FACTORS ASSOCIATED WITH HIV POSITIVITY UNAWARENESS AMONG TANZANIANS LIVING WITH HIV

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BACKGROUND

The Tanzania HIV Impact Survey (THIS) 2016-2017, a cross-sectional nationally representative household survey on HIV in Tanzania, estimated that nearly four in every ten people living with HIV (PLHIV) aged 15 years and older were unaware of their HIV positive status. We assessed correlates of unawareness of HIV positive status among PLHIV in Tanzania.

METHODS

- This analysis includes data from the THIS 2016-2017 survey, which used a two-stage, stratified cluster sampling design among adults and children aged ≥15 years in Tanzania.
- We included data from 1,779 survey participants living with HIV who were either aware or unaware aware of their HIV status (Figure 1).
- The primary outcome, HIV unawareness, was defined as having a laboratory-confirmed HIV positive status, not reporting knowledge of HIV positive status, and with no antiretrovirals (ARVs) detected in blood tests.
- We assessed association of HIV unawareness with sex, age, residence (urban/rural), marital status, wealth quintile, education, condom use (from the question: do you use condoms?), and HIV-related knowledge (defined as "high or low" using a multi-question scale) in univariable and multi-variable analyses using modified Poisson regression models.
- For univariable analyses, we report % unaware with 95% CI and two-sided p-value with significance at $\alpha<0.05$. In multivariable analyses, all independent variables were included, any p- value < 0.05 was considered statistically significant, and we report the adjusted prevalence ratio (aPR) with 95% CI.
- All analyses were conducted using STATA 16. Sample weights and survey design variables were used.

Figure 1: Flowchart of the study population from the Tanzania HIV Impact Survey 2016-2017

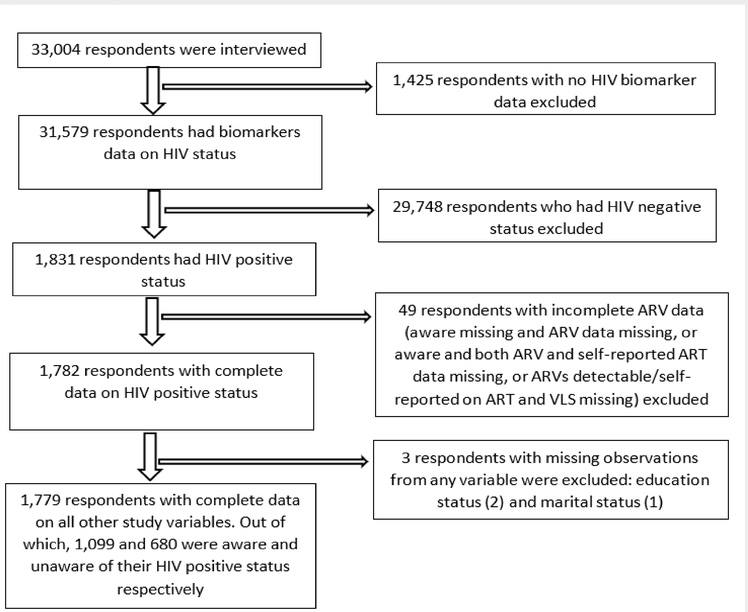


Table 1: Prevalence of unawareness of HIV positive status by characteristics of the study population aged 15 years and over in Tanzania, 2016-2017

Characteristics		n	% (95% CI)
Unawareness	Total	680	39.4 (36.1-42.9)
Sex	Female	425	35.1 (31.6-38.7)
	Male	255	47.8 (41.8-53.8)
Age (years)	15-24	90	49.8 (39.8-59.8)
	25-49	474	39.2 (35.4-43.1)
	50+	116	35.1 (28.8-41.9)
Residence	Urban	245	35.8 (31.7-40.1)
	Rural	435	42.4 (37.4-47.6)
Marital status	Married/cohabiting	395	40.8 (36.2-45.5)
	Widowed	76	27.9 (21.8-35.0)
	Separated	135	41.7 (35.1-48.7)
	Never married	74	43.2 (33.3-53.8)
Education	Secondary and above	73	45.1 (35.3-55.4)
	Primary	445	36.7 (32.9-40.6)
	No education	162	45.6 (38.5-52.8)
Wealth (quintiles)	Highest	84	35.7 (29.1-42.9)
	High	133	38.2 (32.9-43.9)
	Middle	174	35.5 (30.1-41.4)
	Low	135	41.0 (33.8-48.7)
	Lowest	154	49.3 (40.6-58.1)
HIV knowledge	High	226	34.3 (29.7-39.2)
	Low	454	43.0 (39.0-47.1)
Condom use	Yes	229	33.7 (28.6-39.2)
	No	451	43.5 (39.4-47.6)

Table 2: Multivariable associations of unawareness of HIV positive status among people aged 15 years and over in Tanzania, 2016-2017

Characteristics		aPR (95% CI)	
Sex	Female	ref	
	Male	1.47 (1.25-1.71)	
Age (years)	50+	ref	
	25-49	1.19 (0.97-1.46)	
	15-24	1.43 (1.05-1.95)	
Residence	Urban	ref	
	Rural	1.09 (0.88-1.36)	
Marital status	Married/cohabiting	ref	
	Widowed	0.74 (0.56-0.98)	
	Separated	1.12 (0.92-1.35)	
	Never married	0.98 (0.71-1.33)	
Education	Secondary	ref	
	Primary	0.85 (0.66-1.11)	
	No education	0.99 (0.73-1.36)	
Wealth (quintiles)	Highest	ref	
	High	1.00 (0.79-1.27)	
	Middle	0.84 (0.63-1.12)	
	Low	0.98 (0.71-1.35)	
	Lowest	1.08 (0.76-1.55)	
HIV knowledge	High	ref	
	Low	1.20 (1.03-1.40)	
Use condoms	Yes	ref	
	No	1.42 (1.19-1.71)	

Adjusted Prevalence Ratio (aPR) Color Key
Reference group
Not significant
aPR <1.00
aPR 1.00 - <1.25
aPR 1.25-<1.50

Lack of awareness of HIV positive status was greatest among young adults, males, those who did not practice safe sex, and lacking in knowledge about HIV.

RESULTS

- Among the 1,779 PLHIV included in the analysis, 680 (39%) were unaware of their HIV positive status.
- In univariable analyses, all variables were significantly associated with unawareness of HIV status (Table 1).
- In multivariable analyses, males had 47% greater likelihood of unawareness of HIV status [aPR 1.47; 95%CI: 1.25-1.71], and young adults had 43% greater likelihood of unawareness of HIV status compared to older adults [aPR: 1.43; 95%CI: 1.05-1.95].
- Those who did not report condom use were more likely to be unaware compared to those who did [aPR: 1.42; 95%CI: 1.19-1.71].
- Those with low HIV knowledge were more likely to be unaware compared to those with high HIV knowledge [aPR: 1.20; 95%CI 1.03-1.40].

CONCLUSION

Our findings suggest that, in Tanzania, unawareness of HIV positive status was correlated among PLHIV who were males, young adults, those who did not report condom use and those who had low HIV knowledge. These findings confirmed preliminary descriptive survey results which led to a review of Tanzania's identification strategies and reinforced targeted interventions to enhance HIV testing services by scaling up safe and ethical index testing, social network testing and HIV self-testing, focusing on at-risk populations including men and young adults.

ADDITIONAL INFORMATION

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