

BACKGROUND

- US and Canada declared opioid crises in 2016 that is driven by fentanyl and fentanyl analogues.
- **Opioid use disorder (OUD)** is a complex biopsychosocial disorder in which people engage in persistent opioid use despite harmful consequences.
- People with OUD are at high risk of prematurely dying from other diseases, including cancer, and can benefit from palliative care.
- **Palliative care** improves the quality of life of patients with life-limiting illnesses through symptom management and psychosocial support.
- Patients with cancer are more likely to receive palliative care than other disease groups.
- **It is unknown how many patients with OUD and cancer receive palliative care services at the end of their lives.**

RESEARCH OBJECTIVES:

To compare **palliative care provision** between people with and without OUD at the end of their lives, and to evaluate whether associations between OUD and each outcome differed by cancer status.

RESULTS

End-of-life Characteristics

- Of 679,840 decedents, **11,200 had a history of OUD** (1.6%)
- Compared to decedents without OUD, **those with OUD died at a younger age** (mean age 49.8 vs. 77.5 years; StD 1.75) and were more likely to live in neighbourhoods with high marginalization indices.
- Compared to decedents without OUD, **those with OUD had increased use of substances other than opioids.**
 - Stimulants 9.6 vs 1.3%; StD 0.37
 - Alcohol 17.8% vs 7.6%; StD 0.31
- 2,166 (19.3%) decedents with OUD had cancer. After matching by age, **those with OUD were less likely to have cancer** compared to those without OUD (19.5% vs 34.2%; StD 0.34).

Palliative Care

- **5,029 people with OUD (45.3%) received palliative care** in the last 90 days of life and, of these, 4359 (86.7%) received it in acute care hospitals.
- Most common diagnoses associated with physician palliative care assessments for decedents with OUD were **lung cancer (8.3%) and other cancers (5.3%).**
- Among patients with cancer, **decedents with OUD were 11% less likely to receive any palliative care** at the end of their lives (RR 0.89; CI 0.87-0.91)
- Patients with OUD and cancer were less likely to receive palliative care in acute care (RR 0.89; CI 0.86-0.93), clinic (RR 0.81; CI 0.77-0.86) and home (RR 0.80; CI 0.76-0.84).
- Among patients without cancer, there was a 32% reduction in palliative care intensity for patients with OUD compared to those without (IRR 0.68; CI 0.66-0.69) and no significant difference among patients with cancer (IRR 1.03; CI 0.95-1.11).

METHODS and ANALYSIS

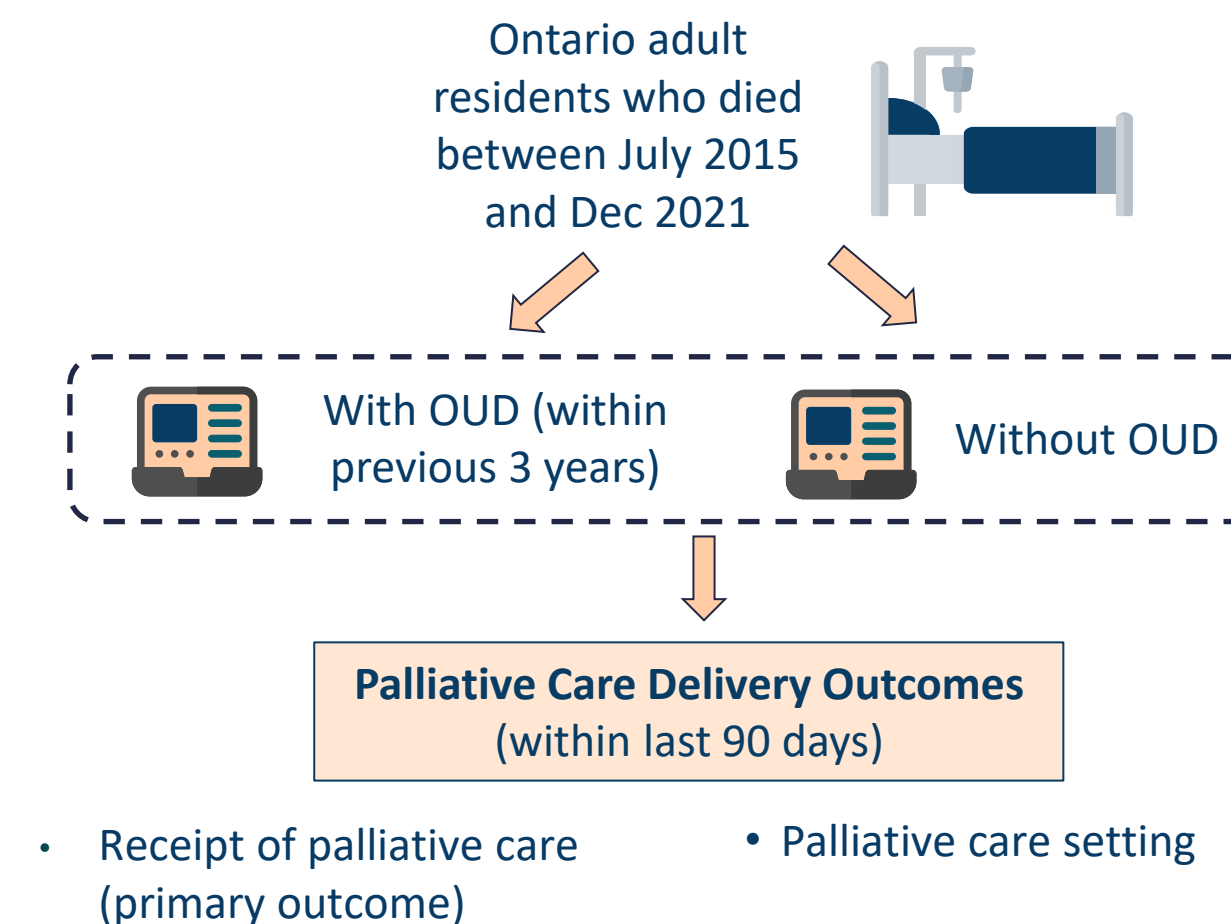
Population-level retrospective cohort study in Ontario, Canada using health administrative data

OUD case definition:

≥1 opioid-related emergency department visit,
 ≥1 opioid-related hospitalization, and/or
 OUD identified by opioid agonist treatment prescriptions



- Crude, unadjusted **descriptive analyses** were used to describe our outcomes across subgroups of interest.
- **Multivariable logistic regression analyses** were used for each outcome.
- Due to association between palliative care and cancer, we incorporated cancer as an interaction term.
- All models were adjusted for age, sex, rurality, immigrant status, marginalization indices, comorbidities and substance use.



Outcome (Effect: OUD (ref = 'None))	Receipt of any Palliative Care RR (robust 95% CI)
All Patients	0.84 (0.82-0.86)
Patients with cancer	0.89 (0.87- 0.91)
Patients without cancer	0.89 (0.87-0.92)



Outcome (Effect: OUD (ref = 'None))	Palliative Care Setting Fully adjusted RR (robust 95% CI)			
	Acute Care	Clinic	Home	Long-term Care
All patients	0.87 (0.85-0.89)	0.68 (0.64- 0.71)	0.62 (0.59-0.66)	0.84 (0.74-0.94)
Patients with cancer	0.89 (0.86-0.93)	0.81 (0.77-0.86)	0.80 (0.76-0.84)	1.26 (1.06-1.50)
Patients without cancer	0.92 (0.89-0.95)	0.81 (0.75-0.88)	0.72 (0.65-0.79)	0.65 (0.55-0.78)

CONCLUSIONS

- Patients with OUD are dying at a young age and experience more marginalization compared to the general population.
- Cancer is a common indication for palliative care physician involvement for patients with OUD
- Among patients with cancer, patients with OUD are less likely to receive any palliative care especially in acute care, clinic, and home settings