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**Theme: Surveillance, data and methodological science / Thème : Surveillance, données et science
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Abstract #305

A Decade of Integrated Data for HIV Surveillance: The Ontario HIV Treatment Network Cohort Study, 2015–2024

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Background

Comprehensive and timely data capture are central to contemporary HIV surveillance, prevention, and control. Over the past decade, the Ontario HIV Treatment Network Cohort Study (OCS) has evolved into a mature data platform linking clinical, laboratory, and participant-reported data. We describe cohort characteristics, and data contributions from 2015 to 2024.

Methods

The OCS is an open, multi-site prospective cohort of adults (≥ 16 years) living with HIV in Ontario. Longitudinal follow-up integrates standardized clinical chart abstraction, structured interviews, and linkage to Public Health Ontario Laboratory (PHOL) for viral load. Data are harmonized to support HIV care cascade measurement and several embedded sub studies addressing HIV priorities in Ontario.

Results

Between 2015 and 2024, cumulative enrollment increased from 6,335 to 8,390 participants, with 2,208 new enrollments. As of 2024, 4,025 participants were active, contributing more than 72,000 cumulative person-years of follow-up. Active participants were geographically distributed across Toronto (66.8%), Southwest (18.0%), Eastern (12.3%), and Northern Ontario (2.9%). Sex at birth among active participants was 75.7% male, 24.0% female, and 0.3% intersex/other.

Average annual attrition was 4.8%, peaking during the COVID-19 period (6.0% in 2020). Each year, 800–1,400 participants contributed clinical-only data via chart abstraction and EMR, while 1,700–2,466 contributed both clinical and interview data. Interview completion among active participants ranged from 45.8% to 65.0%, while capture of clinical encounters exceeded 70% in 2024.

Conclusions

The OCS shows how integrated clinical, laboratory, and participant-reported data strengthen HIV surveillance and support priority research for people living with HIV.

Supporting Document

Table. Annual participant enrollment and data contribution in the OCS (2015-2024)

Year	Total Active* Participants	Proportion providing only clinical data	Proportion with clinical visits	Proportion completing at least one interview
2015	3736	33.9%	95.4%	57.4%
2016	3750	37.4%	93.2%	51.7%
2017	3714	38.7%	87.5%	45.8%
2018	3664	29.6%	83.4%	51.4%
2019	3818	35.5%	92.8%	55.1%
2020	3763	37.3%	90.3%	50.8%
2021	3795	26.6%	93.3%	65.0%
2022	3812	30.9%	91.3%	59.0%
2023	3989	28.7%	89.3%	59.3%
2024	4025	19.9%	74.3%	53.7%

*Participants providing medical chart or interview data