

# Awareness of Post-Exposure Prophylaxis (PEP) among a Cohort of Gay, Bisexual and other Men Who Have Sex with Men (MSM) in Vancouver, Canada

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## Background

- Non-occupational Post-Exposure Prophylaxis (nPEP) is a strategy to reduce HIV infection in those with high-risk exposure.
- This study characterized nPEP awareness amongst gay, bisexual and other men who have sex with men (MSM) in Metro Vancouver, British Columbia after a recently established pilot nPEP program in 2012.

## Methods

- Momentum Health Study participants were gay, bisexual and other MSM aged >16 years recruited via respondent-driven sampling (RDS) and completed a computer-assisted self-interview.
- Stratified by HIV status, we used multivariable logistic regression with backward selection to identify factors associated with nPEP awareness.
- All analyses were RDS-adjusted.

## Results

**Table 1.** Sample demographics for both HIV-negative/unknown (n=524) and HIV-positive gay, bisexual and other MSM (n=195)

Variable	All participants			HIV-negative/unknown			HIV-positive					
	N	RDS%	95% CI	N	RDS%	95% CI	N	RDS%	95% CI			
Age												
< 30	275	33.5	25.0	42.3	267	49.0	43.0	55.1	8	3.7	0.6	6.8
≥ 30	444	66.5	57.7	75.0	257	51.0	44.9	57.0	187	96.3	93.2	99.4
White Ethnicity												
Yes	539	68.3	61.4	74.5	390	69.8	63.9	75.7	149	68.1	57.4	78.8
No	180	31.7	25.5	38.6	134	30.2	24.3	36.1	46	31.9	21.2	42.6
Sexual Identity												
Gay	612	80.3	75.8	85.0	445	82.2	77.3	87.0	167	82.7	74.2	91.2
Bisexual/Other	107	19.7	15.0	24.2	79	17.8	13.0	22.7	28	17.3	8.8	25.8
Education												
Greater than high school	537	65.7	58.3	72.2	407	71.0	64.9	77.0	130	66.0	55.6	76.5
Some/completed high school	168	34.3	27.8	41.7	107	29.0	23.0	35.1	61	34.0	23.5	44.4
Heard of TasP												
No	351	53.8	47.6	59.4	299	59.1	53.2	65.0	52	30.3	20.0	40.5
Yes	366	46.2	40.6	52.4	224	40.9	35.0	46.8	142	69.7	59.5	80.0

- A total of 51.9% (112/173) HIV-positive and 48.5% (272/500) HIV-negative participants had heard of nPEP.
- Only 3% (5/106) of HIV-negative participants who reported recent high-risk sex used nPEP.

## Conclusion

- Following implementation of an nPEP pilot program, nPEP awareness among HIV-negative gay, bisexual and other MSM was 48.5% and use was 3%.
- Participants who engaged in sexual activities that may increase risk of HIV transmission were more likely to be aware of nPEP, suggesting a potential greater willingness to incorporate nPEP into a personal combination prevention strategy.
- These data support the need to expand knowledge of and access to nPEP, and actively promote nPEP services through targeted and on-going public health messaging.

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## Results (continued)

**Table 2.** Multivariable factors associated with nPEP awareness stratified by HIV status

Variables	HIV-negative/unknown			HIV-positive		
	AOR	95% CI		AOR	95% CI	
Non-White Ethnicity (referent: White)	0.28	0.17	0.48	0.34	0.12	0.95
Bisexual/Other Sexual Identity (referent: gay)	0.43	0.23	0.80			
Some/completed high school education (referent: greater than high school)	0.46	0.26	0.80			
Neighbourhood (referent: downtown)						
Vancouver	0.80	0.48	1.35			
Outside Vancouver	0.42	0.24	0.76			
Student Currently (referent: No)	2.28	1.35	3.85			
Gave Drugs in Exchange for Sex in P6M (referent: No)	0.16	0.05	0.55			
Used Alcohol in P6M (referent: No)	2.33	1.08	5.05			
Male Anal Number in P6M (referent: 1)						
2-5	1.30	0.67	2.51			
6-19	1.87	0.84	4.16			
20+	3.85	1.34	11.07			
0	0.86	0.37	2.02			
≥ 10 Life Time Receptive Anal Sex Partners (referent: < 10)				5.39	1.62	17.94
Sex Party Attendance, P6M (referent: No barebacking-specific party)	3.02	1.54	5.94			
Strategic positioning (referent: No)	2.06	1.26	3.37			
Sero-sorting for condomless anal sex (referent: No)				3.92	1.33	11.59
Previously diagnosed with STI (referent: No)	1.89	1.15	3.09			
Sexual Altruism Personal Scale (n=606)	0.36	0.20	0.65			
Sexual Altruism Community Scale (n=657)	1.91	1.12	3.26			
Guys Can Always Ask Sexual Partner to Use condoms (referent: Strongly Agree)						
Agree	2.21	1.20	4.05			
(Strongly) Disagree	1.21	0.38	3.87			
Guys Can Always Ask Sexual Partner HIV Status (referent: Strongly Agree)						
Agree				0.41	0.13	1.33
(Strongly) Disagree				0.16	0.04	0.70
I Can Always Get Condoms (referent: Strongly Agree)						
Agree	0.49	0.27	0.88			
(Strongly) Disagree	0.26	0.07	0.94			
I Always Have Condoms when Having Sex (referent: Strongly Agree)						
Agree				1.33	0.37	4.75
(Strongly) Disagree				5.49	1.42	21.26

- Generally, nPEP awareness was higher for participants who engaged in sexual activities with increased HIV transmission potential.
- Other factors associated with greater awareness among HIV-negative participants included recent alcohol use, higher personal sexual altruism, previous STI diagnosis, and greater perceived condom use self-efficacy.
- Factors associated with greater awareness among HIV-negative participants included White race/ethnicity, gay sexual identity, more formal education, and Vancouver residence.
- Greater nPEP awareness among HIV-positive participants was associated with greater perceived agency to ask sexual partners' HIV status and more frequently reporting doing so, greater lifetime receptive sex partners, and greater access to condoms.