

Development of a PrEP Candidate Screening Tool: An Assessment of PrEP Knowledge and Health Behaviors among Individuals at High-Risk for HIV

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BACKGROUND

- Recent studies have shown that using antiretrovirals as pre-exposure prophylaxis (PrEP) for HIV prevention is effective in reducing HIV incidence among MSM, heterosexuals, and serodiscordant couples.
- Given the high HIV prevalence in the District of Columbia (DC), PrEP has the potential to make a significant impact in reducing HIV incidence.
- Widespread use of PrEP will be predicated on adequate knowledge, health care access and use, and optimal adherence.
- Assessing the level of PrEP knowledge and acceptability combined with health-seeking behaviors will assist in identifying optimal PrEP users.

OBJECTIVES

- This study's objective was to evaluate PrEP knowledge, experience, acceptability and potential uptake among high-risk populations in DC.
- This baseline information will be utilized to develop a clinical screening tool to assist health care providers identify potential candidates for PrEP use based on risk, health-seeking behaviors, and potential levels of adherence.

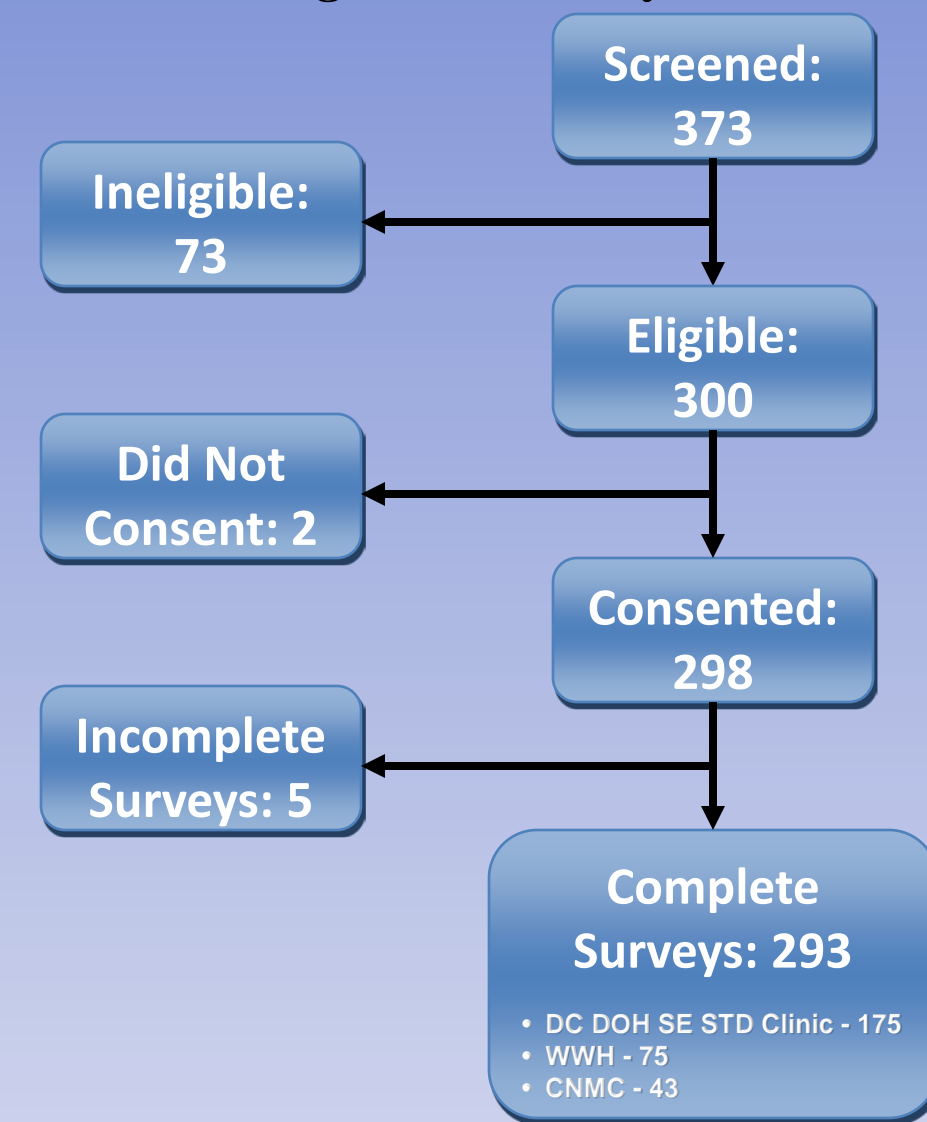
METHODS

- Conducted a self-administered survey using a web-based survey tool (SurveyGizmo) on iPads.
- Recruited convenience sample of high-risk patients attending populations attending three DC clinics from February-June 2012
 - DC Department of Health Southeast STD clinic
 - Whitman-Walker Health Gay Men's Health and Wellness Clinic
 - Children's National Medical Center Goldberg Adolescent Clinic
- Captured information regarding :
 - Participant demographics
 - HIV risk behaviors
 - Health-seeking behaviors
 - PrEP knowledge, experience, acceptability, and potential uptake
- Calculated descriptive statistics and bivariate analyses to identify factors associated with willingness to use PrEP.

METHODS (cont'd)

- Eligibility criteria included:
 - Age 13 or older
 - Self-reported HIV-negative status
 - Had sex in last 6 months
 - Able to complete survey in English
 - Able to provide informed consent

Figure 1. Flow Diagram of Survey Recruitment



- 293 clinic attendees completed the survey.
- Participants had a median age of 26 (range: 14-66), were majority non-Hispanic Black (72.4%) and male (56.3%).

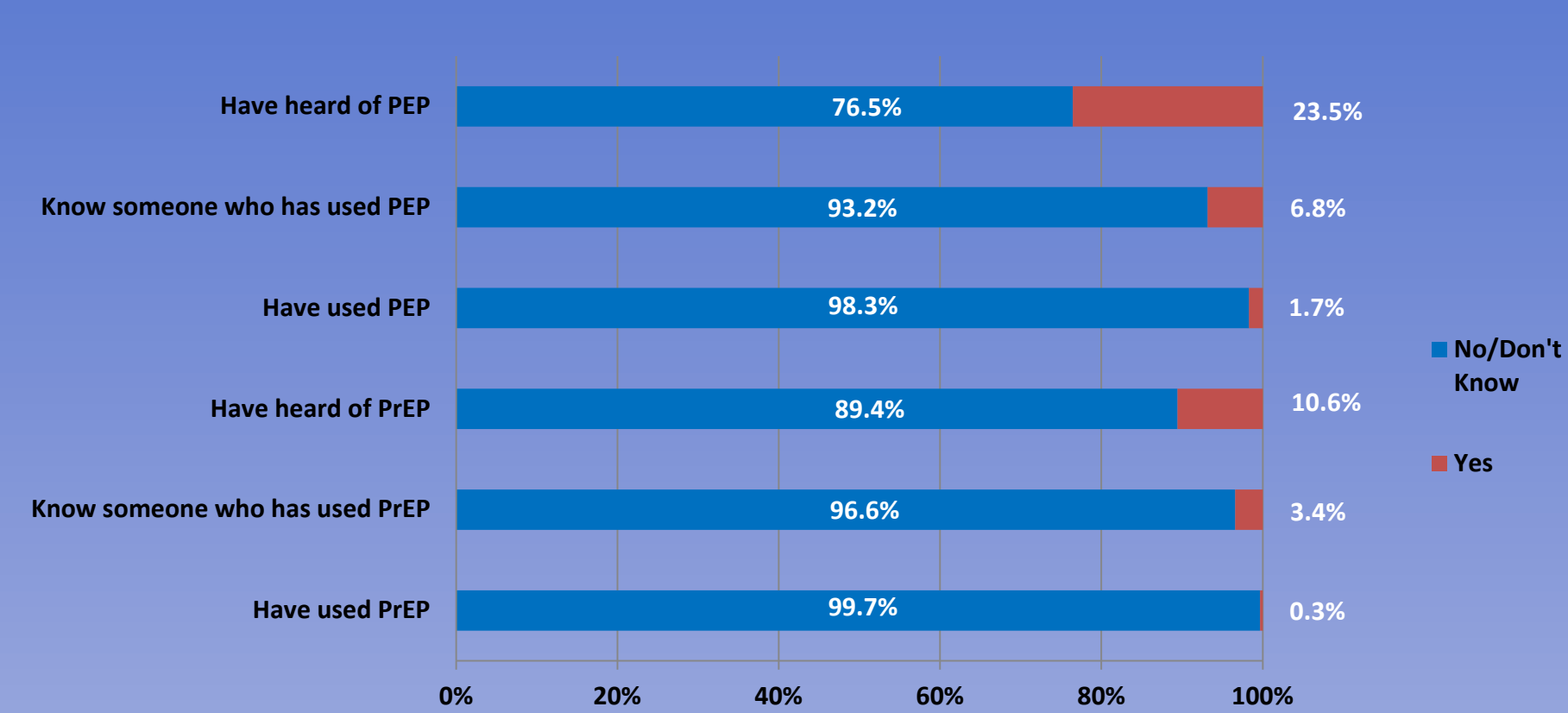
Table 1. Participant Demographics, Health Care Behaviors, and Risk Behaviors

Characteristic	Total No. (%)	Characteristic	Total No. (%)
Age (years)		Sexual behavior (N=288) ⁴	
Mean (SD)	30.1 (11.6)	Heterosexual male	97 (33.7)
Gender		Homosexual/bisexual male & MTF transgender	67 (23.3)
Male	165 (56.3)	Heterosexual female	107 (37.2)
Female	127 (43.3)	Homosexual/bisexual female	17 (5.9)
Transgender (MTF)	1 (0.3)	In a committed relationship	
Transgender (FTM)	0 (0.0)	Yes	174 (59.4)
Race/ethnicity		No	116 (39.6)
Non-Hispanic Black	212 (72.4)	Don't know	3 (1.0)
Non-Hispanic White	39 (13.3)	Knew sex partners' HIV status	
Hispanic	20 (6.8)	Never/rarely/half of the time	115 (39.3)
Other ¹	22 (7.5)	Most of the time/always	155 (52.9)
Education level		Don't know	23 (7.9)
Less than 12 th grade	43 (14.7)	Condom use	
Grade 12 or GED	98 (33.5)	Never/rarely/half of the time	148 (50.5)
Any college	152 (51.9)	Most of the time/always	142 (48.5)
Household income (N=275) ²		Don't know	3 (1.0)
Less than \$5,000	41 (14.9)	Self-reported HIV risk	
\$5,000 - \$19,999	51 (18.6)	None/low	192 (65.5)
\$20,000 - \$49,999	70 (25.5)	Medium/high	86 (29.4)
\$50,000 or more	66 (24.0)	Don't know	15 (5.1)
Don't know	47 (17.1)	No. of HIV tests, past 12 months (N=289) ⁵	
Health insurance		Mean (SD)	1.8 (1.6)
Private insurance	66 (22.5)	Median	2
Public	133 (45.4)	Min, Max	0, 20
Other ³	32 (10.9)	Ever incarcerated	
None	49 (16.7)	Yes	99 (33.8)
Don't know	13 (4.4)	No	194 (66.2)
Have regular healthcare provider		Injected drugs, past 12 months	
Yes	179 (61.1)	Yes	7 (2.4)
No	99 (33.8)	No	285 (97.3)
Don't know	15 (5.1)	Don't know	1 (0.3)
Take any daily medication			
Yes	97 (33.1)		
No	193 (65.9)		

¹ Race/ethnicity category "Other" includes non-Hispanic multiracial. ² Data collected only from participants 18 years of age or older. ³ Includes those covered by a spouse or other family member's insurance. ⁴ Data collected from participants who had previously been tested for HIV (N=289). To be eligible for the study, participants at DOH SE STD and WWH were required to either have had a previous negative HIV test result or have received a negative HIV test result the day of the survey was taken. ⁵ Sexual behavior defined by gender of sex partners in past 12 months. 5 participants who did not report this data are not included in the table (N=288).

RESULTS

Figure 2. Knowledge and Prior Use of Pre- and Post-Exposure Prophylaxis



- Of the 97 participants who were prescribed a daily medication:
 - 65.0% sometimes forgot a dose
 - On average, they had missed two doses in the prior two weeks
- Few survey participants had heard of either PEP (23.5%) or PrEP (10.6%).
- 77.5% said they would take PrEP if it were proven safe and effective.

Table 3. PrEP Acceptability and Potential Uptake

Characteristic	Willing (N=140) No. (%)	Not Willing (N=153) No. (%)
Perceived PrEP effectiveness*		
Not effective at all	9 (6.4)	19 (12.4)
Minimally/somewhat effective	37 (26.4)	65 (42.5)
Very/completely effective	50 (35.7)	26 (17.0)
Don't know	44 (31.4)	43 (28.1)
The availability of pills to prevent HIV infection when taken before sex will be useful to people who are not able to convince their partners to use condoms all the time (N=291)**		
Strongly/somewhat disagree	11 (7.9)	28 (18.5)
Neither agree nor disagree	13 (9.3)	33 (21.9)
Somewhat/strongly agree	116 (82.9)	90 (59.6)
People who would take daily HIV medicines to prevent HIV infection cannot control their own behavior (N=291)		
Strongly/somewhat disagree	60 (42.9)	49 (32.5)
Neither agree nor disagree	35 (25.0)	59 (39.1)
Somewhat/strongly agree	45 (32.1)	43 (28.5)
Would only be willing to take a daily pill to prevent HIV infection if it had few or no side effects**		
Strongly/somewhat disagree	10 (7.1)	29 (19.0)
Neither agree nor disagree	15 (10.7)	31 (20.3)
Somewhat/strongly agree	115 (82.1)	93 (60.8)
Would be more likely to agree to the HIV prevention pill if my healthcare provider told me about it or offered it to me first**		
Strongly/somewhat disagree	7 (5.0)	29 (19.0)
Neither agree nor disagree	11 (7.9)	50 (32.7)
Somewhat/strongly agree	122 (87.1)	74 (48.4)
Would be able to follow a healthcare provider's instructions about how to take a daily HIV medicine to prevent HIV infection**		
Strongly/somewhat disagree	7 (5.0)	25 (16.3)
Neither agree nor disagree	14 (10.0)	34 (22.2)
Somewhat/strongly agree	119 (85.0)	94 (61.4)
If took daily medicines to prevent HIV infection, would be willing to get tested regularly (every six months) for HIV**		
Strongly/somewhat disagree	4 (2.9)	21 (13.7)
Neither agree nor disagree	6 (4.3)	24 (15.7)
Somewhat/strongly agree	130 (92.9)	108 (70.6)
Would be very difficult for me to both use condoms and take a daily pills to prevent HIV infection		
Strongly/somewhat disagree	90 (64.3)	87 (56.9)
Neither agree nor disagree	18 (12.9)	29 (19.0)
Somewhat/strongly agree	32 (22.9)	37 (24.2)
Having a prevention pill would give me more control over whether or not I get HIV from a sex partner**		
Strongly/somewhat disagree	10 (7.1)	43 (28.1)
Neither agree nor disagree	26 (18.6)	42 (27.5)
Somewhat/strongly agree	104 (74.3)	68 (44.4)
Would feel ashamed or embarrassed taking daily HIV medicines to prevent HIV infection (N=292)**		
Strongly/somewhat disagree	118 (84.3)	84 (55.3)
Neither agree nor disagree	14 (10.0)	32 (21.1)
Somewhat/strongly agree	8 (5.7)	36 (23.7)
How likely to use PrEP if medication was free or covered by insurance (N=292)		
Not at all likely	3 (2.1)	18 (11.8)
Somewhat likely	15 (10.7)	61 (40.1)
Very likely	115 (82.1)	51 (33.6)
Don't know	7 (5.0)	22 (14.5)
If a daily pill was available to prevent HIV infection, I would be interested in learning more about it**		
Strongly/somewhat disagree	0 (0.0)	16 (10.5)
Neither agree nor disagree	0 (0.0)	25 (16.3)
Somewhat/strongly agree	140 (100.0)	112 (73.2)

* p-value <0.05; **p-value <0.001

RESULTS (cont'd)

- Preliminary bivariate analysis showed that among those participants who strongly agreed that they would be willing to take a daily pill to prevent HIV infection if it were proven to be safe and effective, there were differences with regard to:
 - Age (13-24 years-old 45.1% vs. 25-39 years-old 50.5% vs. ≥40 years-old 49.3%, p=0.70)
 - Gender (male 45.5% vs. female 51.2%, p=0.33)
 - Sexual behaviors (homosexual/bisexual male 50.8% vs. heterosexual male 42.3% vs. heterosexual female 48.6%, p=0.51)

CONCLUSIONS

- Findings suggest that high-risk populations in DC have low levels of PrEP awareness but are generally open to learning more about PrEP.
- These results are consistent with those of other national studies.
- Potential obstacles to PrEP use in these populations may include:
 - Low levels of PrEP awareness
 - Lack of a regular healthcare provider
 - Difficulty taking medications as prescribed
- A clinical tool to identify persons at risk for HIV who are willing to use PrEP and likely to remain adherent will assist clinicians in identifying good candidates for PrEP use and will lead to optimal HIV prevention.

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