

# Prevalence and Management of Pain among People Living with HIV in Ontario

## Prior to and During the First Year of the COVID-19 Pandemic



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### Background:

- People living with HIV (PLWH) are disproportionately affected by high rates of pain.
- Significant gaps in pain management have been reported among PLWH and the COVID-19 pandemic has further amplified these challenges.
- Public health restrictions have led to limited access to service providers, substance use treatment and harm reduction services, amid increased psychosocial stresses and financial burdens.
- We set out to characterize the prevalence, severity, functional impact, and treatment of pain among PLWH in Ontario, Canada, prior to and during the first year of the COVID-19 pandemic.

### Methods:

- The Ontario HIV Treatment Network Cohort Study (OCS) is an observational, open dynamic cohort of PLWH receiving medical care in Ontario, Canada.
- Interviews using a standardized questionnaire are administered on a yearly basis.
- All individuals who completed the OCS questionnaire in 2019 (pre-pandemic period) or 2020 (pandemic period) were included in the analysis.
- Pain prevalence in the preceding 3 months, severity (measured as mild, moderate, and severe), functional impact in the preceding week (measured as a mean of 7 interference items, each scored on a 0 to 10 scale) and treatment was evaluated in each study period and compared by sex.
- Chi-square, McNemar's, Wilcoxon rank-sum test and Cochran-Armitage test for trend were used for analyses.

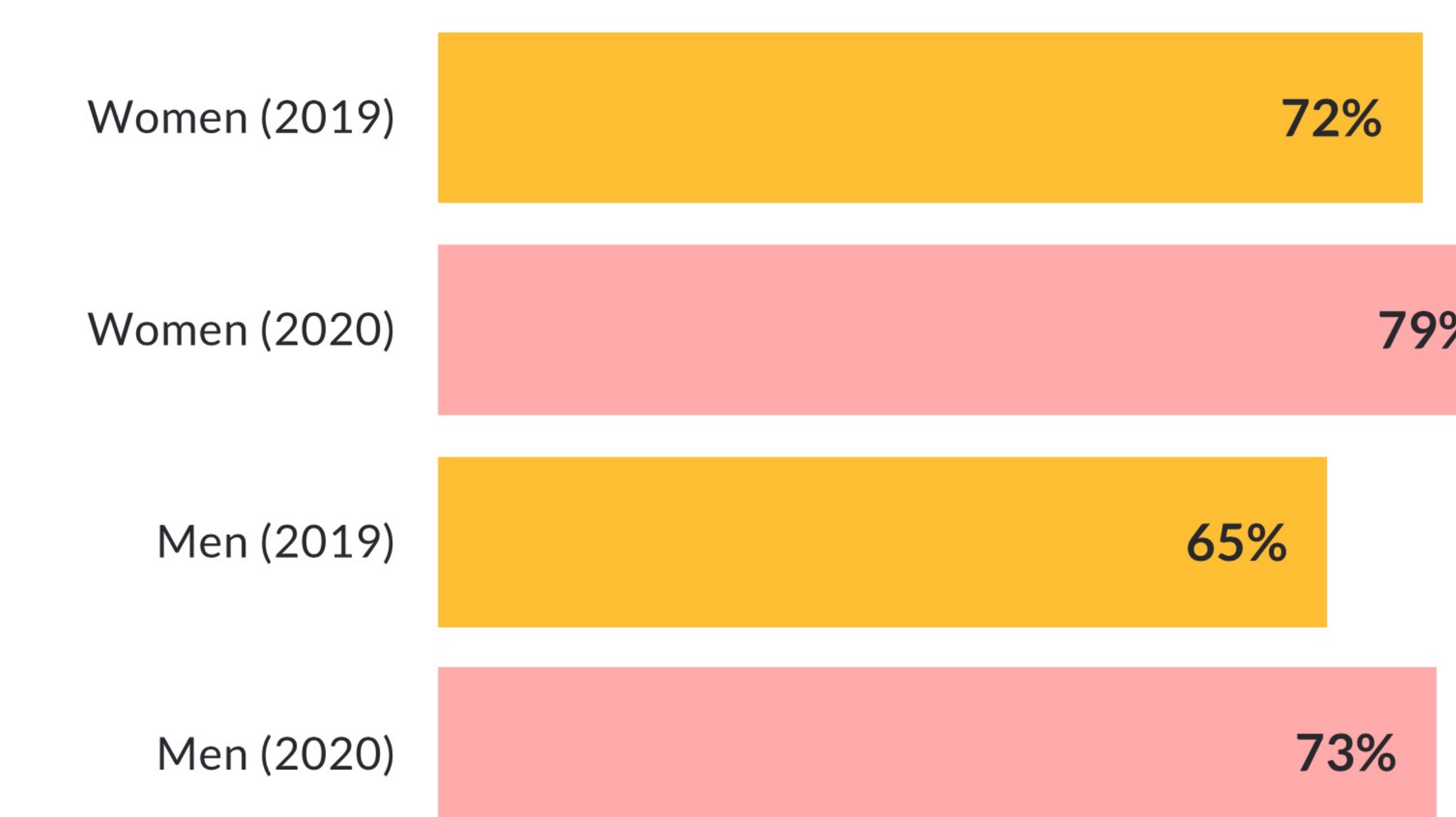
### Results:

- A total of 4040 responses across the two study periods from 2874 participants (23% women) with a median (IQR) age of 53 years (43, 60) were included in the analysis.
- Prevalence of pain was 66% in 2019 (40% reporting mild, 42% moderate and 18% severe pain) and 74% in 2020 (38% reporting mild, 43% moderate and 18% severe pain).
- Among 1165 participants who completed the questionnaire in both study periods the prevalence of pain increased from 68% to 72% ( $p < 0.001$ ).
- Women had greater prevalence of pain compared to men both in 2019 and 2020 (Figure 1), and reported greater severity of pain in both study periods ( $p < 0.001$ ).
- Functional impact of pain was higher during the pandemic with 91% of those experiencing pain reporting some degree of interference with daily activities (vs 85% pre-pandemic) with a mean (standard deviation) interference score of 3.6 (1.6), compared to 3.0 (1.6) in 2019.
- Women reported greater interference with daily activities than men both prior to and during the pandemic ( $p < 0.001$ ).
- A total of 54% of individuals in 2019 and 62% in 2020 reported receiving any formal treatment for their pain, which was similar between women and men in both study periods.
- In the first year of the pandemic, utilization of prescription analgesics increased, along with use of over-the-counter agents and recreational substances, while use of non-pharmacological methods remained stable (Figure 2).

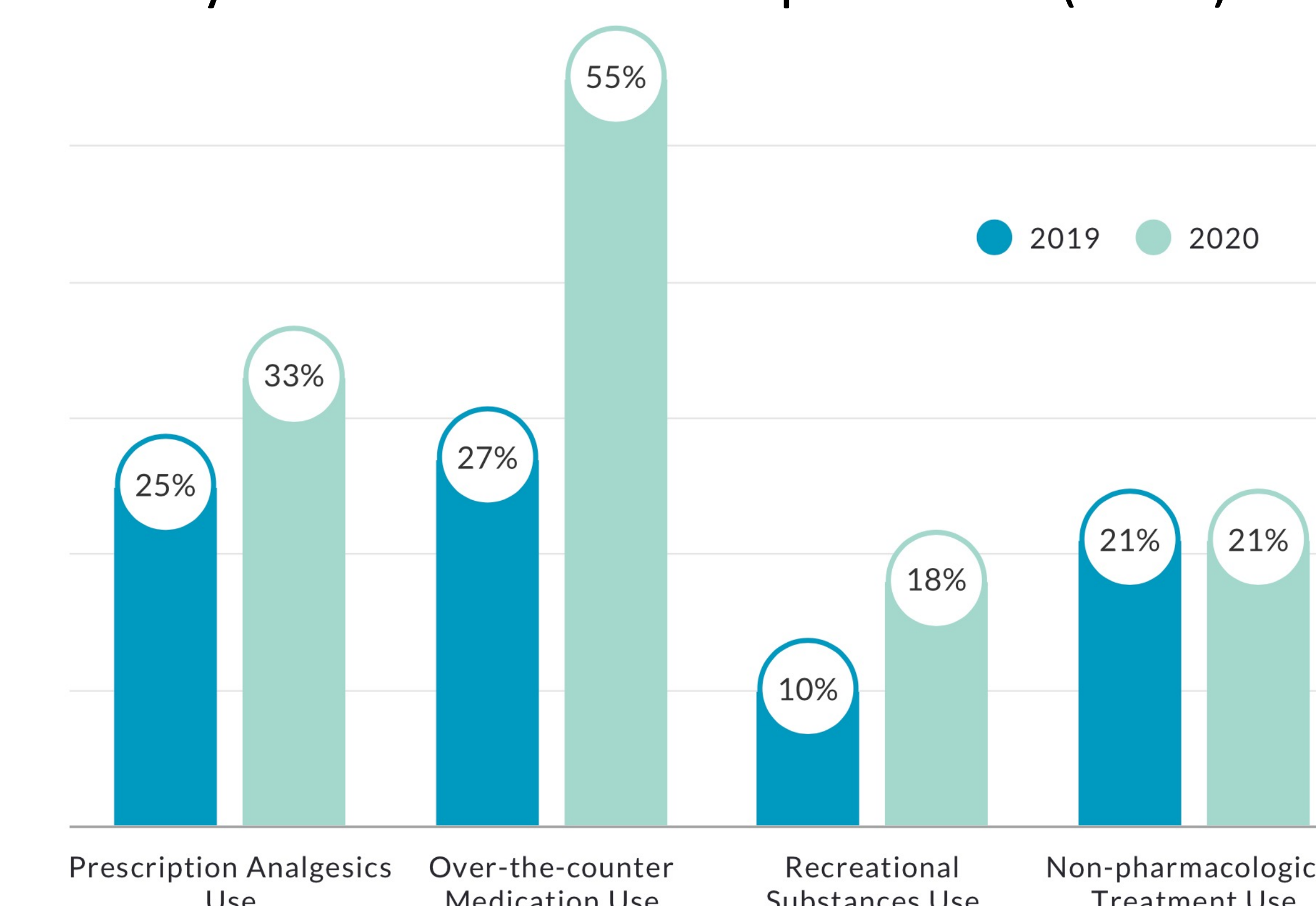
### Conclusions:

- Prevalence of pain among PLWH in the OCS has increased during the COVID-19 pandemic.
- Women continue to experience higher prevalence and more severe pain symptoms compared to men.
- Addressing barriers to pain management among PLWH requires sex-specific strategies.

**Figure 1.** Prevalence of pain reported by women and men prior to (2019) and during the first year of the COVID-19 pandemic (2020).



**Figure 2.** Treatment of pain prior to (2019) and during the first year of the COVID-19 pandemic (2020).



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