

HIV knowledge and PrEP awareness among individuals accessing non-occupational post-exposure prophylaxis (nPEP) for consensual sexual activity in Vancouver, British Columbia (BC).

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Background

- In July 2012, a 2-year, provincially funded (BC PharmaCare) nPEP pilot program was launched in Vancouver, BC. (*See P089 for full description of program*)
- In order to gain a better understanding of the populations accessing nPEP through this pilot, we conducted a survey in individuals within the program to determine the contextual factors involved in their exposure event, their knowledge of HIV risk, as well as their awareness of, and willingness to use pre-exposure prophylaxis (**PrEP**).
- We present the results of our analysis among individuals receiving NPEP due to consensual sex between November 2012 to December 2013.

Methods

- Summary of nPEP clinical follow-up:** Individuals accessing nPEP completed their clinical follow-up at the Outpatient HIV Clinic at St. Paul’s Hospital (SPH-OHC), a tertiary care facility within downtown Vancouver (*see P089 for more info*) .
- Behaviourial questionnaire:** During the 1-week post-exposure assessment at SPH-OHC, individuals were asked to participate in this study and consent was obtained to complete a brief self-administered questionnaire:
 - Self-assessed knowledge about HIV transmission and PrEP were measured using Likert scales from 1 (“**I know a lot about it**”) to 4 (“**I know nothing**”). Questions on self-efficacy in sexual situations were measured using Likert scales from 1 (“**strongly agree**”) to 4 (“**strongly disagree**”).
 - Sexual-exposure-event questions included: substance use 2-hours before exposure event, knowledge of partner’s HIV-status before sex, if sexual partner requested no condoms, or if a condom failure occurred.
- Data linkage:** Consent was obtained from study participants to have their questionnaire data linked to their nPEP clinical information.
- Analysis:** Participants who were aware of PrEP were compared to those who were not, using Fisher’s Exact and Wilcoxon tests.

Results

- A total of **137** individuals who accessed nPEP for consensual sex agreed to participate in this study. Of these, 5 accessed nPEP twice during the pilot.
- Demographics:** Participants were mostly male (n = 130, 95%), white (n = 93, 68%), and had a median age of 35 (IQR = 27- 42). Unprotected anal intercourse was the most commonly reported exposure event (n = 119, 87%), and 92 (67%) used substances at least 2-hours before their exposure event (see **Table 1**).
- HIV knowledge and PrEP awareness:** The majority of participants felt knowledgeable about HIV transmission and avoiding it (93%), however 44% expressed having little to no knowledge of HIV viral load and it’s role in transmission. Of those who had heard of PrEP (n = 80, 58%), 63% had at least some knowledge about it (see **Figure 1**), and 66% (91/137) of all participants would be prepared to use PrEP.

Table 1. Characteristics of nPEP study participants.	
Characteristics	N = 137
Age - median (IQR)	35 (27 - 42)
Gender – no. (%):	
Female	5 (3.6%)
Male	130 (94.9%)
Transgender	1 (0.7%)
Ethnicity – no. (%):	
Aboriginal	3 (2.2%)
White	93 (67.9%)
Asian/South Asian	24 (17.5%)
Other	15 (10.9%)
Hours between exposure and assessment – median (IQR)	25 (15 - 39)
Type of exposure – no. (%)	
Unprotected vaginal intercourse	16 (11.7%)
Unprotected anal intercourse	119 (86.9%)
Receptive oral with ejaculation	8 (5.8%)
Recommended 28-days of nPEP – no. (%)	
Yes	126 (92%)
No	9 (6.6%)
Have you accessed nPEP before?* - no. (%)	
Yes	21 (15.3%)
No	116 (84.7%)
Where did you hear about nPEP?** – no. (%)	
Doctor or family practitioner	22 (16.1%)
STI clinic	43 (31.4%)
Poster/post card in bar or social venue	19 (13.9%)
Community organization	14 (10.2%)
Gay magazine or newspaper	16 (11.7%)
Internet/website	40 (29.2%)
Friend or family member	29 (21.2%)
Where do you get information about HIV?** – no. (%)	
Internet	120 (87.6%)
Friends	55 (40.1%)
Doctor or family practitioner	59 (43.1%)
Have you heard of PrEP? – no. (%)	
Yes	80 (58.4%)
No	52 (38%)
Substance use 2-hours before exposure event*** - no. (%)	
Alcohol	66 (48.2%)
Marijuana	17 (12.4%)
Viagra	17 (12.4%)
Poppers	28 (20.4%)
Cocaine	9 (6.6%)
Ecstasy	7 (5.1%)
Crystal Meth	12 (13.1%)
Condom failure – no. (%)	50 (36.7%)
Sexual partner requested no condoms – no. (%)	3 (2.2%)

* Although 5 participants have accessed nPEP multiple times through this pilot, more may have purchased “nPEP” before or through other programs.
** Participants were asked to choose multiple options if applicable.

- Self-efficacy in sexual situations:** In general, the majority of study participants agreed that they can ask their partners to use a condom (92%), and can ask a partner’s HIV status (84%). About 21% disagreed that they always have condoms with them when they have sex (see **Figure 2**).
- HIV-status of sexual partner:** When asked how often they ask a partner’s HIV status before sex, 57% of participants answered “75%-100% of the time”; 13% answered “50%-74% of the time”; 11% answered “25%-49% of the time”; 18% answered “0-24% of the time.” Roughly 50% of all participants reported not knowing the HIV-status of their partner before sex. Another 28% believed their partner was HIV-negative but not 100% sure, while only 8% were certain their partner was HIV-positive.

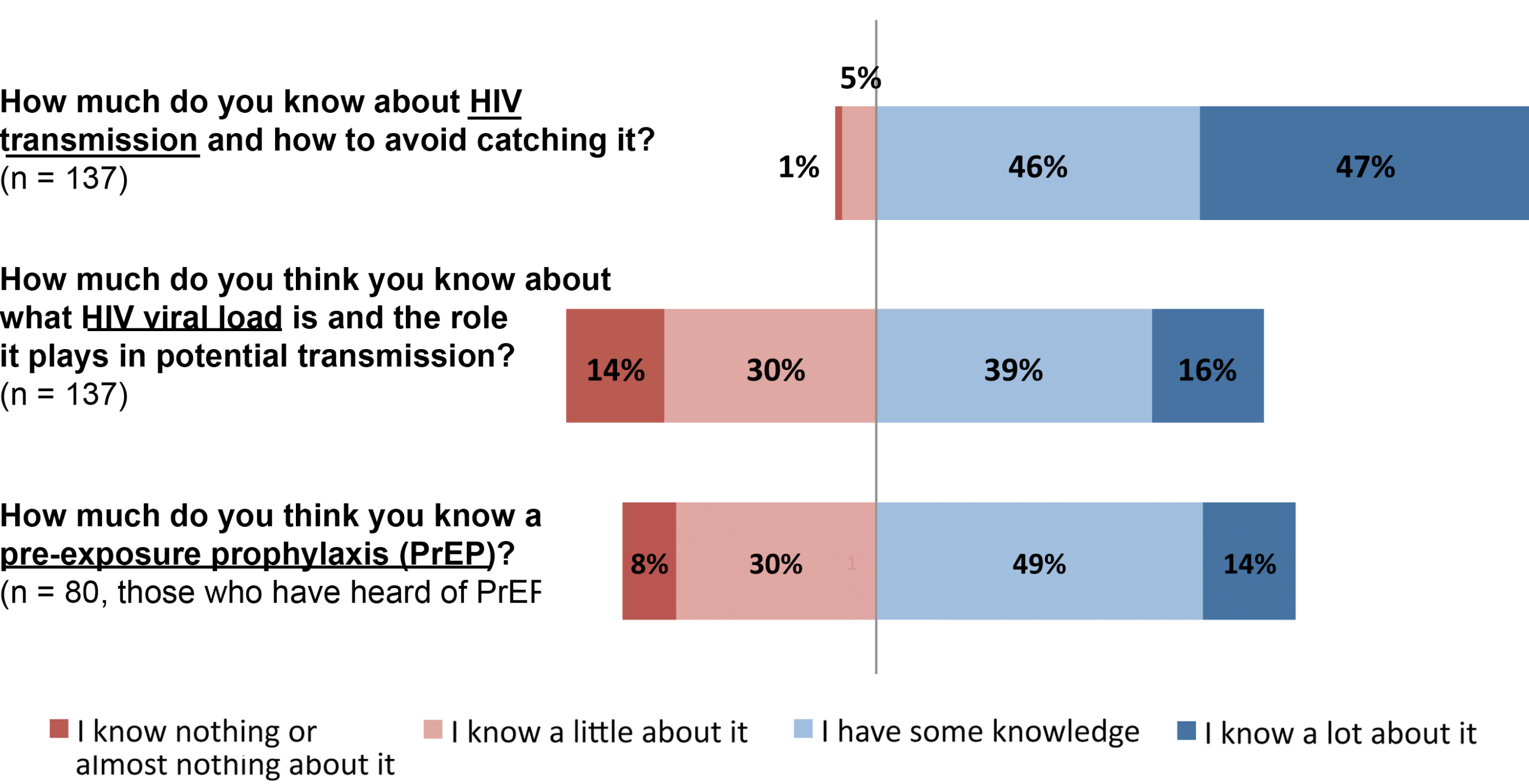


Figure 1. Diverging stacked bar graph of responses (%) to HIV and PrEP knowledge questions (Likert scale).

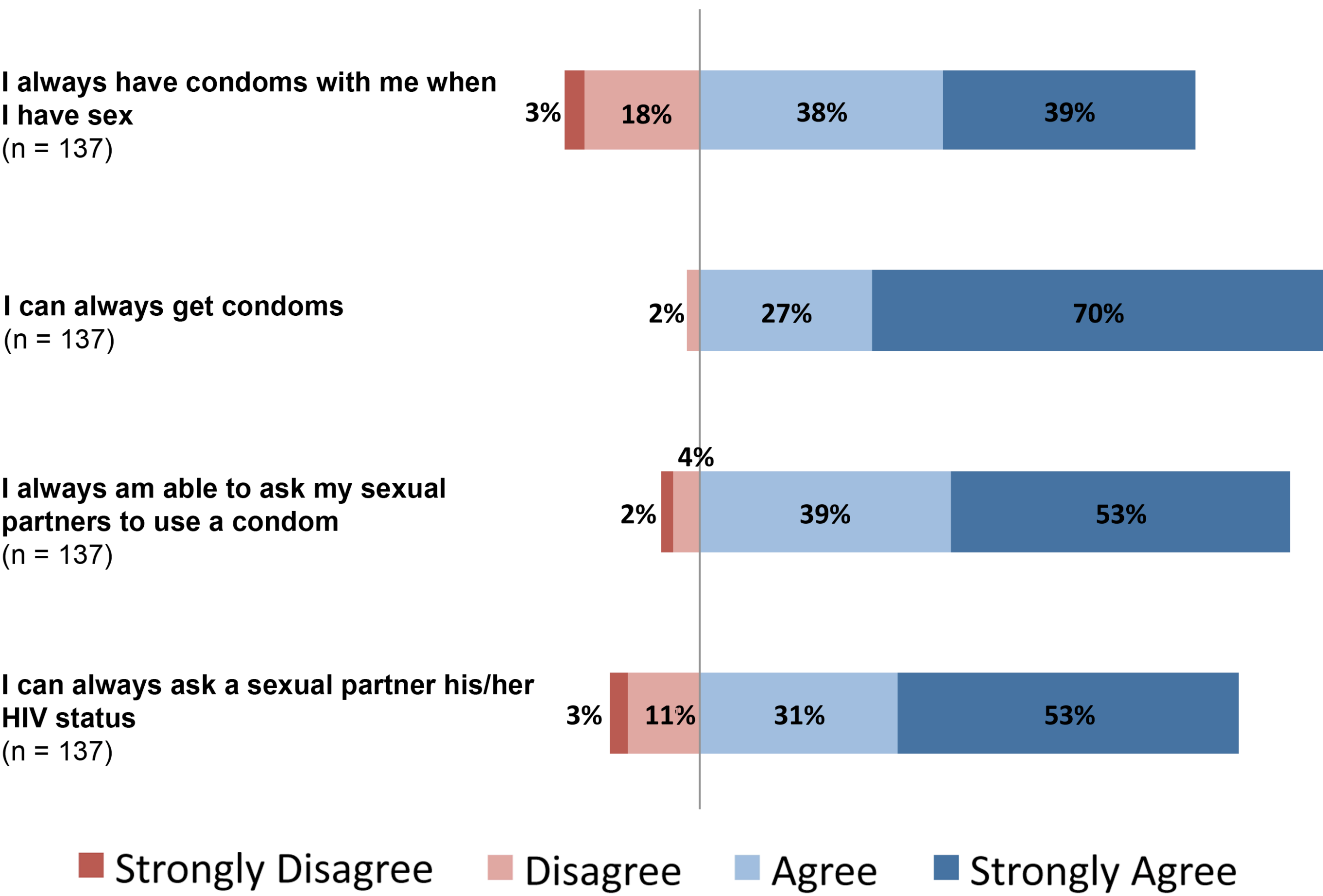


Figure 2. Diverging stacked bar graph of responses (%) to questions on self-efficacy in sexual situations (Likert scale).

- Analysis:** Participants who had heard of PrEP before felt more knowledgeable about HIV viral load and it’s role in transmission compared to those who had not heard of PrEP (p < 0.001).

Discussion and Conclusion

- Overall, participants believed they were knowledgeable in regards to transmission and avoiding HIV, in addition to feeling confident in negotiating condom use in general sexual situations. However, there appears to be a gap in understanding other nuances in HIV transmission, such as the concept of a viral load.
- Roughly half of the participants surveyed had heard about PrEP, and surprisingly more than half of all participants, regardless of prior knowledge of PrEP, expressed their willingness to us it.
- A more concerning finding revealed an apparent dissonance in the ability of participants to ask a sexual partner their HIV-status before sex, how often they ask, and actually knowing their partner’s status for the exposure they received nPEP for. Our data show that although 84% of respondents felt comfortable asking a partner’s status, only 57% ask their partner most of the time, while 50% did not know the status of their partner before the sexual exposure they received nPEP for.
- Conclusion:** The findings from this study provide a better understanding of the populations accessing nPEP due to consensual sex in Vancouver, and highlight potential areas for risk reduction counseling for future nPEP users, as well as, interest in future pilots offering PrEP.