

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

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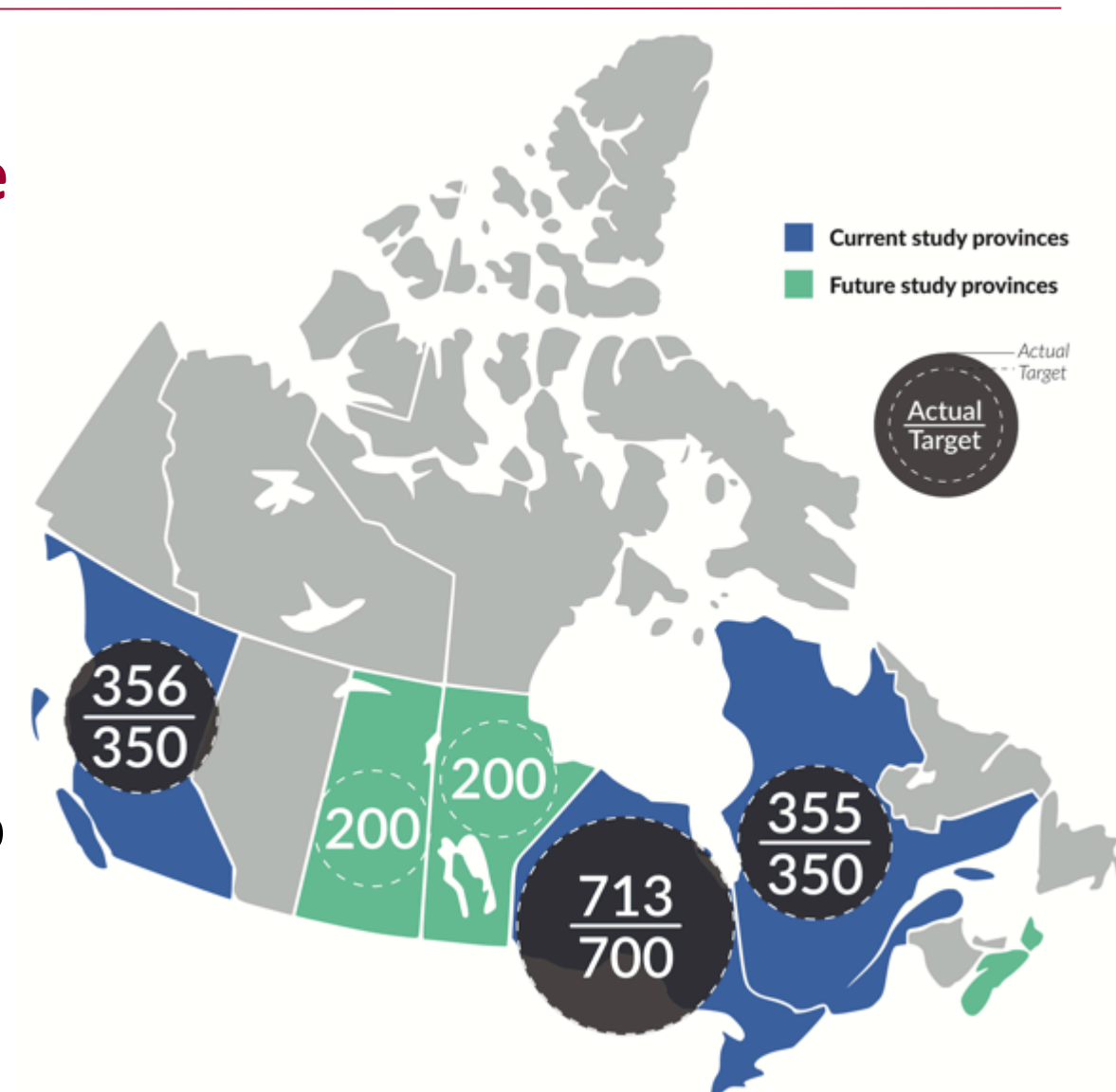
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## BACKGROUND

- An estimated 26-56% of women with HIV in Canada intend to have children.<sup>1,2</sup>
- Nearly three-quarters of all pregnancies among women with HIV occur with an HIV-negative partner.<sup>3</sup>
- A range of safer conception strategies enable HIV-affected individuals and couples to meet reproductive goals while eliminating or reducing sexual HIV transmission risk.<sup>4</sup>
- Canada is one of three countries with national HIV pregnancy planning guidelines, but little is known about uptake of safer conception strategies.<sup>5</sup>
- 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  $\geq 1$  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.

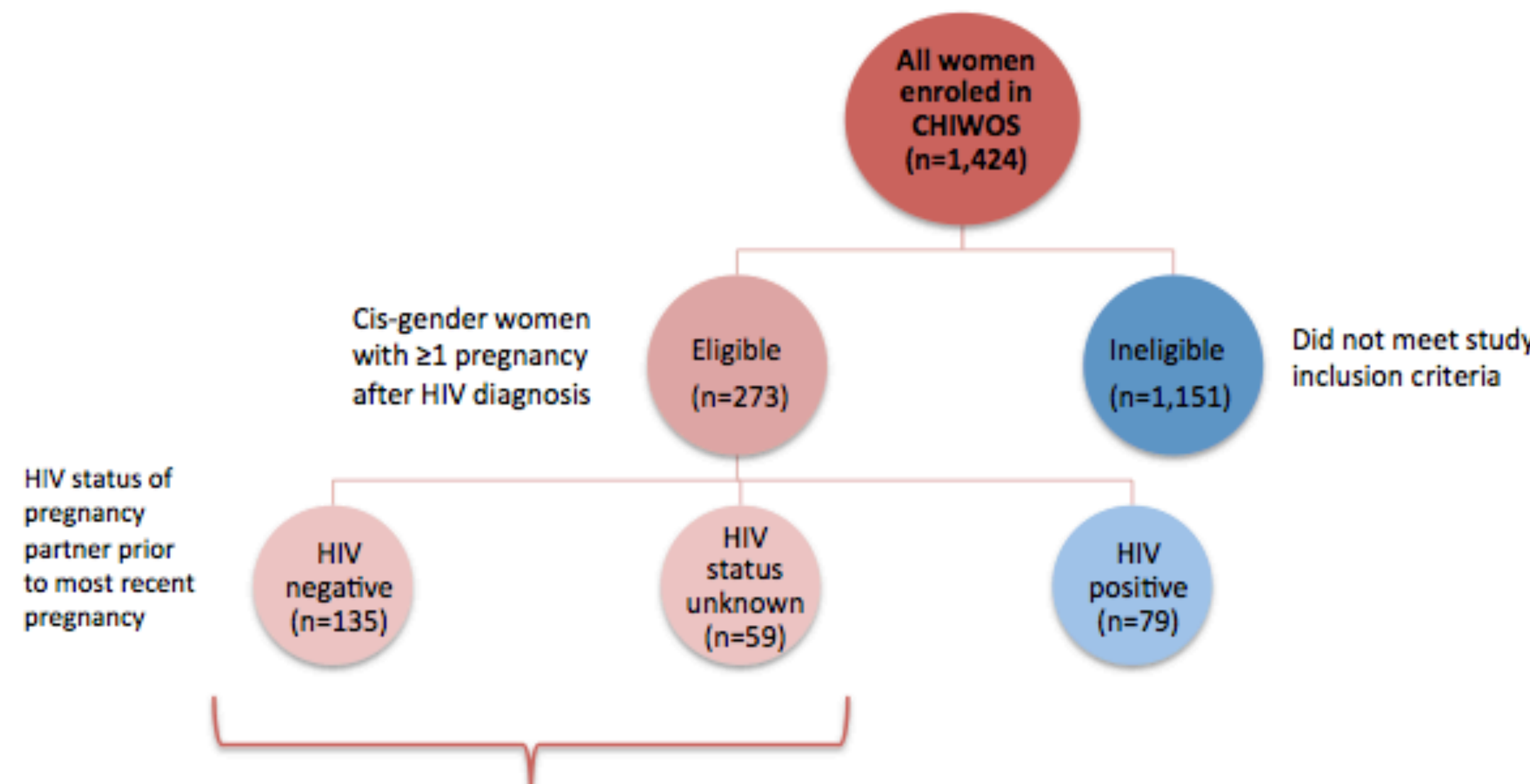


Figure 1. Study sample (n=194)

## 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]
<b>Ethnicity</b>	
Indigenous	35 (18.0%)
African, Caribbean, or Black	61 (31.4%)
White	85 (43.8%)
Other / multiple ethnicities	13 (6.7%)
<b>Heterosexual</b>	168 (86.6%)
<b>Injection drug use history</b>	76 (39.2%)
<b>Currently taking antiretroviral therapy (ART)</b>	170 (87.6%)
<b>Current undetectable viral load (&lt;50 copies/mL, self-report)</b>	147 (75.8%)
Median years living with HIV	13 [8-19]
Median years between most recent pregnancy and interview	4 [2-11]
<b>Year of most recent pregnancy</b>	
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%)
<b>Most recent pregnancy was planned (vs unplanned)</b>	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

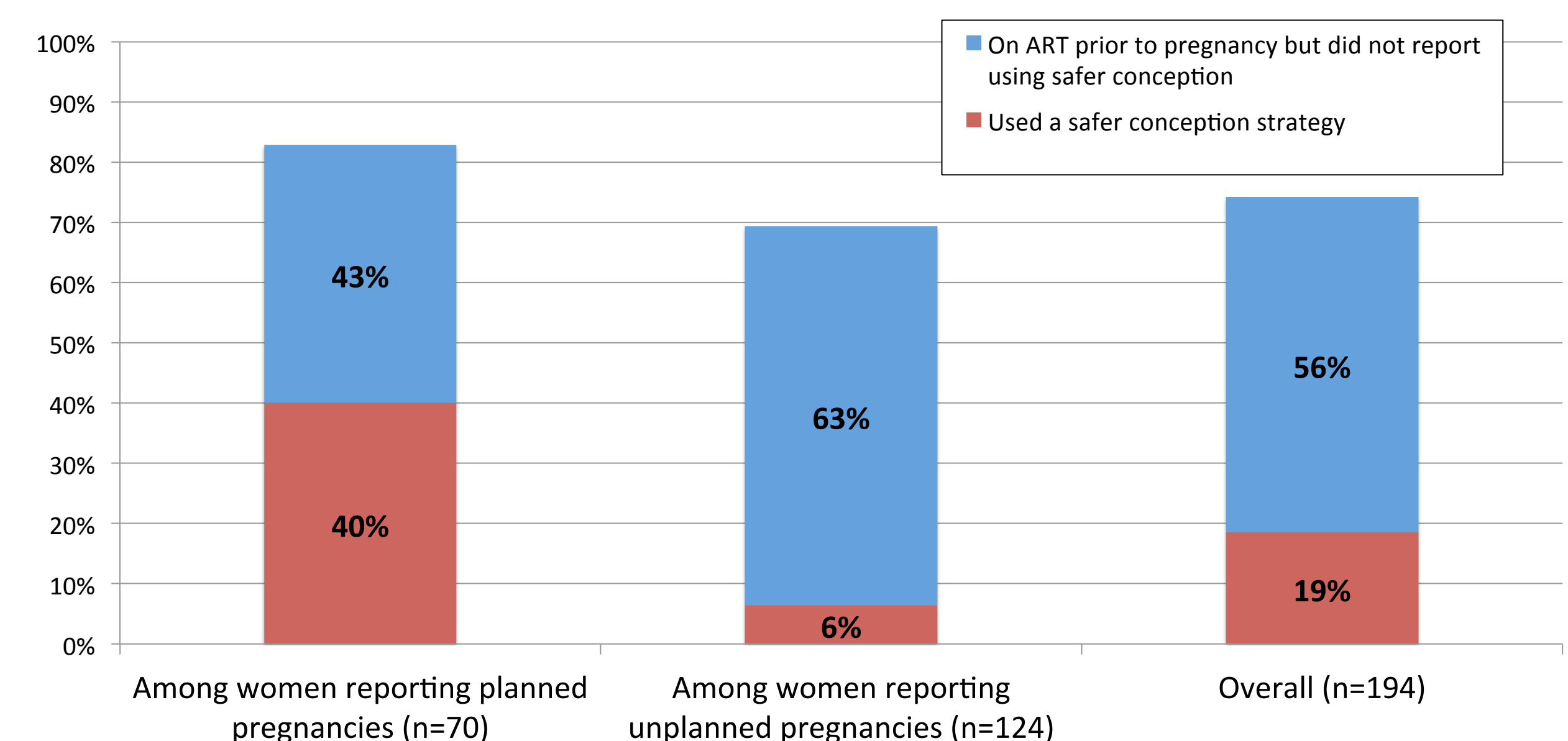


Table 2. Types of methods used by women who reported using safer conception methods prior to planned and unplanned pregnancies (n=36)

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

## 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.