Revolutionizing Methadone Initiation: A Virtual Approach to Accessible Care

Dr. J Stryder ZoBell

Lindsey Davis, MPH

56th ASAM Annual Conference: April 26, 2025

Disclosure Information

Revolutionizing Methadone Initiation: A Virtual Approach to Accessible Care

Apr 26, 2025: 1615-1730

Dr. J Stryder Zobell; MBA, MD, CCFP, ISAM

- No disclosures

Disclosure Information

Revolutionizing Methadone Initiation: A Virtual Approach to Accessible Care

Apr 26, 2025: 1615-1730

Lindsey Davis BCR, MPH

- No disclosures

Overview

- Review the opioid crisis in Canada
- MOUD Review & methadone prescribing in Canada
- Alberta's Recovery-Oriented Systems of Care
- Alberta's Virtual Opioid Dependency Program (VODP)
  - Program Overview
  - Virtual methadone prescribing
  - Methadone initiation statistics
- Final takeaway
- Questions

Canada's Opioid Crisis

Public Health Agency of Canada

January - June 2024:

- 21 opioid toxicity deaths per day average, 3, 787 total
- 16 opioid-related poisoning hospitalizations per day average, 2, 846 total
- 73 opioid-related ED visits per day average, 13, 287 total
- 104 opioid OD-related EMS responses per day, 18, 792 total

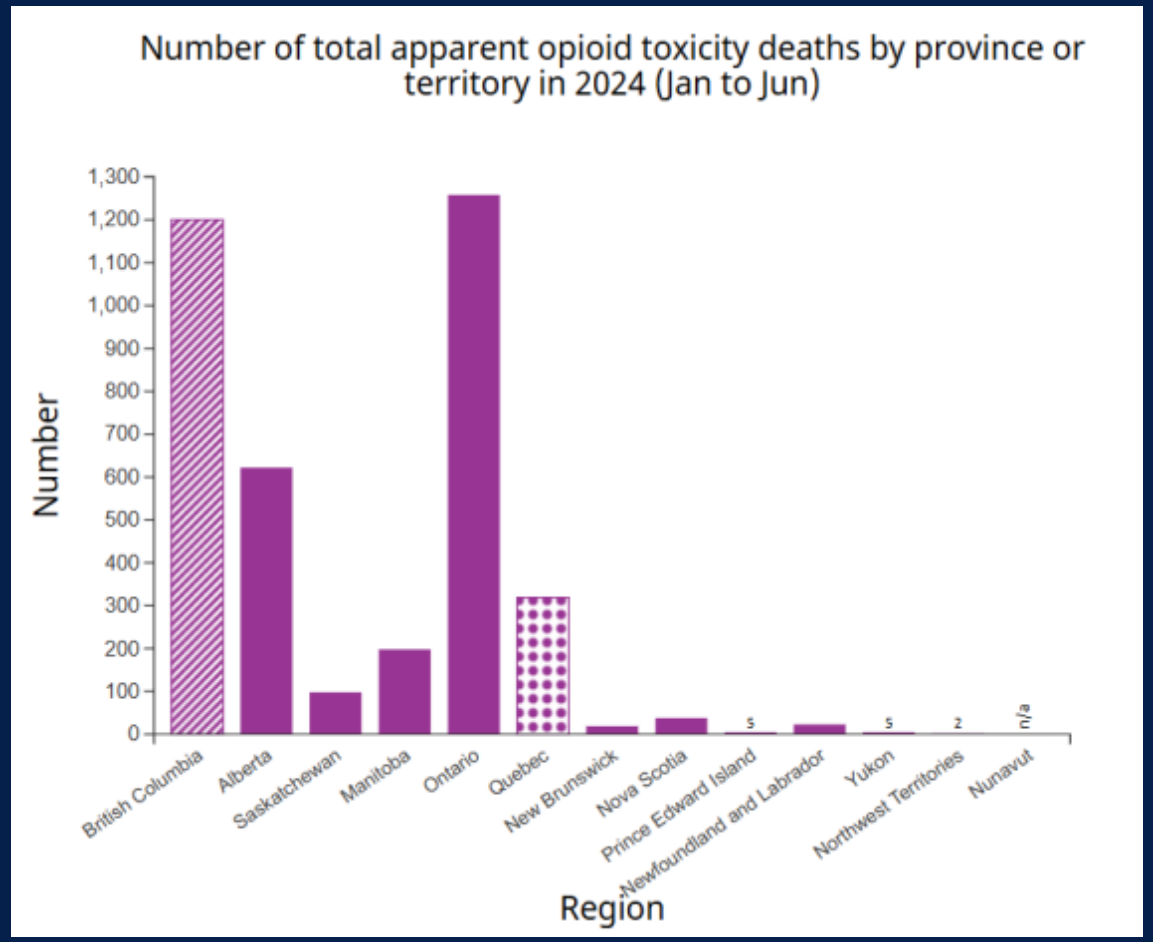
This is 6-11% lower when compared to 2023

79% of these ODs involved fentanyl, increased 39% since 2016

65% of fentanyl related ODs involved a stimulant as well

Government of Canada. (2024, September 13). *Opioid- and stimulant-related harms in Canada.* Health Infobase. https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/

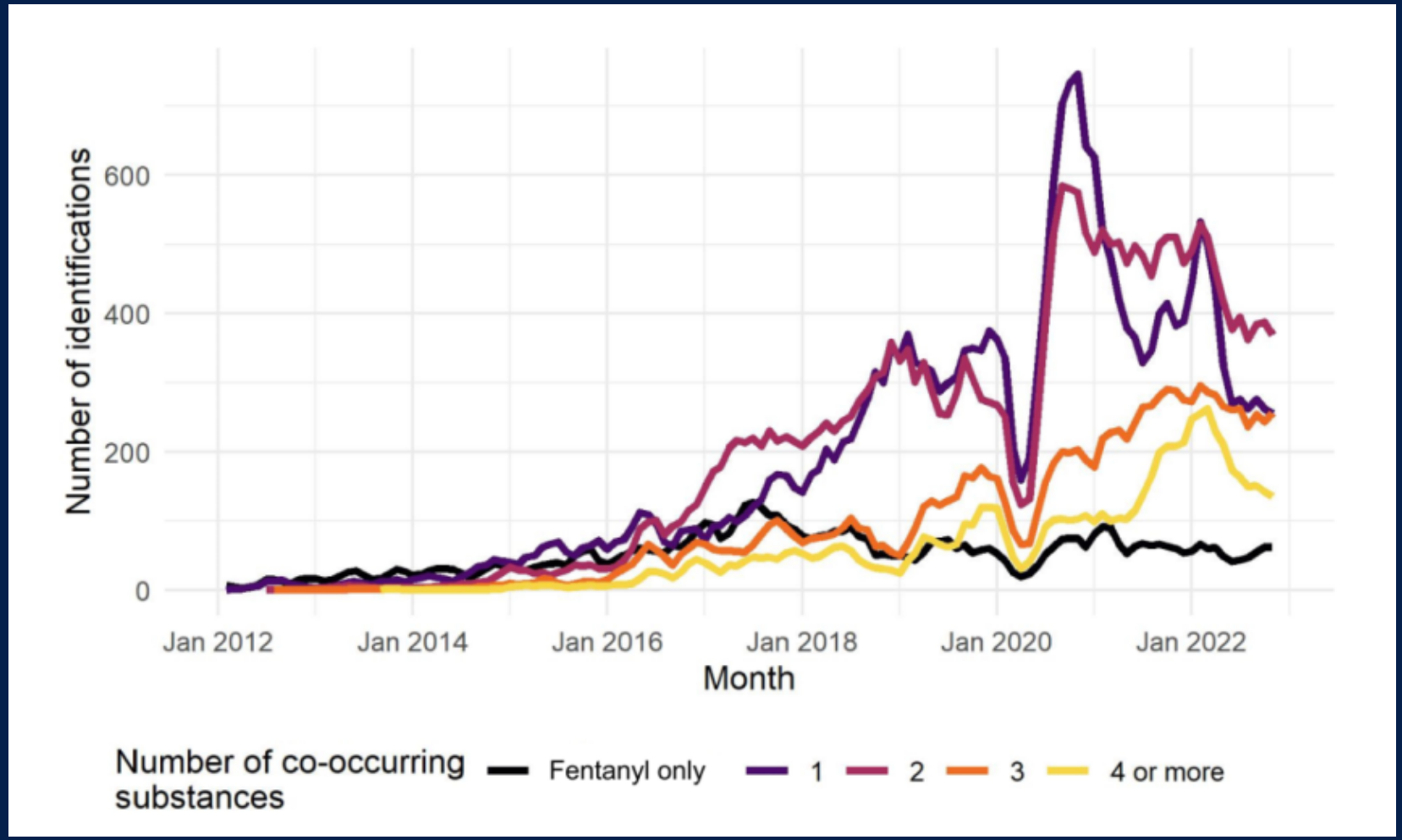
Canada's Opioid Toxicity Deaths by Province/Territory January – June 2024



- BC mortality rates are not differentiated between opioids and unregulated drugs, their numbers include all unregulated drug deaths
- BC has a population on 5.6 million
- AB has a population of 4.2 million
- ONT has a population of 13.6 million
- Eastern Canada has not been hit as hard as central and western Canada, as fentanyl is just starting to emerge on the scene, it is expected their mortality rates will rise over the coming years

Government of Canada. (December 2024). *Graphs: Opioid- and Stimulant-related Harms in Canada — Canada.ca.* Canada.ca. https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/graphs.html?ind=1&unit=1

Co-occurring Substances in Fentanyl 2012-2022



Canada, H. (2023, March 15). *The evolution of Fentanyl in Canada over the past 11 years*. Www.canada.ca. https://www.canada.ca/en/health-canada/services/publications/healthy-living/evolution-fentanyl-canada-11-years.html

Effectiveness of MOUD

Meta-Analysis & Systematic Review determined (n=approx. 750,000):

- Reduction on ODs
- Improved QofL
- Reduction in incarceration risk
- Reduced overall all-cause mortality by 50% for individuals accessing MOUD compared to not accessing MOUD for OUD
- Reduction in suicide rates
- HCV infection rates and mortality remain higher for those accessing MOUD due to cost of treatment and access

Santo, T., Jr, Clark, B., Hickman, M., et. al. (2021). Association of Opioid Agonist Treatment With All-Cause Mortality and Specific Causes of Death Among People With Opioid Dependence: A Systematic Review and Meta-analysis. *JAMA psychiatry*, *78*(9), 979–993. https://doi.org/10.1001/jamapsychiatry.2021.0976

Globally, MOUD is not Evenly Accessible

- Currently theorized that <20% of individuals in the USA who need MOUD are receiving it
- A large cohort study within the Australia region looked at 15,600 individuals starting MOUD treatment
  - 7,183 started buprenorphine, 8,417 started methadone
  - Buprenorphine retention was 44% after 3 months, and 70% with methadone
  - Buprenorphine retentions improved compared to methadone over time
- A second large cohort in Ontario looked at 17,211 patients initiating MOUD for the first time
  - Retention rates differed based on geographical locations
  - The highest retention after 1 year of treatment was less than half

Chatterjee, A., Baker, T., Rudorf, M., et, al. (2024). Mobile treatment for opioid use disorder: Implementation of community-based, same-day medication access interventions. *Journal of substance use and addiction treatment*, *159*, 209272. https://doi.org/10.1016/j.josat.2023.209272

St Louis, J., Barreto, T., Taylor, M., Kane, C., Worringer, E., & Eden, A. R. (2022). Barriers to care for perinatal patients with opioid use disorder: family physician perspectives. *Family practice*, *39*(2), 249–256. https://doi.org/10.1093/fampra/cmab154

McLean, K., Murphy, J., & Kruis, N. (2023). "I think we're getting better but we're still not there": Provider-based stigma and perceived barriers to care for people who use opioids (PWUO). *Journal of Substance Use and Addiction Treatment*, *159*, 209270–209270. https://doi.org/10.1016/j.josat.2023.209270

Taylor, E. N., Timko, C., Binswanger, I. A., Harris, A. H. S., Stimmel, M., Smelson, D., & Finlay, A. K. (2022). A national survey of barriers and facilitators to medications for opioid use disorder among legal-involved veterans in the Veterans Health Administration. *Substance abuse*, *43*(1), 556–563. https://doi.org/10.1080/08897077.2021.1975867

Quick Methadone Review

Full opioid agonist with a long half-life

Developed in the 1930's, but not utilized for heroin use until the 1960's

FDA approved for OUD in 1972

Has been described as an unpredictable drug with multiple cross-tolerances, a wide changing half-life, and a high-potential for toxicity

With the emergence of fentanyl potency, historical guidelines struggle to effectively reach patient's increased opioid tolerances

Dole VP, Nyswander M. A Medical Treatment for Diacetylmorphine (Heroin) Addiction: A Clinical Trial With Methadone Hydrochloride. JAMA. 1965;193(8):646–650. doi:10.1001/jama.1965.03090080008002

Federal Regulation of Methadone Treatment. Development of Medications for the Treatment of Opiate and Cocaine Addictions; Issues for the Government and Cocaine Addictions; Issues for the Government and Private Sector. CE Fulco, CT Liverman, and LE Earley. National Academy Press, Washington, D.C. National Academy of Sciences. (1995)

Methadone Comparison to Buprenorphine

Found that low- to moderate-dose methadone is superior in retention compared to buprenorphine

Buprenorphine lacks the full stimulation at mu receptors thereby providing less euphoria

Flexible dose methadone seems to be cheaper than buprenorphine

Other outcomes seem to be variable dependent on the study

Gomes, T., McCormack, D., Bozinoff, N., et al., Duration of use and outcomes among people with opioid use disorder initiating methadone and buprenorphine in Ontario: a population-based propensity-score matched cohort study. Addiction (Abingdon, England), 117(7), 1972–1981. https://doi.org/10.1111/add.15862

Whelan, P. J., & Remski, K. (2012). Buprenorphine vs methadone treatment: A review of evidence in both developed and developing worlds. Journal of neurosciences in rural practice, 3(1), 45–50. https://doi.org/10.4103/0976-3147.91934

Degenhardt, L., Clark, B., Macpherson, G., Leppan, O., Nielsen, S., Zahra, E., Larance, B., Kimber, J., Martino-Burke, D., Hickman, M., & Farrell, M. (2023). Buprenorphine versus methadone for the treatment of opioid dependence: a systematic review and meta-analysis of randomised and observational studies. The lancet. Psychiatry, 10(6), 386–402. https://doi.org/10.1016/S2215-0366(23)00095-0

Methadone Prescribing in Canada

Prescribing must have permission to prescribe methadone by their governing body

- Usually, a short course to ensure competence and understanding of current MOUD guidelines, risks, and side effects

Pharmacists must follow regulated guidelines by their governing body to dispense methadone

- This is not, however, methadone dispensaries, most pharmacists across Canada are able to dispense methadone

The above has allowed for both prescribing clinician and pharmacy flexibility to provide methadone treatment to patients in a rapid manner

Methadone Saves Lives - Healthcare Professionals and Methadone Maintenance Treatment. (n.d.). CAMH. https://www.camh.ca/en/health-info/guides-and-publications/healthcare-professionals-and-methadone-maintenance-treatment
Canada,. (2025). Information archivée dans le Web | Information Archived on the Web. Publications.gc.ca. https://publications.gc.ca/collections/Collection/H42-2-62-1994E.pdf
Opioid Agonist Therapy (OAT) guidelines Medication-assisted treatment for opioid use disorder: Guidelines for pharmacists and pharmacy technicians. (n.d.). https://abpharmacy.ca/wp-content/uploads/Guidelines_OAT.pdf

Scenario #1

- A 49-year-old male with a significant history of polysubstance use; specifically using "a ball" of fentanyl, 2 grams of methamphetamines, and drinking alcohol
- He contacts your clinic to inform you, that the day after dosing methadone at 50mg, he used fentanyl and had an overdose event
- Would you continue with methadone?

Alberta's Response to the Opioid Crisis

- AB's approach to the opioid crisis is different than both BC and ONT
- BC focuses on access to 'Safe Supply'
- AB focuses on 'Recovery-Oriented System of Care'
- ONT focuses on 'safe and secure prescribing and dispensing of narcotic and controlled medications'

Wikipedia Contributors. (2019, December 19). *Provinces and territories of Canada*. Wikipedia; Wikimedia Foundation. https://en.wikipedia.org/wiki/Provinces_and_territories_of_Canada

Alberta's Principles for Recovery-Oriented Systems of Care

- "Recovery is possible
- Building recovery capital is a primary goal
- Recovery is a personal journey
- Recovery is inclusive of family, friends, coworkers & communities
- Recovery is rooted in a strong, community-based systems of care with multiple points of entry
- Recovery is strength-based and strength-building
- Recovery is an individual experience which feeds into system design
- Recovery systems of care provide cultural safety and are guided by evidence" (p. 20)

Toward an Alberta model of wellness Recommendations from the Alberta Mental Health and Addictions Advisory Council A FRAMEWORK FOR TRANSFORMATIVE CHANGE. (2022 p. 20).
https://open.alberta.ca/publications/toward-an-alberta-model-of-wellness

The Alberta Model: A Recovery-Oriented System of Care

Rx Coverage	Recovery Communities	Indigenous Partnerships
National & Digital Overdose Response Services	Overdose Prevention	Opioid Dependency Programs & Other

The Alberta Model: A Recovery-Oriented System of Care | Alberta.ca. (n.d.). Www.alberta.ca. https://www.alberta.ca/alberta-recovery-oriented-system-of-care

Traditional Methadone Access in Alberta

Brick and mortar ODPs

Located in urban areas

- Patients can be triggered by environmental location

Attend in-person

- Initial intake & assessment completed by RN
- Given appointment to return in 1 week for prescribing clinician appointment

Program retention rates valued higher than removal of access barriers

Dose at clinic or pharmacy

Follow up appointments in-person

Scenario #2

- A 23-year-old female is assessed on Friday for OUD. As her methadone clinic is closed on the weekend, her prescriber has requested that she present on Monday for treatment initiation.
- Sadly, the patient used fentanyl on Saturday and suffered an overdose death consequently.
- What could have been used to prevent this situation?

The Virtual Opioid Dependency Program (VODP), Removing Barriers

VODP Expansion

2017/2018 served:

- 43 unique communities
- 201 unique patients
- Median wait time 6 days
- 1 prescribing physician, 4 supporting staff

2023/2024 served:

- 397 unique communities
- 7,127 unique patients
- Median wait time 1 hour
- 20 prescribing physcians, 100 supporting staff
- Close to 2,000 individuals transitioned to alternate providers

Patient retention is above 50% after 1 year with the program

Recovery Alberta, Mental Health and Addiction and Correctional Health Services, Knowledge, Evidence & Innovation, Performance Measurement. (2025). *Virtual Opioid Dependency Program Survey Data Analysis.* Edmonton, AB.

Wass, M. (2025). Virtual Opioid Dependency Program Expansion.

VODP Referral Sources 2021-2023

VODP Referrals by Referral Source *(for the last two fiscal years)*

	2021/2022		2022/2023	
Referral Source	**# of Clients**	**Percent (%)**	**# of Clients**	**Percent (%)**
Self	*3573*	*72.8%*	*4673*	*59.4%*
Corrections	474	9.7%	1307	16.6%
Police Services/RCMP	281	5.7%	1316	16.7%
Detox	165	3.4%	130	1.7%
Community Physician/Psychiatrist	137	2.8%	150	1.9%
ER	127	2.6%	70	0.9%
Children's Services/PcHAD	N/A	N/A	6	0.1%
Inpatient Referral	58	1.2%	27	0.3%
Other Opioid Dependency Program	34	0.7%	27	0.3%
Community Hospital/Clinic	20	0.4%	15	0.2%
Community AMH Services	17	0.3%	6	0.1%
Other	13	0.3%	131	1.7%
Nurse/Nurse Practitioner/Paramedic	8	0.2%	14	0.2%
TOTAL	**4907**	**100%**	**7872**	**100%**

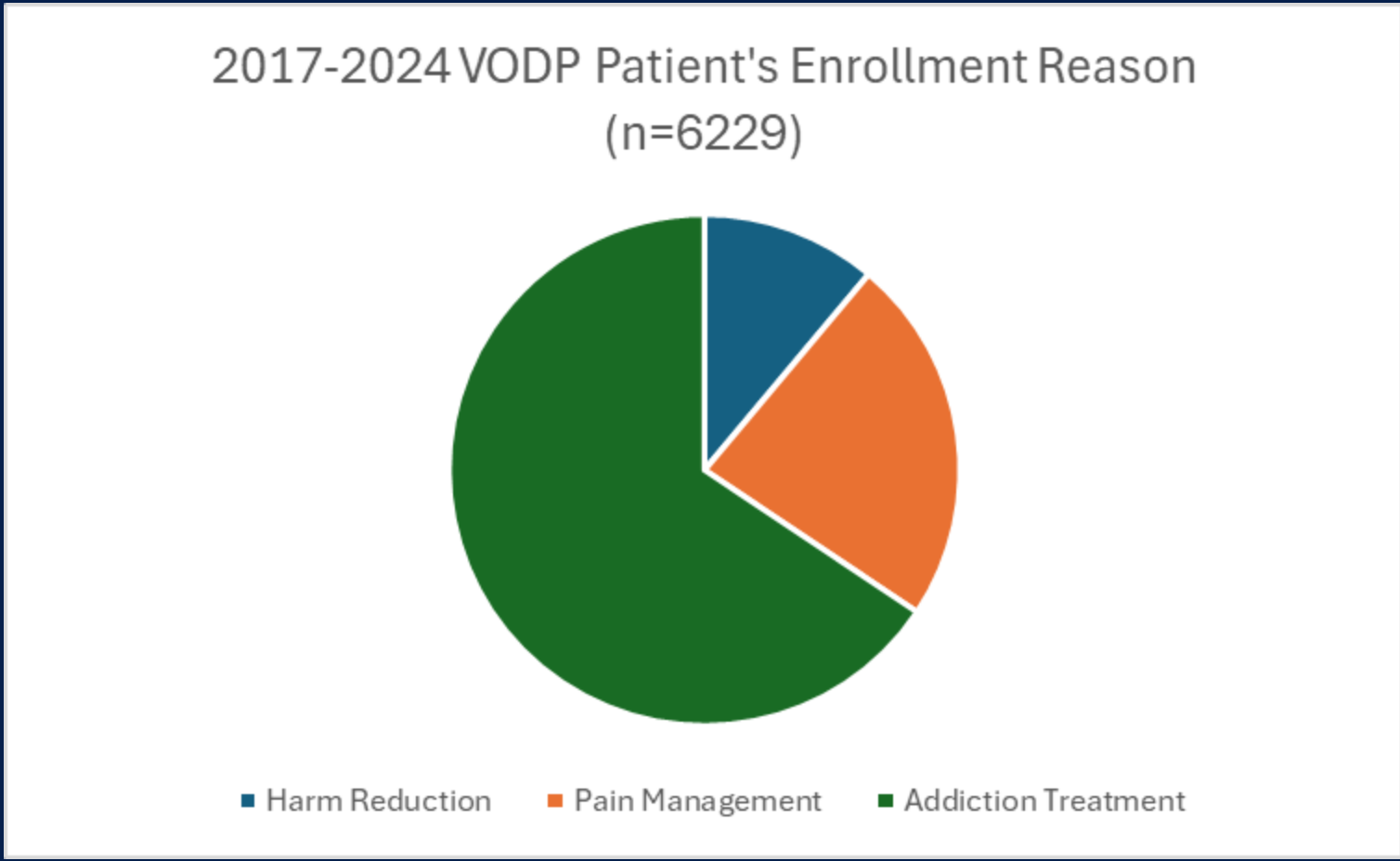
Molner, G. (2023). VOPD Annual Utilization Report 2022-2023.

VODP 2024 Patient Statistics

Fiscal Quarter	Time Period	Active Clients	Admissions	Discharges
Q1 2023/2024	April	2359	553	555
	May	2396	629	563
	June	2275	612	568
	Total Q1	**3848**	**1794**	**1686**
Q2 2023/2024	July	2245	585	550
	August	2321	608	572
	September	2263	544	502
	Total Q2	**3682**	**1737**	**1624**
Q3 2023/2024	October	2126	675	522
	November	2345	713	560
	December	2284	629	536
	Total Q3	**3479**	**2017**	**1618**
Q4 2023/2024	January	2366	638	557
	February	2134	490	1093
	March	2155	541	527
	Total Q4	**3420**	**1669**	**2177**
2023/2024		**6595**	**7217**	**7105**

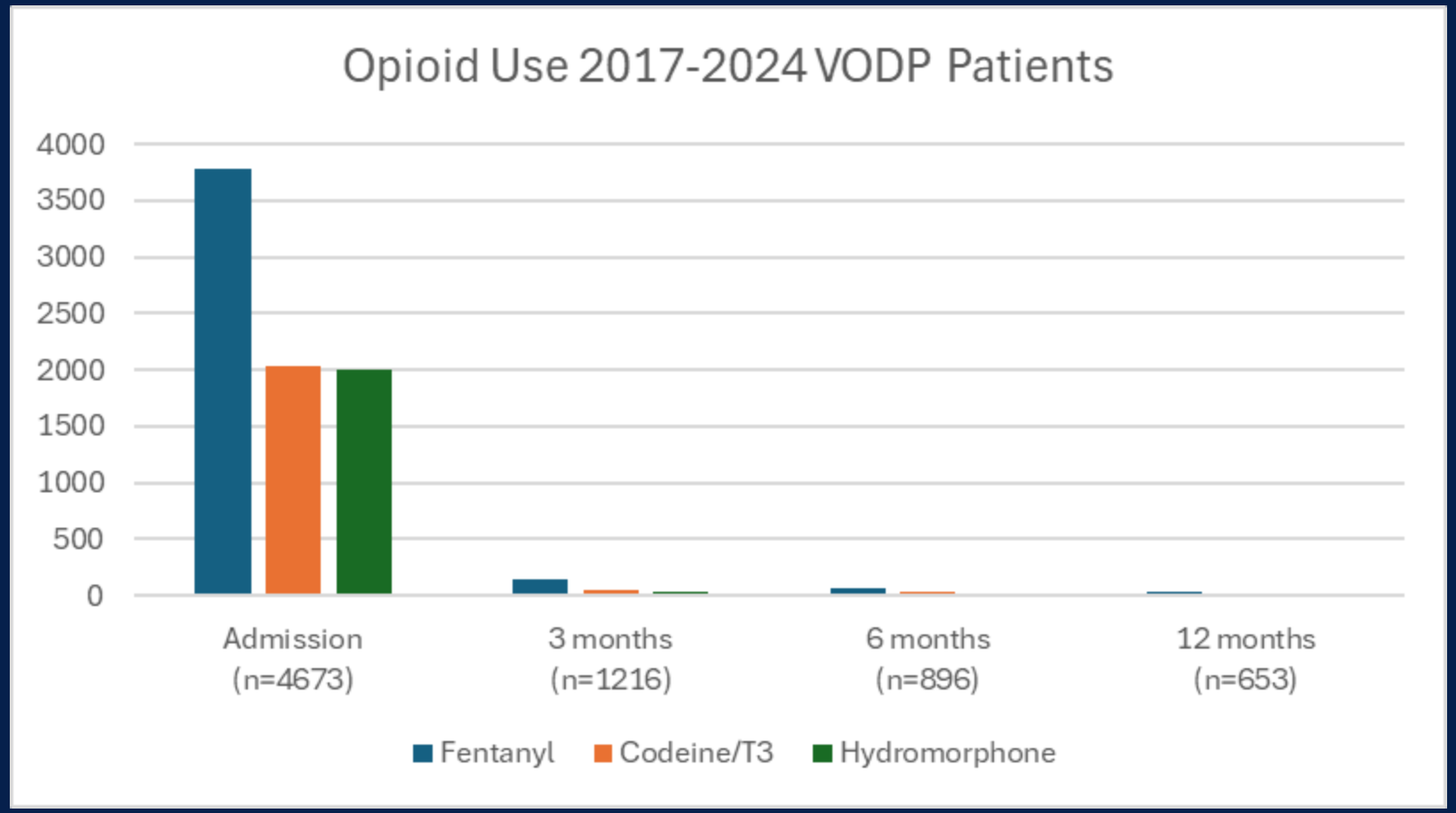
Wass, M. (2025). Virtual Opioid Dependency Program Expansion.

Historical VODP Patient Reason for Enrolment



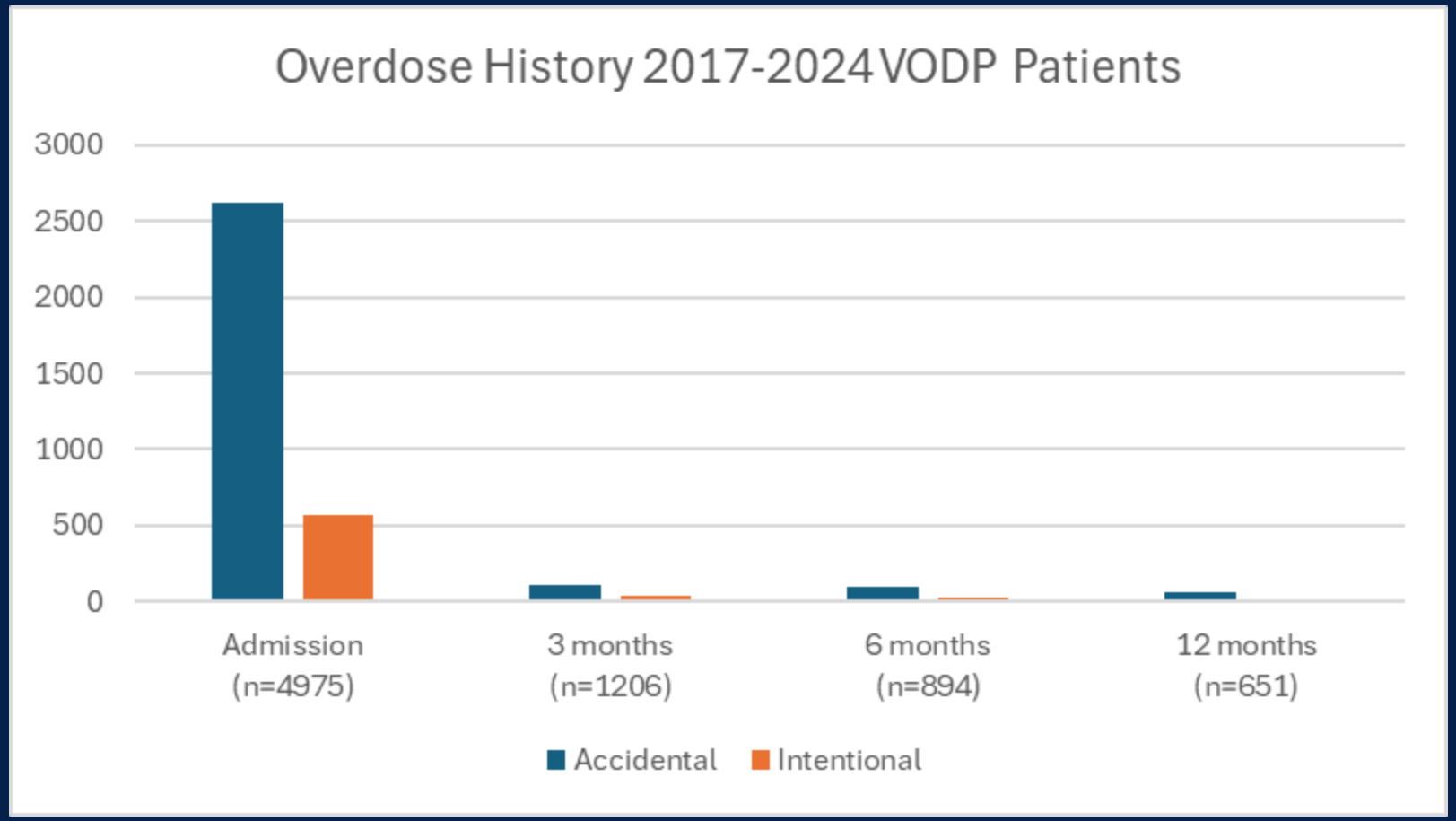
Recovery Alberta, Mental Health and Addiction and Correctional Health Services, Knowledge, Evidence & Innovation, Performance Measurement. (2025). *Virtual Opioid Dependency Program Survey Data Analysis.* Edmonton, AB.

Historical VODP Patient Opioid Use



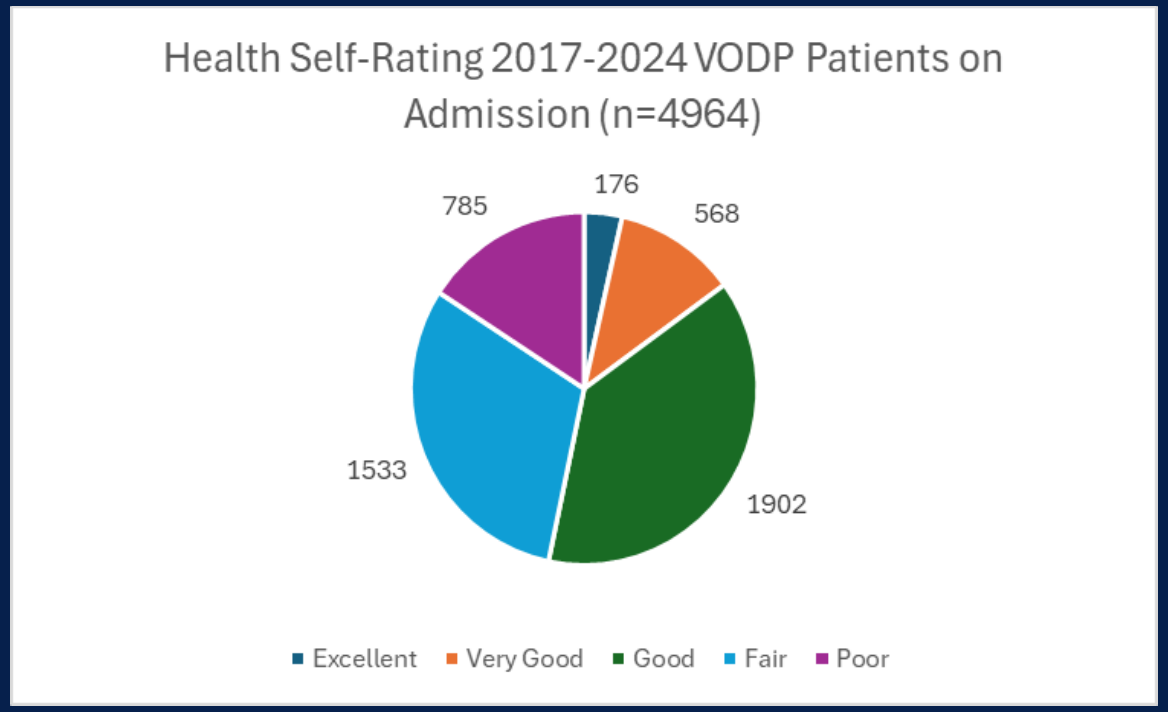
Recovery Alberta, Mental Health and Addiction and Correctional Health Services, Knowledge, Evidence & Innovation, Performance Measurement. (2025). *Virtual Opioid Dependency Program Survey Data Analysis.* Edmonton, AB.

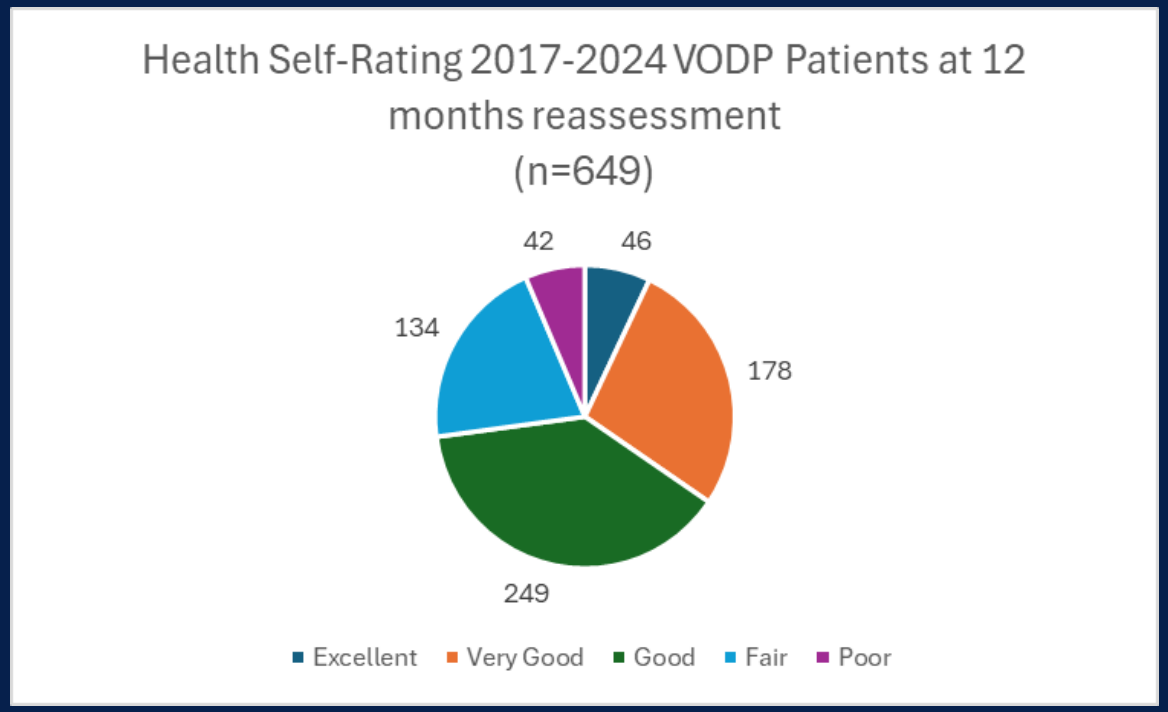
Historial VODP Overdoses Rates



Recovery Alberta, Mental Health and Addiction and Correctional Health Services, Knowledge, Evidence & Innovation, Performance Measurement. (2025). *Virtual Opioid Dependency Program Survey Data Analysis.* Edmonton, AB.

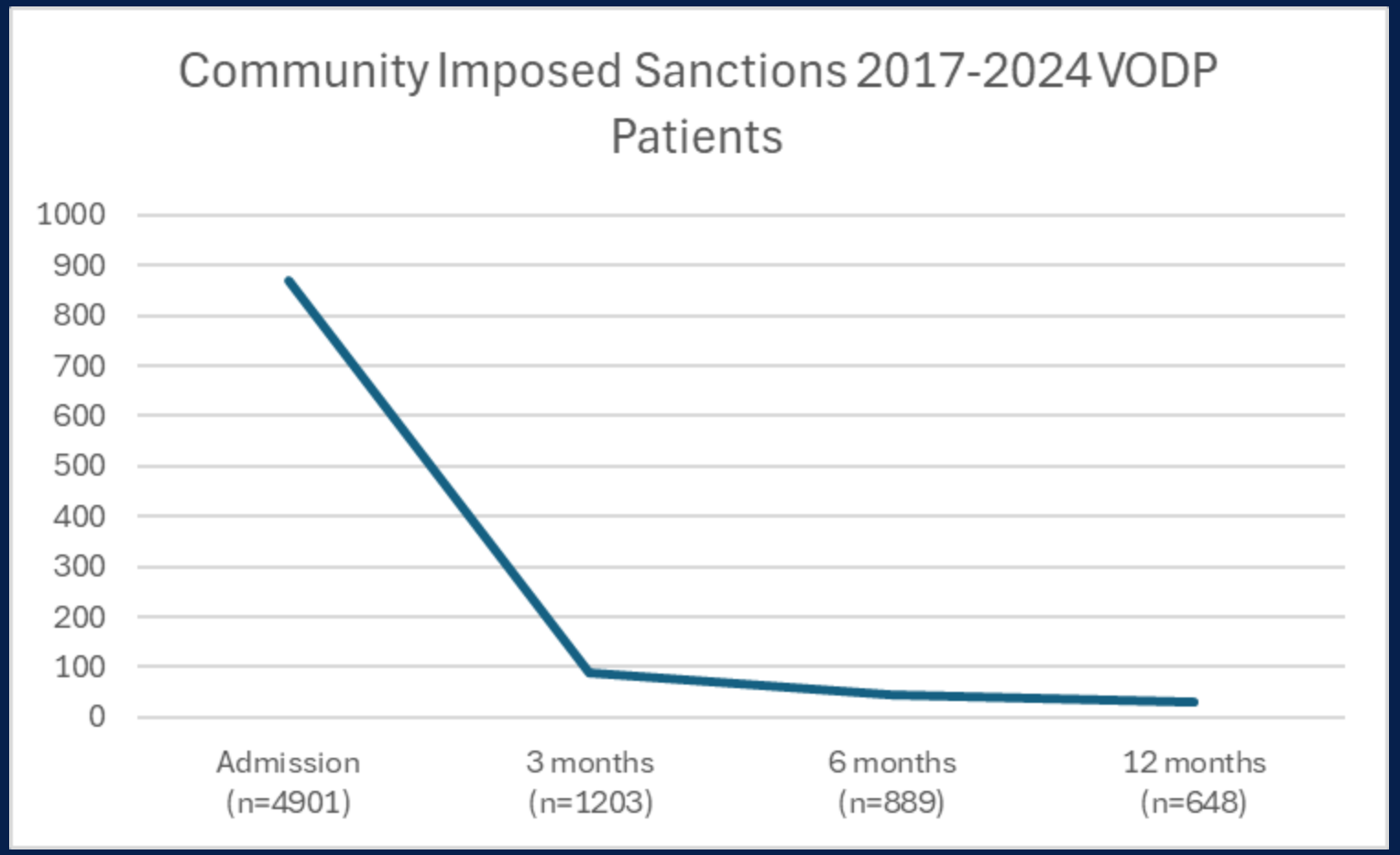
Historical VODP Patient Self-Health Rating





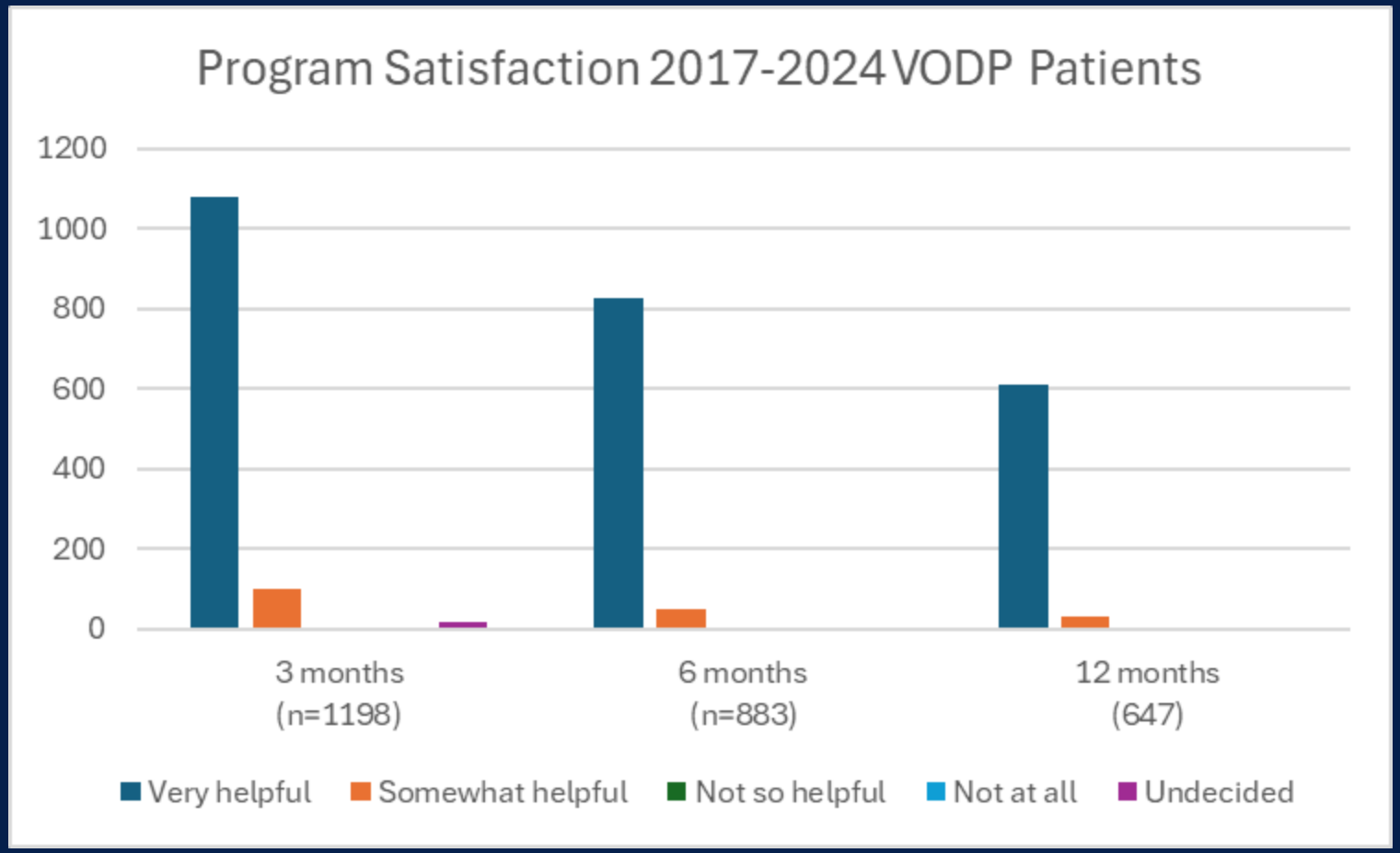
Recovery Alberta, Mental Health and Addiction and Correctional Health Services, Knowledge, Evidence & Innovation, Performance Measurement. (2025). *Virtual Opioid Dependency Program Survey Data Analysis.* Edmonton, AB.

Historical VODP Patient Community-Imposed Sanctions



Recovery Alberta, Mental Health and Addiction and Correctional Health Services, Knowledge, Evidence & Innovation, Performance Measurement. (2025). *Virtual Opioid Dependency Program Survey Data Analysis.* Edmonton, AB.

Historical VODP Patient-Reported Program Satisfaction



Recovery Alberta, Mental Health and Addiction and Correctional Health Services, Knowledge, Evidence & Innovation, Performance Measurement. (2025). *Virtual Opioid Dependency Program Survey Data Analysis.* Edmonton, AB.

VODP Same Day Start Team (SDS)

- Team started in 2019
- Patients can call VODP toll-free line from pharmacists, GPs, EDs, or local community sources
- Patients connect with VODP from own communities for MOUD assessment
- After phone/Zoom MOUD assessment, MOUD can be dispensed by preferred pharmacy within one hour
- Service runs 0600-2400, 365 days/year
- SDS team handled 4,727 cases in 2022/2023

Molner, G. (2023). VOPD Annual Utilization Report 2022-2023.

The SDS Process

Patient contacts VODP and is put through to the SDS team

A pre-history is obtained by an admission manager to determine patient's opioid and substance use severity, as well as risk acuity

The admission manager contacts the on-call prescribing clinician to report on the patient

The prescribing clinician contacts the patient directly, and a treatment discussion/decision is agreed upon

An Rx is sent to pharmacy within an hour

Low Barrier Urgent Access (LBUA) Team

- Team that was developed to provide MOUD to patients with significant barriers to stability
  - Patients suffering from transience and/or difficulties with regular contact
  - Patients without phones
  - Patients who are unhoused and unsheltered
  - Patients who are under Police Detention (aka Cells Starts)
  - Patients contacting from Overdose Prevention Sites

LBUA Cell Starts

While the patient is in Police Custody a paramedic mediates contact with VODP

- The patient informs the paramedic of their OUD history and requests treatment
- The patient is put in contact with the LBUA team, and a brief assessment is conducted over the phone
- The prescribing clinician on-call is contacted, who then contacts the patient
- A treatment plan is reviewed and decided upon, and the patient can receive medication while in holding cells

MOUD in cells

- Participating pharmacist delivers to cells
- Police pick up MOUD at pharmacy
- Paramedic delivers and administers

Methadone is typically initiated in this setting if the patient was recently on a methadone prescription

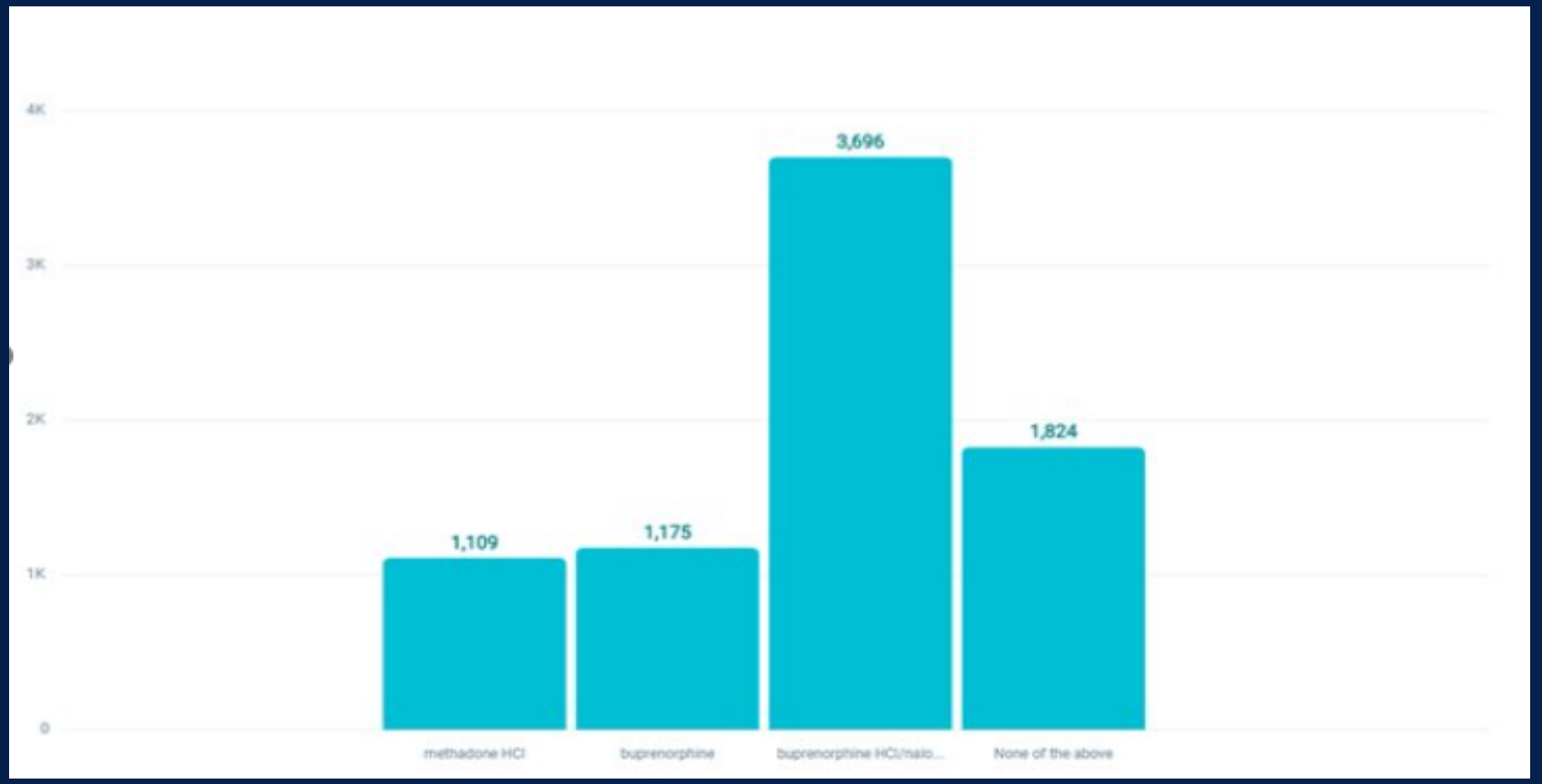
SDS and LBUA

The two main teams for methadone initiation

Current Alberta guidelines require Zoom appointment with patient and prescribing clinician before initiation of methadone

Buprenorphine formulations are considered first-line of treatment at VODP with methadone being a strong second-line treatment option

VODP 2023/2024 MOUD Initiations



Wass, M. (2025). Virtual Opioid Dependency Program Expansion.

VODP's Methadone Data

Between January 1, 2021 – April 11, 2024

- n=1,000 random sample of VODP methadone initiations

Patient characteristics:

- Mean Age: 34.4
- Gender average:
  - Male: 55%
  - Female: 45%

VODP Retained Patients

Self-reported co-morbid physical conditions

Respiratory: 16.6%

Cardiac: 13.7%

Diabetes: 4.5%

Cancer: 3.3%

Self-reported co-morbid mental health conditions

Depression: 33%

Anxiety: 30.4%

ADHD: 9.6%

PTSD: 8.8%

Bipolar Disorder: 5.7%

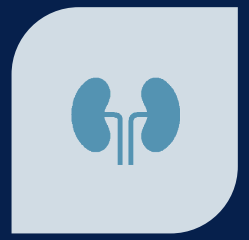
Psychotic Illness: 2.3%

Personality Disorder: 3.8%

Currently at VODP of the 1,677 active patients, 16% are prescribed methadone

Self-Reported Polysubstance Use

CRACK/COCAINE:
6%



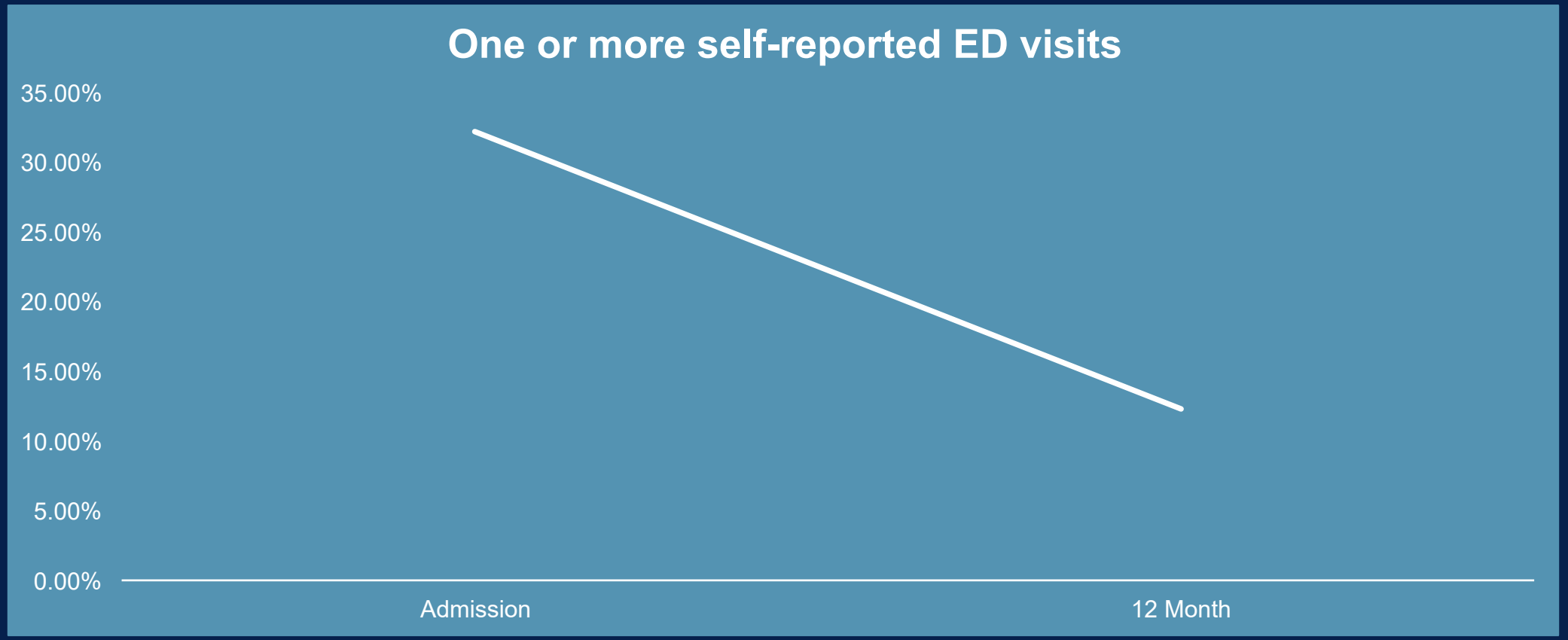
AMPHETAMINES:
5%

METHAMPHETAMINES:
18%

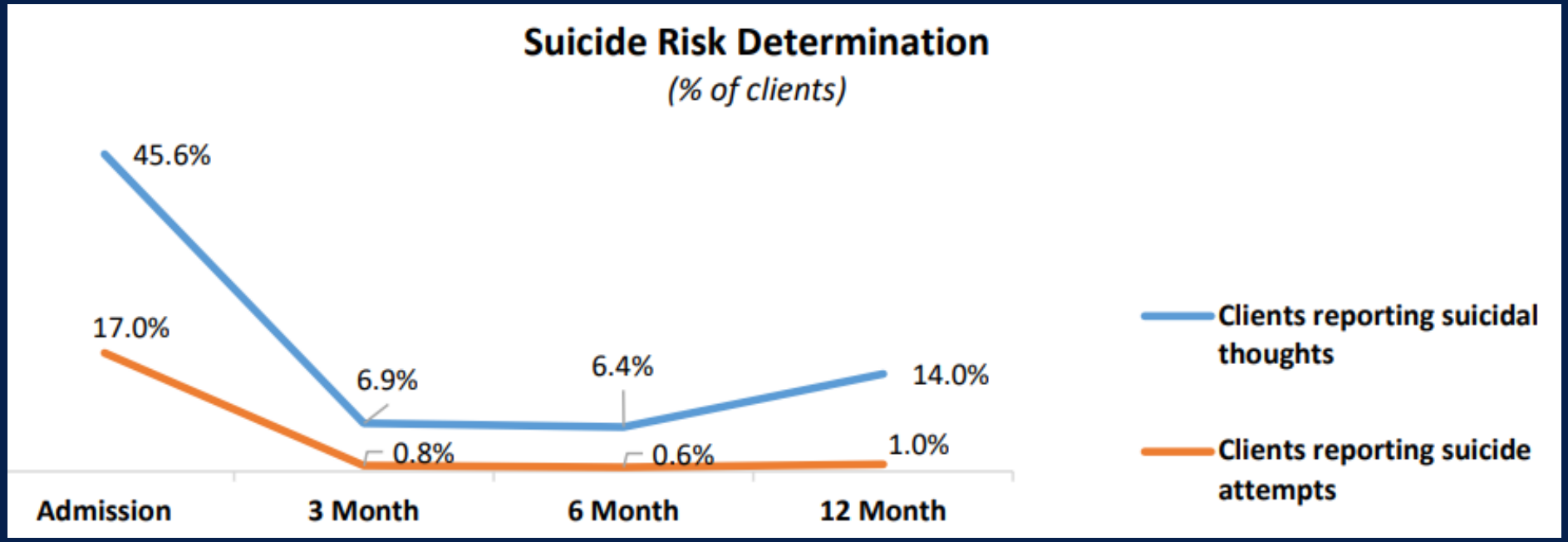
BENZODIAZEPINES:
11%

OTHER SUBSTANCES:
3%

Self-Reported Emergency Department Visits

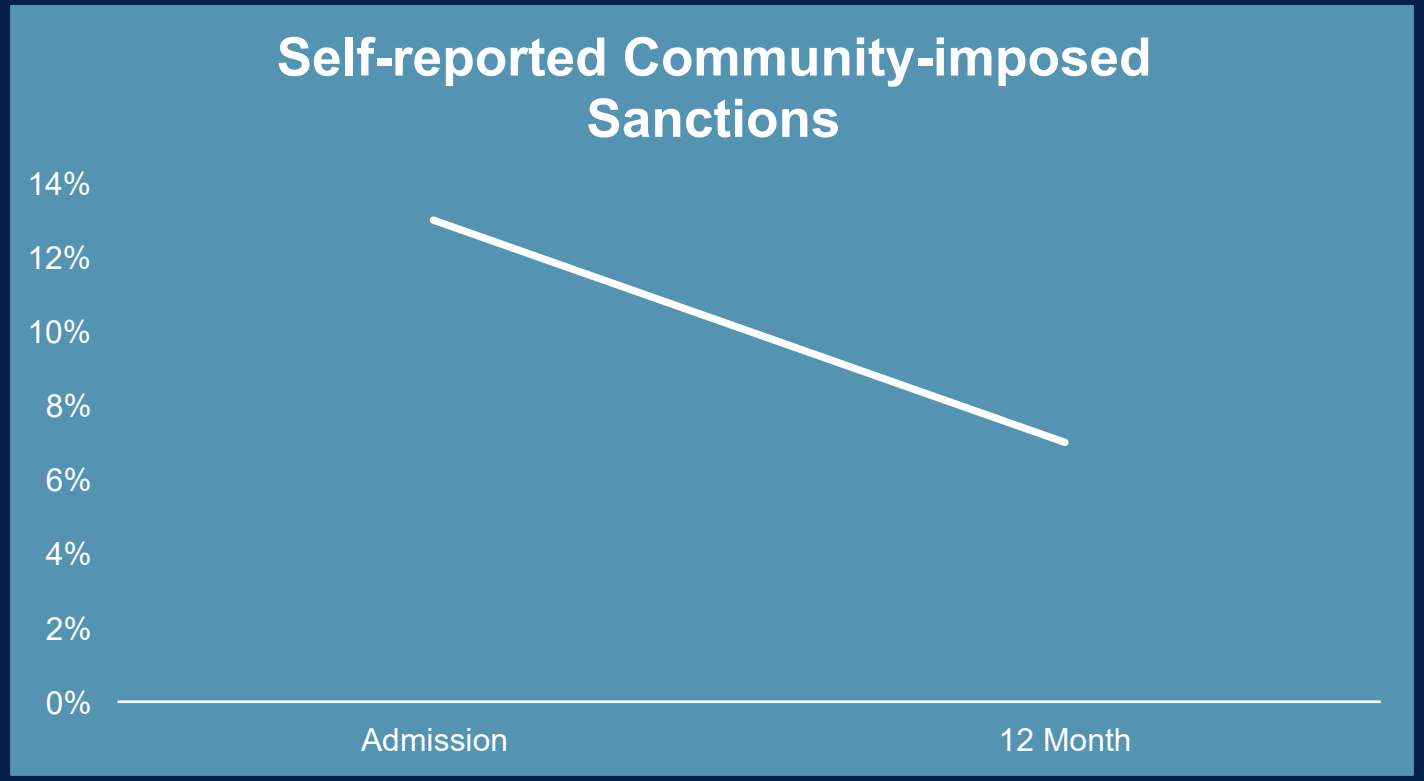


Self-Reported Suicide Risks

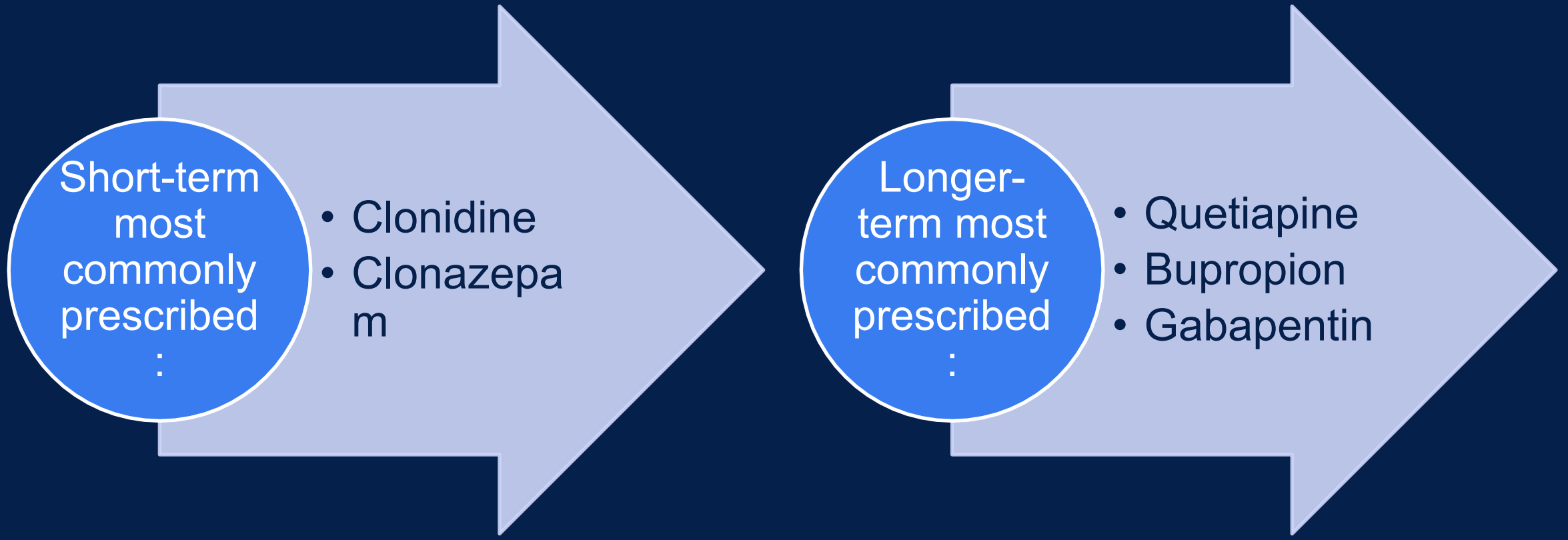


Molner, G. (2023). VOPD Annual Utilization Report 2022-2023.

Legal Involvement



Common Adjunct Meds



During Treatment

While receiving active treatment	VODP retains 52% of patients in active treatment
• 9% of patients attended some form of in-patient treatment • 9% attended detox	• Reduced mortality risk • Barrier free service brings patients back to re-start when they are ready

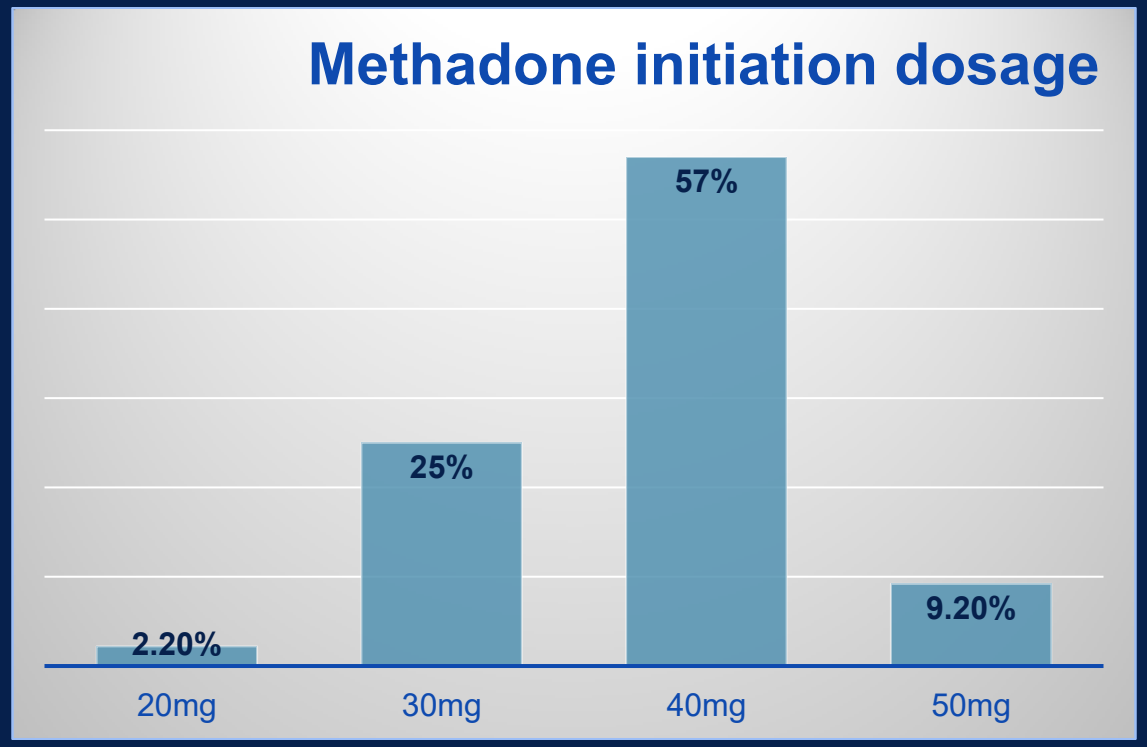
Scenario #3

- A 37-year-old female requests to be initiated onto methadone
- This is her 3rd initiation in the last 18-months
- Well documented 12-year history of illicit opioid use
  - High yield fentanyl use, 3.5g/day
  - 10+ overdoses in the past 6 months
- How would you initiate this patient onto methadone to effectively stabilize her swiftly and mitigate concurrent use in the initiation phase?

VODP Methadone Prescribing Themes

- All patients start on DWI
  - Witnessed by pharmacist or other health care professional
- Once transitioned to case management & completion of reassuring UTT & baseline ECG, carries can be increased to:
  - MWF witnessed
  - 1 witness/6 carries
  - 1 witness/13 carries
- Typical initiation dose is 30mg, titration 10mg q3days
- Higher initiation dose and/or more rapid titration has been utilized
  - Documented history of fentanyl use
  - High yield fentanyl use
  - Initiation has started safely at 50mg, titration 10mg q3days
- Metadol tablets are not prescribed
  - Increased risk of diversion & improper ingestion

Typical Methadone Initiation Themes



Liu, P., Chan, B., Sokolski, E., Patten, A., & Englander, H. (2024). Piloting a Hospital-Based Rapid Methadone Initiation Protocol for Fentanyl. Journal of addiction medicine, 18(4), 458–462. https://doi.org/10.1097/ADM.0000000000001324

Racha, S., Patel, S. M., Bou Harfouch, L. T., Berger, O., & Buresh, M. E. (2023). Safety of rapid inpatient methadone initiation protocol: A retrospective cohort study. Journal of substance use and addiction treatment, 148, 209004. https://doi.org/10.1016/j.josat.2023.209004

Steiger, S., McCuistian, C., Suen, L. W., Shapiro, B., Tompkins, D. A., & Bazazi, A. R. (2024). Induction to Methadone 80 mg in the First Week of Treatment of Patients Who Use Fentanyl: A Case Series From an Outpatient Opioid Treatment Program. Journal of addiction medicine, 18(5), 580–585. https://doi.org/10.1097/ADM.0000000000001362

Scenario #4

- A 63-year-old male has been referred to your clinic on 200mg methadone for chronic non-cancer pain
- Most recent ECG reports QTc of 483
- Patient smokes 1 pack cigarettes/day, and has beginning stages of COPD
- Intermittent alcohol consumption
- How would you assume this patient's care?

Caveats of methadone Prescribing

Continued illicit opioid use	• Titration may not reach therapeutic levels due to tolerance chasing • Recommended bridge to buprenorphine formulation, often buprenorphine-XR
Missed doses	• Typical 3 days missed reinitiation at 50% of prescribed dose • After 4 missed doses, Rx is canceled until patient makes contact • Reduction in carries likely
Failure to make contact	• Hold dose at pharmacy, patient to contact when presents at pharmacy
MOUD with higher risk profile compared to buprenorphine	• Risk of QTc prolongation • Concurrent illicit use can increase overdose risk • Certain communities have concerns with diversion

Overdose Risks

- Recognition that Methadone is a full opioid agonist
  - Mixing opioids with opioids is inherently dangerous
  - Previous data has shown that overdoses with Methadone involvement do occur
- Overdose events do occur on occasion
  - Recognition that recovery from illicit opioid use is different for everyone
  - VODP takes these cases seriously as patient centered care, which includes patient safety is our top priority
  - Discussion with the patient will likely revolve around adjustment of treatment, or possible transition of treatment to a different MOUD

Sordo L, Barrio G, Bravo MJ, Indave BI, Degenhardt L, Wiessing L, et al. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. BMJ. 2017;357:j1550.
Stone AC, Carroll JJ, Rich JD, Green TC. One year of methadone maintenance treatment in a fentanyl endemic area: Safety, repeated exposure, retention, and remission. J Subst Abuse Treat. 2020;115:108031.
Canadian Research Initiative in Substance Misuse, editor. CRISM National Guideline for the Clinical Management of Opioid Use Disorder2018.

VODP Key Points

VODP focuses on OUD treatment, however other substance use is also treated during admissions

- Meds prescribed to augment stabilization in recovery

VODP focuses on rapid initiation onto life-saving treatment

We recognize that virtual care has drawbacks

- Cannot physically assess patients
- Non-opioid related health concerns, referred to GP in community

Some patients receive ongoing adjunct meds on case-by-case basis

Technology that has aided Virtual Care in Alberta

Connect Care

- All heath care systems utilize same EMR
- Private clinics may not pay to be part of system
- Reduces Dr shopping, duplication of care
- Increases communication between care providers

Netcare

- Pharmacist Rx database

Telehealth locations in all rural health care centres

Zoom

Text messaging

Final Takeaways

- methadone for MOUD is an effective treatment modality
- Prescribers must continually assess patients on methadone to ensure safety with prescribing
- Patients on methadone fare the best when they engage with prescribers and care teams, and have social supports
- The goal is to save lives, reduce harm, promote health equity and remove access barriers to treatment
- With appropriate regulations and monitoring, methadone can be safely, and successfully prescribed virtually, and dispensed by pharmacists

Acknowledgements

- Canadian Centre of Recovery Excellence (CoRE)
- Virtual Opioid Dependency Program (VODP)
- Dr Imran Ghauri
- Megan Mielnik
- Jodie Tofsrud
- Kelly Smith
- Tuxephoni Winsor
- Steve Clelland
- Maureen Wass
- Jen Nasr
- Dr Michele Dyson
- Josh Hathaway

Thank you & Questions?

References

1. Government of Canada. (2024, September 13). *Opioid- and stimulant-related harms in Canada*. Health Infobase. https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/
2. Government of Canada. (December 2024). *Graphs: Opioid- and Stimulant-related Harms in Canada — Canada.ca*. Canada.ca. https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/graphs.html?ind=1&unit=1
3. Canada, H. (2023, March 15). *The evolution of Fentanyl in Canada over the past 11 years*. Www.canada.ca. https://www.canada.ca/en/health-canada/services/publications/healthy-living/evolution-fentanyl-canada-11-years.html
4. *Nitazenes (CCENDU Drug Alert) | Canadian Centre on Substance Use and Addiction*. (n.d.). Www.ccsa.ca. Retrieved February 22, 2024, from https://www.ccsa.ca/nitazenes-ccendu-drug-alert
5. Ellis, C. R., Kruhlak, N. L., Kim, M. T., Hawkins, E. G., & Stavitskaya, L. (2018). Predicting opioid receptor binding affinity of pharmacologically unclassified designer substances using molecular docking. *PLOS ONE*, *13*(5), e0197734. https://doi.org/10.1371/journal.pone.0197734
6. *Xylazine Increasingly Found in Canada's Illegal Drug Supply*. (n.d.). Medscape. https://www.medscape.com/viewarticle/animal-tranquilizer-xylazine-increasingly-found-canadas-2024a10002vp?form=fpf
7. Santo, T., Jr, Clark, B., Hickman, M., Grebely, J., Campbell, G., Sordo, L., Chen, A., Tran, L. T., Bharat, C., Padmanathan, P., Cousins, G., Dupouy, J., Kelty, E., Muga, R., Nosyk, B., Min, J., Pavarin, R., Farrell, M., & Degenhardt, L. (2021). Association of Opioid Agonist Treatment With All-Cause Mortality and Specific Causes of Death Among People With Opioid Dependence: A Systematic Review and Meta-analysis. *JAMA psychiatry*, *78*(9), 979–993. https://doi.org/10.1001/jamapsychiatry.2021.0976
8. Chatterjee, A., Baker, T., Rudorf, M., Walt, G., Stotz, C., Martin, A., Kinnard, E. N., McAlearney, A. S., Bosak, J., Medley, B., Pinkhover, A., Taylor, J. L., Samet, J. H., & Lunze, K. (2024). Mobile treatment for opioid use disorder: Implementation of community-based, same-day medication access interventions. *Journal of substance use and addiction treatment*, *159*, 209272. https://doi.org/10.1016/j.josat.2023.209272
9. St Louis, J., Barreto, T., Taylor, M., Kane, C., Worringer, E., & Eden, A. R. (2022). Barriers to care for perinatal patients with opioid use disorder: family physician perspectives. *Family practice*, *39*(2), 249–256. https://doi.org/10.1093/fampra/cmab154

References Continued...

10. McLean, K., Murphy, J., & Kruis, N. (2023). “I think we’re getting better but we’re still not there”: Provider-based stigma and perceived barriers to care for people who use opioids (PWUO). *Journal of Substance Use and Addiction Treatment*, *159*, 209270–209270. https://doi.org/10.1016/j.josat.2023.209270
11. Taylor, E. N., Timko, C., Binswanger, I. A., Harris, A. H. S., Stimmel, M., Smelson, D., & Finlay, A. K. (2022). A national survey of barriers and facilitators to medications for opioid use disorder among legal-involved veterans in the Veterans Health Administration. *Substance abuse*, *43*(1), 556–563. https://doi.org/10.1080/08897077.2021.1975867
12. Wikipedia Contributors. (2019, December 19). *Provinces and territories of Canada*. Wikipedia; Wikimedia Foundation. https://en.wikipedia.org/wiki/Provinces_and_territories_of_Canada
13. Canada, H. (2021, July 22). Safer supply: Prescribed medications as a safer alternative to toxic illegal drugs. Www.canada.ca. https://www.canada.ca/en/health-canada/services/opioids/responding-canada-opioid-crisis/safer-supply.html
14. Gunn, C. (n.d.). Alberta investing additional $60 million in addiction and mental health supports. Lethbridge News Now. Retrieved February 22, 2024, from https://lethbridgenewsnow.com/2022/03/15/alberta-investing-additional-60-million-in-addiction-and-mental-health-supports/
15. *Toward an Alberta model of wellness Recommendations from the Alberta Mental Health and Addictions Advisory Council A FRAMEWORK FOR TRANSFORMATIVE CHANGE*. (2022 p. 20). https://open.alberta.ca/publications/toward-an-alberta-model-of-wellness
16. *The Alberta Model: A Recovery-Oriented System of Care | Alberta.ca*. (n.d.). Www.alberta.ca. https://www.alberta.ca/alberta-recovery-oriented-system-of-care
17. Recovery Alberta, Mental Health and Addiction and Correctional Health Services, Knowledge, Evidence & Innovation, Performance Measurement. (2025). *Virtual Opioid Dependency Program Survey Data Analysis.* Edmonton, AB.
18. Molner, G. (2023). VOPD Annual Utilization Report 2022-2023.
19. Wass, M. (2025). Virtual Opioid Dependency Program Expansion.
20. Dole VP, Nyswander M. A Medical Treatment for Diacetylmorphine (Heroin) Addiction: A Clinical Trial With Methadone Hydrochloride. JAMA. 1965;193(8):646–650. doi:10.1001/jama.1965.03090080008002

References Continued…

21. Dole VP, Nyswander M. A Medical Treatment for Diacetylmorphine (Heroin) Addiction: A Clinical Trial With Methadone Hydrochloride. JAMA. 1965;193(8):646–650. doi:10.1001/jama.1965.03090080008002
22. Federal Regulation of Methadone Treatment. Development of Medications for the Treatment of Opiate and Cocaine Addictions; Issues for the Government and Cocaine Addictions; Issues for the Government and Private Sector. CE Fulco, CT Liverman, and LE Earley. *National Academy Press, Washington, D.C. National Academy of Sciences*. (1995)
23. Gomes, T., McCormack, D., Bozinoff, N., Tadrous, M., Antoniou, T., Munro, C., Campbell, T., Paterson, J. M., Mamdani, M., & Sproule, B. (2022). Duration of use and outcomes among people with opioid use disorder initiating methadone and buprenorphine in Ontario: a population-based propensity-score matched cohort study. Addiction (Abingdon, England), 117(7), 1972–1981. https://doi.org/10.1111/add.15862
24. Whelan, P. J., & Remski, K. (2012). Buprenorphine vs methadone treatment: A review of evidence in both developed and developing worlds. Journal of neurosciences in rural practice, 3(1), 45–50. https://doi.org/10.4103/0976-3147.91934
25. Degenhardt, L., Clark, B., Macpherson, G., Leppan, O., Nielsen, S., Zahra, E., Larance, B., Kimber, J., Martino-Burke, D., Hickman, M., & Farrell, M. (2023). Buprenorphine versus methadone for the treatment of opioid dependence: a systematic review and meta-analysis of randomised and observational studies. The lancet. Psychiatry, 10(6), 386–402. https://doi.org/10.1016/S2215-0366(23)00095-0
26. Methadone Saves Lives - Healthcare Professionals and Methadone Maintenance Treatment. (n.d.). CAMH. https://www.camh.ca/en/health-info/guides-and-publications/healthcare-professionals-and-methadone-maintenance-treatment
27. Canada,. (2025). Information archivée dans le Web | Information Archived on the Web. Publications.gc.ca. https://publications.gc.ca/collections/Collection/H42-2-62-1994E.pdf
28. Opioid Agonist Therapy (OAT) guidelines Medication-assisted treatment for opioid use disorder: Guidelines for pharmacists and pharmacy technicians. (n.d.). https://abpharmacy.ca/wp-content/uploads/Guidelines_OAT.pdf
29. Liu, P., Chan, B., Sokolski, E., Patten, A., & Englander, H. (2024). Piloting a Hospital-Based Rapid Methadone Initiation Protocol for Fentanyl. Journal of addiction medicine, 18(4), 458–462. https://doi.org/10.1097/ADM.0000000000001324

References Continued…

30. Racha, S., Patel, S. M., Bou Harfouch, L. T., Berger, O., & Buresh, M. E. (2023). Safety of rapid inpatient methadone initiation protocol: A retrospective cohort study. Journal of substance use and addiction treatment, 148, 209004. https://doi.org/10.1016/j.josat.2023.209004
31. Steiger, S., McCuistian, C., Suen, L. W., Shapiro, B., Tompkins, D. A., & Bazazi, A. R. (2024). Induction to Methadone 80 mg in the First Week of Treatment of Patients Who Use Fentanyl: A Case Series From an Outpatient Opioid Treatment Program. Journal of addiction medicine, 18(5), 580–585. https://doi.org/10.1097/ADM.0000000000001362
32. Sordo L, Barrio G, Bravo MJ, Indave BI, Degenhardt L, Wiessing L, et al. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. BMJ. 2017;357:j1550.
33. Stone AC, Carroll JJ, Rich JD, Green TC. One year of methadone maintenance treatment in a fentanyl endemic area: Safety, repeated exposure, retention, and remission. J Subst Abuse Treat. 2020;115:108031.
34. Canadian Research Initiative in Substance Misuse, editor. CRISM National Guideline for the Clinical Management of Opioid Use Disorder2018.