

Why do some men and women never test for HIV? Insights from Demographic and Health Surveys in Zambia and Lesotho

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Introduction

HIV testing services are an essential gateway to HIV prevention, care and treatment. In order to meet the Joint United Nations Programme on HIV/AIDS 90-90-90 global targets by 2020, people with undiagnosed HIV need opportunities to test and learn their HIV status. However, 30% of people living with HIV in 2016 were unaware of their HIV status.

Study objective

To quantify and compare reasons given for not testing for HIV among adult men and women in sub-Saharan Africa who have ever had sex and who had never previously tested for HIV.

Data and Methods

Study population:

We used nationally-representative data from the 2013-14 Demographic and Health Surveys (DHS) conducted in Zambia and Lesotho. These countries were selected because they are the only DHS in sub-Saharan Africa which collected data on reasons why people do not test for HIV.

- **Zambia DHS:** Eligible women 15-49 years and men 15-59 years were household residents or overnight visitors in the selected survey households.
- **Lesotho DHS:** Eligible women 15-49 years were household residents or overnight visitors in all the selected survey households. Eligible men 15-59 years were household residents or overnight visitors from a subsample, selected from every second household of the nationally-sampled households.

Sampling strategy:

A stratified sample was selected in two stages from each country's census sampling frame. Stratification was achieved by separating each of the 10 administrative provinces into urban and rural areas such that there are 20 sampling strata. For each stratum, census enumeration areas (EAs) were selected. For each selected EA, a systematic random sampling of 25 households were selected for the interview.

Data analysis:

Eligible men and women who had ever had sex, had never tested for HIV and responded to the question 'Some individuals would choose not to go for HIV testing and counseling. Why in your opinion is this so?' were included in this analysis. Survey results were weighted using country-specific sampling weights provided by DHS. We report the following:

- Frequencies of sexually active men and women who had never tested and answered "yes" to at least one of the reasons why people do not test
- Associations between reasons for not testing for HIV and several independent variables, as determined by survey-weighted logistic regression for both bivariate and multivariate analyses

All tests were two-tailed and a p-value <0.05 was considered significant. All statistical analyses were performed using STATA version 15.

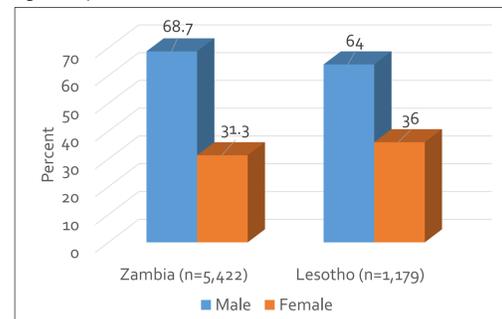
Results

Testing rates

Of all adult respondents who had ever had sex, 20.3% in Zambia (N=26,915) and 14.4% in Lesotho (N=8,184) had never tested for HIV at the time of the survey.

Of all never testers, approximately double the proportion of men had never tested for HIV compared to women (p < 0.0001).

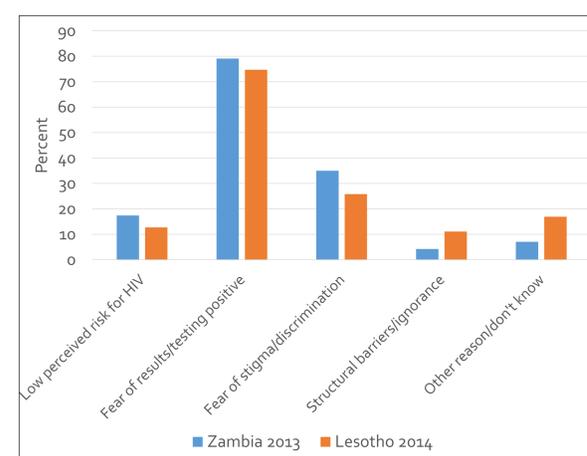
Fig.1: Proportion of men to women who have never tested for HIV



Reasons for not testing for HIV

The most common reasons for not having previously tested for HIV among both men and women were fear of results, fear of stigma and low perceived risk of HIV, as shown in Fig.2.

Fig.2: Reasons for not testing for HIV among men and women



Selected References

1. Joint United Nations Programme on HIV/AIDS (UNAIDS). 90-90-90 - An ambitious treatment target to help end the AIDS epidemic. Geneva: UNAIDS; 2014. http://www.unaids.org/sites/default/files/media_asset/90-90-90_en_0.pdf
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Bivariate Results

Table 1: Reasons for not testing for HIV among never testers in Zambia and Lesotho

Reason for not HIV Testing	Zambia 2013			P-value	Lesotho 2014			P-value
	Men (n=3,681)	Women (n=1,741)	Total (n=5,422)		Men (n=768)	Women (n=411)	Total (n=1,179)	
Fear of results/testing positive ^a	2,954 (81.4%)	1,281 (74.1%)	4,235 (79.1%)	<0.0001	545 (72.2%)	320 (79.0%)	865 (74.7%)	0.051
Fear of stigma/discrimination ^b	1,353 (36.9%)	550 (30.9%)	1,903 (35.0%)	0.003	187 (23.9%)	120 (29.2%)	307 (25.8%)	0.113
Low perceived risk for HIV ^c	719 (19.4%)	223 (13.0%)	942 (17.4%)	<0.0001	91 (13.0%)	51 (12.1%)	142 (12.7%)	0.692
Knowledge barriers ^d	149 (4.0%)	83 (4.7%)	232 (4.2%)	0.338	102 (12.1%)	43 (9.4%)	145 (11.1%)	0.268
Other reason/don't know	257 (6.3%)	148 (8.8%)	405 (7.1%)	0.005	140 (17.6%)	64 (15.5%)	204 (16.9%)	0.456

^aFear of results; Fear of death; Fear of depression; Fatalism/no cure

^bFear of stigma/discrimination; Fear of partner's reaction

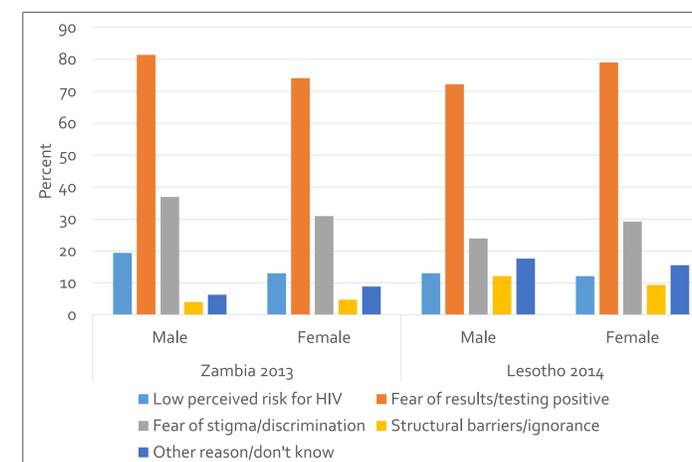
^cAlready knows status; not at risk

^dDo not know where to go for a test; Too expensive; Fear of getting infected during test.

In Zambia, there were statistically significant differences between men and women for the most common reasons for not previously testing for HIV, but no sex-specific differences were seen in Lesotho (Table 1):

- Fear of results/fear of testing positive
 - ✓ Zambia: 81.4% vs. 74.1%, (p<0.0001)
 - ✓ Lesotho: 72.2% vs. 79.0%, (p=0.051)
- Fear of stigma/discrimination
 - ✓ Zambia: 36.9% vs. 30.9%, (p=0.003)
 - ✓ Lesotho: 23.9% vs. 29.2%, (p=0.113)
- Low perceived risk of HIV
 - ✓ Zambia: 19.4% vs. 13.0%, (p<0.0001)
 - ✓ Lesotho: 13.0% vs. 12.1%, p=0.692

Fig.3: Proportion of respondents by reasons for not testing for HIV among men and women



Multivariate Results

Zambia: After adjusting for age, the main correlates for not testing for HIV due to fear of results/testing positive were:

- being male (aOR: 1.29, 95% CI: 1.07 – 1.56),
- living in urban areas as compared to rural areas (aOR: 1.70, 95% CI: 1.37 – 2.10), and
- having secondary education (aOR: 1.74, CI: 1.07 – 1.56) or higher (aOR: 1.29, 95% CI: 1.07 – 1.56) when compared to having no education.

The three factors were also observed as the main correlates for low perceived risk of HIV infection.

Lesotho: After adjusting for age, the main correlates for not testing for HIV due to fear of results/testing positive were:

- having more than one lifetime sexual partner (aOR: 1.78, CI: 1.08 – 2.96),
- having primary (aOR: 2.43, CI: 1.46 – 4.02) or secondary education (aOR: 5.07, CI: 3.04 – 10.67) when compared to no education.

Conclusions

1. Fear of positive results remains an overriding reason for not testing for HIV among both men and women in Zambia and Lesotho.
2. Outreach messages that aim to increase risk perception and emphasize treatment success may assist in reaching people who have never tested for HIV.