



HIV prevalence among medical students in Johannesburg, South Africa

To the Editor: As part of a study to determine *Mycobacterium tuberculosis* infection rates among medical students in Johannesburg, South Africa, we conducted tuberculin skin testing (TST) as well as HIV counselling and testing (in order to interpret TST results). We offered participation to 190 5th-year medical students; only 74 (39%) participated and none were HIV infected. The mean age of the participants was 23.9 years (median 23 years) and 55% were female.

In two studies on HIV prevalence in South African health care workers^{1,2} the HIV testing was anonymous and unlinked, i.e. participants could not learn their HIV status. We offered pre- and post-test HIV counselling and all participating students elected to receive their HIV results. While both studies included health care workers, neither included medical students.

Shisana *et al.* used cluster methods to sample a representative 5% of all health care workers in South Africa.¹ Most (595 out of 721, or 82.5%) eligible health workers participated; 349 (59%) were professional health care workers (physicians and nurses) and 246 (41%) were non-professional ($N=246$) health care workers (ward attendants and cleaners). The HIV prevalence rate was 20.3% among non-professional workers and 13.7% among health professionals. HIV prevalence was higher among the 18 - 35-year-olds (20%) than among the 36 - 45-year-olds (16.6%). The HIV prevalence rate was not listed separately for different categories of professional health care workers.

Connelly *et al.* determined the HIV prevalence among doctors, nurses, and student nurses at two hospitals in Gauteng province, South Africa.² While they achieved a high overall response rate (1 493/1 813, or 82.3%), almost all (98.5%) student nurses but few (25%) physicians participated. The HIV prevalence rate was 11.5% overall (student nurses 13.8%, nurses 13.7%, physicians 2%). HIV prevalence was low in hospital workers in the age groups over 55 years (2%) and 18 - 24 years (6.7%), and higher (10.2 - 15.9%) in all other age groups.

The low participation rate among medical students in our study (39%) was higher than the 25% participation rate among physicians in the study by Connelly *et al.*,² even though HIV testing in our study was not anonymous. We expected to find an HIV prevalence rate among medical students similar to the estimated 9%³ to 11.9%⁴ for Gauteng youth aged 15 - 24 years.

The lower rate among physicians in the study by Connelly *et al.*² and in our study among medical students may suggest that physicians and medical students are truly at lower risk compared with the general population and other health workers, or may be a biased estimate result, with only those at lowest risk choosing to participate.

These observations raise several questions. Why do physicians and medical students refrain from participation in

these studies? Is the HIV prevalence among physicians and medical students truly lower than in the general population and other health workers? Does the low participation rate among physicians and medical students, who are well aware of the HIV epidemic and the need for all South Africans to know their HIV status, indicate that it may be difficult to achieve high uptake rates of HIV testing strategies in the general population?

It is important to explore these questions further.

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1. Shisana O, Hall EJ, Maluleke R, Chauveau J, Schwabe C. HIV/AIDS prevalence among South African health workers. *S Afr Med J* 2004; 94: 846-850.
2. Connelly D, Veriava Y, Roberts S, *et al.* Prevalence of HIV infection and median CD4 counts among health care workers in South Africa. *S Afr Med J* 2007; 97: 115-20.
3. Shisana O, Rehle T, Simbayi LC, *et al.* *South African National HIV Prevalence, HIV Incidence, Behaviour and Communication Survey, 2005*. Cape Town: HSRC Press, 2006.
4. Dorrington RE, Johnson LF, Bradshaw D, Daniel T. *The Demographic Impact of HIV/AIDS in South Africa. National and Provincial Indicators for 2006*. Cape Town: Centre for Actuarial Research, South African Medical Research Council and Actuarial Society of South Africa, 2006.

Blood alternative products: Correction regarding Jehovah's Witnesses

To the Editor: You published a gross inaccuracy in the *SAMJ*¹ by stating that Hemopure has the 'Thumbs up from Jehovah's Witnesses'. With regard to bovine and human-derived haemoglobin-based oxygen carriers (HBOCs) you