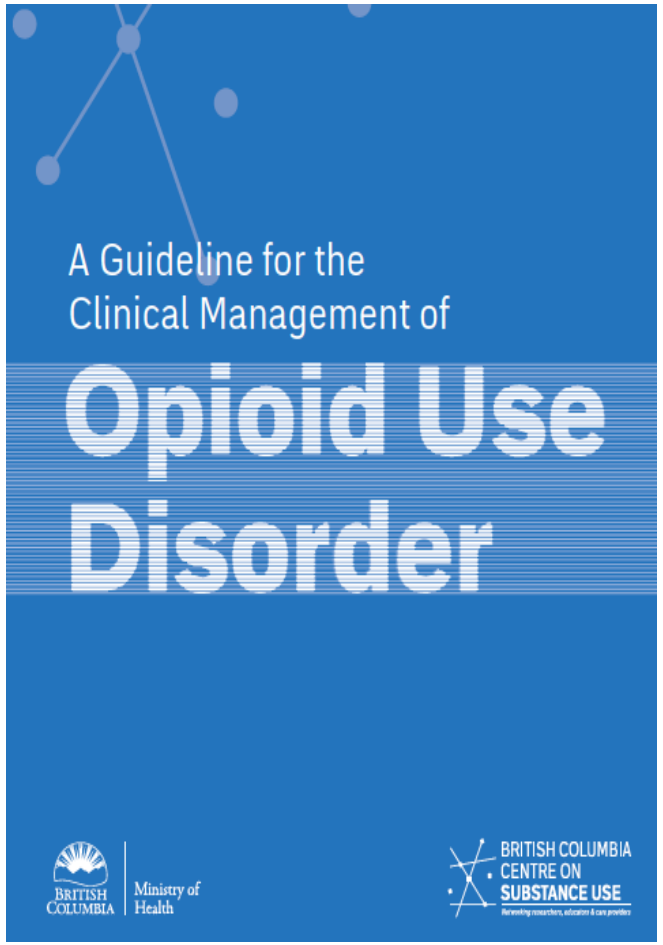


Table 1. Clinical management of opioid use disorder

WITHDRAWAL MANAGEMENT [1-3]

Tapered methadone, buprenorphine, or alpha$_2$-adrenergic agonists

+/- psychosocial treatment [4]
+/- residential treatment
+/- oral naltrexone [5]

AGONIST THERAPIES

Buprenorphine/ naloxone [6] *(preferred)*

Methadone [7,8]

+/- psychosocial treatment
+/- residential treatment

SPECIALIST-LED ALTERNATIVE APPROACHES

Slow-release oral morphine [9,10]

+/- psychosocial treatment
+/- residential treatment

TREATMENT INTENSITY

LOW
If opioid use continues, consider treatment intensification. »

HIGH
Where possible, « simplify treatment.

HARM REDUCTION [11-13]

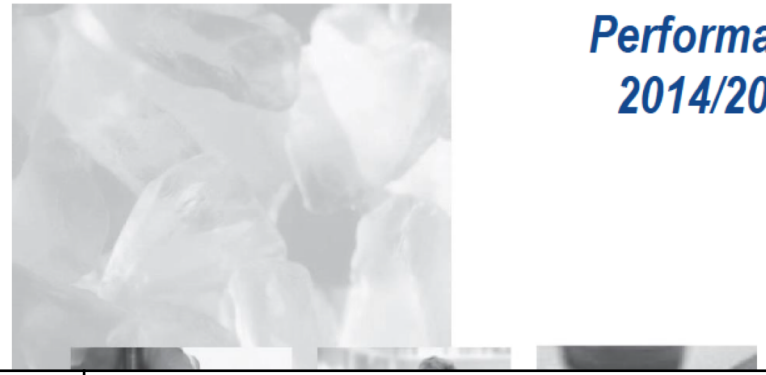
Across the treatment intensity spectrum, evidence-based harm reduction should be offered to all, including:

- Education re: safer user of sterile syringes/needles and other applicable substance use equipment
- Access to sterile syringes, needles, and other supplies
- Access to Supervised Injection Sites (SIS)
- Take-Home-Naloxone (THN) kits

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

BRITISH COLUMBIA | 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

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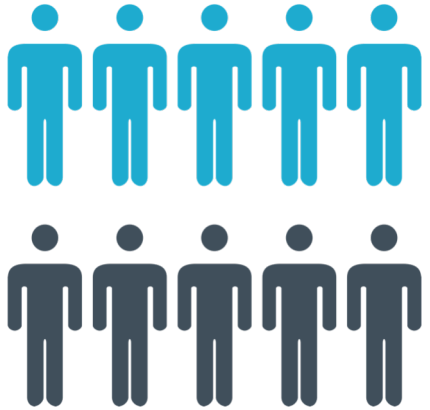
ORIGINAL RESEARCH

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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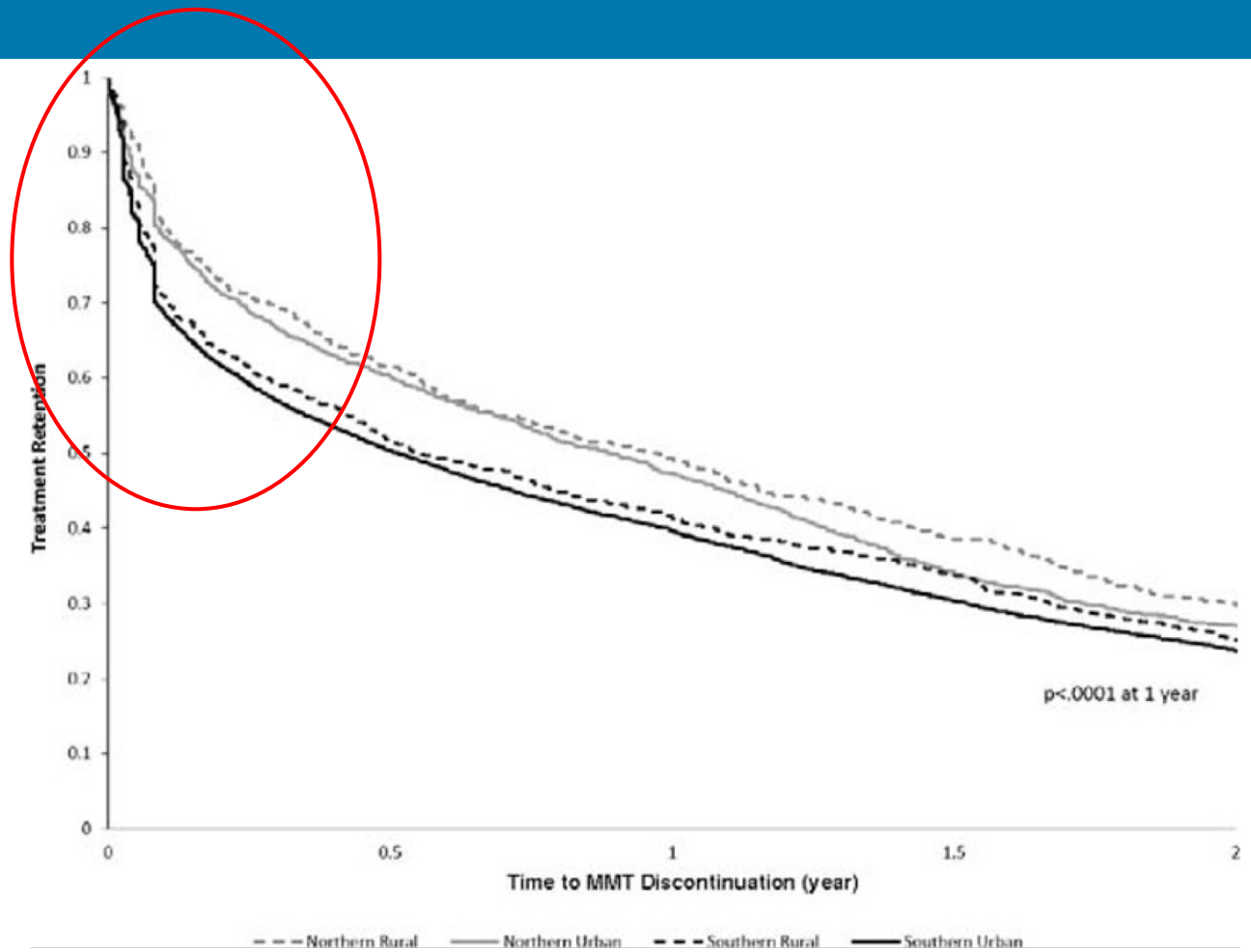
Time to discontinuation



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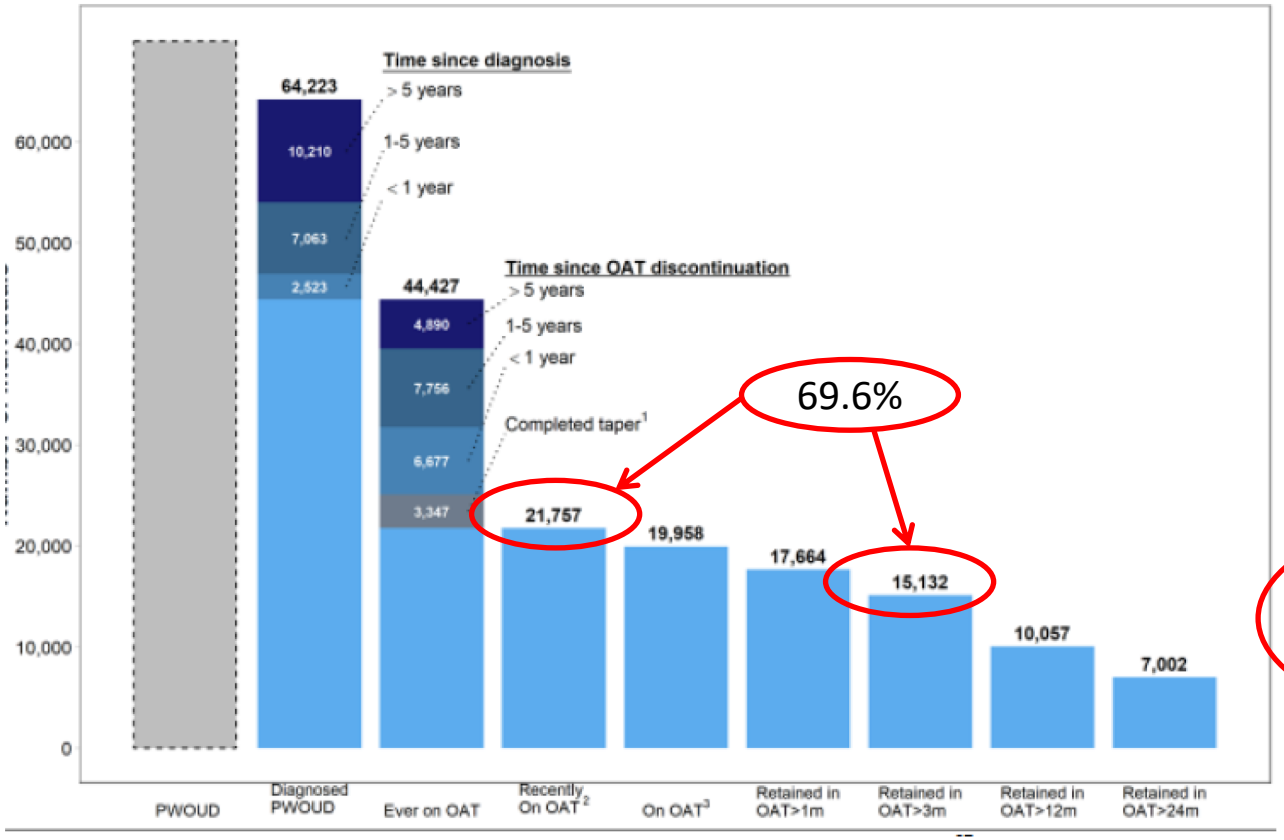
The cascade of OUD care: Updated to Sept 30th, 2018



Compared to last update (Nov 30, 2017):

- Size of diagnosed (detected) population increased by 8,753
  - 66% new contacts (5,777)
  - 34% identified through new data linkages
- Stable no. of past-month OAT dropouts:
  - 09/2018: 21,757 – 19,958 = 1,799
  - 11/2017: 19,972 – 18,519 = 1,453
- 1,439 more PWOUD on OAT
  - 09/2018: 19,958 / 64,223 = 31.1%
  - 11/2017: 18,519 / 55,470 = 33.4%
- 2% increase in on OAT population retained in treatment at least 12m
  - 09/2018: 10,057 / 19,958 = 50.4%
  - 11/2017: 8,960 / 18,519 = 48.4%

Bohdan Nosyk
On behalf of the Health Economic Research Unit
BC Centre for Excellence in HIV/AIDS
The Treatment Cascade of Care For Persons with Opioid Use Disorders – Stakeholder Engagement – Summary Report, September 2019

Management of opioid use disorder in the USA: present status an future directions

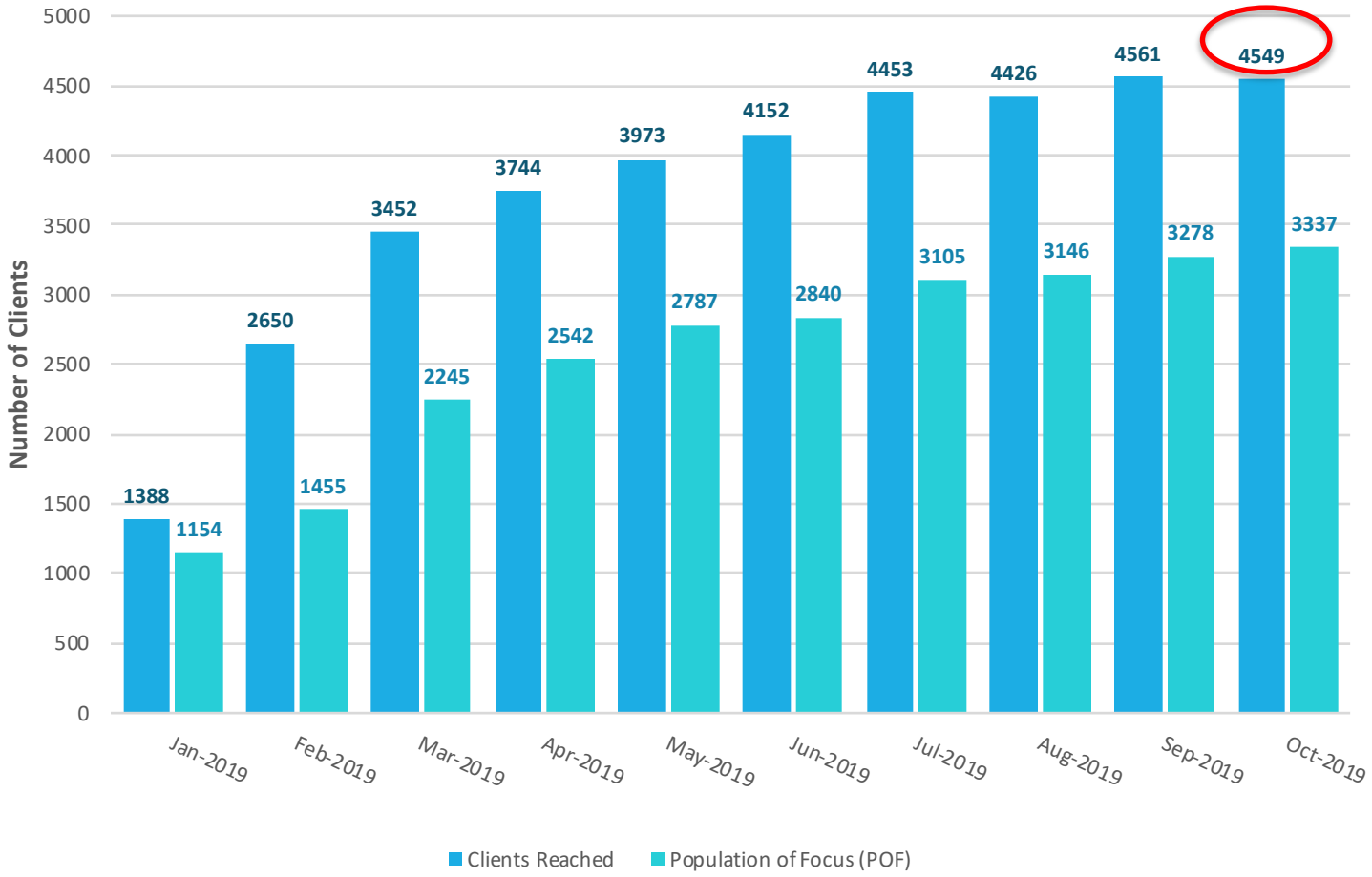
	Patient	Clinician	System
Identification	Development of self-assessment or screening tools	Encouragement or incentivisation of screening of high-risk populations; use of prescription drug monitoring programs; combatting of stigmas held by many stakeholders (eg, clinicians, family members, or other patients)	Identification of high-risk populations and settings; integration of mental health and substance use disorder services; combatting of stigmas held by many stakeholders (eg, clinicians, system administrators, other patients); electronic health record screening and identification
Treatment engagement	Use of non-judgmental approaches; motivational interviewing; harm reduction approaches; treatment of medical and psychiatric comorbidity	Improvement of reimbursement and use of non-prescribing clinicians to do initial engagement	Expansion of settings where opioid use disorder medications can be initiated and improvement of linkages (eg, between emergency or hospital care and outpatient care, and social services and treatment services)
Opioid use disorder medication initiation	Psychoeducation; reduction of induction time; use of α_2-adrenergic receptor agonist to treat withdrawal symptoms; expansion of insurance or reduction of medication cost	Training and supervision; elimination of barriers to prescribing medications for opioid use disorder	Improvement of clinician availability; improvement of availability of supervision; implementation of collaborative models; ensuring appropriate reimbursement; provision of wrap-around services; developing and implementing evidence-based measures of quality of care
Retention	Use of extended-release medications; contingency management	Provision of incentives to clinicians	Provision of wrap-around services and incentives
Remission	Modification of social network; provision of alternative reinforcers	Use of booster sessions either in person or through the use of technology (eg, telemedicine or apps)	Adoption of chronic disease model

Table 4: Interventions to improve the cascade of care by step of the cascade and target of the intervention

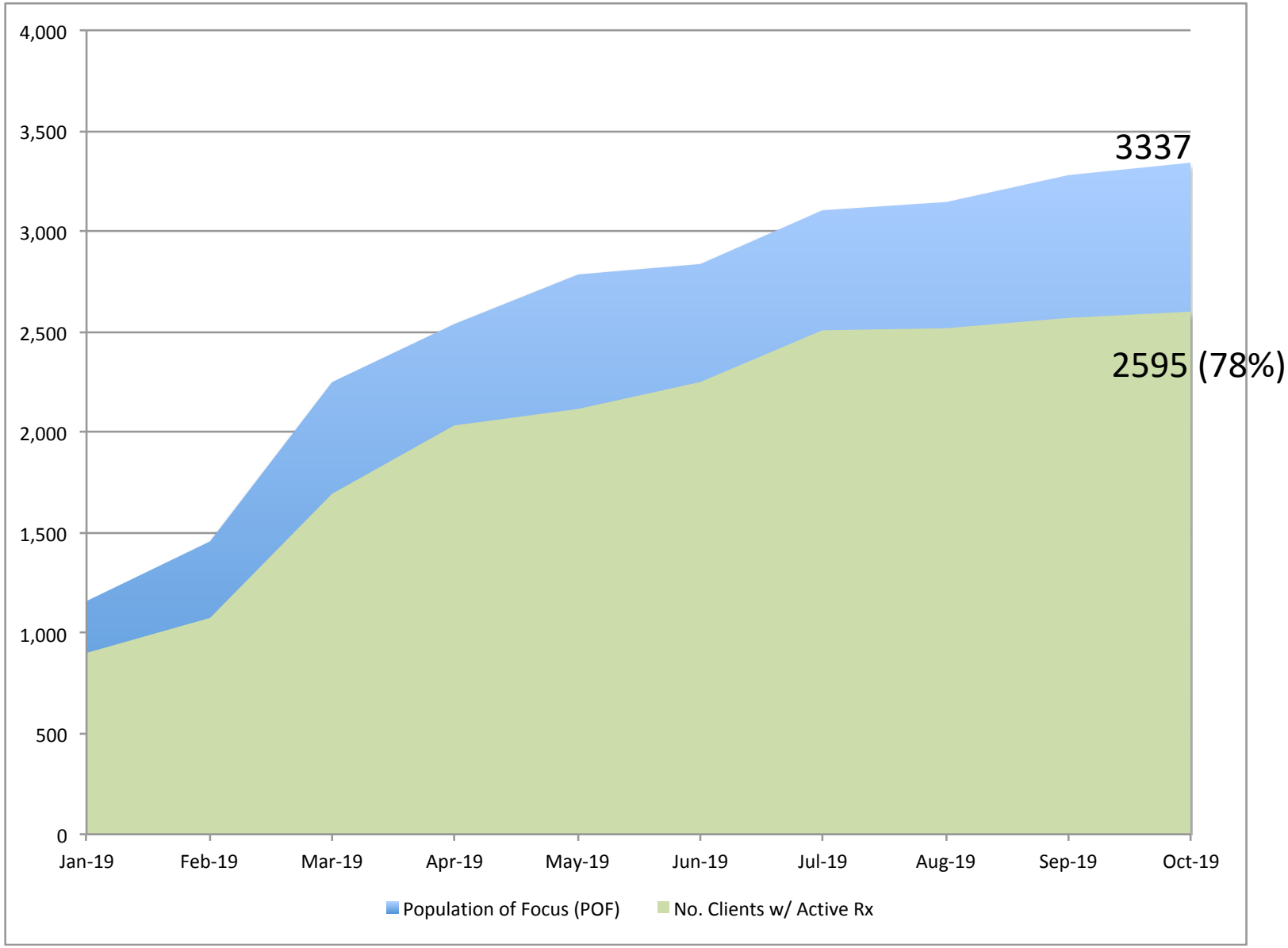
Blanco V., Volkow ND. Lancet 2019; 393(10182):1760-1772
https://www.ncbi.nlm.nih.gov/pubmed/30878228

Our collective results – our opportunities?

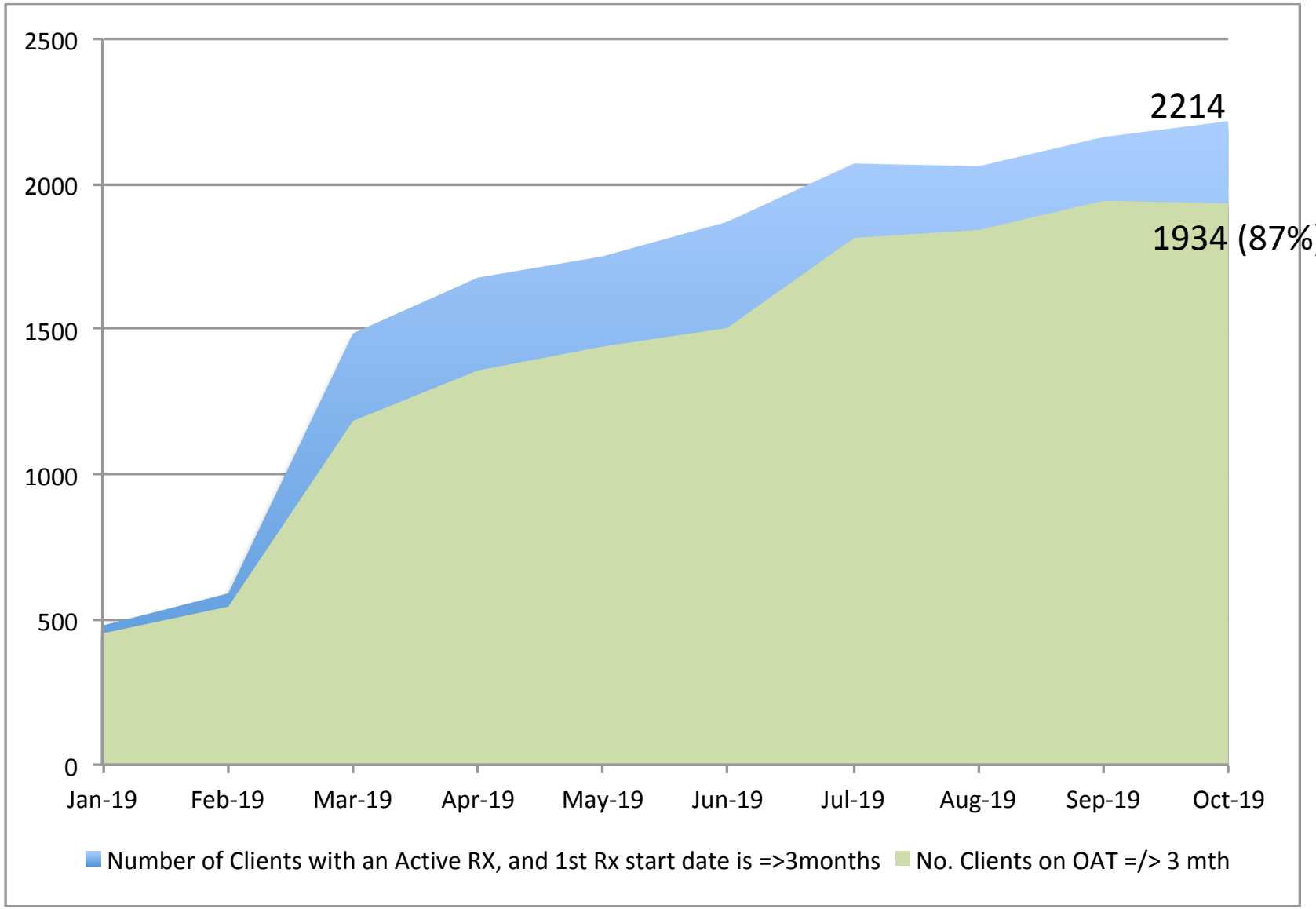
Clients Reached vs. Population of Focus

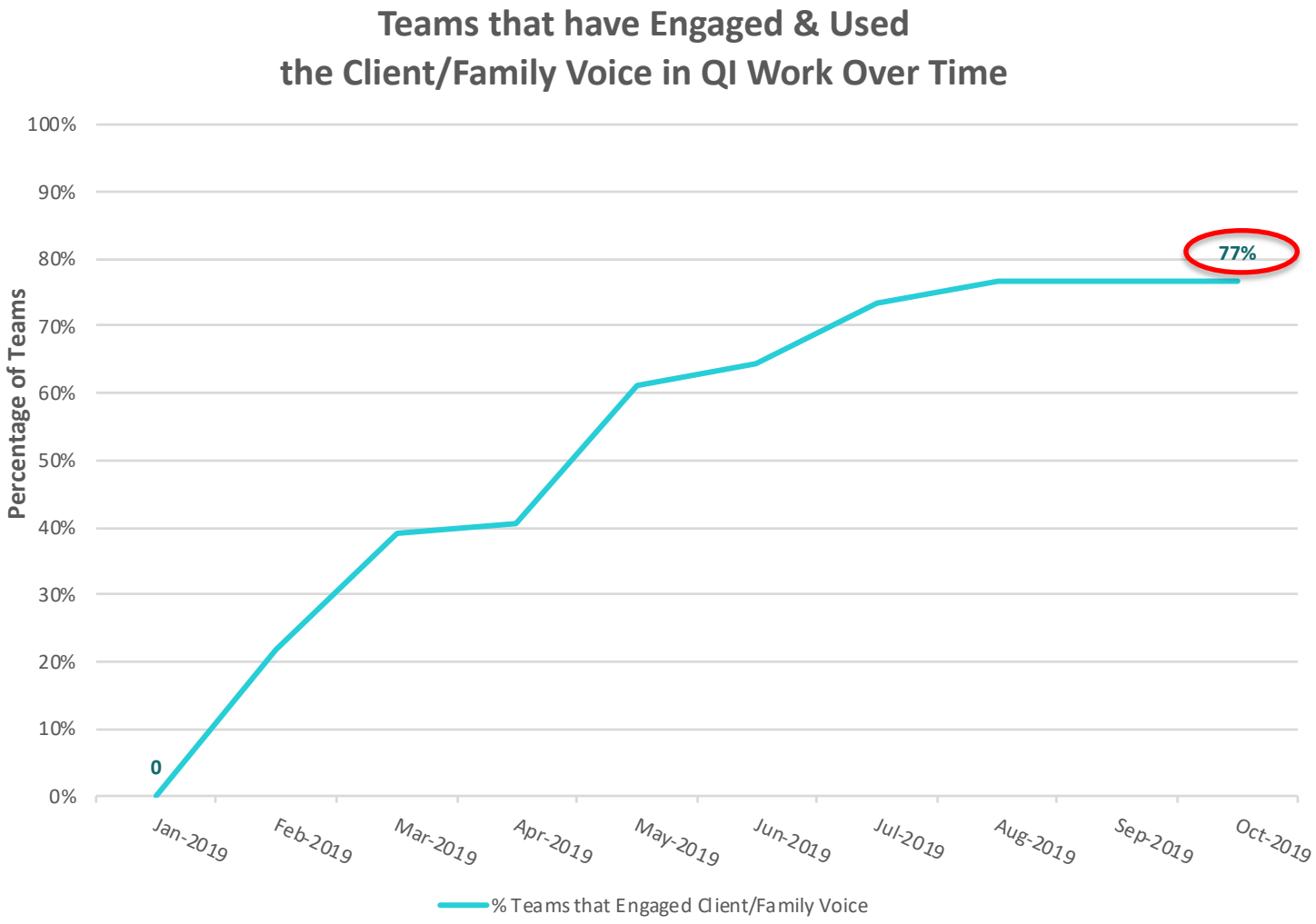


Clients with an Active OAT Prescription Over Time



Clients retained in OAT for 3 months or more over time




Teams that have Engaged & Used
the Client/Family Voice in QI Work Over Time
Percentage of Teams
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
77%
0
Jan-2019
Feb-2019
Mar-2019
Apr-2019
May-2019
Jun-2019
Jul-2019
Aug-2019
Sep-2019
Oct-2019
% Teams that Engaged Client/Family Voice

FINAL RESULTS

30 – 69% Baseline (BC Provincial data)

~ 50% Ontario

~ 73% Vancouver BOOST

78% BOOST Provincial

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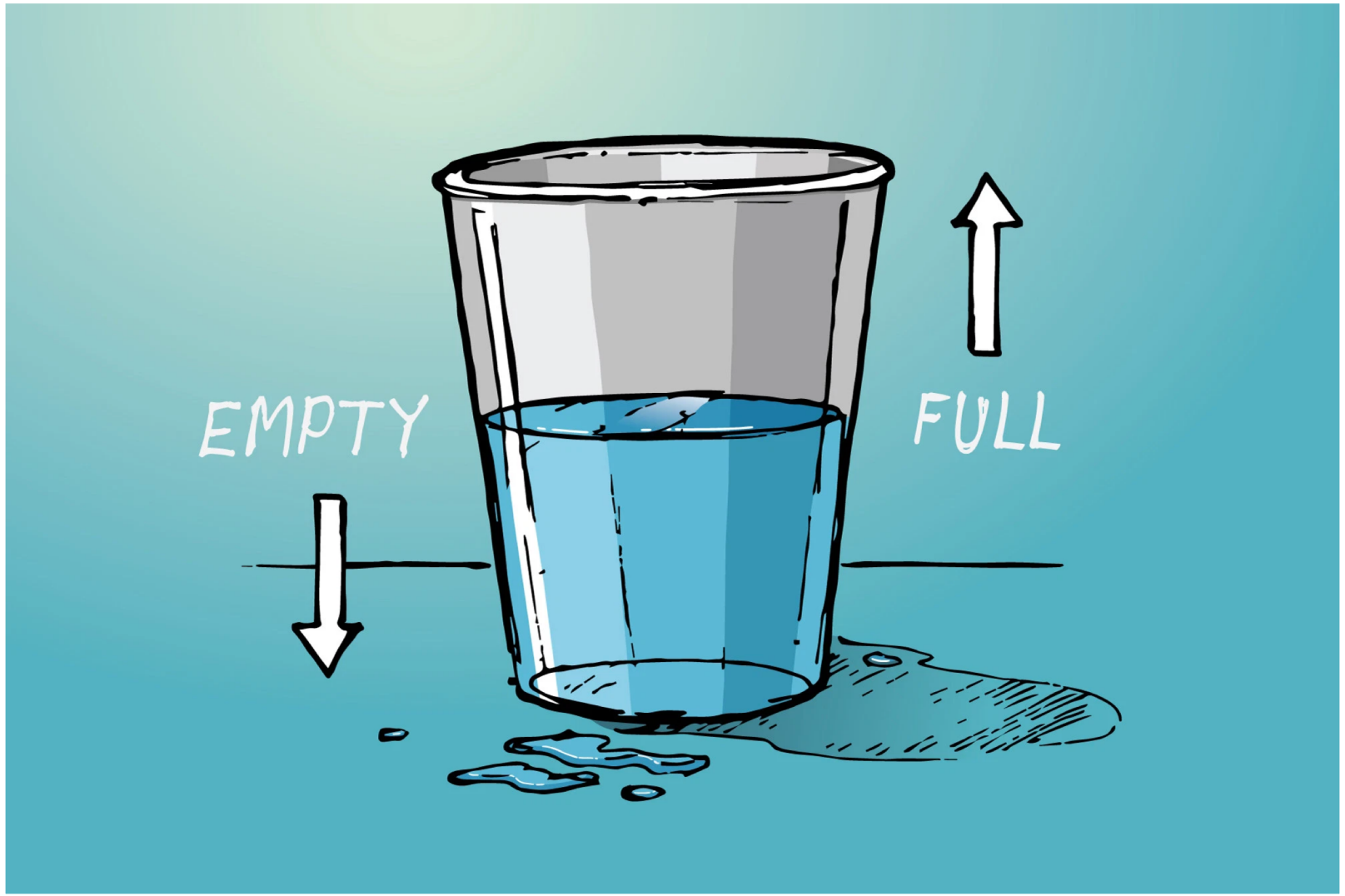
Increased QI Capacity

- 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


EMPTY
FULL

1,212 patients with OUD Dx but not included on the POF

22% have no active OAT prescription

13% are not retained ≥ 3 months

THANK-YOU!

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