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The Impact of HIV and AIDS on Teachers: NATIONAL RESPONSES TO PREVENT AND MITIGATE IMPACT

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1 Introduction

The impact of HIV and AIDS has been the subject of much speculation and concern. In the late 1990s and early 2000's, many researchers and analysts were predicting devastating impact on the ranks of teachers and the wholesale collapse of education systems. Since then, the evidence of many high-prevalence countries in southern Africa suggests that this impact has not been as dramatic as first feared and that the pandemic has not, in fact, decimated entire education systems.

I will discuss this evidence in some detail and confirm that, while very large numbers of teachers have succumbed to the impact of HIV and AIDS, the accelerating roll-out of testing, counselling and antiretroviral treatment has significantly changed the face of the threat. But I will also note that after the first wave of HIV infection and the second wave of AIDS mortality, the education system is now faced with the third wave of orphaning and family dislocation. While this may be less a problem in low- to medium-prevalence countries, it is nevertheless the long-term and abiding legacy of the pandemic.

Second, I will talk about four possible national responses that could and should help to further mitigate and even prevent the impact of HIV on the education system. But here I wish to stress that HIV is only one of many factors that erode and assault the education system. For this reason, the impact of HIV must be analysed and understood as a systemic management problem rather than a parallel public health problem. This implies that the issue of HIV must be addressed in every aspect of education system training, data capture, management and reporting – and not separated into some special category of nameless horror, and so become stigmatised for quite irrational reasons.

2 HIV Impact on Teachers

There is no doubt whatever that HIV and AIDS are together exacting a terrible toll on the populations of medium- and high-prevalence countries. In southern Africa for example,

anecdotal stories of illness, stress, attrition and mortality abound – and every school can confirm regular teacher and learner absence to attend the funerals of colleagues and family members. In parts of South Africa and the neighbouring states of Lesotho and Swaziland, the rate of orphaning amongst learners has risen to one-third, and climbs to 50% of learners by the time they exit secondary education¹.

Teachers are as vulnerable as the rest of the adult population in theory, but in practice may be assisted in avoiding or dealing with HIV infection by their own level of education and awareness – particularly in terms of understanding their HIV status through voluntary counselling and testing, and later by accessing ART at a faster rate than the general population.

The largest scientific study to date, of gross teacher attrition rates and trends, including analysis of cause by age and gender, was undertaken in the public school system in South Africa in 2005. It was conducted by the Mobile Task Team on the Impact of HIV/AIDS on Education (MTT) on behalf of the South African Education Labour Relations Council (ELRC)² and analyzed the personnel records of an average of 365 000 teachers over an 8-year period, 1997/98 to 2003/04.

It should be noted that over the period 1997/98 to 2003/04, the South African antenatal HIV prevalence rate grew from 17% to 30%, making it perhaps the highest HIV risk environment in the world at that time. Over this period, the rate of teacher attrition fluctuated widely due to the restructuring of the apartheid education system, but balanced out at around 6% and varied widely by province. It was established that teacher mortality was only the third largest cause of attrition, after contract terminations and resignation.

However, 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 service terminations due to medical reasons grew from 4.6% to 8.7% over the same period. By 2002/03, around 21 000 educators were leaving the system annually, although some of these re-entered it at a later point.

The total number of in-service teacher deaths grew from 1 425 in the year 1997/98 to 1 856 in the year 2003/04, an increase of 30%. A total of 12 990 educators died in-service over the period, confirmed by PERSAL reporting and the National Death Register. In addition, a further 1 202 teachers died within 1 year of leaving service, bringing gross teacher mortality for the 8 year period to at least 14 192. The important point is that this figure represents *gross* mortality in a very high HIV-prevalence setting – in other words death from all causes and not AIDS alone.

While crude mortality rates increased between 1997/98 and 2003/04 from 0.39% to 0.57%, the rate of increase 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%. Mortality rates for both sexes increased considerably over the period, but the highest proportional increase was amongst females aged 20 to 49, growing from 0.23% to 0.51% in 2002/03. In principle, mortality under the age of 50 should be limited and directly reflects the impact of AIDS.

¹ Badcock-Walters, P., et al, 2009. *Umkhanyakude Pilot School Census*, UNICEF & KZN Office for the Rights of the Child; and *Draft Lesotho Education Sector HIV and AIDS Policy*, 2007.

² Mobile Task Team, (MTT), HEARD, University of KwaZulu Natal, 2005: *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*. Education Labour Relations Council, South Africa.

Provincial mortality varied significantly, but the highest number of teacher deaths occurred in those provinces which evidenced the highest HIV prevalence rate. In the Province of KwaZulu Natal with an antenatal HIV-prevalence rate around 40%, for example, mortality was highest among 25 to 29 year-old educators, at 1.04% (equivalent to 52 deaths amongst 5 008 educators in one year).

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 the impact of HIV and AIDS, first and foremost, as an erosive and systemic management problem, increasing *existing* problems of attrition and mortality. Notwithstanding this, 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. In fact, the study appeared to confirm that teachers in South Africa appeared to be slightly *less* at risk from HIV than the general population in the same age bands. Comparative data shows that while gross annual mortality amongst teachers in the age group 20 to 49 increased by 81% over the 8-year period, mortality in the general population in the same age-band increased by 106% over the same period. Related research by the HSRC in South Africa confirmed, interestingly, that over two-thirds of all teachers knew their HIV status through testing, prompting the conclusion that they were accessing ART at a faster rate than the general population.

The take-home message is that, even in one of the highest HIV environments in the world, HIV and AIDS were not 'wiping out' the teacher workforce. But it remains a fact that the increased rate of attrition, combined with the reduced training and graduation of new teachers into the profession, has precipitated a crisis of demand and supply in that country. In other words, while HIV has *increased* existing systemic problems, it is not solely responsible for the shortfall in the number of teachers available. In short, it is part of a wider management problem that must be solved through the effective monitoring, management, planning and reporting of system activity and performance.

In an unrelated study in 2009³, Bennell notes it is still widely anticipated that the HIV epidemic will have a devastating impact on the education sector in Africa. He also notes that teachers continue to be regarded as a relatively 'high-risk' group, and that projections of teacher mortality made by impact assessments estimate that, in high HIV prevalence countries, 4-6% of all teachers will die each year from AIDS-related illnesses by 2009-10. He has consolidated available data on teacher mortality (from all causes) in 13 high- and medium- HIV prevalence countries in Africa, shown in the following table:

Teacher mortality rates in selected high HIV prevalence countries, 1998-2007

Country	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Botswana*		0.7	0.7	0.8	0.9	0.7	0.7	0.8		
Kenya*		0.6					0.4			
Lesotho*							1.1			
Malawi*	1.0	0.9			2.4		1.8			1.5
Mozambique			0.7		0.8		1.2			
Namibia	0.5			1.5			0.6	0.4	0.3	0.3
Rwanda			0.3							0.05
South Africa**	0.5		1.0		0.9	0.9				
Swaziland			0.4				1.0	0.9		
Tanzania			0.8	0.9	0.8	0.8		0.5		

³ Bennell, P., 2009; *The Impact of the AIDS Epidemic on Teachers in Sub-Saharan Africa: A Further Update*, Knowledge and Skills for Development, UK

Uganda*		0.9				0.7	0.7			0.4
Zambia	2.8		2.0	2.1	1.7		1.9	1.5	0.9	1.0
Zimbabwe		0.4	0.9	1.0						

Note: *primary school teachers only. The total number of deaths among secondary school teachers in Botswana fell from a peak of 59 in 2000 to 40 in 2006; **Kwazulu-Natal Province only.

Source: Bennell 2006; Ministry of Education records; Shinkolo 2007.

What this confirms is that gross mortality rates are not only generally low (both in absolute terms and in relation to projected rates), but have been stable or declining in most countries during the last five years or so. Only Mozambique (and possibly Zimbabwe) seem to be exceptions.

Bennell suggests that these mortality levels and trends are likely to be due to declining HIV prevalence and increasing access to anti-retroviral medication among teachers. He also notes that it is quite possible that teachers have reduced their levels of high-risk sexual behaviour (perhaps as a result of increased awareness linked to education levels and access to information). He also notes that a partial risk assessment was undertaken in five of the 13 regions in Namibia in 2008. Nearly 2,000 teachers there were tested on a voluntary, anonymous basis. The overall HIV prevalence rate was 6% compared to an estimated national rate for the 15-49 population of 17.8%. In South Africa the corresponding percentages were 12.7% and 21.5% in 2004.

Bennell thus suggests that 'it is increasingly clear that schooling systems are not being massively affected by teacher absenteeism and deaths'. Prof Michael Kelly⁴, long an advocate of the need for concerted intervention, has also recently stated that 'while the epidemic continues to have major impacts within the education sector, it is not causing as much turbulence as had earlier been anticipated in terms of morbidity and mortality (of teachers)'

Does this therefore mean the HIV crisis in education is over?

The short answer is, certainly not. While recent evidence seems to confirm that a mix of increased access to antiretroviral treatment, reduced high-risk behaviour and improved preventative measures may have lowered teacher HIV prevalence below that of the general population, there is no room for complacency. The fact is that teachers – particularly those in the 20 to 49 age cohort – are dying in very much greater numbers and at a faster rate than would be the case in a world without HIV and AIDS. This level of mortality, linked to increased absenteeism due to illness, stress and compassionate pressures, has added significantly to the existing levels of dysfunction and supply problems in many education systems – but is not solely responsible for them.

This means that education systems have to be better managed than ever before, and that data capture and monitoring of system performance have to be elevated to unprecedented levels of efficiency and reporting. The uncontested fact is that the impact of HIV has been masked from the outset of the pandemic, by poor record keeping, patchy data capture and limited analysis in most Sub-Saharan education systems. How is an education system manager to know that attrition and mortality have increased, if there is no reliable baseline data, and worse, no accurate and up-to date management information available on a recurrent basis?

⁴ Kelly, M., 2008, p.9

Ironically, the remedy may lie largely in old-fashioned, effective education system management, discipline, the regular retrieval of accurate data, rigorous analysis and widespread reporting. Sufficient information, in other words, to alert system managers to dysfunction and impending crisis – whether driven by HIV, administrative failure, civil unrest or any other cause. Getting children into school and keeping them there, under the disciplined guidance of teachers who are themselves role models of good behaviour, may yet prove to be the most effective path to the cognitive skills required for effective prevention and survival.

What then can education ministries do to improve the chances of success in this regard? First, they can recognize HIV and AIDS as a rallying point around which they can revitalise the operations and functions of their systems, and capitalize on the visibility and funding of the AIDS crisis to initiate sweeping and overdue system-wide reform. More specifically, there are four areas of intervention which may be considered, to mitigate impact and simultaneously improve system performance.

3 National Responses to Mitigate HIV Impact

3.1 Education Policy Development, Monitoring and Evaluation

The 2004 Education Sector Global HIV and AIDS Readiness Survey⁵ of 71 countries suggests that 40% of high- and 27% of medium-prevalence countries had developed education sector HIV policies by that point. On the face of it, this reflects some degree of sector awareness and commitment, but the problem is that there was little evidence of follow-through or implementation. This suggests that education sector HIV policy development is viewed as an end in itself, and stops short of developing implementable guidelines to guide and direct measurable response.

Anecdotal evidence in many Sub-Saharan countries echoes this finding and it would be difficult indeed to identify examples of policy implementation, sustainable or otherwise.

On reflection, and as the facilitator of many of these policy development processes, it appears that the development of *separate* sectoral policies, specifically for HIV and AIDS, may have had the effect of sidelining the issue from routine system management and concern. This flies in the face of the international commitment to mainstreaming HIV and implies that we have doggedly pursued this development without pausing to consider whether or not it has worked. The fact is that education sector HIV policy development, in and of itself, has not had the desired effect – although it has served to focus attention on many areas of shared concern.

The point is that for HIV response to be seriously mainstreamed, it has to be *integrated* in the routine management functions of any education ministry, and so belongs *within* the education sector policy per se. Thus, contrary to the urging of the development community, policy should not be separated into parallel documents when there is no good reason not to integrate them into a single governing text. In other words, response should be the business of every ministry official and so should be guided and informed by mainstream policy, rules and regulations. Moreover, this integration should place specific HIV response measures in the most appropriate areas of policy, and task the relevant

⁵ Education Sector HIV and AIDS Global Readiness Survey, 2004. UNAIDS IATT on Education, Paris, UNESCO.

directorates within the ministry with these measures. To do otherwise is to consign HIV to the sector wilderness, in which dedicated focal points and managers are effectively orphaned from the business of mainstream education administration and management.

A case in point is workplace policy. Here, ministries have begun to develop education sector HIV workplace policies – in *addition* to their existing education sector workplace policies. This means that every issue related to human resource and workplace management has to be referred to two, often contradictory documents, with predictable consequences. It should be remembered that workplace policy is based on rules, regulations and guiding principles, and so drives the basic business of education including all human resource issues. In other words, any attempt to mount HIV interventions to support affected or infected teachers must be framed by this workplace policy.

If there is a separate education sector HIV workplace policy in place, it is almost certain that it will have little effect on the bureaucratic processes that govern such issues as absenteeism, sick leave and associated benefits. Ministry officers will seek the official path to decision making and are unlikely, in their busy schedules, to cross-reference a second sector workplace policy. Thus, logic demands that those many issues relating to HIV impact on the workforce should be integrated in the mainstream sector workplace policy, to ensure that any response to routine problems is informed by an HIV and AIDS perspective.

The take home message is that those important issues contained in any HIV-specific workplace policy should be migrated without delay into the sector's main and governing workplace policy. The same is true for wider education sector HIV policy, and will have the effect of embedding HIV response in the thinking of every official concerned, rather than occupying space on the periphery of his or her attention. In this way, HIV and AIDS will cease to be incidental to decision-making, and will no longer be considered 'someone else's business' – particularly as response will now be governed directly by the rules and regulations of the ministry concerned.

Finally, if HIV response is successfully integrated into the mainstream sector workplace policy, it will provide the basis for the monitoring of this response linked to clear and specific functions, and should open the way to more effective evaluation.

3.2 Education Sector Relief Teacher Strategy

It follows that any education sector workplace policy should, by definition, identify the need for a relief teacher strategy. This is driven by the fact that every ministry, large or small, has a perennial problem of teacher absenteeism. While this has always been the case, in a world with HIV and AIDS, teacher absenteeism rates are likely to increase over time, due to increased morbidity, stress and family, as well as community, demands. In short, HIV and AIDS together can be expected to significantly affect teacher absenteeism, both temporary and permanent.

Absenteeism represents teaching days lost, and therefore considerable cost in financial and education quality terms. However, to repeat an earlier point, this absenteeism is not driven by HIV and AIDS alone; the pandemic simply adds to the problem, and introduces additional human dynamics that often require special awareness and sensitivity. The loss of these teaching days, and therefore contact time, must be adequately monitored and

recorded in order to drive appropriate response. And that response must involve the rapid deployment of relief, temporary or substitute teachers.

The question is how to manage this effectively and implement a viable relief teacher strategy?

One Sub-Saharan country, Namibia, is currently busy finalizing such a strategy and implementation plan. This has been driven by a consultative process, involving officers at every level, as well as union representation. The goal of the strategy is, 'in the short-term, to ensure, within a facilitative policy and regulatory environment, the necessary provision of teachers at all times in every school in Namibia, in line with accepted staffing norms and teacher/learner ratios'.

In simple terms, the strategy involves the following key components and steps:

- A detailed desk-study to research and analyze the extent of the teacher absenteeism problem in the 13 regions of Namibia and assess options for the address of this;
- Rigorous review of regional data to calculate average absenteeism rates over time to establish averages and trends;
- Analysis of the teacher workforce and related pay-scales to establish an average daily cost per teacher – thus providing an estimate of the cost of absenteeism as well as the projected cost of relief teaching;
- Development of a simple spreadsheet model capturing regional data on absenteeism and number of teaching days lost, teacher and learner numbers, learner/teacher ratios and regional HIV prevalence rates and trends;
- Running the model to calculate the total number of teaching days lost annually, the number lost per region, and a projection of anticipated losses in the year ahead, regionally weighted to include the effect of any growth in HIV prevalence and negative variation in learner/teacher ratios;
- Establishment of a set of guiding principles to inform the use of this model, including the establishment of decentralised relief teaching budgets; the creation of pre-approved relief-teacher databases; rapid response procedures for both appointment and payment; agreement on the annual reduction of absenteeism rates to an agreed target level within 5 years; and the devolution of available relief teaching days down to school circuit management level;
- Development of a costed and time-bound action plan for implementation and motivation of budget requests to Treasury.

It will immediately be seen that this is about managing teacher absenteeism and the problem of lost contact time and quality in the widest sense, rather than a narrow focus on HIV alone. This reinforces the earlier take-home message, that policy should be centralized in a single governing document to address systemic problems, in order to deal most effectively with the *additional* problem of HIV impact.

3.3 Pre-Service Teacher Training (PRESET)

In his Foreword to a forthcoming PRESET Life Skills Manual on Adolescent and Reproductive Health (ARH)⁶, Prof Michael Kelly quotes Philip Coombs, the founding

⁶ Badcock-Walters, P., Sampson, D. and Mabitle, P., 2009, *PRESET Life Skills Manual on HIV, AIDS and STI's*, UNESCO, Southern Africa.

director of the International Institute for Educational Planning, who, some forty years ago, drew attention to the way newly independent countries in many parts of the world were expanding their school systems before taking steps to ensure the necessary supply of teachers. He goes on to say that a modern variant of this faulty planning is the way countries have mainstreamed HIV and AIDS education into the school curriculum before establishing it as a recognizable component of the curriculum for the training and development of teachers.

Prof Kelly argues that an effective school response to the HIV epidemic needs to be based on two pillars: The provision of good general education for as many years as possible and comprehensive sexuality and reproductive health education. Despite the resources dedicated to it, building the first pillar continues to pose challenges for many countries. Despite the magnitude of the epidemic, efforts at building the second pillar are inadequate, *especially in the area of teacher preparation*. It is not enough, he says, to prescribe that teachers be trained. For appropriate and effective HIV education to be delivered, teachers need proper pre-service and in-service training and professional development.

In fact, many countries in Sub-Saharan Africa have made considerable progress towards mainstreaming HIV and AIDS education into the school curriculum over the past decade. Country, regional and international policies and conventions confirm that this progress is driven by government and sectoral commitments and obligations, even if these often fall short of full implementation. The problem is that most of these programmatic responses to HIV and AIDS education still focus largely on learners, with few programmes to equip teachers to deliver these new life-skills ARH-linked curricula and programmes.

There is therefore a large gap between the levels of development of life skills ARH and life-skills programmes, and the availability of support materials and orientation for teachers. In this context, the lack of preparation of teachers for the delivery of school curriculum and programmes on life-skills ARH significantly undermines current, resource-intensive efforts directed towards school-based programming and ultimately may limit positive impact on learners in the classroom⁷.

In short, teacher preparation and development programmes are not keeping pace with related advances in life-skills ARH policy response in the education sector. As a result, schools have attempted to infuse the subjects of HIV and AIDS, reproductive health, relationships, sexuality and life-skills into their curricula before anything similar has been undertaken in teacher preparation institutions or, in many cases, in university faculties of education. In many countries, attempts have been made through in-service education and training (INSET) to redress this situation, but for the greater part INSET programmes have not offered the fullness of knowledge or depth of comprehension needed to bring serving teachers to the level of competence required for teaching in this area. Programmes that are offered also tend to be unsystematic, ad hoc, and poorly followed through⁸.

Secondly, there is a need to move beyond the current, often random nature of INSET and other teacher training support, towards a more harmonized and sustainable approach institutionalizing teacher training on HIV country-wide. While there has been a move in some countries to mainstream and integrate life-skills ARH and related issues across core subject areas, there is limited evidence that this fragmented approach provides the necessary foundation of comprehensive knowledge and skills required by teachers. It follows that there is a case for *re-consolidating this subject area as a stand-alone*,

⁷ Lansard, M., 2008, UNESCO desk study.

⁸ Kelly, M., 2006. IIEP HIV and AIDS Response Series, module 7

compulsory and examinable subject in the PRESET curriculum and preparation of teachers at all levels.

Third, there is a need to strengthen pedagogical and life skills-orientated aspects of both PRESET and INSET programmes in order to reinforce the capacity of teachers to deal with HIV in the context of human sexuality, reproductive health and sexually-transmitted infections in an age- and gender-specific and developmentally appropriate manner. It follows that there is a need to acknowledge teachers' own needs in relation to life-skills ARH, including the key role they play both at school and in their communities. It should also be acknowledged that student teachers may often be little older than the learners they are training to teach, and therefore subject to many of the same pressures, concerns and uncertainties. Teachers need to know how to protect their own health and the importance of not putting any of their learners at risk through their own behaviour⁹. Thus PRESET has a major role to play in equipping them to reflect on their own knowledge, attitudes and behaviours in relation to life-skills ARH, and assisting in their development as school and community role models.

Fourth, there is a need to ensure that supportive policy environments and management structures and systems exist to optimize teacher training, and help professionalize the sector's response to HIV in education. Finally, teacher educators, whether in colleges or universities, must have a high degree of comfort with their own value systems and sexuality if they are to inculcate the sense of compassion and commitment that teachers themselves will require to be effective in this subject area.

The first take-home message, in summary, is that effective and comprehensive life-skills adolescent and reproductive health should be a stand-alone, compulsory and examinable subject area in the PRESET curriculum and preparation of teachers at all levels. While there is no doubt that there is a need for related INSET programmes, there is a long overdue imperative to focus on these issues at the PRESET level. Quite apart from its cost-efficiency, systematic intervention at this stage of teacher preparation is critical in forming the attitudes, knowledge and capacity of young learners in order that they may better protect themselves and their learners. Thus, PRESET life skills ARH should be introduced as a matter of urgency in every affected country and should build on and adapt available materials and manuals, to avoid duplication and unnecessary development expenditure.

The second take-home message is that all PRESET life-skills ARH should stress the importance of relationships – the much neglected “R”, according to Prof Kelly, that lies at the heart of the work of every educational institution. The respect and responsibility that should characterise all relationships, including those in the sexual sphere, should therefore be promoted through this compulsory and examinable curriculum as positive values in all colleges and schools.

3.4 Decentralised Management Information Systems

Finally, it appears obvious that any education sector HIV response must be driven and informed by the regular flow of reliable and accurate data on every function of the system likely to be impacted or compromised by HIV and AIDS. In particular, this implies the up-to-date flow of data on enrollment and teacher numbers, as well as temporary and permanent absenteeism by relevant category, to inform planning and budget assumptions.

⁹ YouthNet. James-Traore et al

This in turn points to the need to capture, consolidate, analyze and report data captured routinely at the school level, as a *routine* function of any education system.

Contrary to this assumption however, many Sub-Saharan countries are unable to routinely achieve this or provide a regular flow of education management information to guide and inform budgets, policy or recruitment. In short, education management information systems (EMIS) remain a sectoral problem across the continent. Where these *are* functional, the management information derived from these data is often available only some years after capture, making this an exercise in historical analysis rather than the dynamic guidance of management decision-making it should be. The issue of data accuracy, reliability and analysis is similarly problematic.

While this seems to point to the failure of effective training, the sustainable transfer of skills and recurrent loss of trained personnel, it also points to an even greater problem: The lack of appetite for hard data and management information at the highest levels of the system, bureaucratic and political.

After all, if there *was* a recurrent demand for such information at these levels, would EMIS be allowed to fail repeatedly with such little apparent concern? Indeed, one has to ask how education systems continue to operate year in and year out without reliable, up-to-date or contextual data, leading to the conclusion that major decisions are being made without it. It may be that such decisions are being made on the basis of historical decisions, budget limitations and/or political imperatives. If so, and in such circumstances, hard data on education system performance might in fact constitute an inconvenient and unwelcome truth – and go some way to explaining why there is not greater focus on these information failings.

But assuming that education systems really require such management information, and are anxious to use it to inform policy and operational decision-making, then it is necessary to reconsider the traditional role of EMIS and question the need for other, more dynamic means to capture and analyze education data for management purposes.

Another Sub-Saharan country, Kenya, is currently rolling-out a decentralised, district-level management information system to address this need, and provide key data and impact indicators on a *monthly* basis to officers at the point of service delivery. Called the District Education Management and Monitoring System, or DEMMIS¹⁰, this involves the collection of strategically-important school data and its processing and analysis at the district office level. In other words, the collection of the data required to provide almost all the information that officials at this level require, in order to manage the local system and monitor trends and outputs. Critically, the provision of such monthly data generates a time series of information that provides previously hidden trends over the course of a school year.

While the Kenya Ministry of Education will continue to operate an EMIS unit, it has recognized the need to decentralize the management and monitoring of education and has initiated DEMMIS to provide data for this purpose, within the wider EMIS architecture of the country. Over time, it is probable that summary DEMMIS data will be used at the national EMIS level to generate quarterly reports, providing a much more up-to-date insight into key system performance and output issues. Moreover, this system will provide key indicators

¹⁰ Design and development: Badcock-Walters, P. and Heard, W., 2000, HEARD, University of KwaZulu Natal, funded by DFID

of HIV impact, including current morbidity, attrition and mortality, by reason, age, grade and gender in the case of learners; and reason, age, gender and subjects taught in the case of teachers. It will also provide orphaning rates, a register of those learners orphaned in the last 30 days, pregnancy rates and all relevant service ratios.

While there is little question that an early snap survey is required to balance service provision in schools, and a complete school census is necessary to meet the Ministry's legal and other obligations, the fact is that the management information derived from these instruments have not been accessible, in most countries, to officials at the regional and district levels. It is for this purpose that DEMMIS has been designed, to ensure that district and local level management can play their role in improving the efficiency of the education system.

It follows that DEMMIS is a short, 2-page data collection instrument, while the EMIS annual school census form is sometimes as much as 90- or 100-pages long. The implication is that there is little disruption involved in completing the DEMMIS form, by comparison, and that training in its use and capture is minimal. At the school-level, DEMMIS is a paper-based system, designed to reinforce school record-keeping disciplines, and requires computer entry and database development only at the district level. There, it generates summary reports which are available for hard-copy return to the schools concerned or transmission upwards to the region and centre. As it happens, a number of district education offices in Kenya already capture this type of data precisely because they have recognized the need for it; in other words, this is a demand-led initiative rather than supply-driven.

DEMMIS has been piloted in a number of sites in southern Africa, but this marks the first country-wide roll-out, and should provide a real test of its capacity to revolutionize education management and monitoring at the operational level. In Kenya's case, the Ministry has determined that it will go straight to scale, following the initial pilot, on the basis that they regard this type and frequency of management information as a non-negotiable requirement for good, decentralised system management and reporting.

The take-home message therefore, is that ministries should make an urgent and realistic assessment of the quality and age of the management information available to it. On the basis of this assessment, they should take remedial action, where necessary, to ensure that their EMIS units are as functional as they should be – but should look too at supplementary systems that can provide the type and frequency of data that is required to deliver on their mandate. DEMMIS simply provides one example of an approach to this problem, but may prove to deliver unprecedented insights into system trends and performance – and the impact of HIV and AIDS. Without such decision-support information, the question is, how otherwise will education deliver against its promise and play a significant role in the prevention and management of HIV and AIDS?

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