

Impact of the COVID pandemic on HIV care continuum for a vulnerable population of people living with HIV who use drugs in London, Ontario



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Background: The COVID-19 pandemic has resulted in disrupted health services in many sectors. In a mid-sized Ontario city, a multidisciplinary care team serves a population of people living with HIV also affected by intersections of substance use and housing instability. Our aim was to assess the impact of the COVID pandemic on HIV care for this vulnerable patient population.

Methods: We performed an audit of this study population's HIV and general medical care in the 12 months before and after the start of the COVID pandemic (using Mar. 2020 as the beginning of the pandemic period).

Results: In this population (n=37), the median age was 44 and 45.6% female. With regards to substance use, at baseline, 90.9% reported opioid use, 87.8% methamphetamine use. In the pre-pandemic 12-month period, the mean number of HIV care visits per person was 2.76 ± 0.303 (95% CI), but fell to 2.17 ± 0.231 in the 12 months after March 2020 (p=0.001). Pre-pandemic, 3.9% of visits were conducted virtually, compared with 26% after March 2020. 51.3% of the population maintained a consistently undetectable viral load pre-pandemic vs 56.7% after March 2020. Mean number of ED visits (3.62 ± 1.66 (95% CI) vs 3.11 ± 1.626, p=0.33) and admissions to hospital (0.89 ± 0.429 vs 0.67 ± 0.452, p= 0.25), did not fall significantly, although our small sample size may have limited the ability to detect a fall. 2 deaths were recorded in the pre-pandemic year compared with 0 in the pandemic period.

Conclusions: This patient population continued to receive HIV care throughout the pandemic that was tailored to their needs (eg phone visits when in person care was disrupted). There was a small statistically significant reduction in HIV clinical visits. In spite of this, a majority of patients were able to maintain an undetectable viral load.

Table 1: Baseline demographic and substance use data for a vulnerable population of people living with HIV, in London, Canada

Cohort Size (n)	37
Age (Median)	44
Gender (% Female)	45.6
Ethnicity	
Caucasian (%)	54.4
Indigenous (%)	40.1
Black (%)	2.7
Hispanic (%)	2.7
Substance Use	
Self-Report of Opioid Use	90.9%
Self-Report of Methamphetamine Use	87.8%
Self-Report of Injection Drug Use	78.8%
Enrolled in Safe Supply Program	65%
Sex Work	
Self-Report of Sex Work	27.2%

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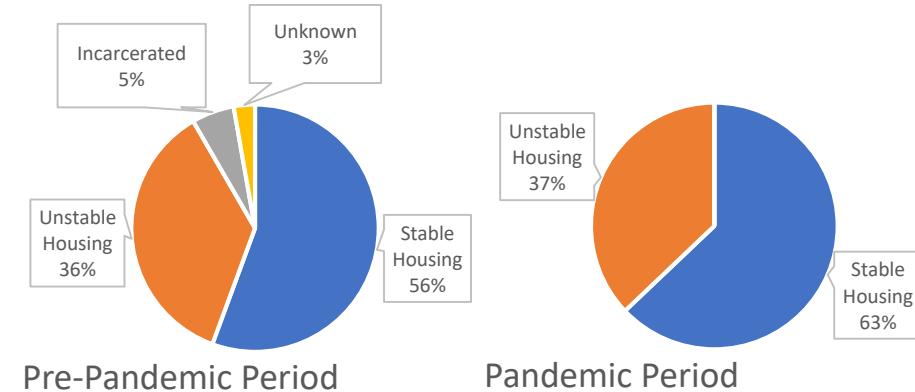
Table 2: HIV health care provision and maintenance of medication adherence before and during the COVID pandemic

	Pre-Pandemic Period (Feb. 2019-Feb. 2020)	Pandemic Period (Mar. 2020-Mar. 2021)	
HIV Specialist Care			
HIV specialist visits over time period (1 year) / patient (Mean, 95% CI)	2.76 ± 0.303	2.17 ± 0.231	p-value 0.001
Total Number of Phone Visits	4 (2 for patients incarcerated)	20	
% of visits that were Virtual*	3.9%	26%	
Adherence to Antiretroviral Therapy			
Mean Number of Viral Loads Drawn	3.10	2.97	
% of HIV Viral Loads that were undetectable	74.7%	81%	
% of HIV Viral Loads that were < 200 copies/mL	84%	85%	
% of patients maintaining a consistently undetectable viral load	51.3%	56.7%	

Table 3: Summary of acute health care usage and mortality date before and during the COVID pandemic

	Pre-Pandemic Period (Feb. 2019-Feb. 2020)	Pandemic Period (Mar. 2020-Mar. 2021)	
Acute Health Care Usage			
ED visits (Mean, 95% CI)	3.62 ± 1.66	3.11 ± 1.626	p-value 0.33
Admissions to Hospital (Mean, 95% CI)	0.89 ± 0.429	0.67 ± 0.452	p-value 0.25
Deaths			
Deaths	2	0	
Cause of Death	Anoxic Brain Injury, Respiratory Failure		

Figure 1: Housing stability* during pre-pandemic and pandemic period



* Stable Housing was defined as having an apartment or house for the majority of the year,
* Unstable housing was defined as using a shelter, couch surfing, or sleeping rough for the majority of the year.

Table 4: Measures of COVID specific care as of November 30, 2021

Number of cohort diagnosed with COVID disease	0
% of Cohort Receiving at least one COVID vaccine	74.2%
% of Cohort Receiving at least two COVID vaccines	60%
% of Cohort Receiving three vaccines	3%

Conclusions: Quality improvement directions following this audit

Finding	Action(s)
There was a small decrease in HIV specialist visits during pandemic	Greater effort to schedule flexible clinic time (ID specialist time availability impacted by COVID pandemic), effort to improve access via virtual visits when in person care not feasible
Virtual visits increased during pandemic	This was facilitated by team RN and outreach who supported patient phone calls in the community, this intervention has been used intermittently in various COVID waves
Majority of patients able to maintain adherence to ARVs	London community housing was made available during the pandemic, with similar numbers with unstable housing the pre and during pandemic periods
COVID vaccination rate in cohort	Ongoing efforts from Multidisciplinary team to increase uptake