Mitigating the Impact of HIV and AIDS on Education Supply, Demand and Quality

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Introduction

This chapter focuses on the relationship between HIV and education in countries with different levels of HIV prevalence. While HIV affects all education sectors, the chapter concentrates on issues in schools, with some attention to teacher training colleges.[1] It surveys experience from sub-Saharan Africa and Asia and the Pacific, and the lessons learned from high- and low-prevalence countries in those regions.

It also analyses the current and anticipated impact of HIV on education in order to clarify probable changes in demand for and supply of education services. Education's responses to HIV, principally in high-prevalence countries, are discussed, with suggestions for 'best practices' at local, national and international levels in terms of cost, coverage and efficiency.

Definitions and assumptions

This chapter is based on several assumptions. The first is that increasing numbers of countries, especially in sub-Saharan Africa and the Caribbean, are facing one of the great crises of human history. The second is that other countries in Eastern Europe and the Asia and Pacific regions will confront similar challenges as the pandemic spreads (MAP 2001). Third, despite the difference in the nature of HIV and AIDS pandemics in the Americas and Europe, Africa, and Asia and the Pacific, it should be possible to extrapolate common ideas about what does and does not work in the response to AIDS.

As the pandemic snowballs, health-driven national strategies are being replaced by multisectoral strategies in which ministries of education take responsibility for identifying and driving education's response, as in Botswana, Namibia, Rwanda and South Africa.

The role of the education sector in responding to AIDS: AIDS is raising four main questions for the education sector for which answers are only starting to emerge:

i)   What is the role of the education sector in preventing the spread of HIV among young people?

ii) How can the sector ensure that all young people, especially orphans and other vulnerable children, achieve their full potential?

iii) How can the sector, which is the biggest employer in most countries, protect the viability of the education service, and therefore the quality of education provision?

iv) How can the education sector continue to improve access and the quality of education services in the face of HIV?

General agreement has emerged over the past three years (USAID 2001; Coombe and Kelly 2001; Inter-Agency Working Group 2001) that there are three principal areas of concern for sector partners:

i)   **Prevention**: helping prevent the spread of HIV;

ii) **Social support**: working with others to provide a modicum of care and support for learners and educators affected by HIV; and

iii) **Protection**: protecting the education sector's capacity to provide adequate levels of quality education – by stabilizing the sector and responding to new learning needs (Coombe and Kelly 2001; Inter-Agency Working Group 2001).

In addition, an effective response will require capacity in the sector to manage this crisis (Coombe and Kelly 2001).

The impact of HIV and AIDS on education

In countries with the highest prevalence, the impact of HIV on the education sector is apparent in the areas of both supply and demand as well as the overall quality, management and capacity to respond to new and complex demands (Inter-Agency Working Group 2001). The relationship between the HIV pandemic and education provision can only properly be understood within the context of the lives of people – children and adolescents and their families, teachers and principals, education officials and college lecturers – who are coping in the first instance with the impossible demands the pandemic makes on them as individuals. The impact on households directly influences the choices that learners and educators make (LoveLife 2000; Desmond in University of Natal, Health Economics and AIDS Research Division 2001).

Contextual factors affecting supply and demand

Socioeconomic conditions: Many at-risk learners come from the context of

socio-economic deprivation, complicated by and further complicating HIV infection, whether they live in North America, Europe, Africa, Latin America, the Caribbean or Asia–Pacific. AIDS is not a disease of the poor, but the poor are at higher risk of HIV infection, the poor are more vulnerable to HIV infection, and the disease makes the poor poorer (Kelly 2001a; Stillwaggon 2001).

Stigma and isolation: Affected people are stigmatized and may be prevented from gaining access to social support mechanisms. HIV-related stigmatization is responsible for social rejection, alienation, and can compromise employment, housing, schooling and child care. It means that HIV-related loss of family and friends is not likely to be acknowledged. Fear of isolation is particularly strong among teachers who live and work in small communities, where confidentiality is problematic.

Psychosocial stress: The disease brings with it psychosocial stresses. Illness and the prospect of death in the family, often not discussed with children, are as traumatic for the child as for the adult. Children are highly traumatized by watching parents die and not being able to talk about it. Stress and depression can compromise function and well-being in all areas of family life including school and work performance, family relationships and capacity for child care. Responses to stress may include alcohol and drug abuse and unsafe sexual behaviour. The difficulty here is that little is known about how children and young people process the stresses that engulf them (Solomon 2001; Ebersohn and Eloff 2001; Devine and Graham [n.d.]). This is the backdrop against which the challenge of HIV to education services is being played out in the high-prevalence countries of sub-Saharan Africa. It is these factors that will ultimately determine the profile of learner and educator populations and the supply of and demand for education (Collins and Rau 2000).

Education demand and supply in high-prevalence countries

Evaluating the evidence: Isolating and assessing the consequences of HIV for education services in high-prevalence low- and middle-income countries is difficult for a number of reasons. There is no way of knowing exactly why children drop out of school. It is only possible to guess at reasons for changes in enrolment, progression, completion and dropout rates by using, with caution, what data are available. Use is also being made of anecdotal evidence and the observations of educators and social workers, and proxy measures like social welfare orphan registrations, rising incidence of child abuse in paediatric units and prevalence among school-age rather than school-going populations.

Teachers are known to be ill, absent from work and dying, but HIV is rarely named as the reason. There is no official procedure for terminating the services of African teachers who are HIV-positive and who should be pensioned off for medical reasons. Nor is there any way of determining whether teachers who are dying do so because of AIDS, except that – as in Botswana and South Africa – certain graphic data ring alarm bells for demographers.

Accurate information is hard to come by. Figures are collected with difficulty, and provide a poor base from which to generalize.[2] National statistics can mask local variations in prevalence, and therefore in levels of impact on individual districts and schools. In most affected countries, there are clearly risk 'hot-spots' that differ from the national average (Badcock-Walters 2001). For education, additional information that must be factored into the demand and supply equation includes the composition of the teaching force in terms of age, gender and marital status, relative salary levels, qualifications etc., but this information is often difficult to obtain (Crouch 2001a).

Added to this are puzzles related to what the statistics really mean. For example, it is often not possible to know whether shifts one way or the other are due to HIV or to fiscal adjustments (up or down), adverse educational policies, the influences of increasing or decreasing socioeconomic deprivation, increasing or decreasing levels of international development support, or some other factor. Observable changes in enrolment at primary and secondary level in Uganda, and to some extent in Malawi, are due to EFA-driven progress in improving levels of primary provision (see chapter 2). As more primary school places become available, more children attend. But with places at secondary level increasing more slowly and still falling short of demand, any place vacated by a student affected or infected by HIV will be taken up by another candidate, with the result that secondary enrolment figures will appear to remain stable, or even rise, as levels of secondary provision improve (World Bank 2000a, p. 59).

In the South African province of KwaZulu-Natal, where HIV infection rates are probably the highest in the world, changing regulations on age of entry have skewed grade 1 enrolment data. So the alarming drop of 24 per cent in grade 1 enrolment in the province in 2000 was possibly a combination of new age of entry regulations, increasing poverty (much of it related to HIV), and HIV-related reduction in school-age population. The relative proportions in the mix are impossible as yet to determine (University of Natal, Health Economics and AIDS Research Division 2001).

Virtually every prediction of the pandemic's impact on education is surrounded with caveats. There is tension between those who prefer to rely on so-called hard data and those who rely on qualitative evidence derived from the experience of educators, social and health workers, police and faith-based organizations, home-based care volunteers, researchers and parents (Crouch 2001a). Either way, impact can remain invisible for long periods of time. For example, in a country or state of, say, 50 million people, with a service of 400,000 educators, a 10 per cent prevalence would mean that 40,000 were HIV-positive, at some point along the continuum from initial infection to morbidity and mortality, with or without access to drugs. With 30,000 schools, each school might have only one or two infected teachers. More probably, some schools would have no infections, while others might have many. The most severe critical-mass impact can be expected in future

because of the long lag between HIV infection and development of AIDS and death. That means infections in the 1990s, particularly heavy in South Africa and Botswana, for example, are not felt until the first decade of the millennium. Uganda, where the epidemic is thought to have peaked in the early 1990s at between 9–12 per cent, may already have passed through the worst of the AIDS phase. And so reports and perceptions of the size and quality of the pandemic differ radically.

It is only possible to estimate, to use the best data, information and models available and to test predictions again and again. It is nevertheless necessary to indicate the most probable trends for education in future with the onset of AIDS.

The following supply and demand analysis is based on a number of sources: the preliminary but systematic teacher supply analysis by Luis Crouch and colleagues in South Africa; the World Bank's study of turbulence in four high-impact countries (Kenya, Uganda, Zambia and Zimbabwe); a review of Ugandan data by Parkhurst; assessments by Abt Associates of the impact of HIV on education sectors in Botswana and South Africa; preliminary analysis of data for KwaZulu-Natal province in South Africa by the Health Economics and AIDS Research Division of the University of Natal (HEARD); and the summary of case studies in eight sub-Saharan African countries by Michael Kelly for the Economic Commission for Africa/Africa Development Forum (Crouch 2001a; World Bank 2000a; Parkhurst 2000; Abt Associates 2001; LoveLife 2000; Badcock-Walters 2001; Kelly 2000a).

Demand for education services

Size of learner populations: HIV will affect the size of learner populations. Where prevalence is high, rising deaths among adults of reproductive age and declining fertility rates result in fewer children being born. Combined with increased mortality among children infected around the time of birth, most of whom die before they are five years old, this means there are fewer potential learners than there would have been without HIV. It is anticipated that Zimbabwe will experience a 24.1 per cent reduction in primary school age population by 2010, Zambia 20.4 per cent, Kenya 13.8 per cent, and Uganda 12.2 per cent (Abt Associates 2001, p. 4; World Bank 2000a, p. 3).

In Botswana, there are likely to be 860,000 young people under 25 by 2015, rather than 1.2 million if HIV had not intervened. There is already evidence that the 0–4 year age group is declining in absolute numbers, while the 5–9 year age group showed signs of starting to decline in 2001. Grade 1 intake, which appears to have been slowing for some time, declined by 3 per cent in 1998 (Abt Associates 2001, p. 4).

In South Africa, the number of potential learners is expected to decline if orphans and other vulnerable children do not enrol, delay enrolling, or leave school in large numbers. In general, children at risk or orphaned by AIDS, and those in

HIV-affected homes, are likely to be withdrawn from schooling and higher education. Children who have been orphaned are more likely to be denied education. In Mozambique, only 24 per cent of such children attend school, compared with 60 per cent of those with living parents. Children affected by HIV often perform poorly at school and their dropout rates in parts of Botswana are reported to be unacceptably high. These results are confirmed by the survey data reported in the country studies in this compilation (see chapters 2 through 6) (Kelly 2000a; Abt Associates 2001; LoveLife 2000, pp. 26–27; UNICEF and USAID 2000).

It is essential that the accuracy of demographic projections be monitored, their assumptions interrogated, and changed circumstances, like the provision of antiretrovirals, be factored into these equations. In the short term, planning will need to take account of reductions in enrolments as fewer children are born and many HIV-infected children fail to thrive or survive to school-going age.

Demand for education: HIV will influence demand for education throughout the region. Declining primary enrolment over the next decade will in turn translate into subsequent reductions of qualified candidates for high school and tertiary training. In South Africa, younger people are most severely affected by the disease, with around 60 per cent of all adults who acquire HIV becoming infected before they turn 25.

Botswana, South Africa, Swaziland, Zimbabwe and Zambia already have evidence of stagnating or declining enrolments, much of it very likely attributable directly or indirectly to HIV (Kelly 2000a; Abt Associates 2001). Observable factors likely related to changes in demand include fewer resources for education in HIV-affected households because of high death rates. Learners will be withdrawn from school as orphaning and poverty rise, or will not enrol because of fees and opportunity costs, and the need to care for those who are ill. Communities will be unable to provide support for schools as they did in the past, although some communities are already reacting positively by building community schools for their own children.

More complex learner cohorts: HIV is affecting the potential clientele for education services by creating large cohorts of orphans and other vulnerable learners (chapter 11). In most parts of the industrialized world, usually no more than 1 per cent of the child population is orphaned. In low- and middle-income countries, the proportion would normally be 2 per cent of the child population, and orphans (under 15s who have lost mother or both parents) could be absorbed into the extended family.

By 2010, it is estimated that maternal and double orphans will rise to more than 25 per cent of children in Zimbabwe, to nearly 19 per cent in Zambia and about 17 per cent in Kenya. The addition of paternal orphans and orphans from causes other than AIDS would raise the proportions for these countries even further (UNICEF 1999; World Bank 2000a, p. 7). By 2005, there will be 800,000 orphans under 15 in South Africa, rising to almost 2 million by 2010. The number of orphans in

Botswana is projected to rise rapidly from 38,000 in 2000 to 161,000 by 2010 (current population 1.8 million) with one in two children aged 10–14 orphaned. Rates of orphanhood will be higher in some districts, schools and classrooms than in others. Some secondary schools in Botswana already report that 20–30 per cent of students in some classes are orphans (Abt Associates 2001).

In Malawi, during 1999, the percentage of children in school who had lost one or both parents increased from 12 per cent to 17 per cent. In one study, a third of the children reported they missed school in order to care for the sick. This percentage doubled for children who had lost both parents. And 6 per cent of children reported missing school for funerals. Children with both parents dead were twice as likely to drop out (17.1 per cent) during the 2000 school year as children with one parent dead (9.1 per cent), or both parents living (9.5 per cent). Repetition rates for children whose parents were dead were 5–15 per cent higher (depending on cohort and grade) than for children with living parents. The average age for pupils with both parents dead was about six months older than the average age in their grade cohort (Harris and Schubert 2000).

The consequences for education of large numbers of HIV-affected learners are likely to be profound. Such learners are often at physical disadvantage for nutritional and economic reasons. Their attendance and performance declines and they are likely to suffer HIV-related discrimination. Their attendance at school becomes increasingly random, and they must learn under a cloud of trauma and loss. When teachers suffer for the same reasons, and are unable to respond to the needs of children in distress, decline in motivation, morale and performance on both sides is inevitable.

Supply of education services

Predicting basic supply and demand for teachers is virtually impossible. While the demand side may be relatively easy to forecast, the supply – and therefore the gap between supply and demand – is much less straightforward (Crouch 2001a, p. 28).[3] Nevertheless, it is remarkable that, at a time when the business community in high-prevalence countries is being forced to assess the potential impact of HIV on workforces, and attendant cost and inefficiency problems, governments have given little or no attention to protecting the education service, the largest, most expensive and highly trained cohort of workers in any low- and middle-income country (Moore and Kramer 1999, p. 4).

Increased educator morbidity and mortality: HIV will affect the supply of education services through increased mortality of educators. The World Bank assumes very generally that losses of educators will parallel those in adult populations. Zimbabwe would therefore lose about 2.1 per cent of educators to AIDS between 2000 and 2010, Zambia and Kenya 1.7 per cent and 1.4 per cent, and Uganda (where AIDS

mortality appears to be lower) an estimated 0.5 per cent (World Bank 2000a, p. 5). The Zambian Ministry of Education reported that 2.2 per cent of all teachers died in 1996. This was already more than the number of teachers produced by colleges that year, but it has been estimated that teacher death rates might triple by 2005 (LoveLife 2000). The World Bank reported a study that projected 14,460 Tanzanian teachers would die by 2010, costing $21 million in replacement training (Save the Children UK 2001a). Crouch's stylized projections for South Africa suggest that, whereas teacher education production capacity is now 5,000 annually, at least 30,000 new teachers will need to be trained each year by the end of the decade (Crouch 2001b).

Kelly (2000a) and others[4] suggest that the educator cohort is at high risk of infection because of their relative affluence, mobility and status in the community, their expectations of sexual 'bonuses' in lieu of better conditions of service, and circumstances that separate them from their families.[5] However, recent analysis suggests that for teachers, as for other professionals, early high incidence rates are reducing gradually to below-average rates (Botswana Ministry of Education 2000; Abt Associates 2001).

Death rates in excess of 3 per cent of educators per year have been reported in at least two countries (Abt Associates 2001). There are indications that primary school teachers are at greater risk than secondary educators. Teachers are also being lost to other sectors of government and to the private sector to replace personnel lost to AIDS (Swaziland Ministry of Education 1999). Educator productivity is reported to be down and absenteeism up because of HIV-related sickness, care for family members and attendance at funerals.

Increased costs of provision: HIV will affect the supply of education services because of the costs it imposes on the system. In Botswana, direct costs of HIV to education include employee benefits, hiring of temporary staff, and costs of recruitment and training. Indirect costs include loss of productivity due to absenteeism, loss of skills, declining morale and low performance among ill employees. Most studies indicate that the impact on organization function and costs is seldom disastrous in any one year, unless a key official is lost at a critical time. The greatest concern is for the relentless loss of skills that build up to a significant human resource deficit, and gradual decline in quality.

For Botswana, possibly the only country where these calculations have been done for the education service, Abt Associates suggest that if the total education workforce were provided with ARV treatment, medical costs might well exceed 0.9 per cent of the basic salary bill by 2005, and 1.8 per cent in 2010. Pension funds are structured in such a way that the cost implications of illness and deaths to the sector are neutral. There is concern, however, that levels of benefits provided to employees who are ill or die could be considered inadequate. Benefits currently give sick employees a financial incentive to stay in post until they die, even though this is clearly undesirable for them and their families, as well as for learners and colleagues (Abt Associates 2001).

Balancing demand and supply: Through 2010, HIV will likely affect the demand for educational services somewhat more than the supply. It is probable, on the basis of statistical analysis for Kenya, Uganda, Zambia and Zimbabwe, (1) that fewer teachers will be needed because the school age population will be smaller, and (2) that fewer teachers will be available because of increased teacher mortality. This is a very tentative conclusion, because the calculation on which it is based does not take into account teacher absenteeism and early mortality caused by opportunistic infections, or many of the other complex panoply of factors that influence educator supply and learner demand (World Bank 2000a; Crouch 2001a).

Challenges to education quality

The HIV pandemic will affect the quality of education services. Teachers are being lost through illness and mortality (Botswana and KwaZulu-Natal), and transfers to other sectors (Swaziland). HIV-related illness means educators become increasingly unproductive. Death or absence of even a single educator is particularly serious because this affects the education of 50 or more children. Because teaching service management has made no provision for medically boarding educators who are ill (and may refuse to be tested), teachers continue to teach even during terminal illness (Botswana and South Africa). With high teacher and pupil absenteeism, instructional time is disrupted. Textbooks and teachers' manuals are designed for a full school year of full-class instruction. There is no evidence that provision is being made for individual learning or for adjusting lessons to learner needs. Repetition is not the answer, for this merely increases class size, reduces efficiency, and puts girls at risk when older boys join the class (LoveLife 2000; Harris and Schubert 2000; Caillods 2000).

Current shortages of educators in critical fields such as science, mathematics and technical skills will become more acute. Loss of key individuals in management or senior leadership – planners, principals, inspectors, teacher educators – may compromise quality and efficiency. Concentration of deaths among staff in the 30–39 year age group, just when they have accumulated important experience, means not only loss of their skills but may jeopardize less formal processes of mentoring and skills transfer within the sector.

As the average age and experience of teachers falls, systems will rely increasingly on less qualified teachers and there are likely to be fewer secondary school graduates able to enter teacher education (LoveLife 2000).

HIV is impacting on the emotional status of educators and young people (Kelly 2000a). Teachers who, at least in Africa, have generally resisted voluntary testing and counselling may be uncertain about their own HIV status (Abt Associates 2001). Both educators and learners have difficulty concentrating in the face of illness, death, mourning and dislocation (Kelly 2000a). Many learners affected by the presence of HIV have

a widespread sense of anxiety, confusion and insecurity (Devine and Graham [n.d.]; Ebersohn and Eloff 2001). The psychosocial needs of affected children are not as well understood as their material needs (UNICEF et al. 2001; Save the Children UK 2001a; Coombe 2001b). Adult caregivers may fail to identify psychological difficulties as the cause of more visible problems like truancy or anti-social behaviour. And where emotional problems do manifest themselves, few people responsible for children are equipped to handle them. Further, where abuse and violence, along with teacher misconduct, characterize the learners' community, young girls and boys fear they will be sexually abused or maltreated.[6] There may be uncertainty and distrust between learners and educators if the latter are seen to be those responsible for introducing or spreading HIV (Leach and Machakanja 2001; Kelly 2000a).

Overall, the HIV epidemic results in considerable stress, and contributes to what one educator described as the 'inchoate unease' that textures the learning environment in heavily infected countries (Harris and Schubert 2000). Not all schools will suffer to the same extent. But there is enough personal and systemic trauma to undermine education quality generally.

Finally, and ironically, policies intended to support children affected by HIV, such as Malawi and Uganda's introduction of free primary education for all children, have dramatically overstretched the education system and reduced quality of provision.

Current education responses to HIV

Responses to the pandemic vary worldwide, according to infection rates, geographical, cultural and religious variables, the leadership and management capacity of governments and the level of commitment in non-government sectors. Where prevalence is low, or confined to high-risk groups, there is little evidence of concern in the education sector as the systems are not yet confronting large numbers of HIV-affected learners or high teacher attrition.

This analysis of current policy responses therefore concentrates on experience in high-prevalence countries, mainly but not exclusively in sub-Saharan Africa and the Asia–Pacific Region, in helping to contain the epidemic's spread, providing social support for affected learners and educators and protecting the education system. The review focuses principally on the response of the official or formal system, although it emphasizes the increasing role being played by non-government agencies and the importance of strengthening their contribution to the response to AIDS.

Containing the spread of HIV among children and adolescents

Governments in high-prevalence countries have accepted responsibility for delivering mass prevention campaigns through learning institutions and non-government

partners. While the aims of such campaigns can be categorized, their actual achievements are poorly described in the literature and are very rarely evaluated. Much supplementary prevention work is carried out by communities, NGOs and faith-based organizations (FBOs), with support from the international community. What follows is a description of what is known from observation, experience, case studies, information from conference reports, a survey of Southern African Development Community (SADC) ministries of education, and so-called grey literature.

Developing lifeskills curriculum and learning and teaching materials: The teaching response to HIV (known as HIV education, reproductive health and sex education, life skills or life orientation)[7] is generally supposed to communicate relevant knowledge, engender appropriate values and attitudes and build personal capacity to maintain or adopt behaviour that will minimize or eliminate the risk of becoming infected by HIV. An indirect benefit of such programmes is that teachers too, lacking educator-focused prevention programmes of their own, learn about HIV. Curricula generally aim at equipping learners with skills such as decision-making, problem-solving, effective communication, assertiveness, and conflict resolution (Kelly 2000a).

Most countries in Eastern and Southern Africa have either elaborated HIV-related curricula or are 'planning to do so'. Questions persist about whether to include life skills and reproductive health in the school curriculum as a separate subject or integrated in other subjects. There is ubiquitous evidence that few teaching and learning materials are getting into classrooms, and that teachers have virtually no guidelines for coping with the pandemic (Berkhof 2001).

Youth-focused media campaigns like LoveLife and Soul City in Botswana, Namibia and South Africa, (see www.comminit.com) the media campaign of the Johns Hopkins University unit in Rwanda, the Sara programme in the United Republic of Tanzania, and the Red Cross AIDS Network for Youth (West Africa) (Adu-Aryee 2001) effectively supplement school-based and college-based HIV programmes. But media campaigns focused at young people in Africa have for the most part tended to be limited in coverage, poorly designed and disseminated and sometimes thematically inappropriate where they fail to take account of adolescent and contextual realities.

Providing guidance on the distribution and use of condoms: The idea of condoms for young people is a persistent cause of conflict between ministers and their constituencies, between parents and teachers and between teachers and students. There is no evidence that guidance on condom availability, accessibility and use has been issued to teachers or school heads in any country surveyed. Resistance by faith leaders, older teachers and traditional leaders has created an aura of ambivalence.

To avoid such ambivalence and confrontation, Uganda is reported to have waged a 'silent campaign' during which, without public debate, condoms were made available

to those who needed and wanted them. The Thai 100 per cent condom programme succeeded because it concentrated on a limited goal and excluded questions of morality or the elimination of prostitution. 'Other countries would do well to consider this aspect when drawing up their own programmes.'(Larson and Narain 2001, p. 35). Difficult decisions about condoms will need to be made by young people and their parents and by communities and school governing bodies locally, rather than by central authorities.

In-service and pre-service preparation of educators: Sub-Saharan African education sector strategic plans commonly ignore or fail to address the need to adjust INSET (in-service teacher education) and PRESET (pre-service teacher education) programmes, their curricula, delivery and purpose and the urgent importance of adjusting guidance manuals and teaching/learning materials appropriately. A review of university and college-based teacher education programmes in South Africa demonstrated recently that, while some institutions were 'thinking about' preparing to teach HIV curricula, most had done little or nothing to move in that direction.[8]

Thirteen of the 14 countries in the Southern Africa Development Community (SADC) region were surveyed in February to March 2001 about their response to the pandemic (SADC 2001).[9] The ministries of education reported as follows:

Table 1. Responses to HIV and AIDS in SADC

Helping to limit the spread of AIDS: the SADC region	Y	P	N
Appropriate curriculum in all learning institutions: Are learners being guided through the curriculum on safe sex and appropriate behaviours and attitudes?	2	5	6
Materials developed and distributed: Have materials suitable for learners in schools and post-school institutions been developed and distributed to institutions? Are they up to date?	1	7	5
Serving educators prepared: Are school teachers adequately prepared through pre-service and in-service training to teach life skills curricula? Have they accepted this responsibility?	2	5	6
Teacher educators prepared: Have university, teacher training college and local teacher support staff been trained in HIV and AIDS issues and curriculum implementation?	0	3	10
Evaluation of curriculum and materials: Have materials and courses been evaluated in terms of content, implementation and outcomes?	1	1	11
Partnerships: Are other partners helping with prevention programmes?	0	9	4

Y Yes, action is being taken   P Some action is planned   N No action is being taken

An analysis of case studies from Ethiopia, Kenya, Malawi, Rwanda, South Africa, Uganda, United Republic of Tanzania and Zimbabwe for the United Nations Economic Commission for Africa (ECA) highlights the shortcomings of current prevention programmes in the subregion (Kelly 2000a). Most programmes start too late, for children aged nine and up. They are developed from the top with little consultation with parents, teachers or young people, and are more concerned with the biology of human reproduction and barrier methods of prevention than about understanding relationships, showing respect for others and protecting the rights of all. Delivery is almost exclusively in the hands of teachers, although they are for the most part poorly prepared. The discredited cascade model used to train them (if they receive training at all) often dilutes or even misrepresents content. Many teachers are poor role models and feel uncomfortable talking about sexuality. Cultural beliefs, expectations, traditions and taboos related to behaviour receive little attention, and materials generally portray sexuality as heterosexual and consensual, ignoring problematic issues of rape and harassment and rising levels of incest, homosexuality and child abuse. Finally, there has been no effective evaluation of programme content, implementation or outcomes, and the extent to which such programmes reduce HIV transmission, STIs, rape or coerced sex is unknown.

Constraints to prevention efforts: While HIV prevention delivered through schools is agreed to have potential for helping to keep children and young people safe, and allowing them to help others, its potential is not being realized for a number of reasons (Inter-Agency Working Group 2001; Kelly 2000a; Coombe 2001a).

In many countries, sexuality education cannot, for religious reasons, be part of the educational curriculum. Talking about sex publicly continues to be taboo in much of Pakistan and China, for example, where illiteracy and school exclusion rates continue to be high.[10]

In many communities, the belief persists that any kind of sexual education leads to increased sexual activity, but African case studies confirm what has been found elsewhere: young people who participate in reproductive health programmes do not become promiscuous. They do not engage in sex earlier or seek more frequent sexual intercourse, and in some cases even delay initiation of sexual activity (Kelly 2000a).

When behavioural changes fail to appear quickly, the assumption is made that the programme has failed. Clearly HIV prevention education, to be successful, must be complemented by a range of consistent, long-term, supportive strategies. It is discouraging to note that in Botswana, 'antenatal survey data and various surveys of knowledge, attitudes and practices indicate that despite high levels of awareness of AIDS and basic HIV/AIDS knowledge, there has been no change in behaviour that seriously begins to turn back the pandemic' (Abt Associates 2001).

HIV is only one of many problems faced by education services. Failure to deliver prevention messages effectively is compounded by the dire physical environment of many schools (lack of water, latrines, adequate classrooms and teachers' housing, decent hostels, furniture and books), by the teacher- and child-unfriendly ambiance in many learning institutions (where physical and sexual abuse are present, along with corporal punishment and trauma related to poverty or HIV), and by inadequate management support for teachers (overcrowded classes, low and irregular salaries, policies that may discriminate against HIV-affected learners and educators, and comprehensive failure to provide for educators affected by HIV) (Coombe 2001c).

Social support: care and counselling for learners and educators affected by HIV

Although they are 'less tangible than the violations of other rights that children suffer, psychosocial problems are rarely addressed in HIV/AIDS programmes, and yet can have long-term impact on development. A child's progression through basic developmental stages is jeopardized if HIV-related illness reduces, and then ends, a parent's capacity to provide consistent love and care' (UNICEF et al. 2001, p. 8). Adequate socialization might have been added to the list.

Little is known in practice about how children and their families are coping with HIV-related trauma and the impact it has in the classroom (Ebersohn and Eloff 2001). The SADC review graphically demonstrated the failure of countries to provide even a modicum of social support in schools or to engage with the likely consequences of having increasing numbers of intellectually, socially and psychologically dysfunctional learners:

Table 2. Social support in SADC

Providing social support: SADC region	Y	P	N
Counselling for learners: Can pupils and students who are affected by AIDS find help from their teachers? Or from someone else?	0	2	11
Counselling for educators: Are teachers affected by AIDS, and those who are dealing with the trauma of children affected by AIDS, getting help to cope?	0	1	12
Social support: Are children affected and infected by the pandemic receiving counselling and care? Is there a culture of care in schools and institutions?	1	1	11
Orphan needs: Is planning under way to understand and respond to the special needs of increasing numbers of orphaned and other vulnerable children?	1	5	7

Y Yes, action is being taken   P Some action is planned   N No action is being taken

There is substantial evidence from principals and teachers that non-government agencies are providing support to schools through peer group programmes, teacher advice and counselling, and training. Such programmes are generally ad hoc, often grossly underfunded relative to the role they play (or could play) and are not generally recognized, resourced or formally contracted by the official system to undertake tasks that the system itself is apparently not capable of doing.

Challenges: The education sector's responsibilities vis à vis HIV need defining. With concentration focused on prevention programmes, there has been no clear definition of the sector's role in social support, or of schools' role in local strategic planning. Although many teachers, especially women, are responding generously as individuals, the education service generally does not promote social support. And guidance and counselling programmes are not a suitable alternative. There is potential for forming a circle of care network involving education, social and health systems, but for the most part there is poor coordination among social sector staff at all levels, and between them and local volunteers.

Protecting education quality

In any country, the education budget commands one of the largest slices of the national fiscus. Nevertheless, government managers have been, perhaps inexplicably, slow to take action to maintain efficiency, sustain output and reduce cost in the face of this pandemic.

Education sector 'strategic plans' are widely variable in the extent to which they recognize and incorporate (if at all) the turbulence caused by HIV. The Cambodian Strategic Plan 2001–2005 is limited to prevention measures (Cambodia Ministry of Education 2001). Botswana, Namibia and Zimbabwe are currently assessing the impact of HIV on the sector, and Zambia has prepared an HIV strategy within the context of its sector-wide approach (SWAp) programme. In Kenya, projections used for education planning take account of likely HIV impact scenarios but are not factored into planning. In Uganda, though official projections incorporate assumptions about HIV, planning projections in the ministry are based more on assumed intake and repetition rates than on projections of the size of the school age population and assumed enrolment ratios during a period when Uganda is moving strongly toward UPE goals (Abt Associates 2001; World Bank 2000a).

Evidence from both SADC and Economic Community of West African States (ECOWAS) (Baku 2001; Casely-Hayford 2001) regions shows that current HIV and education strategic plans concentrate on curriculum interventions aimed at behaviour change. They focus principally on primary and secondary schools to the exclusion of early childhood development, post-secondary training, the university and college sector and out-of-school children. They generally fail to address issues related to the management of the teaching service affected by HIV (Ghana and South Africa may

be exceptions) and the needs of learners affected by HIV. Perhaps the implications are too large and too complex. Although the South Africa Education Department included workplace policy as one of the eight pillars of its 2001–2002 HIV plan, there is little other evidence of such policies elsewhere in the region. Current teaching service regulations and human resource management policies need major review.

Finally, and fatally, there is no observable attention being given to the managerial capacity, funding, human resources and infrastructural requirements that need to be in place to support practical strategic action in the sector (Association for the Development of Education in Africa 2001).

SADC evidence demonstrates the extent to which most ministries have failed to address the planning and management complexities that HIV imposes (Coombe 2001d).

Table 3. Mitigating the impact of HIV and AIDS on the education sector

	Y	P	N
Assessment: Has an assessment been done of the likely impact of HIV and AIDS on the education sector in future?	4	2	7
Risk profile: Is there some understanding of the factors that make educators and learners vulnerable to infection?	0	5	8
Stabilizing: Are steps being taken to sustain the quality of education provision and to replace teachers and managers lost to the system?	0	3	10
Projecting: Have relatively accurate projections been made of likely enrolments and teacher requirements at various levels of the system over the next 5 to 10 years?	2	3	8
Responding creatively: Is the system trying to provide meaningful, relevant educational services to learners affected by HIV, finding new times, places and techniques for learning and teaching?	0	0	13
All subsectors: Is attention being paid to the planning requirements of all education subsectors – from early childhood development through to university?	0	8	5

Y Yes, action is being taken   P Some action is planned   N No action is being taken

Responding creatively to more complex learning needs

At the same time as educational systems and institutions become more fragile, appropriate learning opportunities will need to be created for multitudes of children

who have been orphaned by AIDS or are otherwise vulnerable. That means, for example, making special learning provision for orphans suffering disorientation or isolation, for children caring for younger children, and girls caring for the sick. Young people and selected teachers will need to learn basic caring and counselling skills so they can help those in physical or emotional difficulty. Alternative learning opportunities are required for those forced out of school early or who need to move in and out of learning. This probably means moving in the direction of a lifelong learning paradigm and a broader and fresher definition of 'nonformal education'.[11]

Schools have a critical role to play as centres of support for communities in the grip of HIV (Kelly 2000a). There is growing recognition among policymakers and educators that each school can be a fulcrum for community welfare. That means working more closely with health and social services, and providing a physical focus for community effort (including providing fax, phones and electricity in some instances). But as educators are already under pressure from HIV, and are having enough difficulties delivering basic HIV-related knowledge, being creative may be a step too far. To expect them to make a swift transition to providing care and counselling is unreasonable. Most schools are very basic places, with far too many problems already.

Evaluating current responses

Many countries around the world have established national AIDS councils and secretariats and HIV units in their ministries of education, though they are typically understaffed and lack executive power. There is extensive political commitment at the highest level in countries like Botswana and Uganda, although others like South Africa, for example, have fallen short in this regard. Many countries are now emphasizing a multisectoral approach that deals with HIV as a development issue that transcends health. It is difficult to ascertain whether governments are keen to hand to communities because they know local strategies can work, or because they recognize the problem is too big, too costly and too complex for central government to handle.

Several countries have commissioned education sector impact assessments (Botswana, Mozambique, Namibia, South Africa, Swaziland, Zimbabwe) and have created HIV and education policy and strategic plans. But implementing such plans reveals persistent management weakness. Most managers have not received professional preparation for their responsibilities and many hold posts by virtue of their seniority or experience gained as they rose through the ranks. HIV is wreaking havoc with fragile management systems (Kelly 2000a).

The SADC survey summarizes the consequences of inadequate management capacity.

Table 4. Creating a foundation for action

	Y	P	N
Combined approach: Is equal consideration given to (1) preventing spread of the disease and to (2) reducing the anticipated impact of the pandemic on education?	3	6	4
Leadership: Are political leaders, senior officials, unions, the teaching service and school governing bodies knowledgeable and committed to action?	4	8	1
Collective dedication: Are partners outside government involved in the fight against HIV and AIDS? Do mechanisms exist for partnerships?	4	7	2
Research agenda: Is information about HIV and AIDS being collected, analysed, stored and spread? Is there an HIV and education research agenda for the education sector?	2	3	8
Effective management: Has a full-time senior manager been appointed? Does a standing structure exist that includes partners in and out of government?	5	1	7
Policy and regulations: Are HIV sector policies and regulations in place? Are there appropriate codes of conduct for teachers and learners, and are they applied rigorously?	1	4	8
Strategic plan: Is there an education sector HIV and AIDS strategic plan that covers all levels of the whole education sector, and is it funded?	2	5	6
Resource allocation: Are plans being funded adequately? Are funds being channelled to various levels of the system, and to partners outside government who can use them?	2	5	6

Y Yes, action in being taken   P Some action is planned   N No action is being taken

There is much to be done. What are the priorities for action, and how can they be achieved?

'Best practice' responses

This section examines what seem to be effective strategic principles, significant interventions, and successes of education services worldwide. To do so is daunting, because there is still little hard evidence, especially from governments, about what

works and what does not. Behavioural change is a complex process, and so even when declining prevalence or incidence can be traced to such changes, it is difficult to identify the direct causes. Such studies as there are usually test the impact of health or medical interventions, such as STI treatment, rather than the impact of any government information and HIV prevention campaigns (Parkhurst 2000).

There is danger in generalizing from one country's set of data, because data collection and analysis may be flawed, and because what works for one place may not work for another (Webb 2001). The Cambodian and Thai epidemics, for example, have not followed natural epidemiological history: behaviour change was widespread and prevalence peaks of 2–3 per cent did not represent the pre-existing potential of the epidemic, given the favourable climate for its spread. It is therefore not possible to assume that other countries can limit the pandemic in the same way (Brown 2001). In addition, interventions that work in a country with low incidence rates, and succeed in keeping them low (UNAIDS/FHI 2001), may not be appropriate in a community or country with high prevalence, where the pandemic is already out of control.

The case of Uganda

Concern has recently been raised about what can be learned from the anomalous success of Uganda. In his analysis of Ugandan data, Parkhurst stresses that, to learn from the evidence, it must first be understood that a decline in prevalence or incidence does not necessarily reflect changes in behaviour or intervention effects (Parkhurst 2000). While the HIV-response community has regularly cited the success of the Government of Uganda in controlling its HIV pandemic, 'Unfortunately, there is often a lack of detailed explanation of what these HIV rates actually indicate, and what the Ugandan Government might have done to achieve any apparent declines' (Parkhurst 2000).

Statistical analysis of the Ugandan pandemic and its impact is extremely complex, so assumptions that it is possible to learn from its purported success, and to apply evidence of 'best practice' there to other countries, may be fatally flawed. Parkhurst argues that researchers and the press alike may have misinterpreted or misused Ugandan data and evidence. Repetition of commonplace errors has created a 'myth', which supports the current international belief of a Ugandan success story. Calls to emulate Uganda rarely examine possible biases involved in the epidemiological data. Other nations facing HIV prevalence of 30 per cent cannot simply copy the Ugandan policy response and achieve a two-thirds reduction in their national prevalence. Yet, Parkhurst argues, authors imply emulation is possible when they claim Uganda's infection rates decreased from 30 per cent to 10 per cent, attribute this drop to the actions of Government, and call upon African nations to adopt a similar response to bring their own HIV epidemics under control (Parkhurst 2000).

No one can quite determine why Uganda's prevalence has dropped so quickly (World Bank 2000a). While agreement exists on the reality of the decline in HIV prevalence, no one has been able to link behavioural change to any particular programme intervention. And if information diffusion has been key to Uganda's success, the education sector has evidently not been a major player. HIV programmes in schools began as early as 1992, and a few activities – HIV and AIDS drama, for example – have been used extensively. But Ugandan education officials say that school- and teacher-oriented programmes have not been particularly strong. The ministry is now 'looking to strengthen programmes so the sector can play a more active role in addressing the epidemic' (World Bank 2000a).

Elements of good practice

Is it therefore possible to identify a set of principles and models that constitute 'best practice'? A study of presumed HIV prevention success in Senegal, Thailand and Uganda (UNAIDS 2001) suggests that successful national HIV programmes share common features:

- strong political commitment;

- early intervention/prevention;

- intensive multisectoral approaches at national, provincial and community levels;

- implementation on a large scale;

- effective monitoring and dissemination of findings to sustain awareness; and

- combined prevention and care.

Unfortunately, the three-country review extrapolates little of practical use in terms of best practice. It modestly suggests that prevention can work if properly implemented, but monitoring and research are needed, and policymakers and international and local communities need to see that investment is paying off. The most important message for low-prevalence countries is that prevention must **begin before HIV prevalence grows** to measurable levels.

Reality checks and strategic principles

HIV and education strategic plans based on sound policy and a realistic assessment of available capacity are essential for counterattacking AIDS (Hunter and Williamson 2000). Principles to guide strategic planning and action in the sector can be summarized as follows.

i) Governments cannot by themselves protect education services but must work with all other stakeholders in the education community – NGOs, parents and

traditional leaders, CBOs and FBOs, international agencies and volunteers – as well as with social sector departments at national, provincial and community levels.

ii) Effective responses are usually those that are locally devised to meet local conditions, and this principle seems to underlie success. Knowledge, behaviours, attitudes and understanding exist within a complex set of cultural values and economic circumstances that must inform planning and action.

iii) Local responses must be complemented by vigorous, extensive and intensive national programmes relating to condom use and STI prevention, life skills curricula in schools and support for children orphaned by AIDS, in order to reach as many people as possible. Rigorous coordination of local programmes within a national policy framework might achieve similar results.

iv) Many governments are managerially challenged. It is essential to choose interventions that are within the competence of the system to deliver. If simple tasks are successfully managed, they will contribute to building an environment that will make more challenging interventions possible at a later stage (Marais 2000).

v) Educators may not always be the best people to deliver vital messages about death and sex, behaviour change and risk. Young people, on the other hand, have often been at the forefront of successful change (Devanney 2001).

Adjusting the legal and regulatory framework

The challenge of AIDS requires that all education legislation, policy, regulations, codes and statutes be reviewed for at least two reasons. First, it is necessary to identify the rights and responsibilities of individuals and agencies. Second, it is essential to adjust laws and regulations antithetical to the promotion of rights, particularly of women and children. The South African Law Commission undertook a complete review of existing legislation for the Department of Education before its policy on HIV and AIDS was promulgated.

The Commission's *Consultative Paper on Children Infected and Affected by HIV/AIDS* (1998) specified that learners with HIV should not be unfairly discriminated against, that no learner should be denied access to school on the basis of his or her HIV status, that testing of learners for HIV for admission to or attendance at school would be prohibited, that needs of learners with HIV should be accommodated within the school environment, that a learner's HIV status should be confidential and not be disclosed without consent, that all schools should implement universal precautions to eliminate the risk of transmission of blood-borne pathogens including HIV in the learning environment, and that HIV education programmes should be implemented at all institutions for learners, educators and other staff (Smart 1999).

It is also necessary to check teaching service regulations, codes of conduct and

government general orders relating to the service to keep them in line with changing conditions (Ndubani 2001). Although teaching service management in Botswana and Zambia is stretched to the limits by high levels of infection, little has been done to address these issues.

Helping to contain the spread of HIV

The first thing to do is to 'recognize that for 20 long, hard years we have lived with this epidemic which is causing unspeakable human suffering, entrenching poverty, subjugating women, and unravelling development efforts. Recognize that we know what to do. Recognize that we know how to protect our education systems. Recognize that with these systems protected, education has the potential to stem the further spread of the disease and to assist individuals in coping with its impacts. Recognize that what is needed is action' (Coombe and Kelly 2001).

Global prevention targets have been spelled out in the *Declaration of Commitment on HIV/AIDS* (United Nations 2001). It is clear that prevention can work if the response is quick, intensive and extensive, and if it mobilizes all stakeholders in the public, private and community sectors. Education's first responsibility is to educate learners on sexuality, reproductive health and prevention of STIs and HIV **before** they become sexually active (Larson and Narain 2001, p. 32).

The life skills approach: Mainstreaming, strengthening and extending life skills programmes are essential (Carr-Hill et al. 2001). Current life skills programmes may not be working well (in the SADC region, for example, see above), but they can be made to work.

Thailand's success in reducing incidence rates is often attributed to school-based IEC programmes, but such programmes will not change behaviour where they are ineffectively implemented. Teaching and learning materials must be relevant and available in all learning institutions. Teachers and other educators must be prepared through INSET and PRESET to talk about issues that may customarily be taboo. Communities must be mobilized to understand and support the work of educators (Life Skills Development Foundation 2001).

Where it is difficult or taboo to teach life orientation programmes, including sexuality education, because of cultural, religious or customary perceptions, alternatives to conventional life skills curricula are being sought. Value-based approaches to HIV awareness are being used effectively in Botswana among very young primary school children, and in Pakistan where the *Aware for Life* curriculum focuses on adults' and children's rights and responsibilities as a way of sustaining behaviour change. In both countries, involvement of young people, parents, teachers and community elders in the value-based approach is deemed to be essential (Save the Children UK 2001b).

Ultimately, however, the life orientation approach can only take root where there is a climate in learning institutions that affirms the principles of respect, responsibility, rights and transparency, and which, more fundamentally, projects an image of good sanitation, safe water and good general health.

Educating the teachers: It is assumed that teachers will be at the forefront of the response to HIV, but they need to be equipped. In South Africa, the Department of Education's *HIV and AIDS Emergency Guidelines for Educators* sets out HIV facts and eight key messages about preventing HIV and related discrimination, deals with questions educators ask about sexuality education, advises on universal precautions and how to build a school culture of non-discrimination. It offers helpline numbers and channels to other support services (South Africa Department of Education 2001b).

Pre-service and in-service programmes offered by universities and colleges need to be adjusted to take account of new classroom realities, including increasing numbers of disadvantaged and traumatized children and illness and absenteeism among learners and educators. INSET structures are very rarely robust anywhere in the developing world, and they are able to do little, despite reported successes in a few places like Karnataka State in India and the Western Cape Province in South Africa, to prepare large numbers of serving teachers to cope with HIV at school. Crouch (2001a) estimates that South Africa will have to train at least 30,000 new teachers per year by 2010. The current output is only around 2,000.

Teaching and learning materials are needed to guide teachers, heads of institutions and parents on dealing with HIV issues with children in their care. *Securing a Future: Mekong Children and HIV/AIDS* is a good example of material prepared for those working with younger children (UNICEF East Asia 2001a); see also *HIV/AIDS Handbook for Christian Caregivers* (Rwanda Christian Counselling and Training Centre 2001) and *HIV and AIDS: Care and Support of Affected and Infected Learners: A Guide for Educators*, which is a useful resource for South Africa's teachers and others working with children in trauma (South Africa Department of Health 2001). Every educator should have a personal copy, however cheaply produced, of a booklet setting out the aetiology of the disease (Visagie 1999, for example), because educator ignorance about the nature of the virus, transmission modes, precautions and basic therapy for affected children is universally and abysmally high. It is crucial to develop appropriate educational materials and make them easily accessible to all concerned.

Finally, educator training and sensitization needs to be done in conjunction with development of workplace policy, workplace prevention programmes (every learning institution is a workplace) and impact management programmes. The *ILO Code of Practice on HIV/AIDS and the World of Work* has been tabled and is suitable for adaptation to local circumstances (International Labour Organization 2001).

Youth awareness – using the energy of young people: Children and adolescents are part of the solution to AIDS. They need to be involved in the design and delivery of prevention programmes through peer school health teams, local and international NGO programmes, and anti-AIDS clubs. UNAIDS reports that, where HIV prevention has been successful, young people have been at the forefront of change. In Rwanda, a recent evaluation of anti-AIDS clubs demonstrated their potential, and the advantages of youth working with youth, a strategy also being promoted in Rwanda by PSI. The AIDS Task Force of Fiji works with peer educators throughout the Pacific Region. Peer educators from Kiribati, the Marshall Islands, Nauru, Samoa, the Solomon Islands and Tonga have been trained in outreach work, interpersonal skills and HIV issues and they help to train other peer educators. They are known for their commitment and dedication, although there is concern that they only have the knowledge and skills to give information about the virus and are not trained to instigate behavioural change (AIDS Task Force of Fiji 2001, p.14).

Women and girls – putting them first: The United Nations General Assembly Special Session on HIV and AIDS made special reference to the vulnerability of female pupils and educators. Women must therefore be empowered to make decisions and take control over their lives and sexuality, and measures need to be put in place to protect them from sexual violence and abuse (United Nations 2001).

Retaining learners – education as a vaccine: School is like a vaccine for children at risk: Children who drop out of school are more vulnerable to HIV infection, are more likely to engage in early sexual activity with larger numbers of partners, and are more apt to use alcohol earlier than children who continue with their education (Save the Children UK 2001a). The single most certain step that any government can take to counteract HIV among the young is to increase the provision of education and to ensure young people remain in education programmes. Ensuring that every child gets into school, stays in school for a minimum number of years and has some worthwhile learning and skills at the end is critical, especially for girls (Coombe and Kelly 2001; Vandemoortele 2001). 'Education ministries should bend every effort to implement [EFA] strategy. Finance ministries should ensure that the resources are made available. The outcome will be a society with a lower incidence of HIV/AIDS, less poverty, greater female empowerment, and a human resource base from which the skills lost to HIV/AIDS can be replenished.' (Kelly 2001a, p. 13)

Learning what works – monitoring and evaluation: None of the high-prevalence countries encompassed by this study has carried out an objective evaluation of life skills content, implementation and outcomes.[12] Evidence from many sources makes it clear that, unless life orientation curricula are being taught in all schools, to all learners, **before** children become sexually active, by teachers who have been adequately prepared, with suitable resource materials, and within the context of the local culture and community, a great deal of money will be wasted.

If governments are not in a position to monitor the work of schools in this regard, the work must be contracted out to partner institutions or policy units and the results fed back into the system as a matter of priority.

Providing basic social support

Schools cannot meet all the material, intellectual, emotional and social needs of children who are distressed. Clearly HIV-affected children are not the only ones in dire circumstances. But governments can concentrate on keeping disadvantaged and challenged children in school or other suitable learning programmes and creating acceptably healthy, secure and compassionate learning environments for them (Morrell et al. 2001; Hepburn 2001; Williamson 2000a). Schools are already overloaded, but there are things that should be fundamental to every learning environment.

i)   They must provide a healthy environment for learners and educators with adequate sanitation and nutrition (Coombe 2001c).

ii)   They must be safe places, where there is zero tolerance for sexual abuse, harassment or abrogation of civil or human rights of any kind.

iii) They must be able to move beyond conventional teaching programmes and provide life and survival skills to children at relatively early ages. Educators must be able to identify children in trauma, handle them sensitively, provide basic counselling, and then know when to hand over to health, social services, home-based care or the police.

iv)   They must all have a youth peer health team, trained by social and health workers, professionally skilled in medical knowledge, communication techniques, counselling and prevention.

v)   They must have ways of referring learners in confidence to accessible voluntary testing and counselling sites, and must make informed decisions about condom provision, accessibility and guidance on use.

vi)   They must work vigorously with community authorities, parents, NGOs and FBOs (South Africa Department of Health 2001).

vii) In high-risk areas, those with large numbers of HIV-affected learners should consider appointing specialist counsellors or social workers.

viii) Every learning institution must have a rolling HIV response plan, developed by staff, in consultation with students and parents, and the resources to implement it.

A common reason that HIV-affected children drop out of school, or perform poorly, is lack of material resources to meet basic needs. If short-term crises can

be avoided or managed, many orphans and other vulnerable children would be able to continue successfully with their schooling (South Africa Department of Health 2001). In Botswana, teachers and schools have developed a range of responses to vulnerable children's needs, including recognition and referral of such children for grants and other support, providing supplies, monitoring orphan well-being, interacting with households and home-based care teams to reduce stress on children, helping with psychological needs and behaviour disturbance, and developing school HIV plans. Botswana already has an established culture of schooling and high female enrolments. There is less reliance on child labour for subsistence tasks, and relatively good prospects of work after completion of school. Government may have reduced the potential adverse effects of orphaning on learners by creating three complementary support programmes that together seem to keep many children in school, and help them perform adequately. The package is not a technically difficult one and includes school feeding, home-based care and orphan registration and subsidy (Abt Associates 2001).

Although some countries, such as Malawi, Uganda and United Republic of Tanzania, waive fees at primary level, Botswana is the only country in Africa where subsidies have been tried. Subbarao et al. (2001) make a strong argument for such subsidies, principally because they can easily be monitored, can reduce some of the financial burden on carers, and in the long term provide pupils with marketable skills.

Teachers without support – meeting their needs: Many teachers perceive that the system does not care about them. Their morale is low, not only because they are poorly paid, but also because too often the system is unresponsive to their needs and concerns. There are fundamentals of support to which every teacher is entitled:

i)   Adequate knowledge of the aetiology of HIV, starting with a graphically illustrated book in an accessible language.

ii) Appropriate training and guidance in life skills curricula, with suitable learning materials.

iii) Access to counselling and confidential testing.

iv) In addition, heads of schools and teacher training institutes should have training in the management of HIV-related crises, especially in high-prevalence areas. While all pre-service teacher education programmes should make provision for basic tutoring on HIV issues, selected teachers, perhaps chosen by the pupils in consultation with the school head and governing body or parent–teacher association, should have further training in care and counselling techniques.

v)   Wherever possible, educators in high-prevalence countries should have access to antiretroviral therapy. This is not only a cost-effective and humane response, but also is perhaps the only way to sustain the teaching service.

Sustaining provision of educational services

Impact assessments are necessary to identify the ramifications of HIV for the service. Botswana, Namibia, South Africa and Zimbabwe are assessing the impact of HIV on education in order to understand the impact of HIV on society and human resource development, as well as its internal impact on employees (education supply) and external impacts, focusing on learners and demographic shifts (education demand). Impact assessments provide the basis for understanding the social, economic, labour and planning implications of the pandemic for the sector, and to plan appropriate responses (South Africa Department of Education 2000a).

Projections of levels of HIV infections and illness and death among learners and educators are based on various prediction models, observations and interviews with key informants in the education sector. Also important for projections are data and information collected from development, finance, planning and medical aid schemes, group discussions with education managers, customized projections of learners and educators, field visits to education districts and reviews of relevant documents, policies and regulations (Abt Associates 2001; World Bank 2000a; South Africa Department of Education 2001b; impact assessments ongoing in Namibia and Zimbabwe).

It is no use undertaking impact assessments, however, if there is no planning and management capacity to respond to and implement their recommendations. Ultimately, by combining analysis with action, it should be possible to provide for:

i) Enough teachers to replace those leaving the service, especially those with scarce skills in university departments, teacher education, maths, science and technology.

ii) Supply teachers to cover for those regularly ill and absent.

iii) Enough new teachers to keep expansion and quality up.

iv) INSET support for those coping with trauma in the classroom.

v) Replacement of management skills lost to the system.

Protecting quality – responding to complex learning needs: Providing appropriate education of quality for orphans and other children at risk requires education systems to be increasingly flexible. For many systems, it will mean pressure to shift from the current generic focus on formal provision, to alternative learning modes, including lifelong learning strategies, adult education and literacy, a new 'nonformal education' paradigm (UNICEF and USAID 2000).

Curriculum adjustment – greater practicality: School curricula do not generally respond to the needs of learners affected by loss, or of those for whom immediate employment and income-generation possibilities are urgent necessities.

It might be difficult to provide vocational training but it should be possible to orient the curriculum towards the practical.

Delivery system adjustment – greater flexibility: If broad principles are established for the timetable, daily schedules, and even the education and training calendar, schools, colleges and communities could be allowed to regulate them in response to local requirements. To some extent this has been achieved in southern Africa, where such schools commonly charge no fees, require no uniforms, provide almost all educational materials and use teachers from within or close to the community, often on a voluntary basis and with little training (UNICEF and USAID 2000). Similarly, the Rajasthan Shiksha Karmi Project in India harnesses the energies of 'barefoot teachers' for children in remote rural areas where primary schools are either non-existent or dysfunctional (Swedish International Development Cooperation Agency 2001).

While the positive aspects of this development are the deep sense of community ownership and involvement, the danger is that such schools might become second-rate, catering for the poorest, or that the state might feel itself absolved of responsibility (Coombe and Kelly 2001). Other alternative responses include the use of interactive radio (Ghana Community Broadcasting Services 2001; USAID 2000), and the appointment of itinerant teachers who go out from a central school to animate and supervise tutors engaged by community groups. There is a growing sense in some communities that schools must be seen as comprehensive, community-based organizations where teachers are joined by those with a traditional role in society (leaders, healers, birth attendants, craftspersons) in collectively educating children (UNICEF and USAID 2000).

Adjusting for teacher loss – alternative learning: The simple solution of expanding teacher training capacity will not solve the problem of teacher attrition, and institutions may well be left short of teachers, lecturers and trainers. Alternative measures include a more systematic and extensive use of multigrade teaching (provided this is backed up by the resources, training and supervision it requires); greater reliance on educational broadcasting; more use of community members for supervisory responsibilities and for actual teaching in areas where they have some expertise; greater use of untrained (or 'para') teachers with a system in place for their ongoing training on the job; transferring certain curriculum topics or areas to co-curricular activities that would be managed by senior students; and more extensive provision for peer education (with some teacher supervision and monitoring). Children would have greater continuity of instructional and emotional support if younger children were to be linked with same-sex older children for tutoring, support and protection. They might be provided with instructional materials for out-of-school learning when necessary, or given help with individualized learning through sequenced learning materials for individual or group use, in or out of school (Harris and Schubert 2000).

Community backup – harnessing and supporting local resources: Community participation must be central to the response to AIDS. For education to combat HIV and manage its impacts, it must also be proactive in establishing linkages with the communities being served. Education authorities and institutions must constantly explore with communities how best they can be of service to one another. In Zambia, one objective of the education sector HIV strategic plan is for all schools and colleges to participate in home-based care and other responses to HIV-related community needs (Coombe and Kelly 2001; Zambia Ministry of Education 2001). Likewise in Botswana, close links are emerging between learning institutions, local NGOs and FBOs, and social and health workers (Abt Associates 2001). In Thailand, the Sanga Metta project, with support from local and international agencies, supports a shift in the focus of work of some Buddhist monks and temples in the direction of social responsibility for those suffering from HIV and AIDS, including orphans who become novices or are given education support. The programme is being extended in the region through UNICEF's Buddhist Leadership Initiative (UNICEF East Asia and Pacific 2001b). The 2001–2002 plan of action of the South African Department of Education (South Africa Department of Education 2001c) includes provision for the establishment of 27 multi-purpose education and training centres linked to community development. They are particularly designed to assist with victim empowerment, cooperate with local programmes supporting victims of sexual violence and rehabilitation of school offenders, and 'make schools centres of community life through innovations in infrastructure provisioning'. (South Africa Department of Education 2001c).

Women power – creating a safe environment: Possibilities for harnessing the energy of women in, around and on behalf of the school need to be elaborated. Mothers in Uganda are known to have mobilized in informal ways to save their daughters from death from HIV-related illnesses, and there is evidence that this is happening in South Africa. In Bangladesh, mothers teach their children in community schools; in Ghana, they make sure their children have access to potable water and food at school; while in Dominica, mothers become community teachers for five years before undertaking 'initial' teacher training. Mothers everywhere are likely to be the principal and most reliable guardians of their daughters' well-being, but more needs to be done to mobilize them in the educational sector within their community.

Anecdotal evidence suggests that female teachers and principals are the ones who commonly deal with learners traumatized by conflict, poverty, loss and insecurity. There need to be more female teachers trained to help children who have complex emotional and learning needs and more female officials in positions of authority at school, district and higher levels. The idea of greater numbers of female principals, district officials, inspectors and senior executives is not new. Like much else about HIV and AIDS, what must be done is known. It is now a question of putting it into effect.

The challenges for countries with low HIV prevalence

Low infection rates in the early stages of an epidemic mean there are few motives for assigning resources to education sector action on HIV. The pandemic's impact on education in low-prevalence countries will take years to determine because of the invisibility of the relatively low proportions of learners and educators affected. So, although one in nine of all those HIV infected lives in India, together they constitute less than 5 per cent of the total population, and a very small proportion indeed of the education community itself.

Prevention efforts need to focus on stemming the advance of the disease in Asia. This is particularly critical where patterns of transmission indicate stark similarities with the outbreak of the African pandemic, including high infection rates among truck drivers and increasing rates among pregnant women and transmission to their children (UNICEF 1999). Behaviour change through prevention interventions for targeted at-risk populations is currently thought to be the cheapest and most cost-effective way to maintain low HIV prevalence (UNAIDS/FHI 2001).

Young people are deemed to be a critical target population in low-prevalence settings if a society resistant to HIV is to be built in future. Most adolescents do not have settled sexual habits and patterns and their behaviours are easier to change if prevention efforts reach them before they enter risk zones. They are accessible in large numbers in existing institutions – schools and youth organizations – at relatively low cost, and they have proved to be a powerful force in their own right as active resources for prevention.

Committed and informed leadership

Strong leadership is indispensable (Botswana UNDP 2000, p. 49). There is general consensus, based on evidence from Botswana, Thailand, Uganda and elsewhere (UNICEF and USAID 2000), that effective action takes place when politicians, senior education department officials and senior international agency staff are 'committed', are convinced that disaster is around the corner and that their very systems are being steadily undermined. Politicians and officials need to be not just dedicated, but knowledgeable (Larson and Narain 2001, pp. 32–33). Education ministries need to work with partners inside and outside government in a holistic sector-wide approach that harnesses available resources in cooperative arrangements characterized by trust (Inter-Agency Working Group 2001; Larson and Narain 2001). Success will only come where local communities are empowered to take action on HIV themselves (Larson and Narain 2001; Save the Children UK 2001b). Governments must work **in support** of communities, and national management strategies, especially in the social sectors, must reflect this balance (Inter-Agency Working Group 2001). This will involve helping NGOs develop a diverse range of skills and resources (Khmer HIV/AIDS NGO Alliance 2001). Khana, in Cambodia, is working to

strengthen NGO capacity and strategic alliances among NGOs and public sector stakeholders (Khana 2000). The International HIV/AIDS Alliance is also dedicated to supporting community action on HIV in low- and middle-income countries, principally by assisting community groups to improve the quality of their work (International HIV/AIDS Alliance 2001; World Bank 2000b).

Research, information sharing and analysis

Setting the research agenda: There is as yet no set of research principles; HIV and AIDS research should be systematic and driven by demand, rather than by the preference of individual academics, officials and agency staff; it should be prioritized and part of a coherent and comprehensive education research agenda, linked to education planning and reform; it should also be networked, based on a set of common understandings and definitions, and focused on potential leverage points for change within schools, institutions, systems, procedures and administrations. Furthermore, there are as yet few research partners (within post-secondary institutions, policy units, government departments and the private sector) or resources allocated to non-curriculum HIV and education issues.[13]

Collecting and sharing information: More information is needed in order to establish a coherent set of qualitative and quantitative data. It should also be possible to identify a set of benchmarks and crisis indicators – alarm bells that indicate trouble – that can be monitored over time. Such data needs to be complemented by anecdotal evidence, observation and lessons from experience collected from practitioners and others, systematically and regularly (Harris and Schubert 2000; Botswana Ministry of Education 2000; Kelly 2001b; personal communications). Much more information specific to education is needed on prevalence, achievement, costs, education and training requirements and the psychosocial needs of affected learners.

Using information: Even more important, information must be analysed and shared if it is to contribute to understanding of how the pandemic threatens the education sector. IIEP's programme of information sharing, action research and capacity building seeks to disseminate information about new studies, interventions, promising practices, tools and programmes and to provide planners and policymakers with advice on study design (Association for the Development of Education in Africa 2001).

Management appropriate to crisis: Education systems, even in high-prevalence countries like Botswana and South Africa, may not yet have had to deal with large-scale disruption except in small pockets, but eventually the systems are likely to be put under unmanageable pressure. The capacity of the sector bureaucracy to respond will therefore have to be considerably improved (Crouch 2001a). Management of the HIV crisis will clearly not be possible, given the present capacity, in many bureaucracies where there are still not enough adequately mandated, full-time, HIV-focused planners, strategists, managers or evaluators. Fighting

the pandemic is clearly not a part-time assignment for individuals dotted around government or agency bureaucracies, but a full-time assignment until such time as the situation stabilizes. It is also clear that ministries and agencies cannot simply continue to react to the crisis, but must anticipate its consequences, and be far more proactive in harnessing resources to counteract it.

Policy and strategic planning: Complex working arrangements will need to be coordinated within a framework of common understanding about the nature of the pandemic and its potential impact on the sector. Policy that is determined in a consultative way needs to be interpreted for educators and officials responsible for implementing it in the form of guidelines and guidance notes, regulations and codes of conduct, so that local, national and regional efforts are focused and purposeful.

Resource allocations: There has been some movement towards making funding arrangements for HIV and education more efficient, more appropriate to the kind of partnership arrangements envisaged here. But more is required by both ministries of finance and by international agency partners. On both sides, structures and procedures inhibit movement of funds to local programmes that could make a difference. The argument has been won that adequate provision for local and national **non-government** partners must now be made through government or non-government funding mechanisms. World Bank experience on social sector support, joint funding mechanisms being designed by bilaterals for SWAp purposes, and the use of fundholders by agencies all provide useful guidelines from which to learn and on which to act.

Monitoring achievements: Impact assessment researchers recognize the limitations of relying on mathematical models, and recommend monitoring key indicators that can be used to track the progress of the pandemic, including educator absenteeism, deaths among staff, particularly teachers, school enrolment and dropout rates disaggregated by gender, and numbers of pupils orphaned by AIDS (Johnson 2000).

Conclusion

It is virtually impossible to generalize about good practice, as what works to break the power of HIV in one place may not work in another, but radical, early humanitarian interventions to tackle STIs, provide condoms, establish home-based care and school feeding schemes and train peer health teams for all institutions can save lives in the short term, while pilots are being tried, governments are mobilizing and allocating resources, the capacity of NGOs is strengthened, planning kicks in and behaviour change programmes start up.

Global experience suggests there are a number of longer-term generic tools that can make a difference with regard to HIV and education, save lives and protect education quality.

The first tool is honesty. It is essential to stop pretending that progress is being made against HIV and AIDS. This is an overwhelming disaster and so far little has

been done to confront it effectively. It is absolutely essential to enhance crisis management capacity in and out of government.

Second, working together, making use of all available resources – and especially the skills of girls and women – is the best route to take. All poverty reduction programmes must factor HIV into their plans so that the pandemic can be addressed within the context of poverty that drives it. There are thousands of examples of good, very good and potentially good practices at community level, and although these are generally small-scale, ad hoc and underfunded, NGOs, CBOs and FBOs are making a difference in the lives of women and children. They provide support to teachers and heads as counsellors. They train children and teachers in peer counselling. They teach lessons of safer sex, work in communities to defuse violence, and care for the abused and violated. They are at the coalface. Their contribution is not just considerable, it is fundamental – however fragmented it may be. Strengthening education's response now depends on how the programmes of non-government partners are integrated into the sector's strategic planning and resource allocations, and whether or not they can be taken to scale.

While governments clearly have a role to play in coordinating and strengthening local responses, creating policy and establishing a regulatory framework and delivering health and social welfare services appropriate to community requirements, ultimately they must work **in support** of communities, and national management strategies must reflect this balance.

No one underestimates the difficulties. There are few models from which to learn and ministries of education have struggled for years to decentralize decision-making and executive responsibility.

Third, it is only by monitoring the success of interventions, and evaluating whether they can be replicated or generalized, that governments and agencies can be held accountable for taking effective action, against agreed performance benchmarks wherever possible. There is as yet no clear perception that the potential of HIV and AIDS to create havoc for the education sector requires immediate intensive and extensive response. But that is what is required. The challenge of millions of children being orphaned by AIDS in several regions by 2010 may serve to inculcate a global sense of responsibility in both learners and educators.

HIV is, for many countries, the most significant issue in education today, and probably the biggest challenge to development. The need to confront the pandemic responsibly will require a fundamental re-think of development principles and procedures, and of the relationships between governments and their funding partners. HIV is rooted in poverty, and until poverty is reduced, little progress will be made in limiting its transmission or coping with its consequences. A development, rather than an HIV-specific, focus is essential now.

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Notes

1   HIV affects **all** education subsectors, from early childhood development to colleges and universities and must therefore be tackled at all levels. The response should also include concern for out-of-school young people, and the creation of adult basic education, non-formal and distance education opportunities for children and young people disadvantaged by HIV. There is little evidence of critical analysis of the pandemic's implications for these education subsectors, even in high-prevalence countries. The lack of strategic thinking about technical education, early childhood development and out-of-school programmes has been highlighted regularly with little effect.

2   'Projections for South Africa, for example, are based on the most recent statistics using the Metropolitan-Doyle model, first published in October 1990, to produce reliable estimates of the progress of HIV in South Africa. The model has been extensively used in Southern Africa by many sectors… and has performed well when used in practical applications at the sub-group and general population level. The model is continually reviewed in the light of new demographic and population statistics, [and] is able to consider various interventions including behavioural changes (increased condom usage, reduced numbers of partners, etc.) and medical interventions (improved treatment of STIs, vaccinations, treatment of HIV-positive and AIDS-sick individuals).' (Moore and Kramer 1999, p. 14)

3   Crouch's list of the assumptions that need to be factored into a relatively accurate teacher demand and supply projection are set out in table 7 of his paper.

4   LoveLife (2000) p. 27; Badcock-Walters (2001); Desmond in University of Natal Health Economics and AIDS Research Division (2001).

5   Whether teachers have higher infection rates for these reasons, or because teachers are predominantly young women at high risk, is not clear.

6   The South African Medical Research Council reported late in 2000 that one half of all schoolgirls had been forced to have sex against their will, one third of them by teachers. 'We were shocked by the finding that teachers are the major perpetrators of child rape, but no one experienced in education seems to be surprised.' The Minister of Education reported subsequently to parliament that there were perhaps six to eight cases involving sexual abuse pending with the South African Council for Educators, and that in most cases the accused were still in the classroom (Coombe 2001b).

7   Generally defined as including the ability to distinguish between healthy lifestyles and risky behaviours (such as unprotected sex, substance abuse and violence); the development of a strong self-concept and skills to resist peer pressure; and an examination of the situation of women, gender equity and healthy family relationships.

8   Survey undertaken by staff of the University of Pretoria Faculty of Education (2001).

9   The 13 countries that reported are Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, South Africa, Tanzania, Zambia and Zimbabwe.

10 Contribution to IIEP internet dialogue, October 2001.

11 Communication from Aster Haregot, UNICEF, New York.

12 South Africa has done a partial review in KwaZulu-Natal province (Macintyre et al. 2000), and another partial review that has not been released by the Department of Education (Khulisa 2000).

13 Personal communication from Cycil Hartell, University of Pretoria Faculty of Education; and from the Vice Chancellor, University of Botswana.