THE IMPACT OF THE AIDS EPIDEMIC ON TEACHERS IN SOUTH AFRICA

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This note briefly reviews the development of the knowledge base concerning the impact of the AIDS epidemic on teachers in South Africa. As is well known, South Africa is one of the worst affected countries. The epidemic is expected to have a devastating impact on schooling provision. However, until very recently hardly any good quality data has been available on key parameters, including HIV infection levels and mortality and morbidity rates among teachers.

In 2000, the Ministry of Education in South Africa commissioned the health and population consultancy firm, AbT Associates, to undertake an assessment of ‘HIV/AIDS impacts on the ability to deliver education’. The Ministry has never released the main report, but the main findings of the study were presented and recorded. The exact reasons why the Ministry has kept the study under wraps have not been formally disclosed, but, unofficially, it appears that Ministry officials had major concerns about the robustness of the report’s very high estimates of projected levels of teacher HIV infection and mortality. With no information available on teacher HIV infection and mortality, the consultants assumed that HIV prevalence among teachers was the same as the adult population as a whole and then used the available data on HIV prevalence among pregnant women to make projections of current and future prevalence and mortality among teachers up to 2015. The projected levels of HIV infection and AIDS-related death are very high. Teacher HIV prevalence is projected to increase from 12.5 percent in 2000 to 30 percent by 2015 and annual mortality rates are projected to increase eightfold - from 0.5 percent to 4.0 percent during the same period. Cumulative teacher deaths between 2000 and 2015 are estimated to be around 120,000, which is one-third of the total number of teachers employed in 2000. Very surprisingly, the report was silent about the possible use of anti-retroviral therapies (ARTs) to reduce morbidity and mortality among teachers.

While it was obvious that a more thorough and comprehensive risk assessment was urgently needed as a basis for properly informed education policy and practice with respect to the epidemic, this was only initiated in 2004. The Human Sciences Research Council, the Medical Research Council, and the Mobile Task Team on the Impact of HIV/AIDS on Education (HSRC/MRC/MTT) were commissioned to produce a study on ‘the demand and supply of educators in South Africa’. Seven reports have just been posted on the HSRC website.
The study looks in some detail at the impact of the AIDS epidemic on teachers. For the first time, a relatively large and representative group of teachers was tested for HIV and detailed information retrieved from teacher personnel records on teacher mortality and other types of attrition. The results reveal just how seriously the AbT report over-estimated levels of HIV infection and mortality among teachers and largely vindicate the Ministry decision not to release the report.

**HIV prevalence**

The population-based testing shows that the HIV prevalence among teachers was 12.7 percent in 2004. This is an appallingly high level of infection, but is much lower than the UNAIDS estimate of national adult HIV prevalence (21.5 percent at the end of 2003) and considerably lower than the national, population-based HIV estimates for most age cohorts in 2002 (see Table 1)\(^1\). Although it is widely reported that women are bearing the brunt of the AIDS epidemic in Africa, prevalence rates among female and male teachers in South Africa are almost identical. Nor is there any difference in overall prevalence rates among primary and secondary school teachers.

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Projected HIV prevalence rates for teachers are now also dramatically lower. The teacher HIV prevalence rate was projected to be 22.5 percent in 2004 by the AbT consultants. However, using more recent trend data on HIV prevalence, Rehle and Shisana estimate that HIV prevalence rate among teachers will decline very gradually to 11.5 percent by 2015 from a peak of 13.5 percent in 2004 and 2005\(^2\). Even so, this implies very little behaviour change among teachers, which is questionable.

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\(^1\) The age distribution of teachers is reported to be similar to the 15-50 adult population as a whole.

\(^2\) See T. Rehle and O. Shisana, 2005, The impact of anti-retroviral therapies on AIDS mortality among educators in South Africa, HSRC. They use the upper confidence interval of the HIV estimates for these projections. In marked contrast, in 2001, the United States Bureau of Census projected that adult HIV prevalence would be nearly 40 percent in 2010.
Mortality

The USAID-funded Mobile Task Team on the Impact of HIV/AIDS on Education has undertaken a detailed analysis of teacher attrition using computerised personnel and salary records. The overall teacher mortality rate (from all causes) was 0.6 percent in 2003\(^3\). This should be compared with the AbT and the Rehle and Shisana projections for AIDS-related mortality among teachers for 2004 of 1.4 percent and 1.1 percent respectively\(^4\). Assuming that two-thirds of teacher’s deaths are AIDS-related\(^5\), the projected rates of AIDS-related mortality are therefore 3-4 times higher than the actual rate. Similar very large divergences between projected and actual teacher mortality have been found in other high-prevalence countries in Africa.\(^6\) There are at least three possible reasons for this. First, the projected adult HIV prevalence rates are far higher than actual rates among teachers, which is a key factor in the AbT study. Secondly, mortality is lower because, even with accurate HIV prevalence data, the standard demographic models are overestimating mortality rates, both in overall terms and at specific stages of the epidemic. And thirdly, mortality is considerably lower than projected because teachers are taking life-prolonging anti-retroviral therapies. Unfortunately, data on the numbers of teachers in South Africa who are already accessing these drugs has still not been collected. But, with over two-thirds of teachers enrolled on medical aid schemes, the overall proportion is likely to be high\(^7\). The fact also that teacher mortality rates have remained virtually unchanged at much lower than expected levels since 1999 also strongly suggests that the numbers of teachers taking ARTs has grown exponentially.

Not only is teacher mortality much lower than expected, but it also accounts for less than 20 percent of all attrition among teachers on long-term contracts\(^8\). Again, this serves to highlight the importance of properly contextualising the impact of the epidemic on teachers and teacher supply. Without doubt, the epidemic poses a serious threat to the teaching profession. However, 55 percent of all teachers in South Africa say that they intend to leave the profession because of low morale and job satisfaction, which is mainly due to issues of pay, student behaviour, and work loads rather than HIV/AIDS\(^9\) per se.

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\(^3\) This is based on in-service mortality only. The MTT report also includes post-service mortality for one year after teachers leave public service, but since only a small proportion of this mortality is likely to be directly attributable to HIV/AIDS, its inclusion in the overall mortality estimates is questionable.

\(^4\) Both sets of projection are based on non-ART scenarios.

\(^5\) This could be an over-estimate. For example, detailed mortality survey studies in Tanzania since the early 1990s find that only around one-third of adult deaths in some rural areas are AIDS-related compared to 50-60 percent in the capital Dar Es Salaam (see AMMP, 2004).


\(^7\) Nearly 22 percent of teachers in South Africa who were HIV positive in 2004 had CD4 counts of less than 200 (compared to around 10 percent for the population as a whole). Again, this suggests relatively large proportions of teachers are taking ARTs.

\(^8\) The percentage of total permanent teacher attrition accounted for by deaths increased from 10.4 percent in 1998 to 17.6 percent in 2003.

\(^9\) Perhaps not surprisingly, teachers who are HIV positive have lower intention rates to leave the profession than HIV negative teachers (49 percent compared to 55 percent respectively).
Attrition rates among teachers in African countries are expected to increase rapidly as a result of the AIDS epidemic. And yet, in South Africa, they have fallen since 1998 because of lower rates of wastage due to resignations, retirements, etc.

Finally, mortality rates (from all causes) among male teachers are almost double for those than among female teachers despite the fact overall HIV prevalence rates are currently about the same for each group. The reasons for this very large gender mortality differential are not explored in the MTT report, but possible explanations include higher mortality among male teachers due to non-AIDS related illnesses as well as accidents and lower uptake of ARTs among male teachers who are HIV positive.

**Morbidity**

The survey findings show that teachers who are HIV positive are slightly less likely to be absent as a result of ‘unhealthy days’ than teachers who are HIV negative\(^\text{10}\) , which is the complete opposite of what would be expected with high levels of AIDS-related sickness. As the HSRC points out, ‘the burden of absenteeism among the teaching labour force was due mainly to high blood pressure, followed by smoking, being HIV positive, stomach ulcers, arthritis and rheumatism, and high-risk drinking’ (HSRC, Media Releases 2005). It is also important to note that the total number of teachers permanently leaving the public service for medical reasons has only increased from 1057 in 1998 to 1200 in 2003.

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\(^{10}\) The percentages of teachers who had been absent for reasons of ill health more than five days during the last month were 12.2 percent and 13.6 percent for HIV negative and positive teachers respectively.