

**Epidemiology and Public Health Sciences Oral Abstract Session / Épidémiologie et sciences de la santé
publique présentation orale d'abrégés**

Theme: Interdisciplinary Epidemiology / Thème : Épidémiologie interdisciplinaire

Abstract #231

Prevalence and Patterns of Comorbidities Among People Living with HIV in the OCS Cohort from 2020-2023

Nahid Qureshi¹, Lucia Light¹, Tsegaye Bekele¹, Ann Burchell², Lawrence Mbuagbaw^{1,3}, Lonnie Embleton^{1,2}
¹Ontario HIV Treatment Network, Toronto, Canada, ²University of Toronto, Toronto, Canada, ³McMaster University, Hamilton, Canada

Background: Comorbidities among people living with HIV (PLHIV) are a major concern for long-term health outcomes. This study identified prevalent comorbidities and examined their distribution across sociodemographic and priority population groups, focusing on four outcomes: any comorbidity, and three most prevalent comorbidities.

Methods: We analyzed interviewer-administered questionnaire data collected in 2020-2023 from participants in the Ontario HIV Treatment Network Cohort Study (OCS). Chi-square tests assessed associations between participant characteristics and comorbidities. Multivariable logistic regression models estimated adjusted odds ratios (aORs) for the four outcomes across priority populations, controlling for age and duration since HIV diagnosis.

Results: Among 3,282 participants, 77% were male, 23% female, and 61% were aged 50 years or older. The most prevalent comorbidities were mental health conditions (38%), high blood pressure (26%), high cholesterol (25%), diabetes (13%), and bone or joint disorders (10%). Priority populations experienced a higher comorbidity burden, particularly people who inject drugs (PWID), among whom 93.2% reported at least one comorbidity. In adjusted analyses, PWID had higher odds of any comorbidity (aOR=3.10, 95% CI: 1.55–6.38), while Black participants had lower odds compared to non-Black participants (aOR=0.48, 95% CI: 0.37–0.62). Older participants (≥50 years) had increased odds of high blood pressure (aOR=3.36, 95% CI: 2.70–4.19) and high cholesterol (aOR=4.10, 95% CI: 3.23–5.20). Younger participants (<50 years) had higher odds of mental health conditions (aOR=1.87, 95% CI: 1.56–2.24). Mental health conditions were also more common among PWID (aOR=2.88, 95% CI: 2.03–4.08) and Gay, Bisexual, Men who have Sex with Men (GBMSM) (aOR=1.60, 95% CI: 1.37–1.88), while Black participants had lower odds (aOR=0.46, 95% CI: 0.39–0.56).

Conclusion: Comorbidities are highly prevalent among PLHIV, with distinct patterns across physical and mental health outcomes. Targeted, integrated interventions are needed to optimize care for comorbidity burden in specific HIV priority populations.