**Background**

Men who have sex with men (MSM) and transgender women (transwomen) are disproportionately impacted by HIV globally, but data about the burden of HIV across Sub-Saharan Africa remain sparse. Understanding the patterns of the burden and awareness of HIV infection is important in defining the scale and content of HIV prevention, treatment, and care programs.

**Methods**

**Sibanye Health Project**

- Longitudinal cohort study evaluating the feasibility and acceptability of a combination package of HIV prevention interventions.
- Adult MSM and transwomen in Cape Town (CT) and Port Elizabeth (PE), South Africa.
- Participants choose services from a prevention package including condom choices, lubricant choices, couples voluntary counseling and testing, sexually transmitted infection screening and treatment, pre-exposure prophylaxis (PrEP) for eligible persons, and post-exposure prophylaxis.
- All participants receive individual HIV testing and linkage to care is provided for those living with HIV. HIV testing used the provincially approved algorithm.
- Prospectively enrolled participants attend visits at baseline, 3, 6 and 12 months, with additional visits for participants who initiate PrEP or who drop in to study clinics to receive services.
- Demographic, behavioral, and clinical data were collected by study staff and through tablet-administered surveys.

**HIV Prevalence Analysis**

- Age- and race- specific prevalence of HIV at baseline are described.
- Differences by race were evaluated with chi-squared tests.
- Trends by age were evaluated with the Cochran-Armitage test for trend.

**Results - Sample**

292 participants enrolled and completed a baseline visit, 115 in CT and 177 in PE. Across sites, 88% of participants were black and 12% coloured or white. Fifteen percent were aged 18-19, 42% were 20-24, 20% were 25-29, and 24% ≥30. Ninety-one percent were MSM and 9% TW.

**Results - HIV Prevalence**

43% (125/292) of participants were living with HIV at baseline

- 30% (35/115) in Cape Town
- 51% (90/177) in Port Elizabeth

HIV prevalence significantly increased with age (Figure).

HIV prevalence was significantly (p<0.0001) higher among black (46%, 117/254) than coloured or white persons (21%, 8/38).

50% (63/125) of those living with HIV were aware of their HIV infection

- 34% (12/35) in Cape Town
- 57% (51/90) in Port Elizabeth

HIV infection awareness increased with age (Figure), but did not differ by race (p=0.45).

**HIV Prevalence and Aware of HIV Positivity by Age, Sibanye Health Project, 2015-2016**

**Conclusions**

HIV prevalence was high among our study participants in both Cape Town and Port Elizabeth.

HIV prevalence of 35% among 18-19 year olds suggests early sexual initiation and/or very high HIV incidence among young MSM/ transwomen.

HIV prevention programs for MSM and transwomen should include PrEP and should address the needs of adolescent and young populations.

HIV testing programs should also target adolescent and young MSM/ transwomen, among whom 8 of 9 living with HIV were unaware of their infection.

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