

HIV Prevalence and Distribution in the Private Sector of Cape Town

Student: Natalie Van Diemen

Supervisor: Tonya Esterhuizen

Background: In Sub-Saharan Africa, only 45% of people are aware of their HIV status. Additionally, the HIV seropositivity estimates and the assumptions regarding the HIV epidemic in South Africa are based on public antenatal clinics, which is obviously biased. Many South Africans test for the first time when they apply for immigration visas or when they seek medical attention at an Emergency department (ED).

Objective: The aim of the study was to determine and compare the prevalence of HIV seropositivity in a population which undergoes mandatory HIV testing for visa applications and that of a population which voluntarily agrees to HIV testing in the private sector from one pathology laboratory group in 2016. The geographic location of testers with a positive result was also described.

Method: A retrospective cross-sectional study collected data from an existing database at a private pathology laboratory on males and females above 18 years of age testing for HIV for a visa application and voluntarily opting in for testing at a MediClinic Private Hospital Emergency department, across nine areas in Cape Town between 1st January 2016 to 31st December 2016.

Result: Amongst the sample of 620, the overall HIV prevalence was 4.52% (28/620) (95% CI 3.13% to 6.50%). In the ED population 10% (25/250) tested HIV positive (95% CI 6.84% to 14.40%), while in the visa population, the prevalence of a positive HIV test was 0.81% (3/370) (95% CI 0.26% to 2.49%). There was a highly significant association between HIV status and the respective populations with participants being more likely to test HIV positive when presenting to an ED, than consenting to have an HIV test when applying for a visa ($p < 0.001$, RR = 12.3, 95% CI 3.8 – 40.4). The Northern Suburbs accounted for 42.10% of the total tests done. The Cape Flats area had the highest proportion of HIV positive tests of the overall study population. An individual from the Cape Flats was 3.4 times (95% C.I.: 1.53 – 7.59) ($p < 0.001$) more likely to test HIV positive when opting in for HIV testing at an ED than someone from another area in Cape Town.

Conclusion: In this population, the prevalence of HIV was 4.52%. HIV prevalence was higher amongst those who present to the ED for medical attention than amongst those who test for visa purposes. The areas most affected area was the Cape Flats.