

DISCORDANT COUPLE'S DISCLOSURE OF HIV STATUS IN 10 AFRICAN COUNTRIES

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BACKGROUND

The HIV/AIDS global epidemic has had a disproportionate burden on Sub-Saharan Africa (SSA). The World Health Organization estimates that more than two-thirds of people living with HIV globally reside in the region.

HIV discordant couples, where one sexual partner is HIV positive and the other is HIV negative, are at the highest risk of HIV transmission and acquisition. Previous studies in SSA countries showed that more than half of new HIV infections occur within HIV discordant couples.

A major obstacle in preventing HIV transmission is disclosure of HIV status. Previous studies in SSA

found that HIV transmission is inversely related to HIV disclosure.

Objective: Given the importance of HIV disclosure on HIV transmission, particularly among HIV discordant couples, this analysis aims to examine the association between the demographic characteristics of discordant couples and disclosure of HIV status to their partner, using Population-based HIV Impact Assessment (PHIA) surveys conducted by ministries of health in collaboration with ICAP at Columbia University and US Centers for Disease Control and Prevention (CDC).

METHODS

The study used data from the Population-Based HIV Impact Assessment (PHIA) surveys conducted from 2015-2019 in 10 African countries, namely Cameroon, Eswatini, Lesotho, Malawi, Namibia, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe.

The PHIA surveys were nationally representative, cross-sectional, household surveys with a two-stage stratified cluster sample design. A systematic random sample of each country's enumeration areas (EAs) was drawn based on probability proportional to size in the first stage sampling. Then, a random sample of households was drawn from each selected EA using an equal probability method in the second stage sampling.

Adult women and men living in residential households, and visitors who slept in the household the night before the survey, were eligible to participate if they were willing and

cognitively able to provide consent.

We compared the surveys' results among couples with a partner living with HIV aged 15-59 years whose partners participated in the survey, and both have lab-confirmed HIV test results. HIV disclosure was determined via questionnaire responses.

For the analysis, we applied multivariable logistic regression models using survey weights and variances were estimated via Taylor Series Linearization.

RESULTS

A total of 2,352 HIV discordant couples were identified from the 10 SSA countries. The proportion of HIV discordant couples in the general population varied across countries, ranging from 2.3% in Rwanda to 15.5% in Eswatini. (Figure 1)

HIV disclosure varied by country ranging from Rwanda with 83% disclosing their status to their partner to Tanzania with 58%. (Figure 2)

Table 1. shows the result of the pooled logistic regression model examining the association between HIV disclosure to the partner and some demographic variables, controlling for country fixed effects.

Women were more likely to disclose than men (adjusted odds ration (aOR): 1.8; 95% CI: 1.6-2.0).

Age was also correlated with HIV status disclosure. Older couples were more likely to disclose than younger couples (30-44 years old aOR: 1.2 (95% CI: 1.0-1.4) and 45-59 years old aOR: 1.4 (95% CI: 1.1-1.7)).

Additionally, those with secondary education and above were more likely to disclose than those with education below secondary level (aOR: 1.4; 95% CI: 1.2-1.6), rural couples were more likely to disclose than urban couples (aOR: 1.5; 95% CI: 1.2-1.8), and those below the 40th wealth percentile were less likely to disclose than couples above it (aOR: 0.8; 95% CI: 0.6-0.9).

Finally, HIV discordant couples who are neither married nor live together (not in union) are less likely to disclose than those who were currently married or currently live together (in union) (aOR: 0.5; 95% CI: 0.3-0.7).

Among HIV discordant couples, failure to disclose HIV status to the partner puts women, especially younger women with lower educational attainment, at higher risk for HIV acquisition.

Figure 1. The proportion of HIV discordant couples in the general population by country



Figure 2. HIV disclosure rates among discordant couples by country

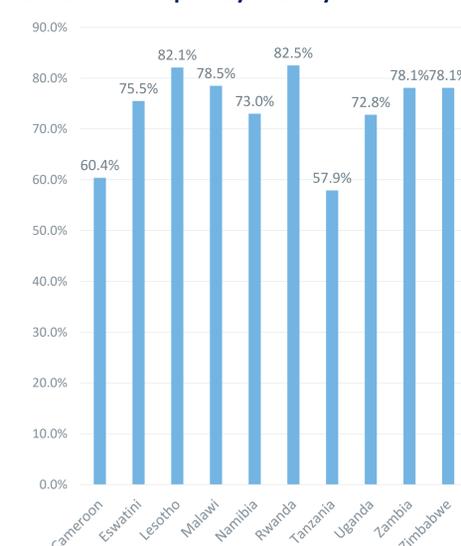


Table 1. Pooled Logistic Regression for HIV Discordant Couples in 10 Africa Countries

	Disclosed HIV status to partner (adjusted odds ratio)	95% Confidence Interval
Male (reference group)	--	
Female	1.8 ⁺⁺	(1.6-2.0)
Age 15-29 years (reference)	--	
Age 30-44 years	1.2 ⁺	(1.0-1.4)
Age 45-59 years	1.4 ⁺⁺	(1.1-1.7)
Partner Age Gap < 10 Years (reference)	--	
Partner Age Gap ≥10 Years	0.9	(0.7-1.1)
In Union (reference)	--	
Not in Union	0.5 ⁺⁺	(0.3-0.7)
Education Level Below Secondary (reference)	--	
Education Level Secondary & Above	1.4 ⁺⁺	(1.2-1.6)
Urban (reference)	--	
Rural	1.5 ⁺⁺	(1.2-1.8)
Wealth index > 40 percentile (reference)	--	
Wealth index ≤ 40 percentile	0.8 ⁺⁺	(0.6-0.9)

p < 0.01 ++; p < 0.05 +

Country fixed effect included in the model, not shown here

CONCLUSIONS

The findings from these nationally representative general population surveys indicate that failure to disclose HIV status to their partner is common among discordant couples.

Failure to disclose HIV status was significantly higher among men, those with lower educational attainment, younger couples (aged 15-29 years), urban couples and those in below the 40th wealth percentile.

The findings highlight the importance that demographic characteristics such as sex, age,

and education level play in HIV disclosure among discordant couples. Counseling women in HIV discordant couples about HIV transmission and the importance of knowing their partner's status through HIV counseling and educational campaigns could help reduce HIV transmission in the region.

Research is needed to determine reasons for non-disclosure of HIV status, in order to design appropriate interventions to facilitate such disclosure.

ADDITIONAL KEY INFORMATION

Additional Resources

- <https://phia.icap.columbia.edu/>
- <https://hivinfo.nih.gov/understanding-hiv/infographics/hiv-discordant-couples>

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A major global health organization with projects in more than 30 countries, ICAP at Columbia University works to transform the health of populations through innovation, science, and global collaboration. Since its founding in 2003 at the Columbia Mailman School of Public Health, more than 2.6 million people have received HIV care through ICAP-supported programs. Learn more online at icap.columbia.edu