

## **OP 49. The HIV prevalence in the South African National Blood Service blood donors - with special reference to men who have sex with men**

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### **Background**

The South African National Blood Service (SANBS) collects approximately 800 000 donations annually in a country with one of the highest HIV prevalence in the world (18% in the adult population).

The HIV prevalence among men who have sex with men (MSM) in South Africa is estimated as 13%- 49%. In 2014 South Africa lifted deferral on MSM donors instead applying the same risk assessment as for heterosexual donors. The number of donors who were MSM and the HIV prevalence was unknown in SANBS, hence the motivation for the study. The aim of the study was to assess the HIV prevalence in SANBS MSM and heterosexual blood donors.

### **Methods**

This was a descriptive cross-sectional study. A survey questionnaire was distributed over a 2-month period to all blood donors who presented and were deemed eligible to donate. The Null hypothesis was that there was no difference in the HIV prevalence between the general blood donors (0.22%) and MSM donors.

In addition to the Null Hypothesis assumption the MSM sample size of 146 was determined using:

- The donor population size of 479 082 with 226 137 males.
- Precision of 1% with 99% confidence interval.

The Fisher's exact test with significance level set at 0.05 was also used to assess if there was any association between HIV statuses and sexuality.

### **Results**

A total of 7 344 blood donors were enrolled into the study with the majority being males (n=4613, 62.92%). The age ranged from 19-89 years.

Out of 7 312 participants who indicated their sexuality, 120 (1.64%) were homosexual, 7 145 (97.72%) were heterosexual and 47(0.64%) were bisexual. Amongst the males 80 were MSM only and 29 were men who have sex with men and women (MSMW) giving a total of 109 MSM (1.48%). The HIV prevalence among MSM was 0%. The HIV prevalence amongst 7132 heterosexual donors whose HIV status was verified was 0.39%. HIV prevalence was higher amongst males at 0.47% (n=20) compared to females at 0.32% (n=8).

Using Fisher's exact test a p value of 1 was obtained, showing that there was no association between HIV statuses and being either heterosexual or MSM.

### **Conclusion**

The MSM prevalence of 1.48% is consistent with one study which estimated MSM prevalence in the South African general population as approximately 1%. The MSM HIV prevalence of 0% retrospectively justifies the rationale for lifting the deferral on MSM.

One limitation of the study could be that the sample size of 109 MSM might not be a true representation of SANBS MSM population. This smaller sample size (the calculated sample size was 146) could have been due to some reported donor clinic staff not introducing the study to donors citing busy clinics and also to some MSM not declaring their sexuality as in South Africa there is stigma attached to being homosexual.