

# **ANTI-RETROVIRAL DRUGS ARE DRIVING DOWN TEACHER MORTALITY IN SUB-SAHARAN AFRICA**

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A year ago, I summarised the available information on teacher mortality in 10 high HIV prevalence countries in sub-Saharan Africa. The main conclusions of this review were as follows:

- Teacher mortality rates (from all causes) did not exceed one percent in Southern African countries (Botswana, Lesotho, South Africa, and Swaziland) during 2003-2004, which have the highest adult HIV prevalence rates of over 20 percent. Elsewhere, mortality rates are below one percent in Tanzania and Uganda and are around two percent in Malawi and Zambia.
- Teacher deaths account for less than 20 percent of total teacher attrition in most countries and less than 10 percent of total teacher turnover (attrition and transfers).
- Teacher mortality rates appear to be falling or are reasonably stable in a significant number of countries. Both behaviour change and increasing access to life-prolonging anti-retroviral drug therapies (ARVs) are the principal reasons for these mortality trends.<sup>1</sup>

Despite this evidence, the media along with numerous researchers, NGOs, and international aid organisations continue to assert that the AIDS epidemic is 'decimating' and 'ravaging' the teaching work force in Africa, which is seriously jeopardising the attainment of the Education for All goals.

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<sup>1</sup> P.S. Bennell (2005) Teacher mortality in sub-Saharan Africa, KSD, Brighton.

The purpose of this note is to further update the data on teacher deaths in five high HIV prevalence countries, namely Botswana, South Africa, Swaziland, Tanzania and Zambia<sup>2</sup>.

## **Botswana**

The last review noted that the mortality rate for primary school teachers increased slightly from 0.71 percent in 1999 to 0.88 percent in 2002. The corresponding figures for secondary school teachers are 0.37 percent and 0.46 percent. Teacher deaths accounted for around 20 percent of total attrition and five percent of total turnover (transfers plus attrition<sup>3</sup>) in both years.

Since 2002, the mortality rate for primary school teachers at primary schools has declined very appreciably to 0.18 percent to 2005. The actual number of primary school deaths fell from 67 in 2003 to just 25 in 2005. The teacher mortality rate at secondary school declined from 0.46 percent in 2002 to 0.18 percent in 2005. As is the case in nearly every other high prevalence country in SSA, mortality rates among male teachers are higher than for female teachers, despite the fact that HIV infection rates are reported to be appreciably higher for adult females. Government teachers in Botswana were the first in Africa to receive ARVs. As early as 1999, around 62 teachers were accessing triple combination therapy (HAART) through the government's own medical scheme and by mid 2002 this had increased to 474<sup>4</sup> (see Bennell, Hyde and Swainson, 2002). More recent figures are not available, but it seems likely that the now almost universal access to ARVs in Botswana is the key factor driving down teacher mortality rates and possibly among the rest of the affected population in the country as a whole.

Rather than facing an acute shortage of teachers, the Ministry of Education is very concerned about the increasing numbers of graduates from the six teacher training colleges who are unable to find employment

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<sup>2</sup> I am very grateful for the assistance of Peter Babcock-Walters, Dandan Chen, Susan Makogthi, Israel Simelane, Faustin Mukyanuzi and Moses Musikanga in providing information for this update.

<sup>3</sup> Attrition comprises resignations, retirements, dismissals, and deaths.

<sup>4</sup> See P.S. Bennell, K. Hyde and N. Swainson (2002) *The impact of the AIDS epidemic on the education sector in sub-Saharan Africa: A synthesis of the findings of three country studies*. Centre for International Education, Sussex University, Brighton.

in government schools and is, therefore, actively considering reducing intakes at the colleges.

## **South Africa**

Kwa-Zulu-Natal (KZN) Province has the highest HIV prevalence rates in South Africa. Peter Babcock-Walters and Daniel Wilson<sup>5</sup> have extracted data from the government's personnel and administration system to calculate mortality and attrition rates for teachers in the province. In-service mortality (from all causes) for teachers aged 20-60 nearly doubled from 0.51 percent in 1997/98 to 1.0 percent in 2000/01, but then declined to 0.91 percent in 2002/03 and 0.93 percent in 2003/04<sup>6</sup>. The male mortality rate among teachers aged 20-49 was exactly one-third higher than the female mortality rate in 2002/03.

The mortality rate for all teachers in South Africa was 0.63 percent in 2002/03, nearly 45 percent lower than in KZN. The lowest mortality rates were in Northern and Western Cape, Gauteng, and Limpopo and the highest in KZN, Mpumalanga, and Free State.

Demographic modelling done by AbT Associates in 2000 projected that teacher mortality rates would increase steeply for South Africa as a whole to over 4 percent in 2010. The decline in mortality rates in KZN as early as 2002/03 is, therefore, quite expected and, again, can only be accounted for by a large proportion of affected teachers accessing ARVs.

Deaths accounted for 25-29 percent of teacher attrition in KZN between 2000/01 and 2003/04. The corresponding figure for all teachers in South Africa was 18 percent in 2003/04.

## **Swaziland**

Teacher mortality rates in Swaziland show a similar pattern to KZN, but with a two-three year lag. Primary and secondary school teacher deaths more than doubled between 2001 and 2004 (from 40 to 100) and then declined slightly to 97 in 2005. The overall teacher mortality rate was 1.0 percent in 2004 and 2005. Probably around 80-85 percent of the 2004

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<sup>5</sup> Peter Babcock-Walters and Daniel Wilson (2006) Education attrition and mortality in KwaZulu-Natal: A study of gross attrition rates and trends in the public schools system. Mimeo.

<sup>6</sup> The 2003/04 rate is estimated

deaths were AIDS-related. Free ARVs became widely available in public clinics and hospitals throughout the country from early 2005. As in Botswana, there is a serious over-supply of newly trained teachers.

### **Tanzania**

According to Ministry of Education data, primary school teacher deaths in Tanzania increased fairly steadily from 345 (mortality rate 0.37 percent) in 1991 to 893 (0.75 percent) in 2003. Since then, however, teacher deaths have declined to 840 in 2004 and 817 in 2005.

Male mortality rates among teachers have been consistently slightly higher than female rates since 1991. The findings of the AIDS Mortality Monitoring Project suggest that AIDS-related mortality in rural districts is as low as 25 percent of total adult deaths, but increases to 50-60 percent in Dar es Salaam. Overall teacher attrition from resignations, retirements and deaths remained constant at around one percent between 1991 and 2004.

### **Zambia**

The national mortality rate among primary and secondary teachers in Zambia was 2.0 percent in 2000 and 2001. It subsequently fell to 1.6 percent in 2002 and was 1.54 percent in 2005. The Ministry of Education has made ARVs available to affected teachers free of charge since 2004 and, by late 2005, over 1400 teachers were accessing these drugs.

### **Concluding remarks**

The up to date information from these five high HIV prevalence countries fully supports the key findings of the 2005 review. In particular, teacher mortality rates are declining in all these countries, which, with the possible of exception of Tanzania, is due to the increasing availability of ARVs. It is likely therefore, that teacher mortality is also falling in other high prevalence countries, most notably Kenya, Malawi, Mozambique, Namibia, and Uganda. Teacher mortality rates have been falling in Uganda for the last five years and there was a sharp fall in teacher mortality in Malawi in 2004.

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