

# Sexual Behaviors, HIV, and syphilis infection among adolescent and young adult MSM in Bali, Indonesia

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## Introduction

Human Immunodeficiency Virus incidence remains high. The decline of evidence over time was negligible. In Asia, HIV incidence among MSM also increases. We aimed to examine sexual behaviors among adolescent and young adult MSM in Bali and to assess whether these behaviors are associated with an increased risk of HIV infection.

## Methods

A cross-sectional study was conducted among adolescent and young adult MSM attending an STI clinic at Kerti Praja Foundation Bali, Indonesia, between December 2023-February 2024. Eligible participants were those consented to be interviewed and to undergo HIV and syphilis testing. In addition to assent, those who were <18 years of age also have informed consent signed by the clinic's director Data were collected through a questionnaire that captured demographic information, sexual behaviors, and health-seeking practices. HIV and syphilis testing were performed following the completion of the survey. Data were analysed using SPSS 30.0.0.0.

Ethical clearance was released by Ethical committee Faculty of Medicine Universitas Udayana and The University of New South Wales (UNSW). Study approval was issued by the Kerti Pradja Foundation and Bali Provincial Government.

## Result

A total of **207** eligible participants were enrolled during the study period, with a mean age of  $21 \pm 2$  years. The majority (62.3%) had completed senior high school. Over half (51.7%) reported as homosexual, while 48.3% reported as bisexual. Multiple sexual partners were reported by 77.8% participants. Insertive anal intercourse was reported by 58.8%, while receptive anal intercourse by 41.2% respondents. Reactive HIV test and reactive syphilis test were found in 10.1% and 15.5% of the participants, respectively.

**Receptive anal sex was significantly associated with higher likelihood of HIV seropositivity, while insertive anal intercourse was associated with a lower likelihood of reactive HIV test (OR 3.368, 95%CI 1.296-8.753 and OR 0.321, 95%CI 0.115-0.897, respectively).** No statistically significant associations were observed between the measured variables and a syphilis-positive test.

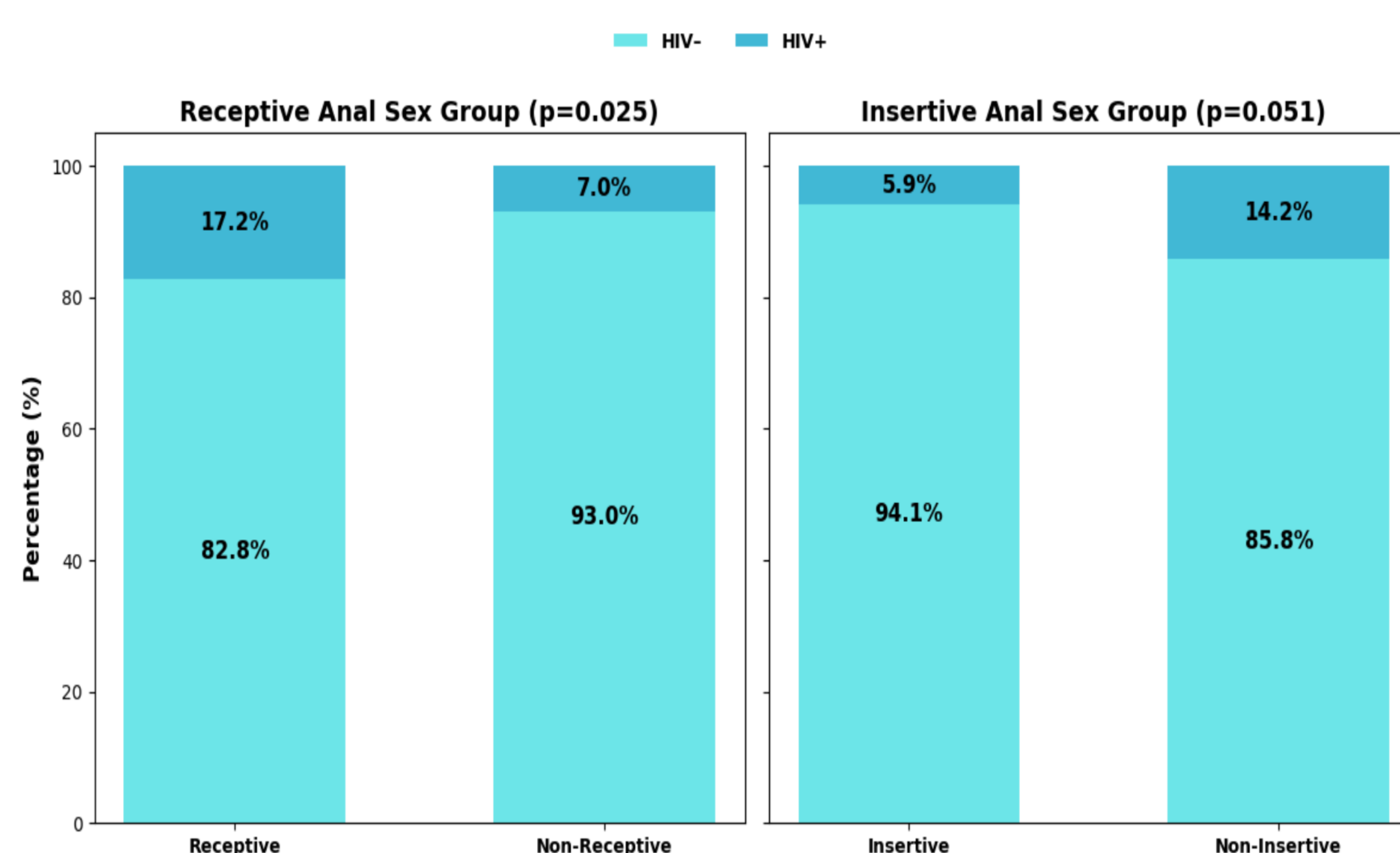
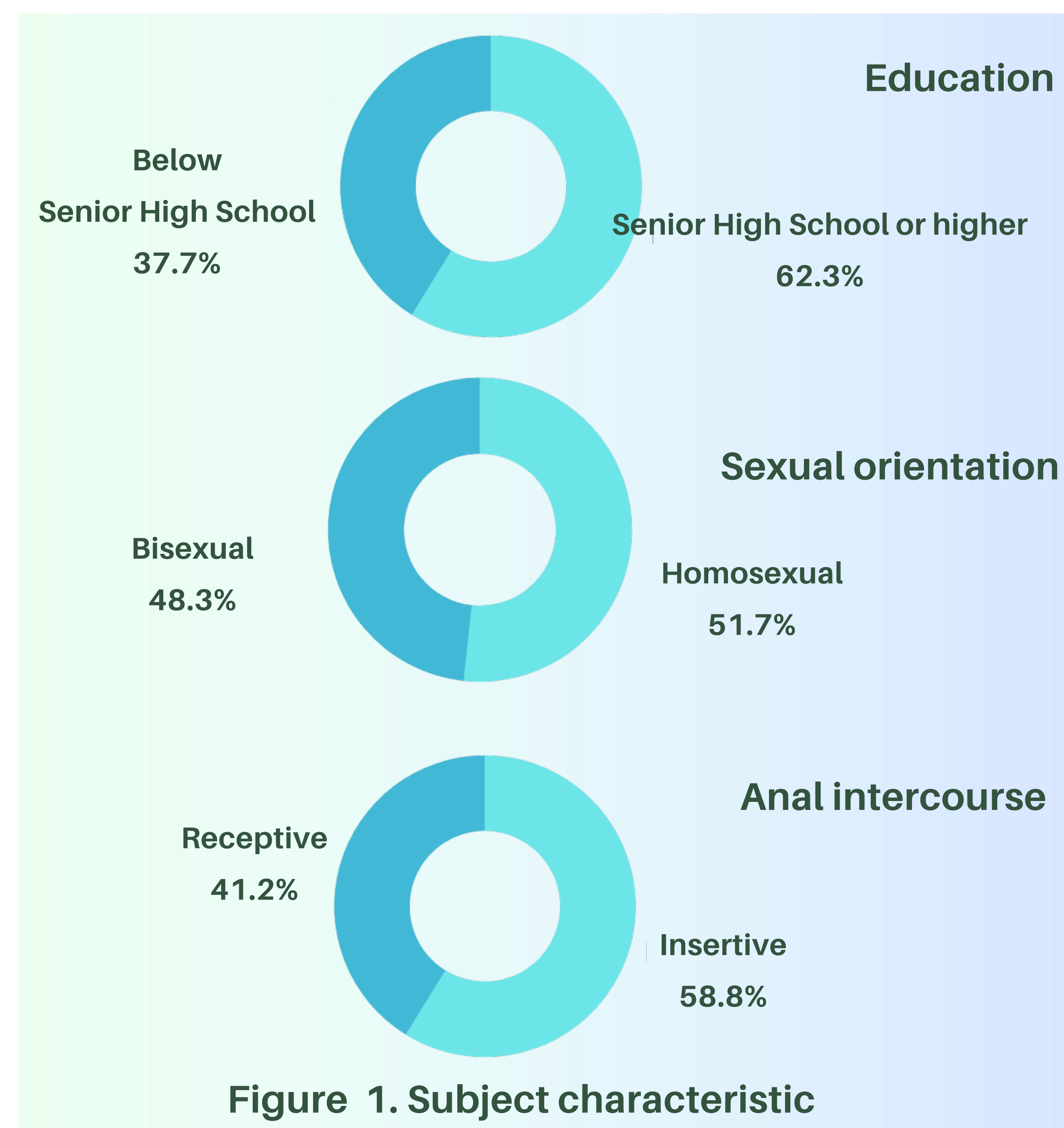


Figure 2. HIV test results by anal sexual practice

## Conclusion

This study highlights a concerning prevalence of HIV and syphilis among adolescent and young adult MSM in Bali. Receptive anal sex is associated with HIV infection, underscoring the need for targeted risk-reduction strategies within this population.

### Disclosure of Interest Statement:

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