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Men who Paid for Sex in sub-Saharan Africa: HIV Prevalence, Prevention, Treatment, and Population Sizes

Meta-analyses of 82 population-based surveys (2000-2020)

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BACKGROUND AND METHODS

Background

- Modelling studies suggest that sex work may contribute up to 14-95% of new HIV infections in sub-Saharan Africa. ¹⁻³
- Men who pay for sex contribute to HIV transmission through sexual relations with both female sex workers (FSW) and their other female partners.
- Compared to FSW, there has been little attention devoted to interventions focused on clients of FSW.
- **We aim to systemically review population size, HIV burden, testing behaviours, treatment, engagement, and condom use for men who have paid for sex in sub-Saharan Africa (SSA).**

Methods

- Random-effects meta-analyses of **82** population-based surveys conducted in SSA (2000-20, **35** different countries, **342,496** unique sexually active male respondents).
- Outcomes: population size, lifetime sexual partners, condom use at last paid sex, HIV prevalence, HIV testing (ever and last 12 months), antiretroviral (ARV) coverage, and viral load suppression (VLS) among sexually active men. (Pooled by region and overall.)
- Standardized HIV prevalence, testing, and lifetime partner analyses by age and urban/ rural residence type.

RESULTS: POPULATION SIZE AND CONDOM USE

Population Size

- **9.7%** of sexually active men in SSA reported ever paying for sex (95% Confidence Interval [CI] 8.0-11.5%, Number of surveys [N_s] = 82, $I^2 = 100\%$) (Fig. 1).

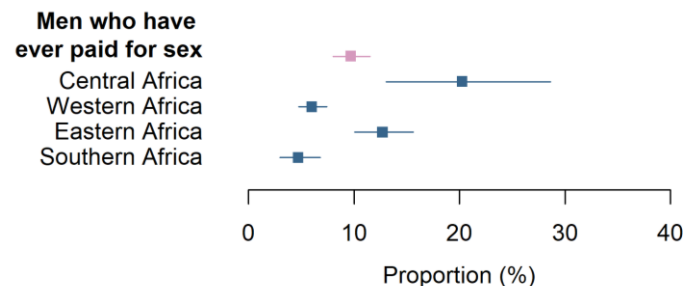


Figure 1. Proportion of sexually active men who reported ever paying for sex, pooled by region (blue)/ overall (pink)

Lifetime Sexual Partners

- Men who paid for sex in SSA had an average **6.7 additional** lifetime sexual partners than men who had never paid for sex (95%CI 6.0-7.4, $N_s = 64$, $I^2 = 100\%$; standardized) (Fig. 2).

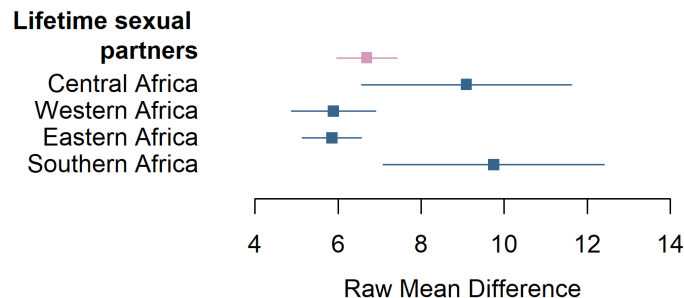


Figure 2. Raw mean difference of lifetime sexual partners for men who have paid for sex compared to men who have not, standardized and pooled by region (blue)/ overall (pink)

Condom Use During Paid Sex

- **60.7%** of men used a condom the last time they paid for sex in the last 12 months (95%CI 56.6-64.7%, $N_s = 79$, $I^2 = 97\%$) (Fig. 3).

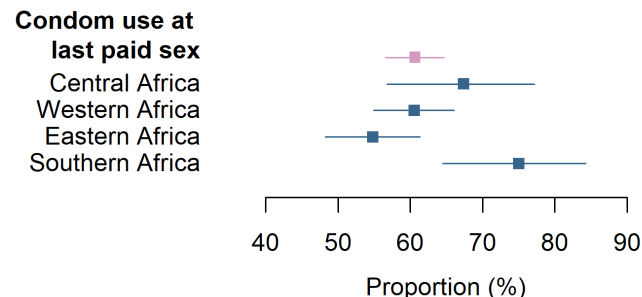


Figure 3. Proportion of men who paid for sex ever who reported condom use at last paid sex, pooled by region (blue)/ overall (pink)

RESULTS: HIV PREVALENCE, TESTING, AND TREATMENT

Compared to men who have never paid for sex, men who paid for sex have...

Higher HIV Prevalence

- Pooled PR = **1.54** (95%CI 1.37-1.73, $N_s = 50$, $I^2 = 78\%$; standardized) (Fig. 5).
- Pooled HIV prevalence among men who paid for sex was **6.7%** (95%CI 4.8-8.9%, $N_s = 50$, $I^2 = 97\%$) (Fig. 4).

HIV prevalence among men who paid for sex

Central Africa
Western Africa
Eastern Africa
Southern Africa

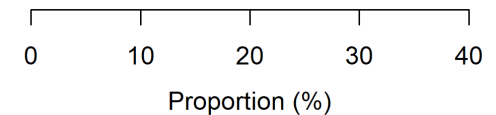


Figure 4. HIV prevalence among men who have ever paid for sex, standardized and pooled by region (blue)/ overall (pink).

Higher HIV Testing Rates

- Pooled PR for ever HIV testing = **1.15** (95%CI 1.07-1.24, $N_s = 78$, $I^2 = 98\%$; standardized) (Fig. 5).
- Pooled PR for HIV testing in last 12 months = **1.11** (95%CI 1.02-1.20, $N_s = 71$, $I^2 = 94\%$; standardized) (Fig. 5).

HIV prevalence

Central Africa
Western Africa
Eastern Africa
Southern Africa

HIV testing ever

Central Africa
Western Africa
Eastern Africa
Southern Africa

HIV testing in last 12 months

Central Africa
Western Africa
Eastern Africa
Southern Africa

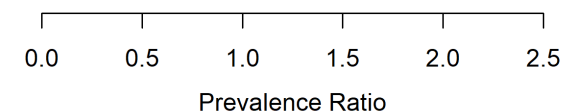


Figure 5. Prevalence ratios of HIV prevalence and HIV testing ever/ last 12 months among men who have paid for sex compared to men who have not, standardized and pooled by region (blue)/ overall (pink).

Similar ARV Use and VLS

- Pooled PR for ARV biomarkers = **1.05** (95%CI 0.86-1.27, $N_s = 6$, $I^2 = 76\%$).
- Pooled PR for VLS = **1.03** (95%CI 0.89-1.20, $N_s = 7$, $I^2 = 48\%$).

INTERPRETATION AND CONCLUSIONS

Limitations

- Population-based surveys depend on self-reported data: estimates could be affected by recall and social desirability bias.
- Survey instruments captured men who have “paid for sex” or (in one survey) “given money, gifts, or favors in exchange” for sex.
 - Cannot be certain that the men in our study sample have all paid for sex with a female sex worker.
- Pooled many different types of surveys, which each had slightly different questionnaires.

Conclusions

- Paying for sex among men in SSA is not uncommon, with almost **1 in 10 men** reporting having ever paid for sex.
- These men have more lifetime sexual partners and are more likely to be living with HIV.
- Men who pay for sex may constitute a distinct population subgroup of men at high risks of HIV acquisition and transmission.
- HIV prevention interventions focusing on this population are urgently needed, including:
 - Condom use initiatives
 - Improved access to community-based and national HIV testing campaigns

References

1. Maheu-Giroux *et al.* J Acquir Immune Defic Syndr 2017; **75**(5): 517-27
2. Low *et al.* J Acquir Immune Defic Syndr 2015; **68**(S2): S180-8
3. Mukandavire *et al.* J Int AIDS Soc 2018; **21**(S5): e25126