Provider Initiated HIV Testing Predictors among Heterosexuals at Increased Risk of HIV in Puerto Rico: Data from NHBS – HET Cycle, 2016

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Background

- As of June 30, 2019, a total of 11,268 adults and adolescents (>13 years) were diagnosed with HIV infection in Puerto Rico (PR).[1]
- Heterosexual contact is the most prevalent mode of transmission, accounting for 36% of the total number of cases.[1]
- Among cases from heterosexual contact, women are the most affected accounting for 62% of cases.[1]
- Data from the PR Behavioral Risk Factor Surveillance System (BRFSS) show that the number of individual who have ever tested for HIV in their lives is increasing: from 44.2% in 2015 to 54% in 2017.[2]
- World Health Organization recommend that healthcare providers offer opt-out HIV testing and counseling to patients.[3]
- Center for Disease Control and Prevention (CDC) guidelines recommend annual HIV testing for individual ages 13 – 64 who exhibit risk factors.[4]
- The National HIV Behavioral Surveillance System (NHBS) documents high behavioral practices in the United States and its jurisdiction among three populations: men who have sex with men (MSM), persons who inject drugs (PWID) and heterosexuals at increased risk of HIV infection (HET).[6]

Study Objective

• Identify sociodemographic, health care and sexual behavior predictors of Provider Initiated HIV Testing (PIHT) using dat a from the NHBS.

NHBS Methodology

Sampling Method
- Respondent Driven Sampling (RDS)

Administration of Standardized Questionnaire [5]
- Demographics
- Sexual behaviors
- Alcohol and drug use history
- HIV testing and prevention habits
- Health conditions

Data analysis
- Chi-square and Fisher's exact test
- Odds ratio estimation through simple logistic regression models

Figure 1. Study design using NHBS data

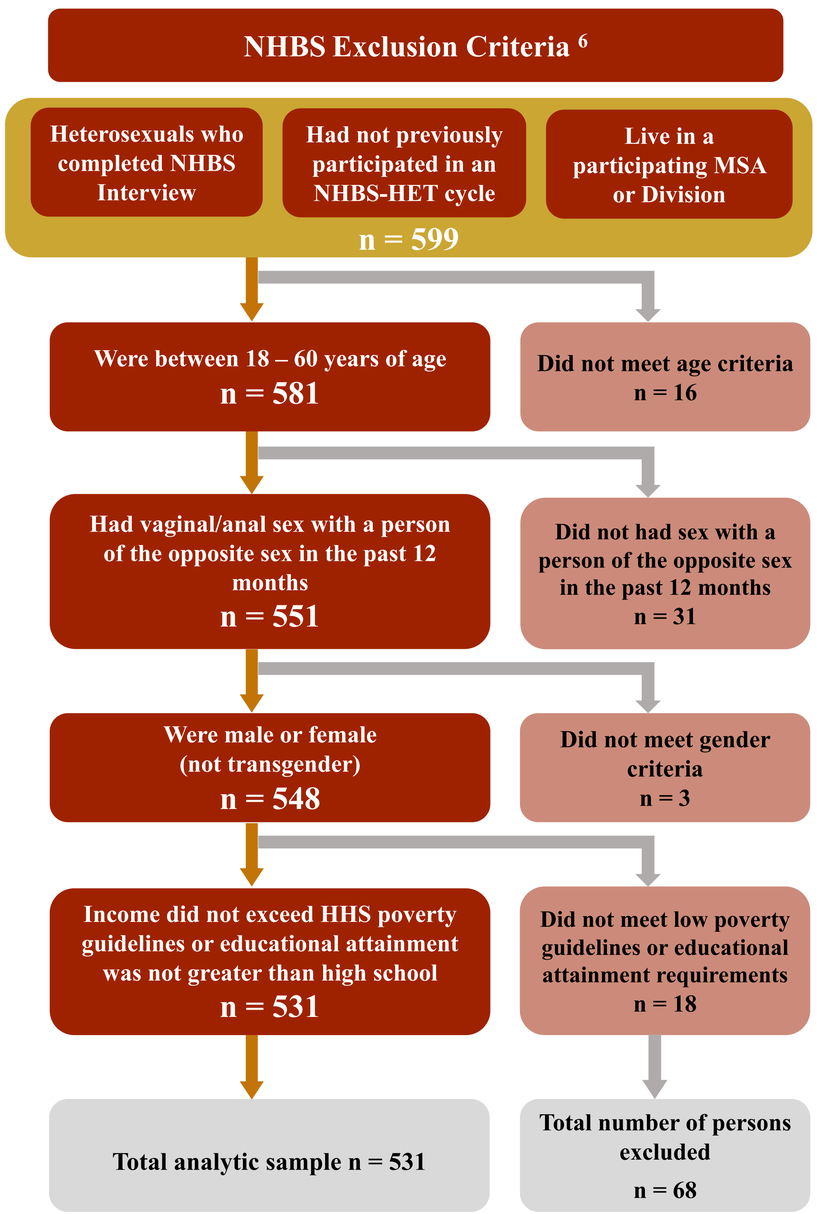

Figure 2. NHBS exclusion criteria and sample selection of heterosexuals at increased risk of HIV infection

Results

73% Individuals who have ever gotten tested for HIV

65.2% Prevalence of low risk perception

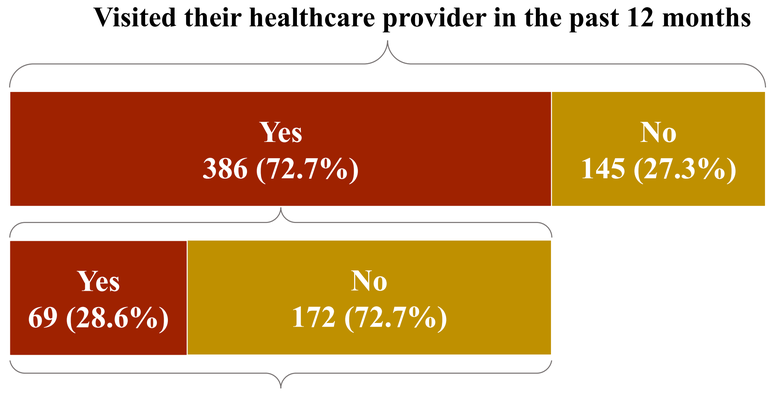

Figure 3: Utilization of healthcare services, low risk perception and HIV testing

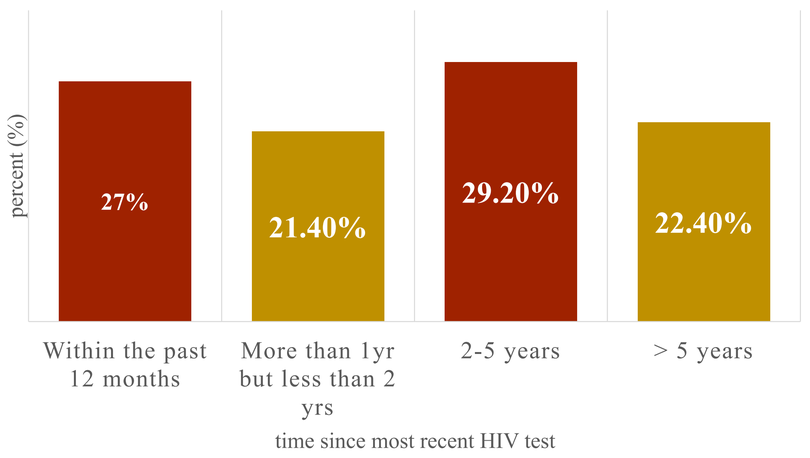

Figure 4. Time Since Most Recent HIV Test

Table 1: Sociodemographic Characteristics and Provider Initiated HIV Testing

Variable	N (%)	Received HIV test offer from provider		P-value
		Yes	No	
Sex				
Male	180 (33.9)	21 (0.29)	93 (0.30)	**0.094**†
Female	351 (66.1)	51 (0.71)	221 (0.70)	
Age				
18-29	163 (30.7)	28 (0.39)	83 (0.26)	**0.035***
30-60	368 (69.3)	44 (0.61)	231 (0.74)	
Highest level of education				
Highschool or less	374 (70.4)	53 (0.74)	210 (0.67)	0.269
Some college or more	157 (29.6)	19 (0.26)	104 (0.33)	
Employed				
Yes	190 (35.9)	31 (0.43)	106 (0.34)	0.137
No	339 (64.1)	41 (0.57)	208 (0.66)	
Marital Status				
Single persons/Never married	325 (61.2)	35 (0.49)	123 (0.39)	0.142
Married/Partnered	206 (38.8)	37 (0.51)	191 (0.61)	
Currently insured				
Yes	434 (81.7)	63 (0.87)	270 (0.86)	0.737
No	97 (18.3)	9 (0.13)	44 (0.14)	
Having a usual source of care				
Yes	472 (88.9)	69 (0.96)	291 (0.93)	0.440
No	59 (11.1)	3 (0.04)	23 (0.07)	

*$p < 0.05$
** $p = 0.05$
† $0.05 < p < 0.10$

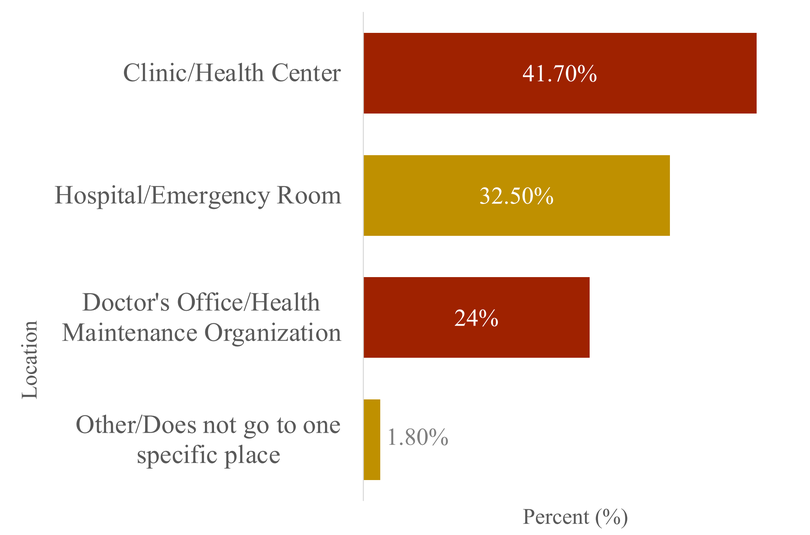

Figure 5. Location of Usual Source of Healthcare Services

Table 2: High-Risk Behaviors Among Heterosexual at Increased Risk of HIV

Variable	N (%)	Received HIV test offer from provider		P-value[a]
		Yes	No	
Use of injectable drugs				
Yes	13 (2.5)	3 (0.04)	7 (0.02)	0.404 [b]
No	518 (97.5)	69 (0.96)	307 (0.98)	
Use of non-injectable				
Yes	214 (40.3)	24 (0.33)	125 (0.40)	0.309
No	317 (59.7)	48 (0.67)	189 (0.60)	
Binge drinking in the past 30 days [c]				
Yes	235 (61.0)	34 (0.68)	122 (0.54)	**0.070**†
No	150 (39.0)	16 (0.32)	104 (0.46)	
High-risk sexual activity [d]				
Yes	384 (72.3)	43 (0.60)	226 (0.72)	**0.041***
No	147 (27.7)	29 (0.40)	88 (0.28)	

*$p < 0.05$
** $p = 0.05$
† $0.05 < p < 0.10$

[a] Chi-square test reported p-value, except for use of injectable drugs
[b] Fishers exact test reported p-value
[c] Defined as consuming 4 (females) or 5 (males) drinks or more of any kind of alcohol in about two hours.
[d] Defined as exhibiting any of the following: (1) any exchange sex, (2) having more than 1 sexual partner, (3) having sex with a partner who "probably" or "definitely" injected drugs, (5) having sex with a partner who "probably" or "definitely" had male-to male sexual contact (only in females) or (6) having sex with a partner whose HIV status was positive or indeterminate.[7]

Individuals who practice high risk sexual activity have decreased odds (AOR= 0.52; 95% CI: 0.30 – 0.90) of receiving an HIV test offer.

Conclusions

- Majority of participants were currently insured and reported to having a usual source of care.
- Close to three quarters of individuals reported to testing for HIV in their life time but only approximately one quarter of respondents had an HIV test within the past year of the interview date.
- low number of individuals who have received an HIV test offer from providers fall short to the high number of individuals who visited their healthcare provider within the last year prior to the interview.
- Women are testing for HIV and receiving a test offer more often than men.
- High prevalence of low risk perception.
- Individuals who practice high-risk sexual activity present a decreased odds of receiving an HIV test offer from their provider in comparison to individuals who do not practice high-risk sexual activity.

Acknowledgements

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