

**Background**

- HIV in Peru is concentrated among men who have sex with men (MSM) (13%-15%) and transgender women (TW) (20%-30%)
- ART is available through Peruvian government financing and entrance into care is predicated on HIV testing, HIV prevention consists of HIV VCT
- Over 70% of HIV+ MSM/TW may be unaware of their status, as HIV testing rates are low, delaying diagnosis and treatment
- As HIV testing is conducted only on request, risk perception could influence MSM/TWs testing practices
- We assessed the relationship between perceived HIV risk and self-reported HIV testing frequency among MSM/TW attending STI clinics from Lima

**Methods**

- This cross-sectional analysis included data from recruited MSM/TW ≥18 years of age at high risk for STI acquisition, attending 2 STI clinics in Lima, capital city of Peru, reporting a negative result in their last HIV test or never being tested.
- All known HIV positive participants were excluded for this analysis.
- Behavioral survey (CAPI) assessed HIV risk perception and prior testing frequency (frequent HIV testing is defined as testing at least every 6 months)
- Lab testing assessed for: HIV, syphilis, Chlamydia & gonorrhea
- Chi-square tests, Fisher's exact test and multivariable regression were used to estimate adjusted prevalence ratios (aPRs).

**Table 1: Characteristics of MSM/TW from two STI Clinics who self-reported frequent HIV testing. Lima, Peru 2014**

Variable	Frequent HIV testing 39% (122/310)	p-value
Sex identity*		<b>0.001</b>
Gay/Homosexual	40% (66/164)	
Bisexual/Heterosexual	24% (18/74)	
Trans women	55% (37/67)	
Monthly income in Dollars*		<b>0.031</b>
< 250	50% (54/109)	
250-500	33% (49/147)	
>500	43% (18/42)	
No of sex partners, last 3 mos		<b>0.028</b>
0-1 sex partners	26% (16/62)	
2-4 sex partners	48% (39/82)	
>4 sex partners	40% (67/166)	
UAI, last 3 months *		<b>&lt;0.001</b>
Yes	35% (84/239)	
No	61% (37/61)	
Sex role during intercourse		<b>0.034</b>
Insertive	29% (22/77)	
Receptive	48% (47/98)	
Insertive and receptive	39% (53/135)	
Sex worker		0.055
Yes	50% (31/62)	
No	37% (91/248)	
Previous syphilis infection		<b>&lt;0.001</b>
Yes	55% (54/99)	
No	32% (68/211)	

\*Variables had missing values, but none were &gt;10%

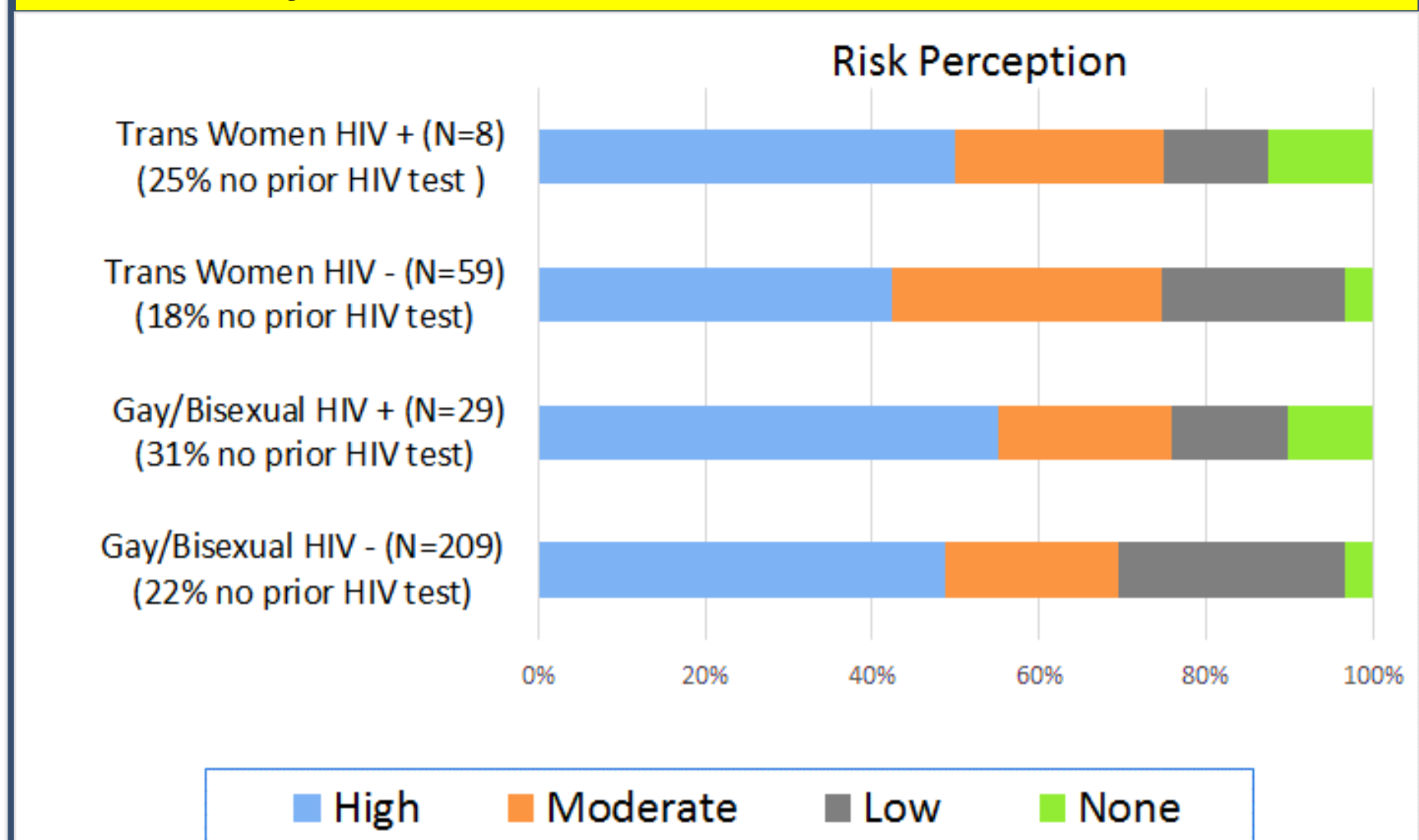
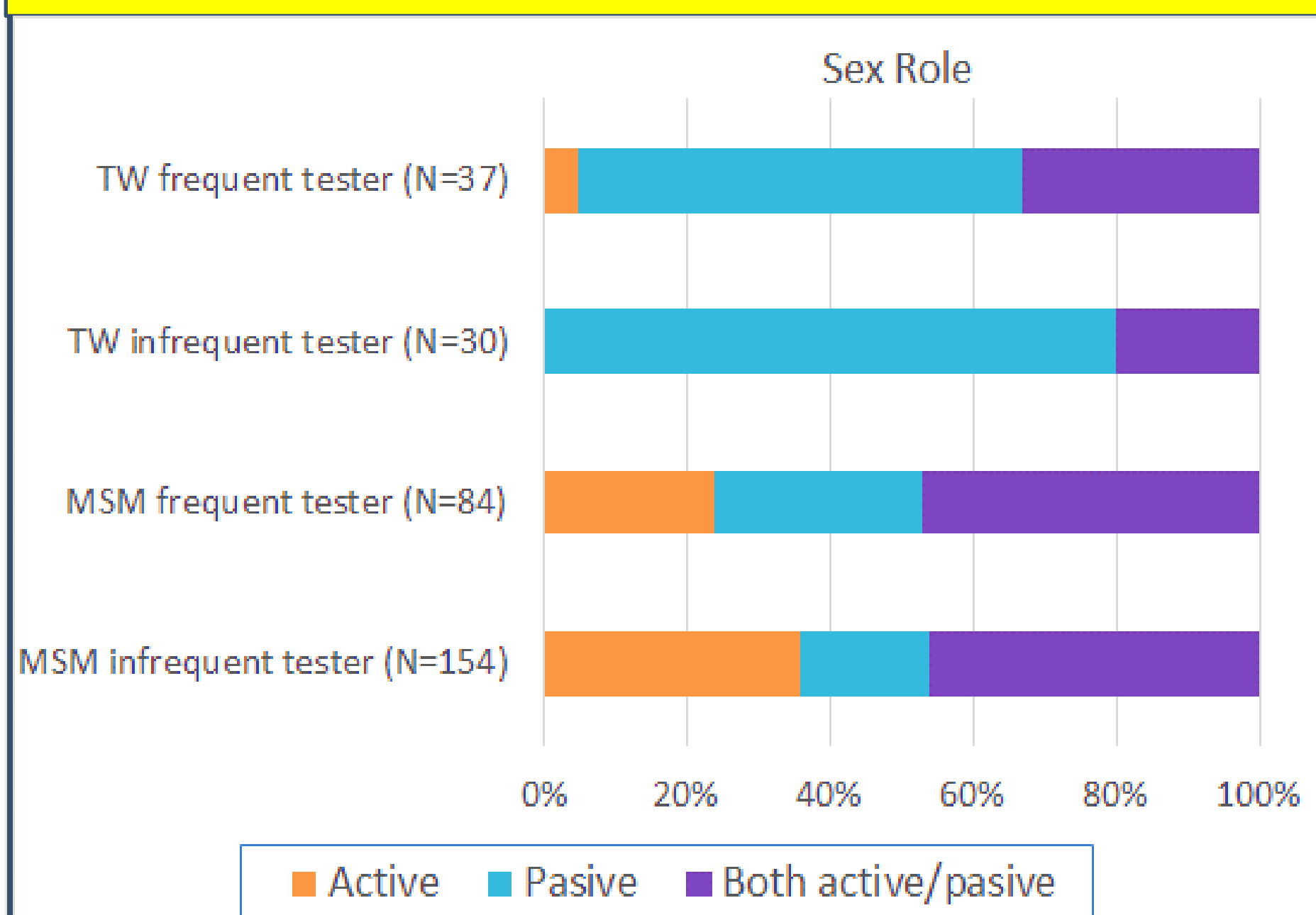
**Table 2: Relationship between HIV risk perception and Frequency of HIV testing**

Variable	N (%)	Frequent HIV testing N=122 (39)	Infrequent HIV testing N=188 (61)	p-value
HIV risk perception				<b>0.001</b>
High	72 (23)	28 (39)	44 (61)	
Moderate	148 (48)	44 (30)	104 (70)	
Low	75 (24)	41 (55)	34 (45)	
Not at risk	15 (5)	9 (60)	6 (40)	

**Table 3: Multivariable analyses for the prevalence of frequent HIV testing among men who have sex with men and transgender women from Lima, Peru. 2014**

Variable	(a)PR*	95% CI*	p-value
HIV Risk Perception			
High	1.02	0.71-1.46	0.913
Moderate	Ref.	-	-
Low/No risk	<b>1.53</b>	<b>1.13-2.08</b>	<b>0.006</b>
No of sex partners, last 3 mos			
0-1 sex partners	Ref.	-	-
2-4 sex partners	<b>1.73</b>	<b>1.09-2.72</b>	<b>0.018</b>
>4 sex partners	1.49	0.94-2.36	0.086
Had condomless anal intercourse	<b>0.66</b>	<b>0.49-0.87</b>	<b>0.003</b>
Self-reported history of syphilis	<b>1.59</b>	<b>1.23-2.06</b>	<b>&lt;0.001</b>
Monthly income in USD			
< 250	Ref.	-	-
250-500	0.76	0.57-1.01	0.055
>500	0.81	0.53-1.23	0.325
Has post-secondary education	<b>1.38</b>	<b>1.03-1.84</b>	<b>0.028</b>

\*Adjusted by sex identity, age, sexual role during anal intercourse, stable partner, sex work.

**Figure 1: Self-report of HIV Risk Perception stratified by Sex Identity and HIV Status****Figure 1: Sex Role by HIV Testing frequency and Sex Identity****Results****Population Description**

- Among MSM/TW participants, 243/310 (68%) reported an HIV negative result at their last HIV test and 67/310 (22%) reported never being tested
- Median age was 29 years (IQR 23.4 - 38.4)
- 54% were gay or homosexual, 22% were transgender women, 24% self-identified as bisexual
- UAI in last three months was highly prevalent (79%)
- Almost a third (32%) reported history of syphilis
- 11% of the participants were HIV positive and all were unaware of their infection

**Frequency of HIV testing**

- Frequent HIV testing was reported by 39% of participants
- Frequent HIV testers were more likely to report having low or no perceived HIV risk (54% vs 45%), and being TW (55% vs 45 %) (p-values<0.05)
- Participants with 2+ recent sex partners, condomless receptive anal sex, previous syphilis infection and engaging in sex work are less likely to be frequent testers (p-values<0.05)
- There was no statistical difference of testing frequency by age group, type of sex partner and education (p-values>0.1)

**Self-assessment of HIV Risk**

- HIV risk perception: 5% reported no HIV risk, low HIV risk was reported by 24%, moderate risk was reported by 48%, and high risk by 23%
- Education, number of sex partners and sex work were independently associated with moderate HIV risk perception (p-value<0.05)
- Baseline HIV status and HIV risk perception were not associated: HIV prevalence was 11%, 13% and 10% among those reporting high, moderate and low/no HIV risk (p-value>0.1)

**Discussion****Key Findings**

- Despite being part of the local key population and reporting high risk behavior, only 39% of participants tested frequently and 22% have never been tested for HIV
- Even frequent testers had 11% prevalence of unknown HIV infection
- Interestingly low/no HIV risk perception was associated with frequent testing; while those reporting high risk perception were less likely to test frequently
- Sexual risk behaviors (syphilis, UAI, # partners) were not consistently associated with frequent testing

**Recommendations**

- HIV testing provision is insufficient for HIV prevention in this population
- Regardless of risk perception, this population should be encouraged to test frequently (national and international guidelines suggest testing every 6 months)
- Factors potentially affecting risk perception and testing frequency (e.g. access, stigma, fear of HIV, lack of knowledge about treatment – availability and benefits) should be identified and addressed by HIV programming for MSM/TW in Peru

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