

# THE INTERSECTION OF TWO PANDEMICS: EVALUATION OF HIV ROUTINE VIRAL LOAD TESTING DURING THE COVID-19 PANDEMIC IN MONTRÉAL, QUÉBEC

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## INTRODUCTION

- The COVID-19 pandemic has disrupted many crucial aspects of the HIV care cascade
- Viral load (VL) testing is an essential aspect of HIV care to monitor treatment efficacy or adherence<sup>1,2</sup>
- Current guidelines from the Quebec Ministry of Health and Social Services suggest that VL monitoring is to be conducted every 3 to 6 months for people living with HIV (PLWHIV)<sup>3</sup>
- The goal of this project is to describe the evolution of the rate of VL monitoring before and during the COVID-19 pandemic

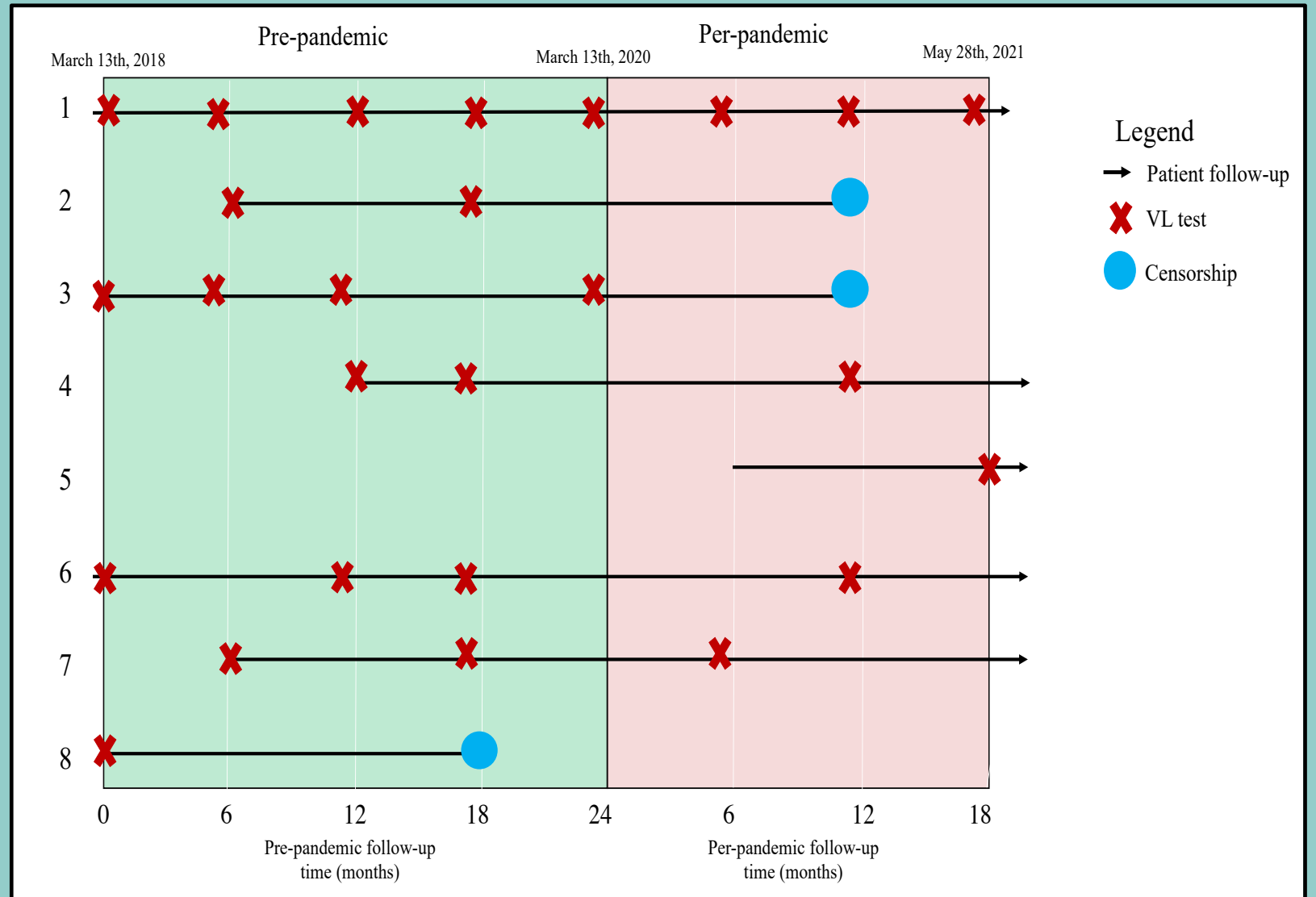
## METHODS

- A single-armed cohort study was conducted at the Clinique Médecine Urbaine du Quartier Latin in Montréal, Québec
- Patients in an open cohort were followed through pre-pandemic (before) and per-pandemic (during) periods
- VL monitoring rates for pre-pandemic and per-pandemic periods were obtained using 95% confidence intervals (CI)
- Covariate-adjusted linear regression were used to compare incidence rates before and during the pandemic

# PRIMARY RESULTS

## Viral load monitoring rates:

- Pre-pandemic: 2.35 tests per person-years (PY) (CI 2.30 – 2.44)
- Per-pandemic: 1.35 test per PY (CI 1.30 – 1.40)
- Rate difference: 1.04 tests per PY (CI: 0.93 – 1.08)



## PRIMARY RESULTS

<b>Baseline characteristics</b>	<b>Univariate model</b>		<b>Multivariate model</b>	
	Coefficient	95% CI	Coefficient	95% CI
Age (10 years)	0.05	(0.02, 0.09)	0.03	(-0.02, 0.07)
Duration of HIV infection (10 years)	0.05	(0.02, 0.09)	0.02	(-0.03, 0.07)
Men	0.14	(-0.003, 0.280)	0.13	(-0.01, 0.28)
Detectable VL	-0.10	(-0.13, -0.72)	-0.10	(-0.11, -0.01)
CD4 $\leq$ 500	-0.09	(-0.11, -0.06)	-0.05	(-0.08, -0.01)
Non ART	-0.34	(-0.48, -0.21)	-0.53	(-0.68, -0.39)
Men that have sex with men	-0.04	(-0.07, -0.02)	-0.01	(-0.04, 0.02)
Intravenous drug use	-0.05	(-0.06, -0.03)	-0.04	(-0.05, -0.02)
Depression	0.02	(-0.06, 0.10)	-0.03	(-0.11, 0.05)
Distance from clinic (10 km)	-0.02	(-0.02, -0.01)	-0.02	(-0.02, -0.01)

Coefficient interpretation for continuous variables: mean change in VL monitoring per PY of observation with a 1 unit increase.

Coefficient interpretation for categorical variables: mean change in VL monitoring per PY of observation compared to reference group.

## CONCLUSION

- VL monitoring fell under the provincial's recommended guidelines during the COVID-19 pandemic
- Although globally the number of VL tests were reduced in our study population, certain PLWHIV were particularly affected: patients not undergoing ART, intravenous drug users and patients in rural locations.
- Measures need to be implemented to minimize the disruption of the HIV care cascade during future public health crises.

### References:

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