

Age-specific human papillomavirus vaccine coverage among women living with HIV in Ontario, Canada

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INTRODUCTION

- Women living with HIV are at increased risk of HPV-related dysplasia and cancers.
- In Canada, national guidelines recommend three doses of HPV vaccine for women living with HIV up to age 27 but can be considered in women at risk of HPV exposure up to age 45.
- We measured HPV vaccine coverage among women attending HIV care in Ontario, Canada, and identified factors associated with uptake.

METHODS

- **Data source:** Ontario HIV Treatment Network Cohort Study (OCS), a multi-site clinical HIV cohort
- **Eligibility:** 1) Aged ≥16 years; 2) lab-confirmed HIV infection; 3) attending one of 15 participating clinics; 4) identify as a cis or trans woman
- **Study design:** One-time, interviewer-administered questionnaire, 2017-2020
- **Analysis:** Logistic regression adjusted for age:
 - Vaccine initiation (≥1 dose vs. 0 doses)
 - Series completion (3 doses vs. 0-2 doses)



RESULTS



Only **13.2%** of women living with HIV attending care in Ontario had received ≥1 dose of HPV vaccine

Of those vaccinated:



12.3% received 1 dose



23.1% received 2 doses



64.6% received 3 doses

Table 1. Participant characteristics (N=591)

Characteristic	Years
Median age at interview	48
Median age at vaccination*	40
	%
Biological sex female	98
Black/African/Caribbean ethnicity	55
Indigenous ethnicity	5
Income <\$40,000 CAD	72
Immigrants from countries where HIV is endemic	58
Living with HIV for ≥20 years	32
ART with suppressed HIV viral load	93

ART = antiretroviral therapy; * among vaccinated participants

Figure 1. HPV vaccine uptake by age group

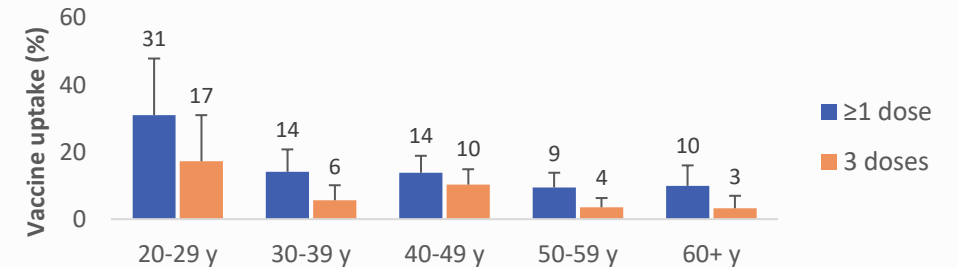


Table 2. Age-adjusted odds ratios and 95% confidence intervals for factors associated with HPV vaccine initiation (≥1 dose) or series completion (3 doses)

Covariate	≥1 dose	3 doses
Employed (vs. unemployed and seeking work [ref])	3.44 (1.29-9.19)	3.89 (1.12-13.51)
Income \$40,000-\$59,999 (vs. <\$20,000 [ref])	3.08 (1.41-6.72)	3.61 (1.37-9.49)
University education (vs. less than high school [ref])	1.52 (0.73-3.17)	3.95 (1.07-14.54)
Married/common-law (vs. single [ref])	1.97 (1.10-3.54)	2.14 (0.81-5.64)
Living with kids (vs. not living with kids [ref])	2.38 (1.37-4.15)	3.55 (1.63-7.72)
Immigration >5 years ago (vs. ≤5 years ago [ref])	3.13 (1.35-7.23)	5.15 (1.46-18.17)
Never smoking (vs. currently smoking [ref])	2.10 (1.02-4.35)	2.60 (0.87-7.71)
Time in HIV care (per 10 years)	1.87 (1.28-2.73)	1.92 (1.17-3.17)

CONCLUSIONS

- HPV vaccine coverage was below WHO targets of 90% among women engaged in HIV care in Ontario, Canada, even among younger women.
- Recommendations for improving uptake include education of healthcare providers and public funding of HPV vaccine for women living with HIV.

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