

Exploring the PrEP Cascade: Modest proportions of MSM undergoing anonymous HIV testing would potentially be able to benefit from PrEP

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Background

- PrEP refers to the ongoing use of antiretrovirals by HIV-negative people, starting before an exposure and continuing after
- An HIV prevention strategy for “High-Risk” HIV-negative individuals
- PrEP includes
 - Daily use of Truvada pills
 - Regular clinical visits to test for HIV and STIs and monitor side-effects and toxicity
 - Ongoing adherence and risk-reduction counseling

PrEP in Canada

- No guidelines (except Quebec) or regulatory approval
- Pilot projects ongoing/planned in Toronto (OHTN-supported “PREPARATORY-5”) and Montreal
- Current use is low
- Potential barriers to PrEP use
 - Low perception of risk
 - Lack of awareness
 - Poor acceptability
 - No access to physician
 - High cost

Methodology

- April to June 2013
- Self-administered, anonymous 33-item questionnaire
- Eligibility: MSM and transgender FTM aged ≥ 18 presenting for anonymous point-of-care HIV testing at Hassle Free Clinic
- All participants offered a \$5 dollar Starbucks gift card
- Domains: demographics, insurance coverage, access to family physician, objective HIV risk (HIRI-MSM), perceived HIV risk, awareness of PrEP, willingness to use PrEP, willingness to pay for PrEP
- Approved by St Michael's Hospital REB
- Primary results presented at IAPAC Sep 2013, London UK

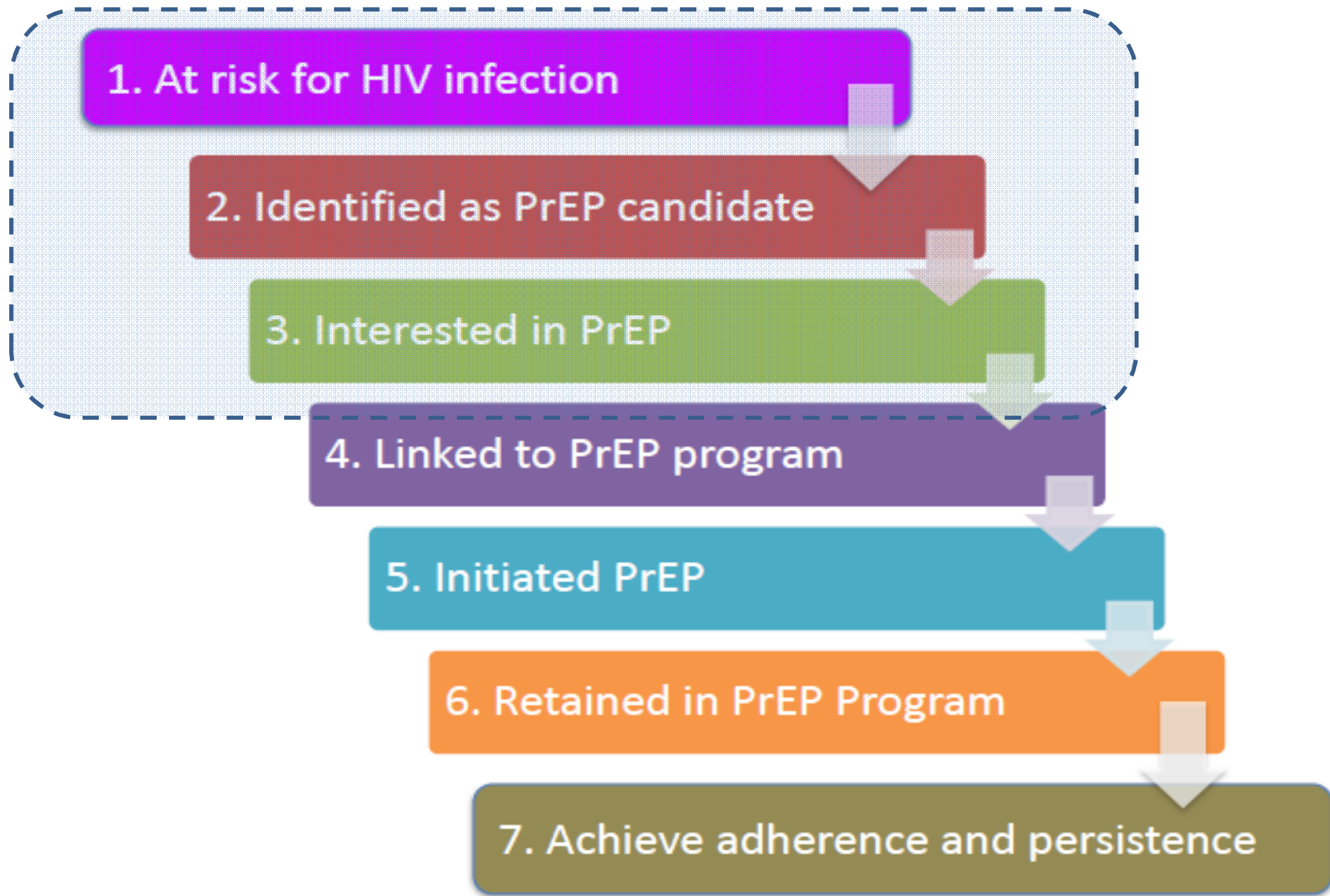
Methodology

- **Objective: To determine the proportion who could potentially benefit from PrEP**
- Four 'PrEP cascades' constructed based on
 - Objective risk (HIRI-MSM)
 - Perception of risk (moderate / high)
 - Pre-existing awareness of PrEP
 - Willingness to use PrEP
 - Access to a prescriber (family physician)
 - Access to drug coverage

HIV Incidence Risk Index For MSM (HIRI-MSM)

- 7-item HIV risk screening tool developed by the CDC
- Developed “for identifying persons at highest risk” and “to prioritize patients for intensive HIV prevention efforts (eg. preexposure prophylaxis)”
- Based on 2 large prospective cohorts of MSM in the US
- Risk score of ≥ 10 has sensitivity of 84% and a specificity of 45% for predicting incident HIV infection in next 6 mo.

The *Proposed* PrEP cascade



Participant characteristics

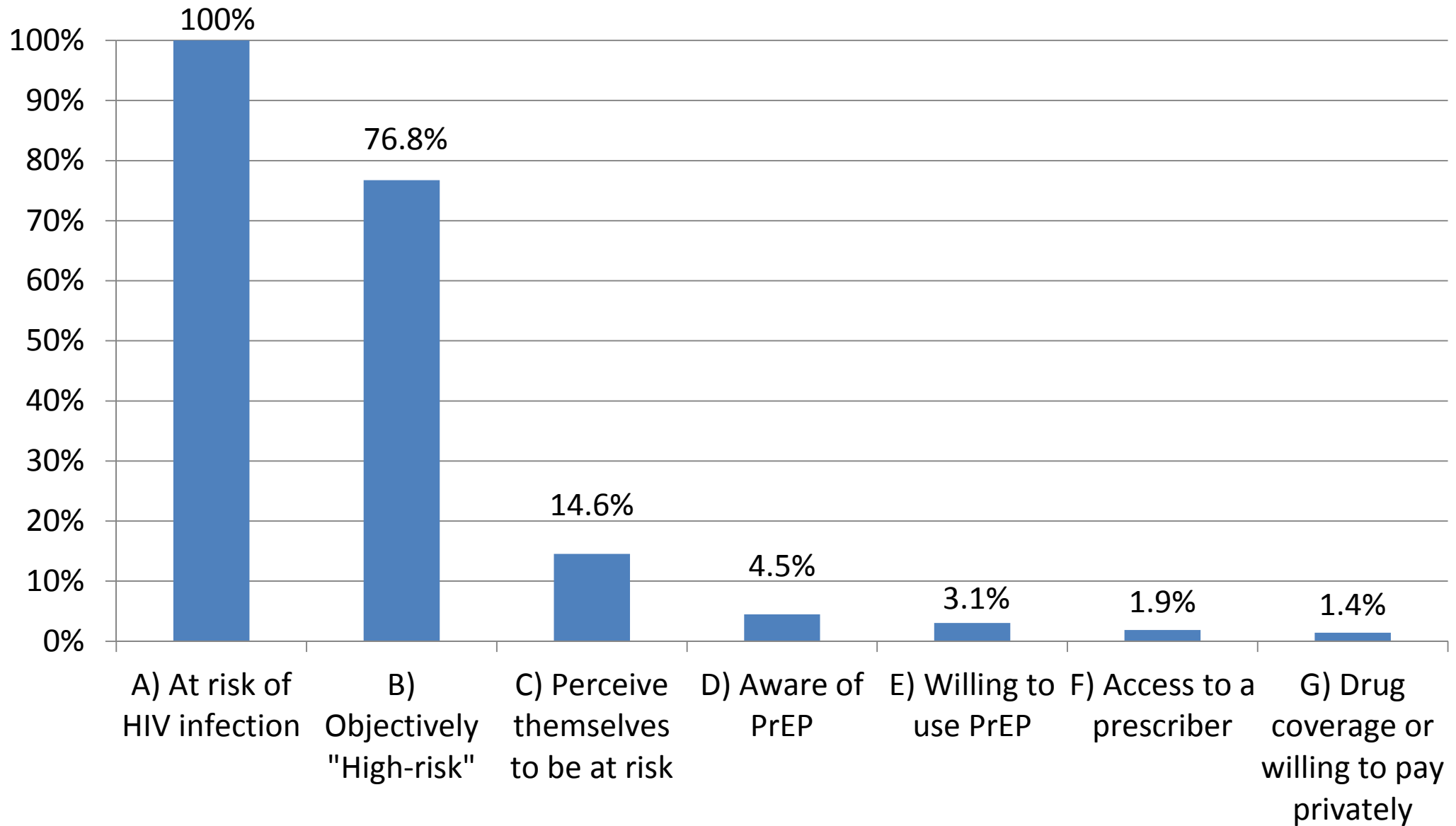
Characteristic	N=426
Age in years – median (IQR)	30 (25, 39)
Ethnicity	
Caucasian	61.12%
Other	38.88%
Education	
High school diploma or less	13.61%
College/undergraduate degree	59.67%
Professional or graduate degree	26.73%
Employment	
Full-time	67.54%
Part-time	15.99%
Unemployed	16.47%

Participant characteristics cont.

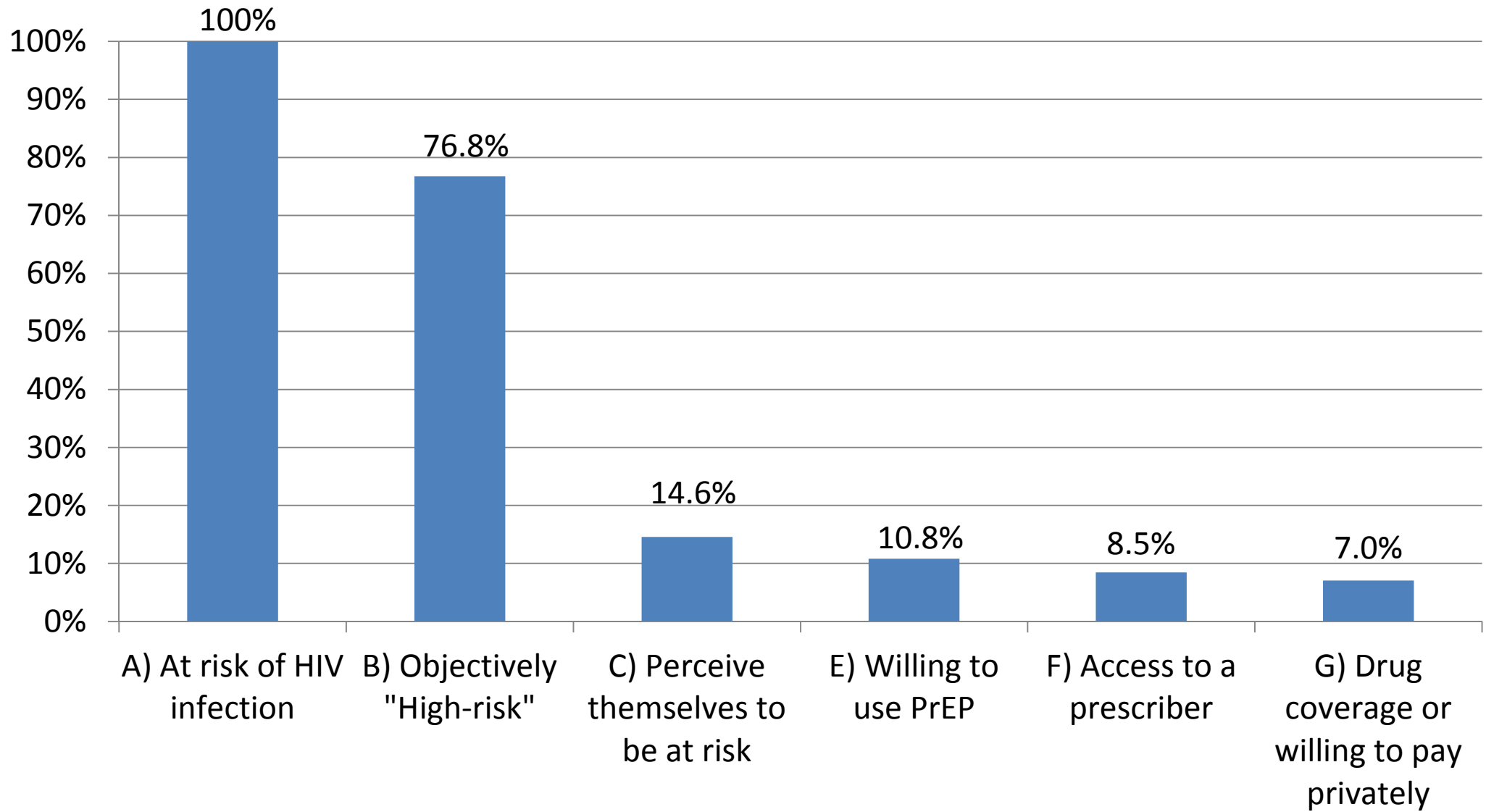
Characteristic

At objectively “High-risk” (ie. HIRI-MSM \geq 10)	77%
Perception of risk	
moderate/high risk	17%
little/moderate/high risk	86%
Aware of PrEP	27%
Willing to use PrEP	51%
Access to family doctor	73%
Has private insurance or ODB or willing to pay “out of pocket”	80%

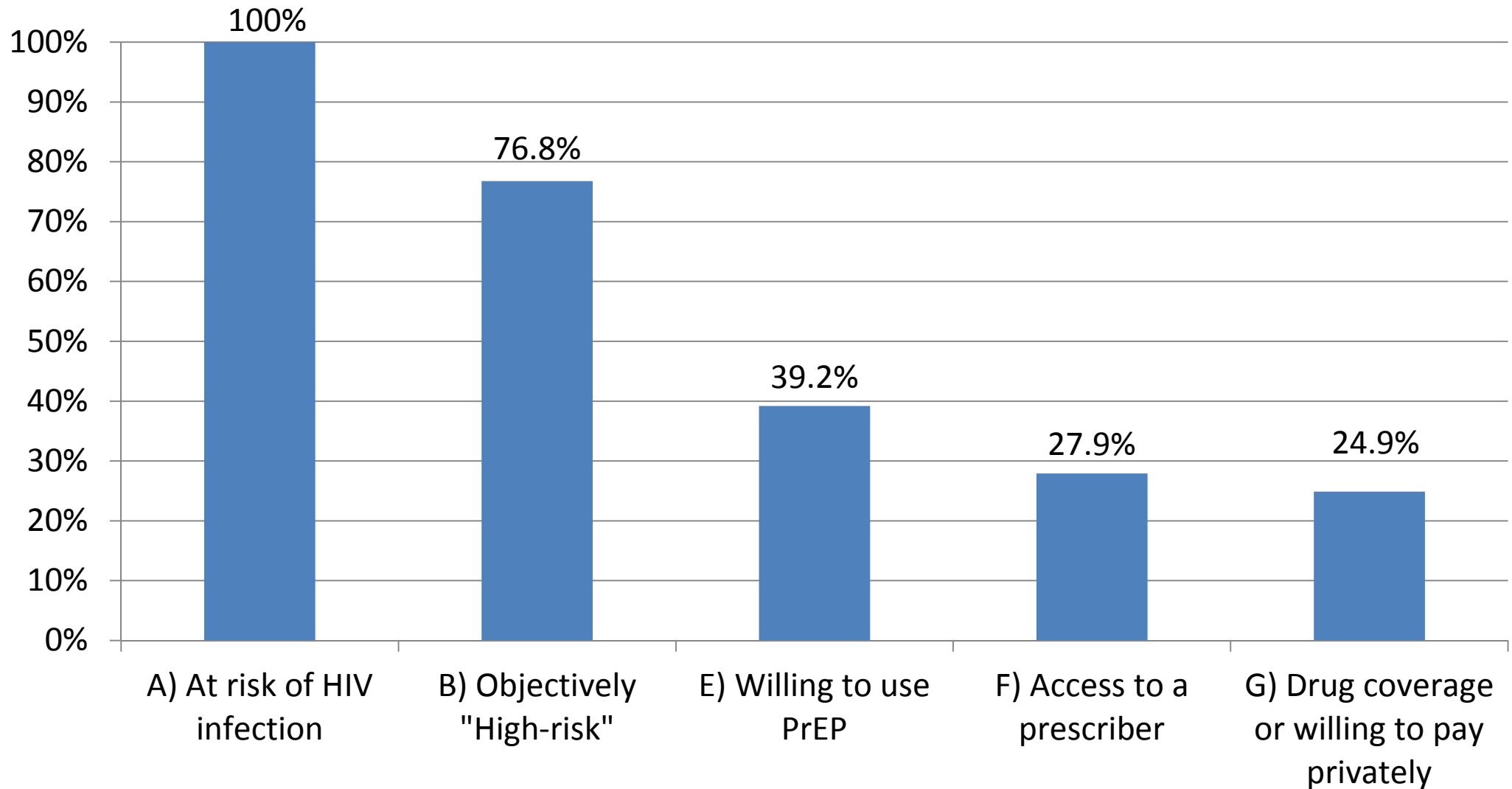
PrEP Cascade #1



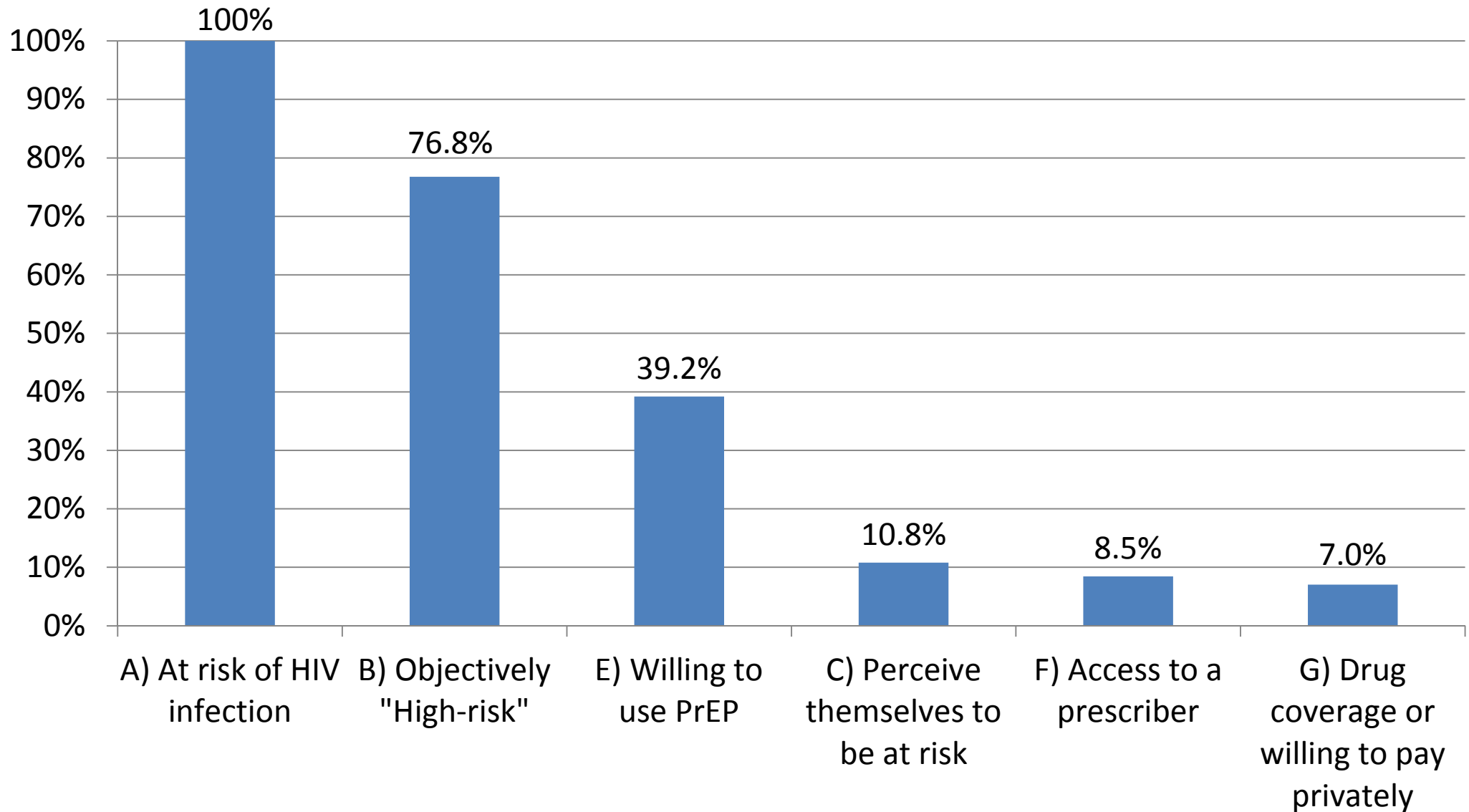
PrEP Cascade #2



PrEP Cascade #3



PrEP Cascade #4



Results

- Several potential barriers to PrEP use among those who may benefit (objective “high-risk”, n=327)
 - 81% did not perceive themselves to be at moderate/high risk
 - 74% were unaware of PrEP
 - 49% were not willing to use PrEP
 - 27% lacked a family physician
 - 19% did not have drug coverage
- Of men willing to use PrEP, many (74%) did not perceive themselves to be at moderate/high risk

Limitations

- Survey was self-administered
- HIRI-MSM has not been validated for study population
- HIRI-MSM intended as screening tool (not 'diagnostic') for identifying possible candidates for intensified HIV prevention efforts, to be used in conjunction with clinical judgment
- MSM testing for HIV at Hassle Free Clinic only represent a subpopulation of total MSM population

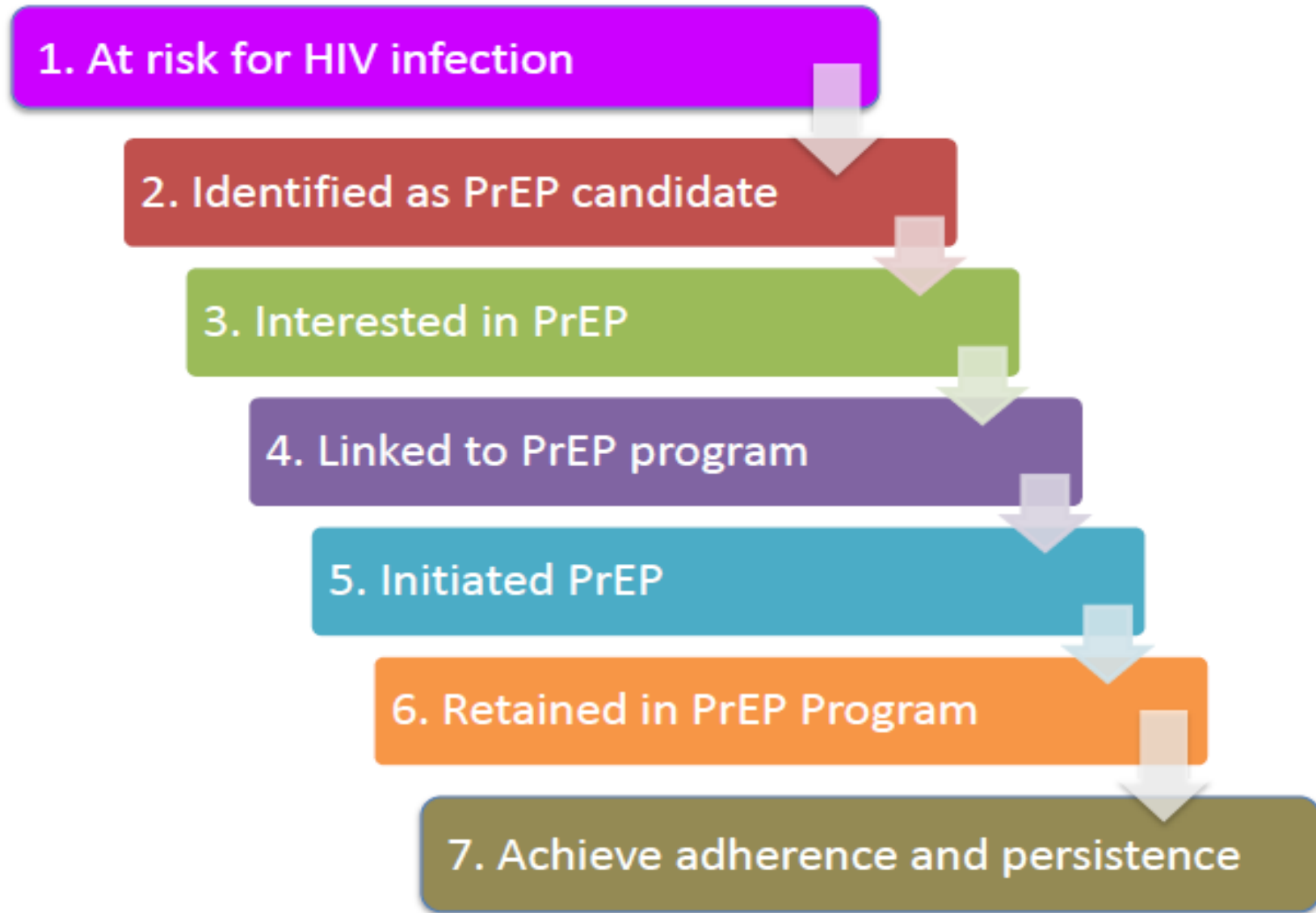
Conclusions

- Modest proportions of MSM testing for HIV at Hassle Free Clinic would potentially be able to benefit from PrEP
- To maximize public health benefit of PrEP, rollout should be combined with interventions to address barriers including:
 - Awareness of PrEP
 - Disparity between objective and subjective HIV risk
 - Access to family physicians
 - Medication coverage

Future Research

- Validation of HIRI-MSM in Canadian context (PREPARATORY-1)
- Qualitative interviews to understand motivations to use PrEP and disparities between objective and subjective HIV risk (PREPARATORY-3)
- Collection of empirical data from pilot/demonstration projects to understand “real-life” barriers (PREPARATORY-5)

The *Proposed* PrEP cascade



Acknowledgements

- Survey respondents
- Hassle Free Clinic Staff
- CIHR
- St. Michael's Hospital
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HIRI-MSM Risk Index*

1	How old are you today (yrs)?	<18 years	score 0
		18–28 years	score 8
		29–40 years	score 5
		41–48 years	score 2
		≥49 years	score 0
2	How many men have you had sex with in the last 6 months?	>10 male partners	score 7
		6–10 male partners	score 4
		0–5 male partners	score 0
3	In the last 6 months, how many times did you have receptive anal sex (you were the bottom) with a man?	1 or more times	score 10
		0 times	score 0
4	How many of your male sex partners were HIV positive?	>1 positive partner	score 8
		1 positive partner	score 4
		<1 positive partner	score 0
5	In the last 6 months, how many times did you have insertive anal sex (you were the top) with a man who was HIV positive?	5 or more times	score 6
		0 times	score 0
6	In the last 6 months, have you used methamphetamines such as crystal or speed?	Yes	score 5
		No	score 0
7	In the last 6 months, have you used poppers (amyl nitrate)?	Yes	score 3
		No	score 0
		Add down entries in right column to calculate total score	Total score†