



## High HIV/AIDS prevalence among health workers requires urgent action

The article entitled 'Prevalence of HIV infection and median CD4 counts among health care workers in South Africa' by Connelly *et al.* in this issue of the *Journal*<sup>1</sup> provides further evidence on the challenge of HIV/AIDS to health service delivery in South Africa. This is the second empirical study conducted among South African health workers to demonstrate that the HIV epidemic is serious enough to warrant immediate attention, the initial study having been conducted in 2004.<sup>2</sup>

The results of Connelly *et al.* are generally consistent with current knowledge of the HIV/AIDS epidemic among health workers. The authors need not be concerned about the minor differences observed between the two studies. The difference in HIV prevalence of 15.7% observed in our earlier study<sup>2</sup> and the 11.5% observed by Connelly *et al.* in this issue of the *Journal* might be ascribed to three factors. First, sampling – the prevalence figure of 15.7% was derived from a sample of primary health care and hospital health workers employed in the four provinces, two of which are known to have a very high HIV prevalence, while the 11.5% figure was derived from a population of health workers working in two hospitals in Gauteng. Second, in the study by Connelly *et al.* HIV testing using blood specimens yielded a lower HIV prevalence than that obtained through testing saliva specimens (9.6% v. 13.6%). In our unpublished analysis of the South African study among educators we found no significant differences in using the two methods. (The HIV prevalence among educators who provided an oral fluid specimen (13.3%, 95% confidence interval (CI): 12.3 - 14.3) was not statistically different from the rate among educators who provided a blood specimen (12.3%, 95% CI: 11.5 - 13.3).) Indeed this should be expected given the evidence that HIV-1 antibody testing of oral mucosa transudate samples is a highly accurate alternative to serum testing.<sup>3</sup> Third, the sample size in the four-province study<sup>2</sup> was half that of the Connelly study, hence the larger CIs in the former study (95% CI: 12.2 - 19.8%) overlap with those in the Connelly study. Moreover, it is important to note that when the data are disaggregated by professional status, the two studies yield a similar result, viz. that 13.7% of health care workers (or if extrapolated to national figures, an estimated 5 806 individuals) are HIV-positive. From these findings one conclusion emerges – that HIV prevalence among health workers is serious enough to warrant immediate attention.

The second major observation of the study pertains to the large percentage of health workers with CD4 cell counts < 200 cells/ $\mu$ l (18.9%), and as such eligible for antiretroviral therapy (ART). These health workers are by definition classified as having AIDS.<sup>4</sup> This finding is close to the 22% observed among South African educators derived from a national probability

sample.<sup>5</sup> Given the HIV prevalence of 13.7%, it has been estimated that of 6 997 nurses in Gauteng, about 958 were living with HIV in 2005.<sup>6</sup> If we consider that 18.9% already had CD4 counts less than 200 cells/ $\mu$ l it implies that an estimated 181 nurses fall into the AIDS category (extrapolated to the nation, this would amount to an estimated 1 097 nurses); that is if we exclude those who were not at work because of AIDS-defining illness. It is even more disconcerting when we consider that another 272 (or 1 648 nationally) are estimated to have opportunistic infections given a CD4 count of between 201 and 350 cells/ $\mu$ l. This suggests that an estimated 2 745 nurses are ill enough to have developed opportunistic infections or have AIDS. This is serious.

The third major issue to be considered is the implication of the results of the Connelly and Rehle and Shisana<sup>5</sup> studies in terms of calculating the proportion of the HIV-positive population in South Africa eligible for ART (CD4 < 200 cells/ $\mu$ l). The Department of Health (DOH)'s estimate of the HIV-positive population eligible for ART, viz. 10 - 15%, is lower than that observed among health workers by Connelly *et al.* and Rehle and Shisana,<sup>4</sup> viz. 18.9% and 22% of HIV-positive health workers and educators respectively. The higher figures based on empirical findings constitute a useful basis for the DOH to readjust its assessment of the percentage of people needing ART.

The results of the study by Connelly *et al.* are yet another grim indication of the HIV/AIDS crisis facing our health care system. Given that the current yearly production of nurses is 1 896<sup>6</sup> and in 1 year alone an estimated 2 745 are succumbing to AIDS, it is clear that the supply is not meeting the demand. This is even before we consider the question of emigration of nurses, or their exit to other professions. The DOH human resource plan<sup>6</sup> set a target for training nurses (3 000 by 2011) that is barely above the current number of nurses succumbing to AIDS. It seems that the DOH may not have taken the impact of HIV/AIDS into account when formulating its human resource strategy, despite the availability of the 2004 survey results on HIV prevalence among health workers.<sup>2</sup> In reviewing the national human resources plan for health there is not a single reference to HIV/AIDS.

The statistics in the article by Connelly *et al.* raise a fundamental question, that is, if those who are supposed to treat the population are succumbing to AIDS, what hope is there for accessing quality health care in South Africa? Accordingly the implications of the HIV/AIDS status of health workers requires urgent action.

It is therefore recommended that the DOH treat these findings as indicating an emergency and act accordingly.



For the DOH this means: (i) taking the impact of HIV/AIDS into account when planning human health resources; (ii) immediately designing a targeted national programme to prevent new infections among health workers; (iii) taking a leaf from the two Gauteng hospitals studied and establishing a clinic at each hospital nationwide to offer counselling, testing of HIV status and ART to those health workers whose CD4 count is under 350 cells/ $\mu$ l; (iv) ensuring that none of these HIV-positive health workers are deployed in the tuberculosis (TB) wards to prevent them from contracting TB, including extreme drug-resistant TB, because they could be in serious danger and could also endanger the lives of patients; and more generally (v) instituting mass mobilisation for testing and the determination of eligibility for enrolment in treatment regimens; and (vi) dramatically increasing ART coverage to reduce premature AIDS deaths.

In the face of these challenges, this is not the time to debate but to act decisively.

Given the recent changes in the government's strategy on improving its relationship with all those dealing with HIV/AIDS, the climate for implementing evidence-based recommendations in South Africa is ripe. This is commendable.

Seizing this moment, acting swiftly and implementing these recommendations can reduce morbidity and premature mortality of health workers and thus reduce attrition of these service providers – if not attended to, this situation will render the public health care system impotent.

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