Poster #982

Gaps Along the PrEP Continuum Among STD Clinic Attending MSM with High Risk Behaviors

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BACKGROUND

- Pre-exposure Prophylaxis (PrEP) substantially reduces the risk of HIV infection when adherence is high and coverage is adequate.
- Men who have sex with men (MSM) and transgender people are at increased risk for HIV compared to others and therefore require tailored preventive efforts.
- The PrEP care continuum[1,2] is a measurement tool developed to monitor PrEP implementation and identify areas in need of additional scale up.

OBJECTIVES

- To examine trends in knowledge, attitudes, and PrEP use over time (2012 vs. 2016) in Washington, DC.
- To compare differences in knowledge, attitudes, and PrEP use among MSM and transgender male-to-females (TG) compared to females and heterosexual males (HET).

METHODS

- Surveyed a convenience sample of 460 HIV-negative STD clinic attendees in Washington, DC in 2012 (n=174) and 2016 (n=286).
- Measured demographic characteristics, self-reported risk behaviors, and self-perceived HIV risk.
- Assessed stages of the PrEP continuum from 'self-perceived HIV risk' to 'have taken PrEP' with each step being contingent upon meeting all prior steps.
- Conducted uni- and bivariate analyses to compare populations, risk behaviors, and PrEP continuum outcomes.
- Conducted multivariate analyses adjusting for: survey year, race/ethnicity, income, number of casual sex partners, number of HIV tests in past year, and having heard of and used post-exposure prophylaxis (PEP).

RESULTS

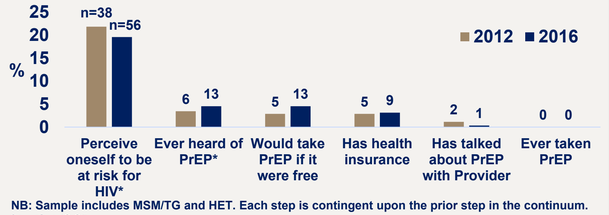
- Among 460 participants, 53 (11.5%) identified as MSM/TG, and 407 (88.5%) identified as HET.
- MSM/TG had significantly more casual sex partners and HIV tests in the past year, were more likely to perceive themselves to be at high/medium risk for HIV and to have heard of and used PEP.
- Significant differences between the 2012 and 2016 participants included: having spent time in jail in the last year, knowing one's sex partner's HIV status, self-perceived risk for HIV, and having heard of PEP and PrEP.

Table 1. Demographic frequencies by sexual risk group, n=460

	Overall N=460 n (%)	MSM/TG n=53 n (%)	HET n=407 n (%)	P-value*
Median age (range)	27 (16-66)	25 (17-51)	28 (16-66)	0.0917
Race/ethnicity				**0.0044**
White non-Hispanic	35 (8)	8 (16)	27 (7)	
Black non-Hispanic	357 (81)	32 (63)	325 (83)	
Hispanic	28 (6)	7 (14)	21 (5)	
Other	22 (5)	4 (8)	18 (5)	
Health insurance (yes)	348 (78)	40 (78)	308 (77)	0.8664
Some college education	216 (49)	26 (54)	190 (49)	0.4661
Regular healthcare provider	278 (64)	28 (55)	250 (65)	0.1688
≥24 hours in jail, past yr	177 (39)	18 (34)	159 (39)	0.4485
# Casual sex partners, past yr (median, range)	2 (0-40)	3 (0-40)	1 (0-30)	**0.0055**
# HIV tests, past yr (median, range)	1 (0-20)	2 (0-11)	1 (0-20)	**0.0139**
Injected drugs, past yr	8 (2)	1 (2)	7 (2)	0.9396
Never/rarely knows sex partner's HIV status	176 (41)	19 (38)	157 (42)	0.6124
Never/rarely uses condom during sex	182 (41)	19 (36)	163 (41)	0.4594
Medium/high self-perceived risk for HIV	94 (21)	23 (43)	71 (18)	**<.0001**
Ever heard of PEP	113 (25)	30 (57)	83 (21)	**<.0001**
Ever taken PEP	12 (4)	7 (17)	5 (2)	**<.0001**

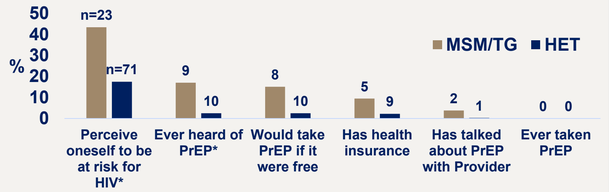
*P-values were calculated using chi-square/Fisher's exact test for dichotomous variables and t-test for continuous variables. Statistical significance achieved at p-value < 0.05.

Figure 1. PrEP care continuum by survey year 2012 vs. 2016*



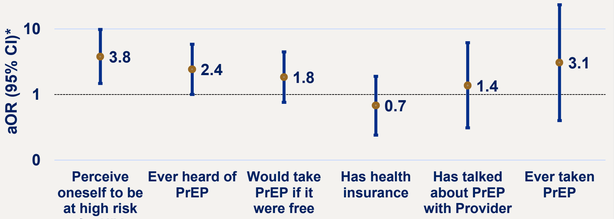
NB: Sample includes MSM/TG and HET. Each step is contingent upon the prior step in the continuum.
*p-value<0.05.

Figure 2. PrEP care continuum by risk group MSM/TG vs. HET



NB: Each step is contingent upon the prior step in the continuum.
*p-value<0.05.

Figure 3. Adjusted Odds Ratio of achieving a step along the PrEP care continuum MSM/TG vs. HET



NB: Each step of the continuum was assessed independently.
*aOR=Adjusted Odds Ratio, CI= Confidence Interval.

RESULTS

- In 2016 versus 2012, participants were significantly less likely to perceive themselves to be at high risk for HIV (21.8% vs 19.6%, p<0.0001) and more likely to have heard of PrEP given self-perceived risk for HIV (3.4% vs 4.5%, p=0.0054).
- MSM/TG were significantly more likely than HET to perceive themselves to be at high risk for HIV (43.4% vs 17.4%, p<0.0001) and more likely to have heard of PrEP given self-perceived risk for HIV (17.0% vs 2.5%, p=0.0093).
- Adjusting for demographic and behavioral covariates, and survey year, MSM/TG were significantly more likely to report high self-perceived HIV risk than HET (aOR[95%CI]=3.8[1.5;9.8]).

CONCLUSIONS

- From 2012, the year of FDA approval for PrEP, to 2016, PrEP knowledge increased significantly yet there were no substantial increases in uptake.
- While MSM/TG participants had significantly higher self-perceived risk for HIV, there were no significant differences in having heard of PrEP or having used PrEP compared to HET.
- Limitations include limited generalizability given relatively small sample sizes and convenience sampling. Strengths include adjusting for sampling differences by year and recruiting participants (theoretically) at high risk for HIV.
- PrEP education and risk-reduction programs should be implemented in STD clinics to facilitate high-risk groups' advancement along the PrEP continuum.
- The DC Department of Health has subsequently launched a PrEP program through its STD Clinic. Since the launch of the PrEP initiative, 200 people have started PrEP.

REFERENCES: [1]Kelley CF, Kahle E, Siegler A, et al. Applying a PrEP Continuum of Care for Men Who Have Sex With Men in Atlanta, Georgia. Clin Infect Dis. 2015;61(10):1590-7. [2]Levy M, Magnus M, Siegel M, et al. An Evaluation of the PrEP Care Continuum among Men who Have Sex with Men Aged 16-25 in Washington, DC. AIDS Research and Human Retroviruses. 2016;32:248. ISSN: 08892229.

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