

Abstract Preview - Step 3/4- print version -

Abstract category: D12 Uptake of HIV testing

Title: Too much of a good thing? Prevalence and determinants of frequent HIV testing in Zambia and MalawiAuthor(s): M. Neuman¹, V. Cambiano², C. Johnson³, R. Chilongosi⁴, K. Fielding¹, K. Hatzold⁵, B. Hensen⁶, P. Indravudh⁷, M. Nalubamba⁸, E. Wilson⁷, H. Ayles^{6,9}, E.L. Corbett^{6,10}*Institute(s):* ¹London School of Hygiene and Tropical Medicine, MRC Tropical Epidemiology Group, London, United Kingdom, ²University College London, London, United Kingdom, ³World Health Organization, Geneva, Switzerland, ⁴Population Services International, Lilongwe, Malawi, ⁵Population Services International, Johannesburg, South Africa, ⁶London School of Hygiene and Tropical Medicine, Faculty of Infectious and Tropical Disease, London, United Kingdom, ⁷London School of Hygiene and Tropical Medicine, London, United Kingdom, ⁸Population Services International, Lusaka, Zambia, ⁹Zambart, Lusaka, Zambia, ¹⁰Malawi-Liverpool Wellcome Trust Clinical Research Programme, Blantyre, Malawi

Text: **Background:** As countries approach the “First 90” of UN 90-90-90 targets, untargeted HIV testing, including frequent re-testing in low risk populations, becomes increasingly low yield. Here, we investigate frequent testing in general populations in Malawi and Zambia during 2 community-based HIV self-testing (CB-HIVST) trials.

Methods: In Malawi and Zambia, 22 and 12 clinic catchment areas, respectively, were randomized to receive 12 months of CB-HIVST or standard clinic-based services, followed by endline household surveys. The following definitions were based on self-reported HIV testing in the past 12 months: recent testers (1-2 tests), frequent testers (3-4 tests), and very frequent testers (5+ tests). Multinomial logistic regression with standard errors adjusted for clustering was used to investigate associations with frequent and very frequent testing.

Results: Of 10368 respondents with complete testing data, 6273 were recent HIV testers, including 1111 (17.7%) frequent testers and 179 (2.8%) very frequent testers. Frequent testing was associated with the highest household wealth tertile (adjusted OR [AOR]: 1.48; 95%CI: 1.10, 1.99), and with HIVST use (AOR men: 2.91; 95%CI: 2.33, 3.63; women: 1.85; 95%CI: 1.41, 2.41; interaction p=0.001). Very frequent testing was associated with highest wealth tertile (AOR: 2.94; 95%CI: 1.65, 5.22), HIVST (AOR: 2.23; 95%CI: 1.25, 3.99 - no gender difference), fair or poor self-rated health (AOR: 1.43; 95%CI: 1.04, 1.97), and condom use with steady sexual partner (AOR: 1.72, 95%CI: 1.01, 2.91).

Conclusions: Frequent testing was common and associated with greater likelihood of HIVST uptake from both men and women, and with wealthier households. Very frequent testing was a potential marker of ill-health, being associated with poorer self-rated health. WHO guidelines for high HIV prevalence settings, encourage annual testing for adults at ongoing risk and 2-3 times per year for key populations in all settings. Our results suggest need to better understand individual to test frequently.

	Less frequent testers (1-2 tests/yr., N=4983) %	Frequent testers (3-4 tests/yr., N=1111) %	Very frequent testers (5+ tests/yr., N=179) %	Total (N=6273) % (N)	Frequent testers (3-4 tests/yr. v. 1-2 tests/yr.) AOR 95%CI	Frequent testers p-value	Very frequent testers (5+ tests/yr. v. 1-2 tests/yr.) AOR 95%CI	Very frequent testers p-value
Male gender (female = reference) main association	37.8	32.9	32.4	36.8 (2308)	0.68 (0.56, 0.82)	<0.001	0.91 (0.59, 1.40)	0.654
Self-tested in prior 12 months main association	22.5	41.4	44.1	26.6 (1615)	1.85 (1.41, 2.41)	<0.001	2.23 (1.25, 3.99)	0.007
Interaction - Male gender * self-tested	-	-	-	-	1.57 (1.21, 2.05)	0.001	1.04 (0.54, 2.02)	0.903
Self-reported health fair or poor	17.1	15	17.9	16.7 (1048)	1.03 (0.83, 1.27)	0.815	1.43 (1.04, 1.97)	0.029
Sexual behaviour with steady partners (no partner in 3 months = reference)* Condom always	34	30	31.8	33.2 (1919)	1.04 (0.82, 1.33)	0.745	1.72 (1.01, 2.91)	0.044
Condom sometimes or never	28.2	38.2	45.7	30.5 (2689)	0.99 (0.83, 1.20)	0.956	1.19 (0.72, 1.98)	0.493
Assets index (lowest tertile = reference) **	34	30	31.8	33.2 (1919)	1.06 (0.88, 1.27)	0.55	1.77 (1.16, 2.71)	0.008
Second tertile								
Highest tertile	28.2	38.2	45.7	30.5 (1761)	1.48 (1.10, 1.99)	0.01	2.94 (1.65, 5.22)	<0.001

Additionally adjusted for age, educational attainment, having biological child, country, and study arm. Standard errors adjusted for clustered study design using the vce(cluster) of mlogit in Stata 15.1. Complete case analysis used. Missing data in the following covariates: educational attainment (n=2), self-testing status (n=230), self-reported health (n=10), sexual behaviour (n=137), assets tertile (n=819). Final n for multinomial model = 5537.

* Joint test of 2 sexual behaviour AORs among frequent testers: p=0.88; very frequent testers: p=0.12

** Joint test of 2 assets tertiles AORs among frequent testers: p=0.02; very frequent testers: p<0.001

[Sociodemographic and health characteristics associated with frequent and very frequent HIV testing among recent HIV testers, Malawi and Zambia]

Country of research: Malawi, Zambia

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Working on TB?	No
Working on HBV and/or HCV?	No
Working on HIV and/or HBV cure?	No

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 Print

 Back