

Uptake of safer conception strategies among women living with HIV in Canada who report pregnancy with an HIV-serodifferent partner

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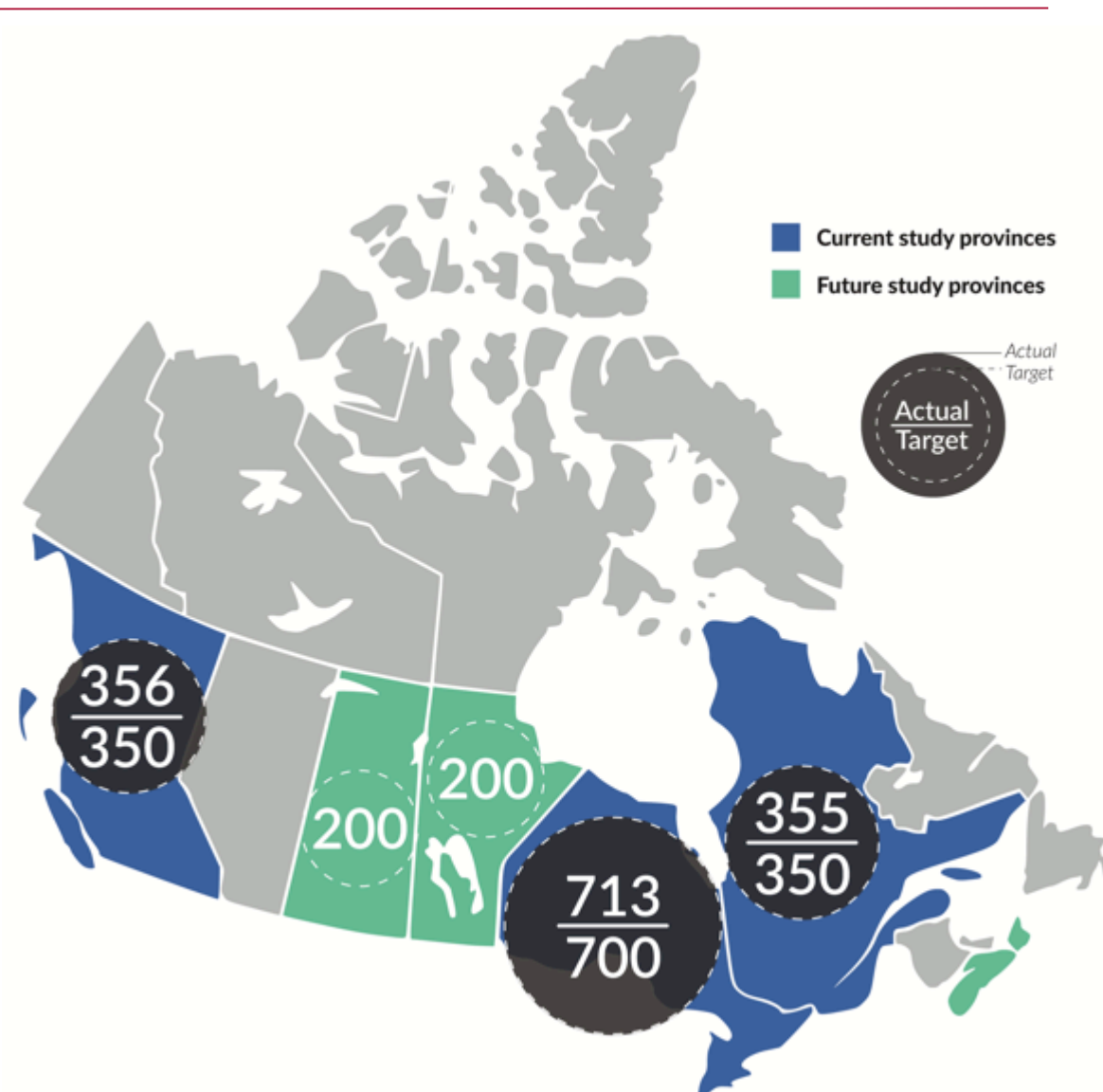
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BACKGROUND

- An estimated 26-56% of women with HIV in Canada intend to have children.^{1,2}
- Nearly three-quarters of all pregnancies among women with HIV occur with an HIV-negative partner.³
- A range of safer conception strategies enable HIV-affected individuals and couples to meet reproductive goals while eliminating or reducing sexual HIV transmission risk.⁴
- Canada is one of three countries with national HIV pregnancy planning guidelines, but little is known about uptake of safer conception strategies.⁵
- To inform women-centred safer conception programming among women with HIV in Canada and globally, the current study **objectives** were to:
 - Estimate the prevalence of safer conception uptake by women with HIV who reported pregnancy with an HIV-serodifferent partner;
 - Assess the prevalence and types of safer conception strategies used among women reporting planned versus unplanned pregnancies; and
 - Identify correlates of uptake of safer conception among women with HIV who reported a planned pregnancy.

METHODS

- We analysed retrospective questionnaire data from the **Canadian HIV Women's Sexual and Reproductive Health Cohort Study (CHIWOS; 2013-2015)**, a multi-site community-based research study with 1,424 women with HIV enrolled from three provinces.
- Participants completed questionnaires administered by Peer Research Associates (women with HIV with research training).
- This analysis was restricted to cis-gender women who reported ≥ 1 pregnancy after HIV diagnosis.



Statistical Analysis

- Among women with an HIV-serodifferent (i.e., HIV-negative or HIV status unknown) pregnancy partner, we assessed self-reported uptake and types of safer conception strategies during the most recent pregnancy.
- Use of safer conception was assessed as: "Did you and/or the other biological parent do anything around the time you got pregnant to reduce the risk of the other biological parent from acquiring HIV?" (Yes vs. No)
- Multivariable logistic regression assessed independent covariates of uptake of safer conception strategies among women who reported planned pregnancies.

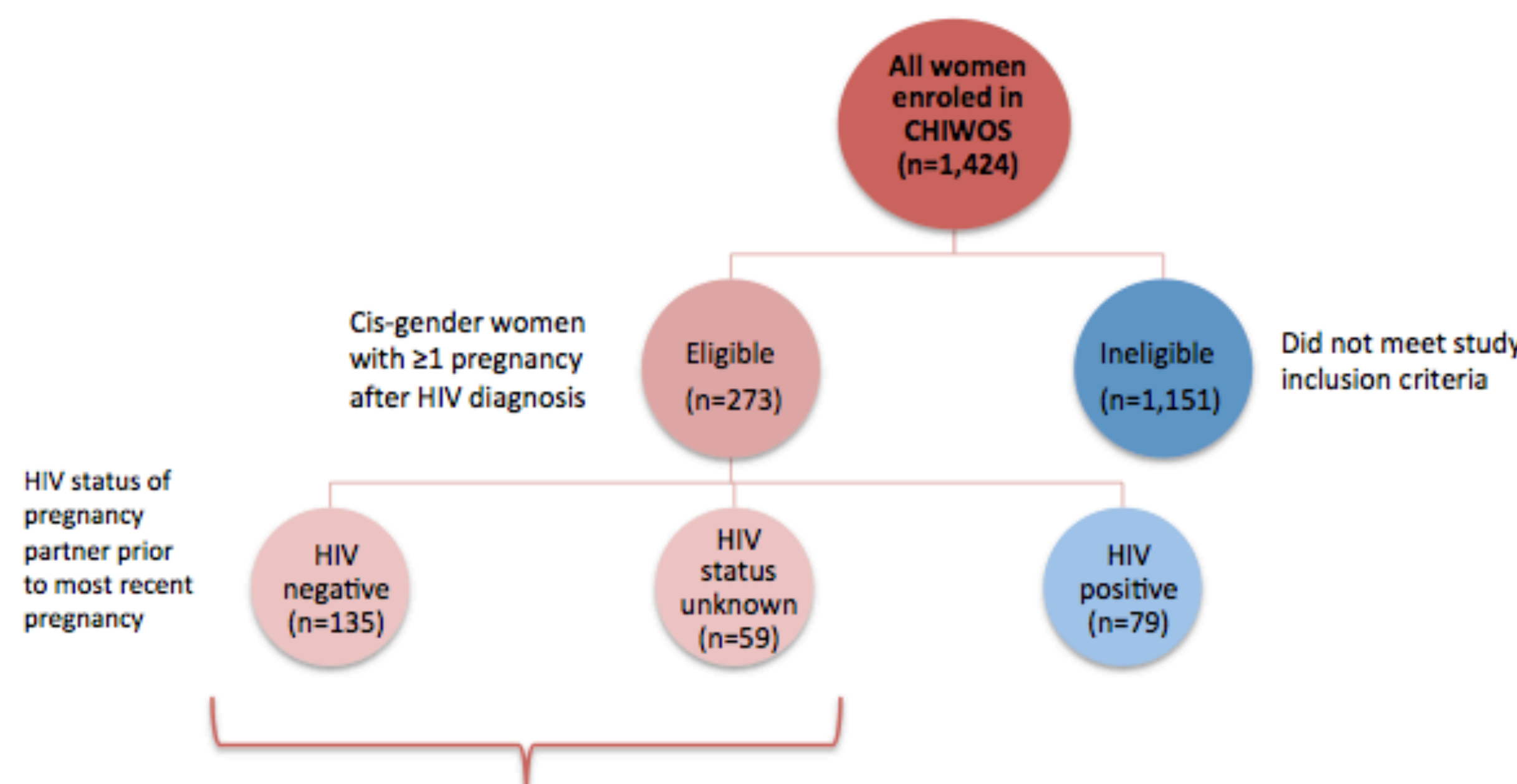


Figure 1. Study sample (n=194)

RESULTS

- Of 1,424 enrolled participants, 273 (19.2%) were cis gender women who had at least pregnancy after HIV diagnosis.
- Of these 273 women, 71.1% (n=194) reported having an HIV-serodifferent pregnancy partner (Figure 1).
- Median age at interview was 38 years (IQR: 33-43) and 60% of pregnancies were unplanned (Table 1).

Table 1: Baseline characteristics of women with HIV with an HIV-serodifferent pregnancy partner (n=194)

Socio-demographic and clinical characteristics	n (%) or median [IQR]
Median age at interview, years	38 [33-43]
Ethnicity	
Indigenous	35 (18.0%)
African, Caribbean, or Black	61 (31.4%)
White	85 (43.8%)
Other / multiple ethnicities	13 (6.7%)
Heterosexual	168 (86.6%)
Injection drug use history	76 (39.2%)
Currently taking antiretroviral therapy (ART)	170 (87.6%)
Current undetectable viral load (<50 copies/mL, self-report)	147 (75.8%)
Median years living with HIV	13 [8-19]
Median years between most recent pregnancy and interview	4 [2-11]
Year of most recent pregnancy	
Before 2000	25 (12.9%)
2000 to 2005	36 (18.6%)
2006 to 2011	64 (33.0%)
2012 to present	55 (28.4%)
Don't know/prefer not to answer	14 (7.2%)
Most recent pregnancy was planned (vs unplanned)	70 (36.1%)

RESULTS (CONTINUED)

Use of safer conception

- 19% of women reported using safer conception, with higher uptake among women reporting planned (40%) versus unplanned (6%) pregnancies ($p < 0.001$) (Figure 2).
- Among women reporting planned pregnancies, most frequently reported safer conception methods included: viral suppression with ART (32%); manual insemination (29%), and condomless sex timed to peak fertility (11%) (Table 2).
- Although often not reported as a safer conception strategy, 71% of women were accessing ART prior to pregnancy; however, viral suppression status was unknown.
- Thus, overall 74% of women reported use of a safer conception strategy and/or ART prior to pregnancy (83% planned vs 69% unplanned pregnancies; $p < 0.05$) (Figure 2).

Figure 2: Reported use of safer conception and/or ART prior to pregnancy

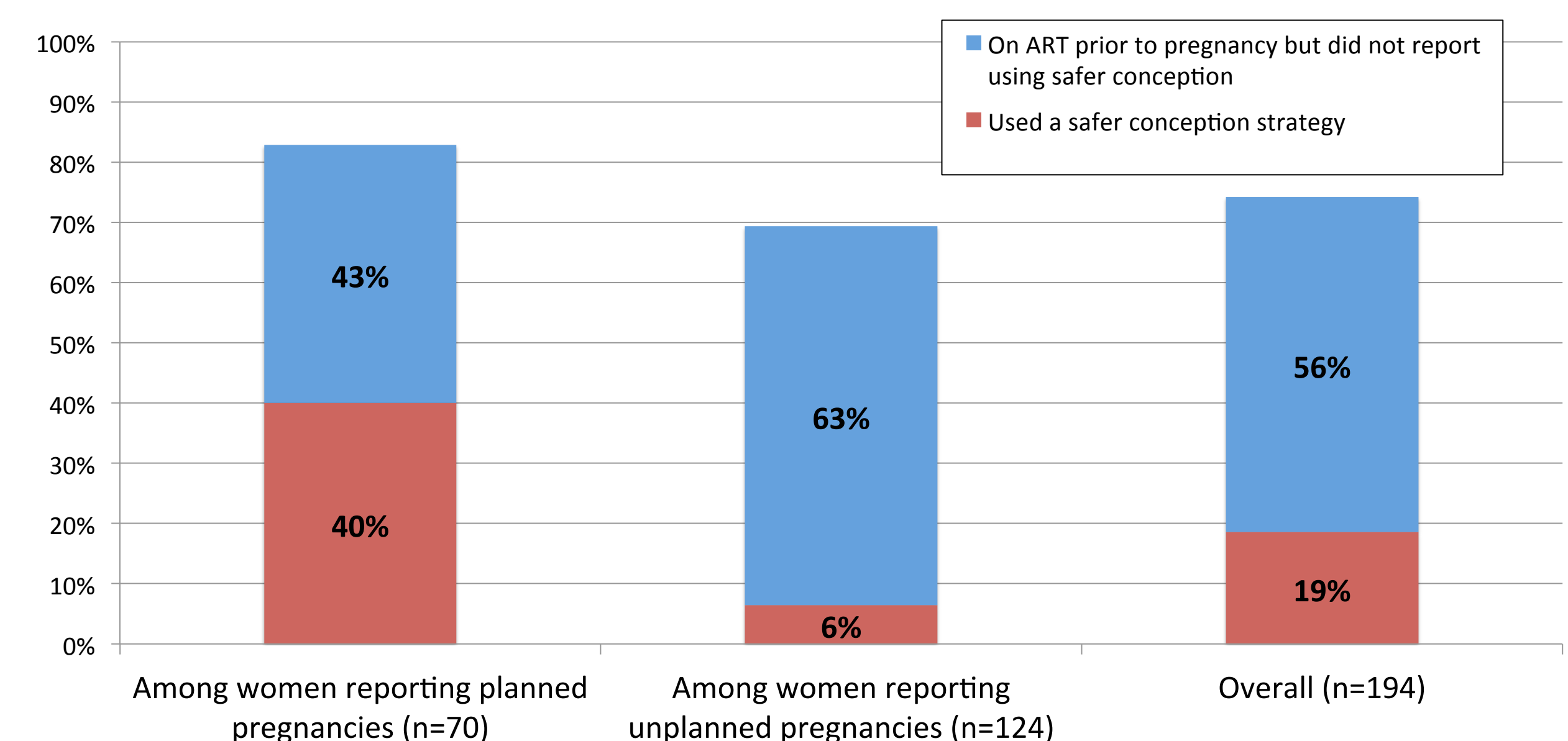


Table 2. Types of methods used by women who reported using safer conception methods prior to planned and unplanned pregnancies (n=36)

Safer conception method	Women reporting use of safer conception methods during	
	Planned pregnancies (n=28)	Unplanned pregnancies (n=8)
Viral suppression with ART	32%	38%
Manual insemination	29%	13%
Condomless sex timed to peak fertility	11%	0%
Partner PrEP	7%	13%
Sperm donation	7%	0%
Sperm washing with intrauterine insemination	4%	0%
Manual insemination + condomless sex timed to peak fertility	4%	0%
Viral suppression with ART + condomless sex timed to peak fertility	4%	0%
Other methods	4%	38%

- Among women who reported a **planned pregnancy**, those who had discussed their reproductive goals with a healthcare provider after HIV diagnosis had higher adjusted odds of safer conception uptake [aOR: 17.3; 95% CI: 1.84, 161.8] (Table 3).
- Compared with women in British Columbia, women in Ontario and Quebec had lower adjusted odds of safer conception uptake.
- Factors pertaining to women's social identities and health status did not predict safer conception uptake.

Table 3. Factors associated with uptake of safer conception among women with an HIV-serodifferent partner who reported a planned pregnancy (n=70)

Variable	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Province		
British Columbia	Ref.	Ref.
Ontario	0.33 (0.1, 1.11)	0.21 (0.05, 0.96)
Quebec	0.29 (0.08, 1.03)	0.15 (0.03, 0.75)
Age (Per year increase)	0.97 (0.90, 1.04)	Not Selected
Ethnicity		
White	Ref.	
Indigenous	2.00 (0.40, 10.09)	Not Selected
African/Caribbean/Black	0.38 (0.12, 1.17)	
Other and multiple ethnicities	0.5 (0.08, 3.32)	
Years between pregnancy and interview date, per year increase	0.9 (0.80, 1.01)	Not Selected
Ever discussed reproductive goals with a healthcare provider	13.0 (1.57, 107.7)	17.3 (1.84, 161.8)

CONCLUSIONS

- One-fifth of women with HIV who reported an HIV-serodifferent pregnancy partner reported using a safer conception method, including 40% of those with planned and 6% of those with unplanned pregnancy.
- However, nearly three-quarters of women reported ART use prior to pregnancy and thus likely benefitted from lowered sexual HIV risk, without necessarily considering or reporting ART as an effective safer conception strategy.
- Most pregnancies were unplanned, highlighting a need for improved contraceptive options.
- Supporting ART uptake and adherence among all women with HIV will protect against sexual HIV transmission, regardless of pregnancy intention.
- Discussions of reproductive goals and options during routine HIV care are essential to support pregnancy planning and facilitate uptake of safer conception or contraceptive care.