Factors Associated with HIV-positive Testing in a Key Population Program in Namibia

Authors: Steven Y. Hong[a], Taimi Amaambo[a], Milka Mukoroli[a], Agatha Kuthedze[a], Edward Shivute[b], Fransina Rijatua[c], Edington Dzinotyiweyi[d], Ndawewa Hamunime[d]

Affiliation: [a]The Society for Family Health, Windhoek, Namibia; [b]Walvis Bay Corridor Group, Windhoek, Namibia; [c]Namibia Planned Parenthood Association, Windhoek, Namibia; [d]Ministry of Health and Social Services, Windhoek, Namibia

Background

- Closing the HIV testing gap and diagnosing 90% of all people with HIV is critical to the success of the global HIV response to reach epidemic control.
- Despite the annual increase in HIV testing services (HTS) and HIV testing coverage, in many settings HTS is not sufficiently focused. Many of those at highest risk remain unreached.
- In spite of a high prevalence of HIV infection among key populations (KP), including men who have sex with men (MSM) and female sex workers (FSW), uptake of HTS among KP in sub-Saharan Africa remains relatively low among this hard-to-reach population.
- The Society for Family Health (SFH), a local non-governmental organization (NGO) in collaboration with Walvis Bay Corridor Group and Namibia Planned Parenthood Association in Namibia conducts a KP program aimed at expanding access, utilization and quality of HIV prevention, care and treatment interventions among KPs to achieve epidemic control.
- Targeted and high-yield HTS is one of the goals. Therefore, it is important to identify factors associated with HIV-positive testing in order to guide targeted testing.

Objectives

- We sought to describe the population being tested within our KP program in Namibia and to assess factors associated with HIV-positive testing.

Methods

- We analysed routine program data collected from July 2016 to June 2017, captured in the project electronic database. Data were exported, cleaned and analysed using STATA 13.

Photo: SFH Tester in Mobile Van

Table 1: Characteristics of Testers

Characteristic	Overall	HIV Positive	HIV Negative	P-value
Sex				0.006
Female	12,159 (53.8)	404 (59.8)	11,755 (53.6)	
Male	10,399 (46.0)	271 (40.1)	10,128 (46.2)	
Transgender	49 (0.2)	1 (0.2)	48 (0.2)	
Organization				<0.001
SFH	2489 (11.0)	100 (14.8)	2,389 (10.9)	
WBCG	7,419 (32.8)	235 (34.8)	7,184 (32.8)	
NAPPA	12,676 (56.1)	338 (50.0)	12,338 (56.3)	
Other	26 (0.1)	3 (0.4)	23 (0.1)	

Table 1: Characteristics of Testers

Characteristic	Overall	HIV Positive	HIV Negative	P-value
Birth				<0.001
Namibia	20,918 (92.5)	594 (87.9)	20,324 (92.7)	
Other	1,689 (7.5)	82 (12.1)	1,607 (7.3)	
Marital Status binary				<0.001
Cohabiting or married	4,296 (19.1)	188 (27.9)	4,108 (18.8)	
divorced/separated/never married/widowed	18,227 (80.9)	487 (72.2)	17,740 (81.2)	
Education bivariate				<0.001
None or Primary	5,887 (26.1)	277 (41.1)	5,610 (25.7)	
Secondary or Tertiary	16,635 (73.9)	397 (58.9)	16,238 (74.3)	
Last tested new				<0.001
Never or 1 year or more	10,660 (47.2)	376 (55.6)	10,284 (46.9)	
Less than 12 months	11,944 (52.8)	300 (44.4)	11,644 (53.1)	
Population				<0.001
MSM	1,272 (5.6)	46 (6.8)	1,226 (5.6)	
Other	17,718 (78.4)	451 (66.8)	17,267 (78.8)	
FSW	3,612 (16.0)	178 (26.4)	3,434 (15.7)	
Population collapsed				<0.001
KP	4884 (21.6)	224 (33.2)	4,660 (21.3)	
Other	17,718 (78.4)	451 (66.8)	17,267 (78.8)	
Reasons for testing				<0.001
convenience or self-referred	10,222 (45.3)	217 (32.1)	10,005 (45.7)	
referred by healthworker or health issue	12,369 (54.8)	459 (67.9)	11,910 (54.4)	

Results

- In our KP program, 22,610 clients were tested, 676 (3.0%) HIV-positive and 21,934 (97.0%) negative. The mean age was 30 and 54% were female. Nineteen percent were married or cohabiting and 26% had less than secondary education.
- Amongst all testers, 4,884 (21.6%) were identified as KPs. Amongst KPs, 1,272 (26%) were MSM and 3,612 (74%) were FSWs.
- In the final multivariate model, factors associated with a positive HIV test were: female sex (OR=1.21; 95% confidence interval (CI)=1.03 to 1.43), foreign born (OR 1.56; 95% CI=1.22 to 1.99), married or cohabiting (OR 1.70; 95% CI=1.43 to 2.02), education (none or primary) (OR 1.91; 95% CI=1.63 to 2.24), never tested for HIV or tested >12 months ago (OR 1.57; 95% CI=1.34 to 1.84), KP (OR 1.69, 95% CI=1.42 to 2.00), testing because of healthcare referral or health problem (OR 1.67, 95% CI=1.42 to 1.98).

Conclusions and Recommendations

- In order to achieve highest yield in targeted HIV testing, it is important to focus testing resources in populations most at risk.
- In our KP program in Namibia we identified factors associated with HIV-positive testing.

Acknowledgements

We would like to thank all the staff at MoHSS, SFH, KP organizations, and partners for making this study possible.