Education as a Vehicle for Combating HIV/AIDS

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Protecting the education system so that it may be able to protect

The World Education Forum, held in Dakar in April 2000, noted that 'a key objective of an international strategy must be to realize the enormous potential that the education system offers as a vehicle to help reduce the incidence of HIV/AIDS and to alleviate its impacts on society' (UNESCO 2000a, p. 23). But more somberly the Forum Final Report also recalls UNAIDS Executive Director Peter Piot's statement at the opening ceremony that 'AIDS constitutes one of the biggest threats to the global education agenda. What HIV/AIDS does to the human body, it also does to institutions. It undermines those institutions that protect us' (ibid., p.22).

These two perspectives—education as a vehicle for reducing the incidence of HIV/AIDS and education as itself being threatened by the disease—run through much of the literature on the role of education in a world with AIDS (cf. Coombe, 2000a; Kelly, 2000a). The first is a perspective of hope, that there is a way, the well known and tried way of more universal and better quality education, for reducing the further spread of the AIDS pandemic. The second is a perspective of sober caution, that maintaining hope and achieving success in the combat with HIV/AIDS necessitate careful attention to protecting the health and functioning of the education system. These two themes are inextricably linked in practice.

A homely illustration from a commonly experienced situation helps in prioritizing these viewpoints. On every commercial airplane flight, shortly before takeoff cabin staff demonstrate the safety procedures aboard. Their message always includes information on how to use oxygen masks in the 'unlikely event of a sudden drop in cabin pressure.' Passengers are then advised to secure their own masks first before helping children or others to secure theirs.

Protecting the education system in the face of HIV/AIDS

Similarly, education systems must first secure themselves against the onslaught of HIV/AIDS before coming to the assistance of their clientele.[1] An education system which does not protect itself against the potential and actual ravages of HIV/AIDS will not be able to serve as a vehicle for reducing the incidence of the disease. The system that is meant to offer protection is itself in need of protection.

This is a cardinal principle. Unfortunately it is a principle that is easily overlooked. The tendency is for education systems to strive to deliver HIV/AIDS messages to students.

But, like the parent frantically and courageously trying to fit the oxygen mask on the child, they show less concern about their own protection and preservation. As they struggle to deliver AIDS-related educational services, they may themselves be staggering under the impacts of the disease.

Hence the first and most crucial contribution that an education system can make to reducing the incidence of HIV infection is to take the steps needed to protect itself from the ravages of the disease. In the eye of the HIV/AIDS storm, it must strive to sustain itself as a functioning system. If the pandemic prevents the education system from functioning properly, then it also impedes it in the discharge of its core mandate to provide educational services. An education system is always accountable for maintaining itself in good working order. This imperative is even more binding in the circumstances of HIV/AIDS, when the delivery of appropriate educational services may save lives.

Protecting HIV/AIDS-threatened education systems, so that they can continue to provide and, where necessary, expand quality education and training, requires efforts directed at

- stabilizing the system (preserving the system in good working order) and
- mitigating the pandemic's potential and actual impact on all learners and educators and therefore on the system as a whole (counteracting the pandemic).

Under control, the system will be better able to meet the new and even more complex challenges it confronts by responding creatively and flexibly to HIV/AIDS (outwitting the disease).

STABILIZING THE EDUCATION SYSTEM

Stabilizing the system entails ensuring that even under attack by the pandemic, the system works so that teachers are teaching, children are enrolling and staying in school, older learners are learning, managers are managing, and personnel, finance and professional development systems are performing adequately. Accomplishing all this raises a host of challenges for education managers and planners. There is the challenge of responding to teacher shortage due to mortality, and teacher absenteeism due to morbidity. There is the challenge of attracting and sustaining learners who are orphans, or may be caring for sick family members, or who may themselves be ill. There is the challenge of maintaining the operations of examination, curriculum, teacher development, finance and other systems in the face of the steady loss to AIDS of well-qualified and experienced staff.

MITIGATING THE IMPACT OF HIV/AIDS ON EDUCATORS AND LEARNERS

Mitigating the impact of the pandemic on education implies ensuring that those affected and infected by the disease can work and learn in a caring environment which respects the safety and human rights of all. Of major concern here would be efforts to make the system fully and patently inclusive by challenging all forms of AIDS-related stigma and

discrimination, providing for the most extensive possible participation by persons living with HIV/AIDS, and rooting all provision in strong human and child rights frameworks. Above all, each and every learning institution must be a place of safety for all who are associated with it.

Mitigation efforts should also be addressed to providing counselling services; making provision for voluntary counselling and testing; working with social welfare and health ministries to provide learner-friendly services; and ensuring responsiveness to the special needs of infected or affected learners and educators. This latter would include such actions as prompt and trouble-free payment of sickness or death benefits and new provisions for treatment and/or retirement of educators who are sero-positive.

A third concern in the area of mitigation would be to provide HIV/AIDS education—in the workplace for all categories of education employees, including teachers and lecturers; in the school or college curriculum for all learners, from the time they enter school to the time they complete formal education and beyond.

RESPONDING CREATIVELY AND FLEXIBLY TO HIV/AIDS

The education system responds creatively to HIV/AIDS when it continues to provide meaningful, relevant educational services of acceptable quality to learners in and out of the formal system, in complex and demanding circumstances. This creative response will require action particularly at the levels of management, and curriculum and service delivery.

Adjusting system management

Responding to the HIV assault on education means creating a policy and management framework which can make things happen (Coombe, 2000b). Key components of this framework include:

- ***Committed and informed leadership***: politicians, senior education department officials, and senior international agency staff are knowledgeable *and* committed, are convinced that the situation is grave, and recognize that learning structures are being steadily undermined.
- ***Collective dedication***: broad-based multisectoral management partnerships are established with other government sectors, non-governmental organizations, faith groups, community groups, and the private sector.
- ***Policy and regulatory framework***: a framework of common understanding about the nature of the pandemic and its potential impact on education is developed, as are guidelines, regulations and codes of conduct which interpret policy for educators responsible for implementing it.

- ***Strategic and operational planning***: strategic principles are elaborated which are commonly held and understood, and which underpin realistic and realizable operational plans.
- ***Effective management***: senior full-time mandated HIV and education managers are appointed at all levels until such time as the situation stabilizes. Also, a commitment is made not just to *react* to this crisis, but to *anticipate* its consequences and be effectively proactive in harnessing resources to counteract it.
- ***Appropriate capacity***: procedures and structures are set in place for ensuring implementation of HIV/AIDS-dictated activities, building capacity at all levels of the system, and providing for personnel replacement and training.
- ***Research and monitoring***: a research agenda is developed, along with research principles, priorities, and resources for collecting, storing and sharing information, and a set of benchmarks and crisis indicators – alarm bells indicating trouble – which can be monitored over time.
- ***Streamlined funding***: adequate budgetary provision is made for government and nongovernmental partners within the sector, if necessary through mechanisms which hold and administer funds in trust.

Adjusting curriculum and service delivery

At the levels of pedagogy and the curriculum, responding creatively to HIV/AIDS necessitates considerable adjustment and reform. Significantly, all of these reforms are desirable in themselves for a better, more dynamic education system. By focusing a more intensive spotlight on them, the pandemic almost perversely drives educators forward in the right direction.

In reaction to HIV/AIDS, the tendency of education ministries has been to focus almost all of their attention on the curriculum, and within this perspective to concentrate even more narrowly on the integration of HIV/AIDS education and related health issues. This is of supreme importance. With or without HIV/AIDS, all students need skills-based health education that will assist them to adopt and sustain a healthy lifestyle during schooling and for the rest of their lives (UNESCO, 2000b).

In the context of HIV/AIDS, however, curriculum and pedagogic reform must extend further than the development of the knowledge, attitudes, values and life-skills needed for making and acting on the most appropriate and positive health-related decisions. This latter is critically important in equipping individuals for their personal combat against HIV/AIDS, but does not address other needs that arise in an AIDS-ravaged society.

Recognizing new learner needs: In seriously affected countries as many as one in every five adults in their most productive years is infected by HIV. Unless there is a radical change in the availability of low-cost effective drugs and in the medical infrastructure needed for their delivery and monitoring, almost all of these individuals will die within a decade. In Southern Africa, there may be as many as eight million AIDS orphans by the end of this decade. In South Africa alone, perhaps ten per cent of learners will be

orphans. Throughout the region millions more will be affected in some other social, psychological or economic way by this disease; still others will be at substantial life-risk. As a result, the learning process in affected areas will become substantially more random; learners of all ages will have far more complex learning needs and disparate preparation; and educators will be sorely tried to match such needs, given their own distress.

The most visible impact of HIV/AIDS is the increase in the deaths of young adults. The peak mortality age for women is in the 25–35 age range and for men in the 35–45 range. Women and men are dying at ages when under other circumstances they would be rearing children. The result is the already noted rapidly increasing number of orphans. Regardless of their social status, these constitute a very vulnerable sector of society. This vulnerability is increased for those from a more impoverished background, who may be almost totally lacking in support. They may receive inadequate assistance from their communities or surrogate families to enable them exercise their basic human right to education and other services. A significantly large number of them may have financial and custodial responsibilities for younger siblings. Many cannot attend school because of costs or because they must work to generate the income needed for survival. Others attend school, but at the same time must work to raise resources for their own survival and for that of younger siblings.

Education systems confronted by such unprecedented human suffering and disrupted social systems, should be concerned with three principal challenges to which they must respond through learning programs and curricula:

- Replenishing the skills being lost through the premature deaths of skilled and qualified adults;
- Transmitting skills to young people, when the practitioners who should pass on the training are no longer alive; and
- Preparing very young people, many of them mere children, for the immediate assumption of adult economic responsibilities, as heads of households or within the framework of households headed by elderly relatives.

Replenishing and transmitting skills.

The combat with HIV/AIDS in society requires that each of these challenges be recognized and addressed. In anticipation of the loss of skilled human resources, the industrial sector is already increasing the number of operatives that it trains. The erosion of human skills is being experienced at every level of society and necessitates attention to what is taught, and how it is taught, so that those who leave the world of education for the world of work may be better equipped for the unexpected and multiple demands that will arise because of the way HIV/AIDS is inexorably depleting the human resource base.

In addition to what schools and colleges can do, home and community play a vital role in human capital formation. But the sickness and death of the middle-aged generation are leaving young people with nobody to pass on to them essential knowledge and skills.

This is of particular importance in areas of rural livelihood. HIV/AIDS is blocking the acquisition by young people of knowledge and skills relating to planting, fertilizing, weeding, harvesting, crop storage, animal care, fishing, alternative food sources, pottery, basketry, house-building, and other areas intrinsic to survival. In normal circumstances young people would be educated informally in these areas by working alongside an experienced parent or elder. Sickness, death, and the time dedicated to health care, funerals and mourning, have greatly reduced the potential for all this. There is strong evidence that where the prevalence of HIV/AIDS is high, the time given by rural households to productive activities has declined, and with it the ability to provide the young with the wide-ranging informal education of the type their predecessors received. Thus, in Ethiopia, AIDS-affected households have been found to spend between 11.6 and 16.4 hours per week in agriculture, compared with a mean of 33.6 hours for non-AIDS-affected households (UNAIDS-UNECA, 2000). These circumstances call for more purposeful efforts by the education system to make up for the training shortfall, both in and out of the formal system. If families and communities can no longer transmit skills, then it becomes incumbent on education systems either to do so directly or to equip their clientele in such a way that they will be able to acquire these skills in non-conventional ways, in and out of the 'formal' system.

The latter alternative falls clearly within the remit of the education sector. Catering for it calls for major re-thinking of both the curriculum and the way it is taught. At all levels of the education system, learners in a world affected by HIV/AIDS need to develop flexibility, adaptability, resourcefulness, the ability to incorporate and take action on what they read or hear on the radio, the sensitivity that will enable them derive the needed knowledge and skills from all that they encounter in life. Educators have always seen this 'learning to learn' as a major curriculum goal. The HIV/AIDS pandemic has highlighted, yet again, its importance and the need to ensure its promotion both by what is taught and by the methods of teaching.

Responding to the learning needs of vulnerable children.

Curriculum review and adaptation: As currently conceived, curricula do not respond to the needs of learners affected by loss, or of those for whom immediate employment and income-generation possibilities are not hypothetical abstractions but compelling life-and-death survival imperatives. While the need remains for basic literacy, numeracy, health, and thinking skills, children and young people who have to face the world of work at an early age also stand in need of a repertoire of entrepreneurial and vocationally-oriented skills.

Clearly, it would be very difficult for the system to equip them with specific immediately applicable vocational training (and trying to do so could limit their right to an education that would open horizons for development along an academic or other dimension). But it should be possible to integrate into the curriculum an orientation towards the practical and applicable. The twentieth century saw a proliferation of models for a more practical form of education and training. Perhaps these models failed, or could not be brought to

scale, because they focused too much on the specific and concrete and too little on the more general principles. The challenges that HIV/AIDS is posing for orphans and other vulnerable children demand a return to the whole issue of the curriculum, especially in the lower grades, so that it can be more successfully oriented to the real needs of learners.

Delivery system adjustment: Responding creatively and flexibly to HIV/AIDS also requires willingness to adjust educational delivery systems. There are many dimensions to this. One is to establish broad principles for the timetable, daily schedules, and even the education and training calendar, while allowing schools, colleges and communities to regulate these in ways that respond to locally experienced needs. But there is need to go beyond this. In an AIDS-affected community, there may not be enough teachers to do the teaching. Children may not be able to attend school because of costs or demands in the home – or at least not until they are older. The needs of those of different ages, and the needs of boys and girls, may differ widely and require age- or gender-differentiated responses. It is hard to see how a traditional education system, centered round a physical structure, conceived in a somewhat rigid hierarchical way, and using the technology of one teacher in charge of a class of forty or more students, could respond to these and similar perplexing needs. Something more is required.

Community schools: Recognizing that the standard formal school system is not properly 'geared' to cater for all their children, some communities have established their own schools, with their own teachers, curriculum, and management structures. Positive aspects of this development are the ability of a community school to respond instantly to felt community and learner needs and the deep sense of community ownership and involvement. Negative aspects are the danger that such schools might become second-rate learning institutions catering for the poorest, together with the associated danger that the state might feel itself absolved of any responsibility for such schools and in consequence for some of the most disadvantaged in society. Other responses to the problem of reaching out to orphans and other vulnerable children who are not able to attend school include the use of interactive radio and the appointment of itinerant teachers who go out from a central school to animate and supervise tutors engaged by community groups.

Adjusting for teacher loss: HIV/AIDS-related teacher morbidity and mortality together pose a major challenge to the functioning of education systems. Since the disease also makes an impact on teacher trainees and trainers alike, the simple solution of expanding teacher training capacity will not be adequate. In the absence of other measures, 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).

Community backup: Community participation must be central to every innovation aimed at adjusting the education delivery system in response to the challenges of HIV/AIDS. The most immediate effects of the disease are experienced at household and community levels. These levels have already seen an unprecedented manifestation of different coping strategies, including self-sacrificing home-based care for the sick and the matter-of-fact integration of orphans into already stressed extended families. By the way they are coping with the disease and its impacts, communities are showing that the real potential for combating HIV/AIDS lies in the resourcefulness, strength and courage of the people themselves.

The same resourcefulness, strength and courage are at the disposal of education systems to enable them to make the adjustments that will guide them through the HIV/AIDS crisis, and which may continue long after the crisis has passed because the adjustments are themselves intrinsically desirable. What this means is that for education to be proactive in combating HIV/AIDS and in managing its impacts, it must also be proactive in establishing linkages with the communities being served. This implies that education authorities and institutions must constantly explore with communities how best they can be of service to one another. A concrete illustration of this approach appears in Zambia's draft HIV/AIDS strategic plan for education, where one objective is that all schools and colleges should take action during the coming year to participate in home-based care and other forms of response to the AIDS-related needs of their communities (Zambia, 2001). Similarly, in Botswana close links are emerging between learning institutions, local NGOs and faith-based organizations, and social and health workers.[2]

Using education to protect against HIV infection

EDUCATION AS A 'VACCINE' AGAINST HIV INFECTION

Evidence is accumulating that education helps individuals protect themselves against HIV infection. The school *is* an institution that protects. Although the evidence is still patchy, HIV infection rates appear to be declining more rapidly among young educated women than among those with less education. In Zambia, for instance, surveillance data for Lusaka show that the prevalence rate for women aged 15–19 dropped from 27.6 percent in 1993 to 14.6 percent in 1998. Very significantly, this steep decline was more marked for those with secondary and higher levels of education than for those who had not proceeded beyond the primary level. Moreover, out-of-school urban women in the 15–19 age group were two to three times more likely to be HIV-infected than those of the same age who were still attending school (Fylkesnes, Musonda, Sichone, Ndhlovu, Tembo & Monze, 2001).

These findings are in marked contrast to earlier evidence from Zambia, as from several other severely affected countries, of a tendency for levels of HIV infection to be higher

among the more educated and better-off. Studies have documented the positive correlation not only between level of education and the probability of engaging in high-risk sexual behavior, but also between level of education and actual infection (Melbye *et al.*, 1986; Filmer, 1998; Ainsworth & Semali, 1998; Hargreaves & Glynn, 2000). But the subjects reported on in these studies had all become sexually active in the comparatively early stages of the epidemic when the behavioral correlates of infection were less well understood and less widely disseminated. Evidence deriving from individuals who have become sexually active in more recent times, such as in the Zambian case, suggests that the more educated are less vulnerable to HIV infection.

If this continues to be substantiated by research, then a simple but very powerful conclusion follows: *the more education, the less HIV*. In the absence of a physiological vaccine against HIV infection, society has at its disposal a 'social vaccine', the vaccine of education.

HOW DOES EDUCATION PROTECT AGAINST HIV INFECTION?

Vandemoortele and Delamonica (2000) provide some direct and indirect evidence that points to a changing social profile in the disease, and assert that this is due to the increased knowledge, information and awareness which education provides. However, they are at pains to point out that the evidence does not allow us to conclude exactly how the 'education-vaccine' against HIV works

The question is: does education protect against HIV infection because of the health skills and HIV/AIDS education that are provided in school, or is there something inherent in the very process of becoming more educated that equips individuals with the skills and motivation to protect themselves against infection? There is no universally agreed answer, though clearly both aspects are important. Almost certainly, however, the general impact of education in and of itself is the most significant factor.

The reason for this view is that the positive correlation between level of education and HIV infection or high risk behavior is changing even among those whose formal education included little, if any, health skills and AIDS education. Evidence from the 1990s speaks of the sporadic implementation of life-skills and reproductive health programs, of acute problems of teacher knowledge, understanding and commitment, and of lack of articulation with the real choices and social pressures that young people experience in their lives (Gachuhi, 1999; Kippax, Smith and Aggleton, 2000; UNECA, 2000).

Programs that are currently being designed or marketed have transcended these problems, but the fact remains that few of those attending school prior to the mid-1990s were exposed to widely available programs of HIV/AIDS education. Yet it is among these that declines in infection rates are now being detected. The improved programs, materials and teacher preparation that are now becoming more widespread should undoubtedly accelerate this favorable trend. For this reason these initiatives are vitally important. They

are also important because skills-based health education extends more widely than physical health to the domains of psycho-social and environmental health issues.

But what seems to be of the greatest significance in reducing HIV vulnerability is the fact of being educated, of having attended school for a certain number of years. Before trying to unravel some of the mechanisms that may be at work here, it is worth noting somewhat similar effects in relation to both poverty reduction and improved health. During the past decade consensus has been consolidating that education is one of the most potent instruments for combating poverty, enabling individuals improve their social and economic status, and promoting economic growth. While there is an abundance of retrospective evidence that this is so, the theoretical and professional educational reasons why it should be so are not so clear. Basic literacy and numeracy and the initiation into a learning culture seem to be key ingredients. But these apart, it does not seem to be so much what one has learned or even how one has learned that matters. What counts is *that* one has learned.

It is somewhat similar with the well-attested improvements in maternal and child health that correlate so strongly with level of mother's education. The content and the method of learning seem to be less important than the fact of having been through a schooling experience for a certain number of years, with the positive effects being more pronounced with more years of schooling.

It may well be the same in the case of HIV infection. Vulnerability declines with years of education, but how exposure to education and training works to bring about this decline is far from being clear. Part of the reason, however, may lie in the way that education brings about changes in the information-handling, affective, and socio-cultural domains.

Education enhances potential to make discerning use of information

It is probable that becoming literate is the most basic change that education effects. A person who is literate is equipped to garner and internalize information from a wide variety of sources. Moreover, the formal activities of mastering basic literacy and numeracy skills require many years of close attention to information sources—analyzing, judging, accepting, or rejecting what has been presented. This internal bank of skills may well be a student's most significant acquisition while in school. Consolidating and extending these skills is the work of a lifetime. But having acquired them in their most formative years, students retain and subconsciously apply them in all circumstances in life, including those relating to HIV/AIDS and protection-relevant information. In other words, the intellectual skills developed in acquiring basic literacy and numeracy stand to the individual's good subsequently throughout life, enabling her or him to evaluate information and knowledge, in the HIV/AIDS domain as in all others.

Education enhances potential to plan for the future

But knowledge is not enough, especially in relation to protection against HIV infection. The literature abounds with data from surveys which show that knowledge about HIV/AIDS does not automatically lead to any desirable change in behavior. Knowledge must be supplemented by attitudes and values that will lead to appropriate and positive decisions. Reference to attitudes and values immediately bespeaks the affective domain, an area frequently ignored in the manifest school curriculum and as yet inadequately investigated. But the hidden curriculum of institutional culture and organizational milieu makes a deep and lasting impression in these areas. Long after they have left school, individuals will recall their school days not so much in terms of what or how they learned, but in terms of the routines, procedures and personalities that dominated this period of their lives. Many of these, especially the routines and procedures, build up valuable capacities, which inform much of the student's way of behaving in subsequent life.

In language that is not much used nowadays, the very fact of attending school enables students to become better disciplined. From prolonged experience of the almost military routines and procedures of school, students learn to defer gratification, to apply themselves even when naturally reluctant to do so, to endure constraints and hardships in the expectation of long-term future benefits, to plan for the protection and advancement of their future. From being little more than inchoate bundles of dissonant urges at the time they commenced school, they emerge with some poise and a considerable sense of direction and control. It needs no underlining to see how such qualities can equip and motivate them to take action that will better protect them against HIV infection.

Education accelerates favorable socio-cultural changes

Finally, education changes the socio-cultural climate within which people live and behave. Even in the absence of any concerted effort to bring about change, education modifies certain aspects of the family and community environment. Some practices become unacceptable, others are introduced. As education becomes more widely diffused in a community, it becomes more acceptable that women and girls should be more involved in decisions affecting themselves, and ultimately affecting their sexual and social life. Although the changes may come about very slowly, power relations and gender relations undergo subtle improvements. Traditional practices that may place individuals at high risk of HIV infection fall away. The better knowledge and information that accompany education, the greater future orientation of educated individuals, and the greater prosperity that frequently accompanies higher levels of education, all conspire to create a social climate that is more friendly to behavior directed towards HIV prevention.

Learning institutions can accelerate the process when they themselves – their staff, their environment, their procedures and regulations – reflect values and principles consonant with profound social change. Too often institutional environments, including classrooms, hostels and leisure areas, are battlegrounds. They are not safe places especially for female educators and learners. Too often abuse, harassment and violence are tolerated. In this context, behavior change is constrained so that vulnerability to HIV infection thrives.

Immediate policy and management decisions that all places of learning *shall* be places of safety for learners and educators, where there is zero tolerance for abusive behavior of any kind, are essential for creating a regulated climate favorable to informed decision-making and substantial behavior change.

Over-arching importance of realizing Education-for-All goals

If it is correct that education in and of itself is a critical factor in the control and management of HIV, a number of important conclusions follow.

First, there is the imperative of achieving the Jomtien and Dakar education-for-all goals. In the light of the analysis that has been presented, the most important of these would be to ensure that every child has access to and can complete primary education of good quality. As already stated, the objective should be to ensure that all children – boys and girls – are enrolling and staying in school. This in itself will give them some measure of protection, notwithstanding the fact that, in certain circumstances schools and institutions themselves may constitute a high risk environment (Kelly, 2000b; George, 2001). It would appear that the longer learners stay in school, the greater the likelihood of the 'education vaccine' taking hold. It has been traditional to assert that learners should remain in school for at least four years if they are to maintain their literacy and numeracy skills. The evidence that is so far available suggests that schooling of longer duration is needed if education is to reduce vulnerability to HIV infection, with the beneficial effects being most pronounced for those who have had some secondary or higher education.

Second, it is important that education institutions should be well managed, with purposeful efforts to establish an environment where orderliness and normality prevail and where high expectations are set in regard to the performance and behavior of every member of the institution's community. In the disturbed environment of a severely AIDS-affected community, 'school' may be the only normal situation that a child encounters, although even here sickness and mortality among teachers, fellow students, and their families, may cast a pall. A key goal of management should be to ensure full scope, within a secure environment, for vitality, happiness, hope, energy, and play—the characteristics of children worldwide and the characteristics that draw many adults into the teaching profession.

Finally, as has already been stressed from a different perspective, there is need to link school and community closely so that students are not caught in a dangerous conflict between what they learn from teachers and what they observe in the community. Through its close relationships with the community the school can gradually contribute to greater gender equity, increased female empowerment, and a more substantial human rights framework within the community. A specific aspect of this would be efforts aimed at dispelling all forms of AIDS-related stigma and discrimination. In the practical world of affairs, it may be that schools and communities have much to learn from each other.

The imperative for action

Education systems, already fragile, are being severely threatened by the HIV/AIDS pandemic. If business is allowed to continue as usual, these systems will become increasingly incapable of delivering their mandated services. But with HIV/AIDS it can no longer be business as usual. The need now is for bold and decisive actions that go beyond anything that the world has hitherto experienced, even in crisis situations.

Some governments and ministries of education are committed to action, although slow in giving practical effect to their intentions. In addition, the international community expressed its commitment through such instruments as the International Partnership Against AIDS in Africa. But it is people at local level, private individuals working through community organizations, who are making the most evident practical contribution to alleviating the suffering HIV brings in its trail.

However, a greater sense of urgency is needed, more commitment and more action. It is clear that education systems are under threat. What must be done to stabilize and restructure them so that they can respond proactively to the AIDS pandemic, protect themselves, and offer protection to all who use their services, is also clear. The steady deterioration and ultimate destruction of education and school systems can be reversed through determined and well-planned activities directed at stabilizing education provision and quality, reducing the impact of the disease on learners and educators, and responding creatively to the new learning needs cast up by the pandemic.

If these steps are taken, the returns will be enormous, since education and schooling provide almost the only known antidote to HIV infection. Making this antidote universally available implies making education universally available. It implies education for all, with the provision of educational opportunities so that every person—child, youth and adult—can meet their basic learning needs. Commitments to this were made at Jomtien. They were renewed repeatedly throughout the 1990s. They have been reaffirmed at Dakar. They are given renewed urgency by the need to get ahead of the HIV/AIDS pandemic. There is no longer any time for delay. The survival of millions depends on what is done *now* to deliver on these commitments. In the words of Nelson Mandela at the close of the XIIIth International HIV/AIDS Conference in Durban, *the time for action is now and right now*.

Conclusion

In conclusion, we wish to depart from academic tradition by making a direct appeal to our readers. We earnestly implore every person who reads these words and who is in a position of authority to do two things: first, to become better informed about HIV/AIDS and its actual and potential impacts on education, and then from this standpoint to provide the informed, committed, action-backed and resource-backed leadership that is required for managing and controlling this devastating epidemic.

Furthermore,we make this appeal to all readers: recognize that for twenty 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—and take what steps *you* can to stimulate and support such action.

Thank you.

Endnotes

1. The authors are indebted to Helen Craig, International Institute for Educational Planning, for sharing this insight on the parallel between airplane safety procedures and the need to protect education systems against HIV/AIDS.
2. Field evidence from ongoing work on the impact of HIV/AIDS on the Botswana education sector, Abt Associates Johannesburg, 2000- 2001.

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