

Determinants of condom use at last sex among HIV positive individuals who knew their HIV status; were on ART, not on ART and those who were HIV negative: Finding from 2011 national population based HIV household survey

Zuma K, Zungu N, Matjokotja, Maseko G. Naidoo I, Mabaso M

Social Aspects of Public Health Research Programme, Human Sciences Research Council, South Africa

INTRODUCTION

- Condom use is one of the effective ways of preventing HIV and other sexually transmitted infections.
- In South Africa even with wide access to condoms, HIV infections continue to spread unabated.
- Improved understanding of factors associated with condom use in the general population, among HIV positive individuals on ART and those not on ART is important in order to:
 - Identify enablers and barriers to inform sexual health promotion messages
 - Assess risk compensation among HIV positive individuals

OBJECTIVES

This paper presents results on determinants of condom use at last sex among those who knew their HIV status, who were either HIV positive on ART, HIV positive not on ART and those who were HIV negative.

METHODS

Data

- This analysis used data from a multi-stage stratified cluster randomised household survey which was conducted in 2017, targeting 15 000 households in South Africa.
- A detailed behavioural questionnaire was administered and blood specimens collected from those that agreed to participate.
- A total of 38 503 adults were interviewed amongst whom 17 944 knew their HIV status.
- Consenting participants were tested for HIV and among those testing positive, they were further tested for their ARV exposure.

Primary outcome variable:

- Self reported condom use at last sex act
- Controlling variable was a composite of 1 "ARV positive" 2 "ARV negative HIV positive" 3 "HIV negative"

Explanatory variables:

- Sex, race, marital status, education level, employment status, locality type.
- Including number of sexual partners in the last 12 months, self-perceived risk of HIV infection, Alcohol Use Disorder Identification Test (AUDIT) scale.

Statistical analysis

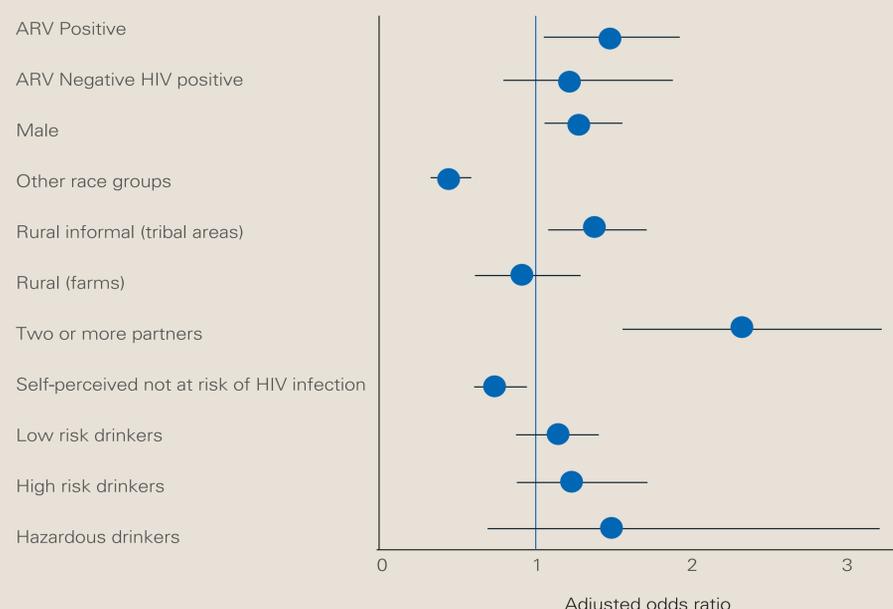
- Bivariate and multivariate regression models were fitted to determine factors independently associated with condom use at last sex while controlling for HIV and ARV status.
- Statistically significant variables in the bivariate models were included into a final multivariate model. Adjusted odds ratios (aOR) with confidence intervals (CI) and p-values < 0.005 reported. All analysis was done in Stata ver 15.0.



RESULTS

- Among the 8002 individuals who were tested for HIV and knew their status 22.8% were on ARVs, 5.5% were HIV positive but not on ARVs and 71.7% were HIV negative.
- Of those that were tested for HIV and knew their HIV status only 4 795 (59.9%) reported using a condom at last sex.
- Statistically significant variables in the bivariate analysis were sex, race, education level, employment status, locality type, number of sexual partners in the past 12 months, self-perceived risk of HIV infection.

Coefficient plots of the final multivariate model with adjusted odds ratios and confidence intervals of factors independently associated with condom use at last sex act



- Those who were ARV positive were significantly more likely to use a condom at last sex [aOR=1.41 (95% CI: 1.05-1.90), p=0.022] than HIV negative individuals.
- After controlling for HIV and ARV status, the odds of using a condom at last sex was significantly associated with males [aOR=1.27 (95% CI: 1.05-1.54), p=0.015] than females those residing in rural informal (tribal areas) [aOR=1.35 (95% CI: 1.06-1.71), p=0.015] than urban areas those who reported two or more sexual partners [aOR=2.24 (95% CI: 1.58-3.19), p<0.001] than one sexual partner
- The odds of not using a condom at last sex was significantly associated with other race groups [aOR=0.44 (95% CI: 0.33-0.59), p<0.001] than Black African those who perceived themselves as not being at risk of HIV [aOR=0.76 (95% CI: 0.60-0.95), p=0.014] than their counterparts

CONCLUSION

- People who are HIV positive and on ARVs continue to use condoms, thus protecting themselves from other infections and reducing further risk of HIV transmission.
- The use of condoms by individuals reporting MSPs is a positive development.
- The lack of condom use among those that are HIV positive and not on antiretroviral treatment is concerning as they continue to pose a risk for HIV transmission.
- The results suggest a need to focus prevention on HIV positive individuals who are not on ARVs, especially targeting females, urban areas, other race groups and most importantly those who perceived themselves as not being at risk of HIV infection.