



Educator Attrition and Mortality in South Africa **FACTSHEET**

A Study into Gross Educator Attrition Rates and Trends,
including Analysis of the Causes of these by Age and Gender, in
the Public Schools System in South Africa 1997/8 – 2003/04

conducted by the
Mobile Task Team on the Impact of HIV/AIDS on Education (MTT)¹
for
The Education Labour Relations Council (ELRC)

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This report provides the first overview of educator attrition and mortality trends not reliant on estimates, models or projections, but on primary data contained in government databases and registers. These included the Government of South Africa's Personnel and Salary Administration System (PERSAL), the Department of Home Affairs' National Death Register and Education Management Information Systems (EMIS) data from the National Department of Education. The aim of this study is to estimate gross educator attrition rates and trends, including an analysis of the causes of these by age and gender, in the public schools system in South Africa. The full study report should be read to provide context for this FactSheet. Key results by category include the following:

Educator Workforce

- 1 The *educator workforce* is defined as CS Educators, an appointment category within the education system and coded by PERSAL. It includes school and office-based educators such as educators themselves, heads of department, principals, subject advisors, psychological and guidance services, district managers, but excludes staff such as personnel officers, administrative officers, regional directors and senior management from chief director level upward.
- 2 The study covers approximately 92% of the total teaching force in South Africa, since there are no data in PERSAL on the remaining 8% of all full-time CS (College School) educators employed by School Governing Bodies (SGBs).
- 3 The average number of educators in the system has declined over the period 1997/98 to 2003/04. This is due to a reduction in the number of temporary educators over time, and extensive rationalisation through voluntary severance packages in the provincial education departments with the amalgamation and formulation of new education departments, in the mid- to late-nineties.
- 4 On average, only 83% of educators are classed as 'permanent' with the remainder defined as 'temporary', 'on probation', 'relief' and 'education specialist', which together (17%) represents a sizable but declining proportion of the educator workforce. While the number of permanent educators has remained stable, the overall size of the educator work force declined.
- 5 The number of educators in-service varies significantly from month to month, but as the number of permanent educators remains fairly constant, this can be ascribed mainly to the ebb and flow of temporary educators. For analytical purposes, the total monthly number of educators was determined and an annual average was then calculated to form the denominator of the attrition rate calculations.

¹ **The Mobile Task Team** (MTT) is a network of Southern African professionals in complementary disciplines, designed to assist MoEs to manage and mitigate the impact of HIV/AIDS through strategic planning and implementation of sustainable and systemic interventions. It operates from the Health Economics & HIV/AIDS Research Division (HEARD) of the University of KwaZulu-Natal and is funded by USAID. This report may be downloaded from www.mtttaids.com.

Study Period and Financial Year

- 1 Data were analyzed by financial year, which runs from 1st April to 31st March of the following year. Seven complete years from 1997/98 to 2003/04 have been analysed.

Undercount

- 1 There is a mortality undercount in the 2003/04 financial year of at least 15%. This estimate is based on an observed average 3-month delay in the recording of deaths on PERSAL, the fact that the terminations data were only available for three months beyond the end of March 2004 and historical evidence that an additional 2 years of data would be required beyond March 2004 for all the deaths attributable to 2003/04 to appear in PERSAL.

Gross² Educator Attrition

- 1 Gross attrition in the educator workforce fluctuated in the period under review: The national rate in 1997/98 was 9.3%, dropping to 6.4% the following year and declining to 5.5% in 2000/01 before beginning to rise steadily again to 5.9% in 2002/03. Rates vary significantly by province and have to be seen in light of the large numbers of educators that left the departments during the years of amalgamation and rationalisation, peaking in 1997/98 and 1998/99.
- 2 This fluctuation suggests that the 'composition' of educator attrition changes over time: The early years of this study were characterised by high numbers of severance packages and dismissals whereas more recent years have seen rising proportions of mortality, medical retirement and resignation.
- 3 The most significant and consistent provincial decline in educator numbers was in the Western Cape where the average number decreased by 13% in this period (compared to a national decline of 4.7%), followed by Limpopo Province and the Northern Cape. The only province to register any noticeable increase in educator numbers was Mpumalanga.
- 4 The largest proportion of terminations was due to contract expiry, immediately followed by reinstatement (i.e. a new contract being signed). This phenomenon was analysed, but was not included in the gross attrition calculations as it was effectively equivalent to continuous employment. It was established that the third largest cause of attrition, after contract terminations and resignation, was mortality.
- 5 *The proportion of gross attrition due to mortality increased from 7.0% in 1997/98 to 17.7% in 2003/04. Similarly, the proportion of terminations due to medical reasons has grown from 4.6% to 8.7% over the same period while the number of severance packages and transfers declined considerably. By 2003/04, resignations accounted for 53% of all educator terminations excluding contract terminations.*
- 6 By 2002/03, around 21 000 educators were leaving the system annually, although up to a third of these (probably temporary educators for the most part) re-enter the system after six months or more.

Gross² Educator Mortality

- 1 The total number of in-service deaths grew from 1 425 in the year 1997/98 to 1 856 in the year 2003/04, an increase of 30%. The 'reduction' of in-service deaths between 2002/03 and 2003/04 (from 2 086 to 1 856) is due to the time lag between actual deaths and the date when they are finally reflected in PERSAL, which on average is 3 months and in 30% of all cases, more than 4 months.
- 2 A total of 12 990 educators died in-service over the period, comprising some 12 560 deaths reported in PERSAL and a further 430 discovered by linking Home Affairs National Death Register data to cases where the reported termination cause (i.e. contract termination) was not 'deceased'.
- 3 Home Affairs identified 3 853 post-service deaths for educators (ie where the recorded date of death was later than the resignation date shown in PERSAL). However, almost one third (31%) of the non-

² All causes

death terminations that Home Affairs reported as a subsequent death occurred within 1 year of the educator leaving the department(s) (1 202 out of 3 853 Post-Service deaths).

- 4 Based on these data and the proposition that in-service mortality does not tell the full story, *in-service deaths have therefore been combined with those of educators who died within one-year of leaving service*, to constitute a single, more representative category. Thus, with the addition of 1 202 educators who died within one-year of leaving service, gross educator mortality for the period 1997/98 to 2003/04 is calculated to be 14 192. This does not however allow for the undercount of approximately 15% in 2003/04, *which may add close to 300 more deaths for that year.*
- 5 Provincial mortality varied significantly: The highest number of deaths in 2002/03 was in KwaZulu-Natal where 790 educators died – a significant increase from 441 in 1997/98. Second in 2002/03 was Eastern Cape with 419 deaths, followed by Limpopo Province with 248.

Mortality Rates

- 1 Crude mortality rates, expressed in relation to the number of appointments, increased between 1997/98 and 2003/04 from 0.39% to 0.57%; the slight decline between 2002/03 and 2003/04 may be due to the late capture of deaths in PERSAL. The rate of increase in mortality amongst the 20 to 49 year old cohort was almost double that of 50 to 59 year olds, rising from 0.33% to 0.56%.
- 2 The actual number of educators dying each year by race is distorted by the fact that over 80% of all educators are Black African; in 2002/03 for example, a total of 1 745 Black African educators aged 20 to 49 died in-service or within one year (post-service), while the equivalent numbers for educators of other races was 39 Coloured, 16 Indian or Asian and 25 White. Mortality rates by race in the 20 to 49 age bands are highest for Black African educators, increasing from 0.40% in 1997/98 to 0.66% in 2003/04. A higher relative rate of increase was experienced among Indian or Asian educators (0.07% to 0.11%), but the actual numbers are *very* small; Coloured educators have experienced a small increase (0.17% to 0.21%), while the rate for White educators in the same age band has remained fairly stable (0.11% to 0.09%).
- 3 In the 20 to 39 age group, mortality rates were highest amongst Black African *male* educators, climbing from 0.54% to 0.84% in the period 1997/98 to 2003/04. Comparative rates for Black African female educators were lower (0.27% in 1997/98) but the rate of increase between 1997 and 2003/04 was higher, climbing to 0.59%.
- 4 In terms of gender-specific mortality rates, while these have increased considerably for both sexes since 1997/98, the highest proportional increase was amongst females aged 20 to 49, where they grew from 0.23% to 0.51% in 2002/03
- 5 The highest provincial mortality rate by age band was again in KwaZulu-Natal among 25 to 29 year-old educators, at 1.04% (equivalent to 52 deaths amongst 5 008 educators in one year).
- 6 Provincial mortality rates by gender show that the highest increase has been amongst female educators aged 20 to 39 in KwaZulu-Natal: Starting from a relatively low base of 0.36% in 1997/98, it climbed to 0.89% in 2003/04 (equivalent to 242 deaths amongst 27 176 educators in one year). High rates of increase were also evident amongst male educators in the Free State and North West provinces.

Recommendations for Education Management Information Systems and PERSAL

- 1 The report recognizes that PERSAL is a functional salary administration system and was never conceived or designed as a strategic management information or planning support system. Nevertheless the report makes a series of recommendations for PERSAL, in which it identifies eight areas that should be cleaned up in the existing database, nine areas of innovation that could be considered and two areas that might assist in fraud detection. It also identifies four ways that PERSAL data could be used to provide improved management reporting in respect of educator attrition trends over time.

- 2 The report suggests that the crisis inherent in the AIDS era should be harnessed to positive advantage by mobilizing energy around a fresh information system paradigm for education. It suggests the need for a new demand-based system that links educator and school data in order to empower planners with the fundamental management information. It also highlights the need for decentralised information systems to enable rapid decision making and monitoring at the district level, capable of generating monthly or (at worst) quarterly information.

Implication and Conclusions

- 1 The study at no stage attempted to ascribe any specific portion of the observed mortality to AIDS. This was quite deliberate and underpins the need to understand HIV/AIDS, first and foremost, as an erosive and systemic management problem, exacerbating existing problems of attrition and mortality. However it is clear that this analysis confirms patterns of educator attrition and mortality consistent with the high levels of HIV-prevalence in the wider South African environment. Read together with the parallel ELRC study, *The Health of our Educators*, conducted by the Human Sciences Research Council (HSRC), evidence of the impact of HIV/AIDS is quite simply overwhelming.
- 2 The rate of attrition experienced over the period – irrespective of cause – translates into hard numbers of trained and experienced educators who have left the system. This rate declined after the rationalization process of the late 1990s, but shows signs of incremental increase year-on-year from 2001. Even given the declining numbers of learners now entering the education system, this implies the need for massive educator recruitment and training, particularly in the worst-affected provinces, as well as the attraction back into the system of those educators who have left it.
- 3 The proportion of educators leaving the profession due to resignation – implying access to alternative employment (or perhaps awareness of growing physical incapacity) – accounted for 53% of all educator terminations by 2003/04. This emphasises the importance of the second point, as growing mortality in other private and public sectors, fuelled by AIDS impact, is *increasing* the appetite for the recruitment of skilled educators – particularly those trained in, for example, English, mathematics, science and accountancy. Strategies must therefore be developed to stem this tide and compete more effectively with the market for these scarce skills.
- 4 It should be clear that national analysis masks the extent of variation in attrition and mortality in provincial education systems. In fact, the report illustrates this graphically and highlights the fact that some provincial systems are much more vulnerable than others. This analysis is supported by the results of the parallel HSRC prevalence survey reported in *The Health of our Educators*, and confirms the need to focus attention on those areas in greatest need – without however stigmatising them in any way.
- 5 Better news is that educators in South Africa appear to somewhat *less* at risk from HIV/AIDS than the general population in the same age band. This conclusion is important given the level of national and international debate on the issue and South Africa's high prevalence environment. Over the period 1997/98 to 2002/03, gross annual mortality amongst educators in the age group 20 to 49 grew from 1 006 to 1 825, an increase of 81%. By comparison, Statistics SA released data in February 2005 showing that in the same age group, and for almost the identical period (calendar years versus financial years), mortality in the general population grew from 121 548 to 250 936, an increase of 106%.
- 6 This said, the good news is limited: The numbers contained in this analysis still translate into the *growing* loss of very many highly trained men and women and will be a source of alarm, particularly in the worst affected provinces. Educators are, by definition, expensive resources and take considerable time to train and locate in the system. The challenge of reducing this loss, through a comprehensive response strategy and effective management of future impact on the system, will be neither easy nor short-term. A good start would be the urgent development of the kind of integrated management and monitoring information systems described above. This might obviate the intense level of effort and expenditure required to access and analyze the data necessary for this study, and instead make detailed analysis of educator attrition and mortality a routine function of management.

For further information contact: [Peter Badcock-Walters \[peterbw@eastcoast.co.za\]](mailto:peterbw@eastcoast.co.za) or [Daniel Wilson \[Daniel@EduAction.co.za\]](mailto:Daniel@EduAction.co.za)