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HIV/AIDS: a Threat to Educational Quality in Sub-Saharan Africa

Analytical framework and implications for policy development

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**Working Document
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Acronyms and abbreviations

ADEA	Association for the Development of Education in Africa
CONFEMEN	Conférence des Ministres de l'Éducation des pays ayant le Français en partage
MLA	Monitoring Learning Achievement
NESIS	National Education Statistical Information Systems
PASEC	Programme d'Analyse des Systèmes Éducatifs des Pays de la CONFEMEN
PRSP	Poverty Reduction Strategy Papers
SACMEQ	Southern Africa Consortium for Monitoring Educational Quality
SAP	Structural Adjustment Programs
UNESCO	United Nations Educational, Scientific and Cultural Organization

ABSTRACT

This study is intended to provide an analytical framework to assist educational decision-makers of sub-Saharan Africa and their partners in assessing the impact of the HIV/AIDS epidemic on educational quality. The practical value of the framework is to provide guidelines in setting educational policy priorities and designing planning strategies to support national efforts in reaching the Education for All goals. Evidence of the impact of the HIV/AIDS on educational quality is still limited and too often anecdotal. While more systematic research is required, enough information is currently available to draw some implications for policy development. The author argues that the theme of educational quality is particularly appropriate for developing policy responses to HIV/AIDS in the education sector, because the responses must be multi-faceted and holistic to take into account the complex factors that mediate the achievement of educational quality. A focus on a single factor, such as teacher supply or curriculum, would be insufficient to protect the education sector from the impact of the epidemic. In essence, the effort to prevent and mitigate the impact of HIV/AIDS in the education sector must be mainstreamed in strategies to promote and protect educational quality.

1. INTRODUCTION

1. Through many approaches, including the abolition of school fees, automatic promotion from one grade to the next and the creation of community schools, vast numbers of African children and youth have gained access to education. Unfortunately, the shortage and unequal distribution of essential inputs has meant that the quality of expanded schooling has suffered in many African countries. Nevertheless, the importance of educational quality is clear:

“Evidence over the past decade has shown that efforts to expand enrolment must be accompanied by attempts to enhance educational quality if children are to be attracted to school, stay there and achieve meaningful learning outcomes. Scarce resources have frequently been used for expanding systems with insufficient attention to quality improvement in areas such as teacher training and materials development. Recent assessments of learning achievement in some countries have shown that a sizeable percentage of children is acquiring only a fraction of the knowledge and skills they are expected to master. What students are meant to learn has often not been clearly defined, well-taught or accurately assessed.”¹

2. It is clear that simply putting children in classrooms without paying attention to the quality of instruction and learning outcomes will result in many children mastering only a small part of the knowledge, attitudes and skills they need to acquire for either further education or eventual integration into productive life. Without high quality education, today’s youth will be poorly prepared to be successful actors in the development process when they reach adulthood. There is an evident consensus about the importance of clearly defined, well-taught and accurately assessed curricula and instructional processes. Thus, African ministries of education and their partners are developing policies and strategies that include quality-enhancing measures to reinforce teacher training and supervision, revise curricula and give greater autonomy to decentralised offices and to schools.

3. The HIV/AIDS pandemic however poses a serious threat to reaching the Education for All goals for the year 2015² and to efforts to improve school quality. It undermines educational quality in many different ways as it impacts on:

- supporting inputs to schooling, including family community and education system support;
- student characteristics, including age, orphan or non-orphan status
- enabling conditions, such as high instructional time in school;
- school climate
- the teaching-learning process
- learning outcomes (knowledge, attitudes and competencies) and

¹ The Dakar Framework for Action, 2000.

² Simply stated, these goals are: 1) to promote and protect early childhood education; 2) to make primary education obligatory and free for all; 3) to develop learning and skills among youth and adults; 4) to reduce adult illiteracy by 50 per cent; 5) to reach parity between the sexes by 2005 and equality by 2015; and 6) to improve the quality of education.

- student outcomes, including academic achievement, social skills and eventual economic success.

4. The rapidly growing number of orphans and vulnerable children represents a major challenge to sub-Saharan African educational systems, which are not well adapted to their learning needs. This paper argues that specific policies are required in the education sector not only to protect teachers and students from the impact of HIV/AIDS, but also to preserve ministry of education capacity to manage the educational system. Finally, diversifying the delivery of educational services to learners and involving committed partners is presented as priorities for educational quality in an AIDS-impacted environment.

2. WHAT IS EDUCATIONAL QUALITY?

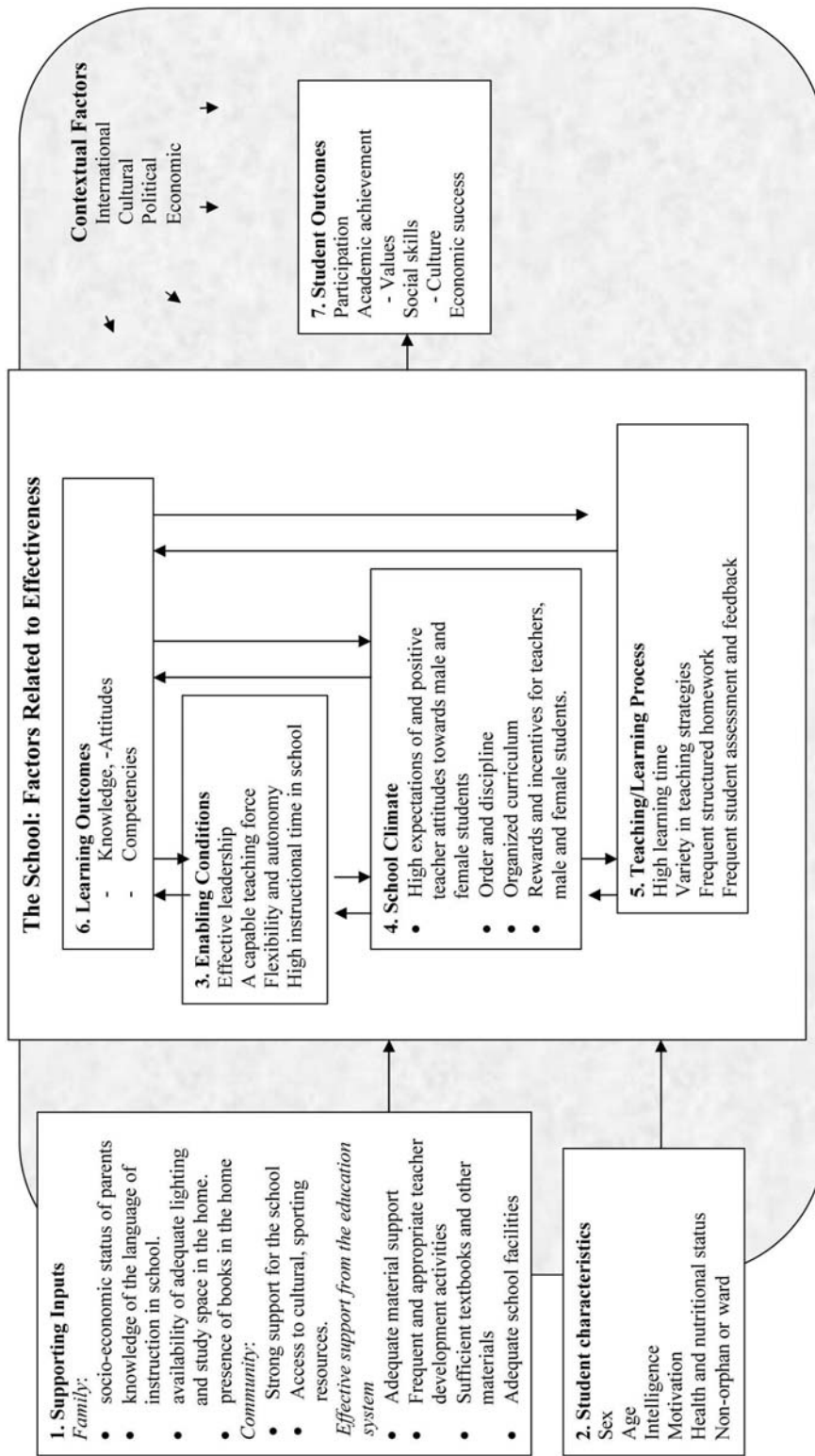
5. Educational quality goes beyond the analysis of inputs. Educational quality means overall improved learning achievement. In spite of the existence of various concepts of educational quality, researchers are generally in agreement that it results from the interaction of several sets of factors that tend to produce high levels of learner achievement. In general, definitions of educational quality include variables associated with the following broad factors: the school, the learner and the environment. High or positive measures of these factors are considered favourable to increasing educational quality leading to high rates of learner achievement, while low or negative measures are associated with poor quality and low levels of learner achievement.

6. For the purpose of analyzing the impact of HIV/AIDS on educational quality, the framework given in Figure 1 below (adapted from Heneveld and Craig, 1996) will be used. In primary and secondary education, schools tend to be effective in promoting learning outcomes when the following factors, organized as an expanded paradigm with seven domains, are present:

- **Domain of Supporting Inputs.** Effective learning in schools is promoted not only by frequent and appropriate teacher development activities but also by strong parental and community support. Effective administrative, technical and financial supports from the education system are also critical. In addition, the availability of adequate textbooks and other learning materials is also necessary to support effective learning.
- **Domain of Pupil Characteristics.** In Africa and in the context of EFA, these variables are extremely important factors for educational policy-making. The variables include sex, age, intelligence, motivation, health and nutritional status and home background, which include factors such as having adequate support from parents or guardians.
- **Domain of Enabling Conditions.** These factors centre on the effectiveness of the headmaster as a leader and administrator, the presence of a capable teaching force and an optimal level of autonomy and flexibility. Finally, sufficient time spent in school by pupils and teachers is important to achieving high quality education.
- **Domain of School Climate.** Learning is influenced by factors such as high expectations of male and female pupils, positive teacher attitudes, order and discipline in the school, the application of an organized curriculum and a system of rewards and incentives for pupil learning.
- **Domain of the Teaching-Learning Process.** The factors associated with this domain are high learning time, variety in teaching strategies, frequent homework, student assessment and feedback.
- **Domain of Learning Outcomes.** This domain includes the knowledge, attitudes and competencies that pupils acquire from the instructional process.
- **Domain of Student Outcomes.** The outcomes may be immediate or long-term. They are essentially participation in school activities, academic achievement and acquisition of its supporting values, and the acquisition of effective social skills consonant with the pupils' culture. Finally, effectively educated pupils are expected eventually to achieve economic success as they enter economic production.

7. There are also contextual factors to be considered in planning educational quality. The international factors include the broader political and economic forces, such as the influence of the education systems of former colonial powers and pressures exerted by international donors in favour of educational policies of their liking. Economic factors include resources from national or local budgets. In places where communities build and equip schools or pay teachers, the relative prosperity of the community has a direct influence on educational quality. Political factors include policy frameworks and priorities set by national, district and local leaders. Some of the key political factors to consider in the environment of quality are attitudes towards girls' education, the language of instruction, and the opening of private and community schools of a secular or religious nature. Cultural factors are intimately woven into all domains of the paradigm in areas such as teaching styles and curriculum content as well as adult-child and gender roles and school climate.

Figure 1 Conceptual framework: Factors that determine educational quality



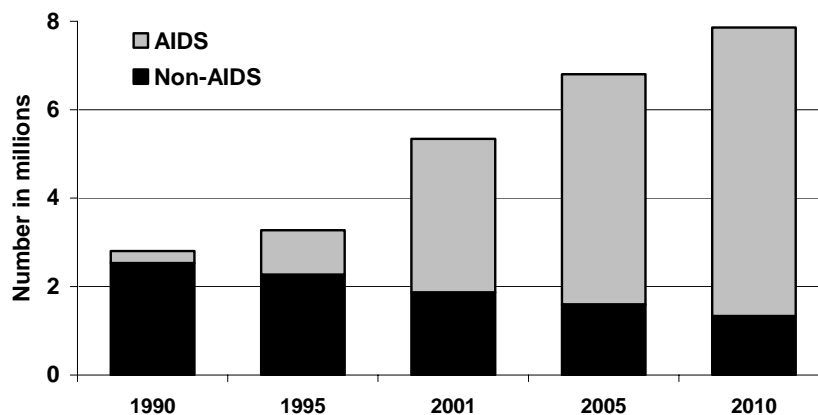
Source: IIEP, after Heneveld and Craig (1996)

3. THE CHALLENGE OF HIV/AIDS

8. Despite efforts to place quality at the centre of strategies to achieve the Education for All goals, special measures and partnerships are urgently required to confront HIV/AIDS, a new threat that is undermining efforts to expand high quality educational opportunity in Africa. The challenge for ministries of education is to strengthen the capacity of their staff and provide resources for monitoring and evaluating interventions. Such monitoring is key to the dynamism of policy and steady improvement of interventions. There is also a need to systematize and categorize HIV/AIDS interventions to reflect their time perspective – short-, medium-, and long-term – in order to facilitate the process of implementation including the sequencing of activities (Akoulouze, R., Khanye, V. and Rugalema, G. 2001). This new framework is essential in developing responses to HIV/AIDS in the education sector, where the epidemic is no longer only a medical issue but a menace to efforts to provide high quality education to young Africans. The epidemic becomes an educational planning challenge when we understand that it affects education in two major ways (Kelly, 2000):

- AIDS reduces the *supply* of education as teachers become infected, fall sick and die. The staff of teacher training colleges are also affected, disrupting the institutional capacity to train new teachers.
In addition, the AIDS epidemic impacts on educational planning and management processes. The staff of ministries, district education offices and inspectorates are affected, much the way teachers are. AIDS-related illness and funeral attendance as well as operating budgets diverted to support these additional costs diminish school visits by advisers and inspectors. These factors erode the quality and effectiveness of educational management at central, district and local levels.
- AIDS reduces the *demand* for education in several ways. First of all, fewer children are born when large numbers of women of childbearing age contract the HIV virus. This reduces the number of children eligible to enter school. Secondly, AIDS strikes the parents of school children. The loss of wage earners in the family can reduce it to poverty. Supporting the direct and indirect costs of education becomes increasingly difficult as medical and funeral expenses absorb family resources. Finally, when parents die, their children become orphans. Unless relatives take care of them, these “AIDS orphans” are left without resources. The burden on grandparents is especially heavy (see Annex 2). Many orphans drop out of school for economic reasons or fear of stigma and discrimination. By 2001, nearly six million children in sub-Saharan Africa had lost both parents. In about two out of three cases, the loss was due to AIDS. Without urgent action, the number of orphans could reach nearly eight million in 2010 (see Figure 2, below).

Figure 2 Number of double orphans in sub-Saharan Africa is increasing due to HIV/AIDS



Source: Unicef 2003

9. These facts have significant implications for educational quality, as many important aspects of it are directly affected. Thus, promoting educational quality in the context of HIV/AIDS requires special approaches to educational policy and planning, to be discussed below.

3.1. The impact of HIV/AIDS on educational quality: the sensitive factors

10. It is only recently that HIV/AIDS has emerged as an educational issue. Much that has been written has focused on quantitative issues such as the impact of morbidity and mortality on the stock of teachers (for example Crouch, 2001). To date, very little has been written explicitly about the relationship of HIV/AIDS and educational quality. Assessments of the impact of the HIV/AIDS epidemic on education have brought to light certain new factors that must be included in order to guide the formulation of policies that promote educational quality in Africa. The framework presented above allows us to analyze systematically the possible impact of HIV/AIDS on various factors which influence and shape educational quality. Where possible and relevant, references to research findings are given. Many of these still remain anecdotal; more research is needed on the impact of HIV/AIDS on the different aspects of quality is needed, supported by data from strengthened education information systems (EMIS). In reviewing the framework presented above, HIV/AIDS has an impact on educational quality in the following domains:

3.1.1. Supporting Inputs

11. Educational quality depends on supporting inputs from the family the community and the educational system. Several of these inputs are highly sensitive to HIV/AIDS impact, as shown below.

<p>Supporting inputs</p> <p>Family</p> <ul style="list-style-type: none"> • socio-economic status of parents • knowledge of the language of instruction in school. • availability of adequate lighting and study space in the home. • presence of books in the home <p>Community</p> <ul style="list-style-type: none"> • strong support for the school • access to cultural, sporting resources <p>Effective support from the education system</p> <ul style="list-style-type: none"> • adequate number of pupils per teacher • frequent and appropriate teacher development activities • adequate material support • sufficient textbooks and other materials • adequate school facilities

Family effects

12. AIDS is an impoverishing disease. When the main wage earner of a family falls ill, family income is increasingly diverted to cover medical expenses. Family possessions, land and livestock may be sold off to obtain funds for medical care. As wage earners succumb to secondary illnesses, their work suffers from increasingly frequent absenteeism until they can no longer go to work at all. Income therefore declines. Adequate rented housing, piped water and electricity (if the family had these in the first place) becomes unaffordable. Paying school fees becomes difficult and even impossible for some families. In the end, family socio-economic status declines when AIDS strikes. The presence of HIV/AIDS in the household places special burdens on the family.

13. A study on households affected by HIV/AIDS in South Africa shows that “in 40% of households caregivers had to take time off from work and other income-generating activities, or school. One in five caregivers spent school/study time caring for [a] sick person. This has serious implications for the educational development of these individuals... Although many families hesitated to cut school fee payments even when they could no longer afford them (four percent of households had done so as a result of having an AIDS-sick person to care for), poverty forces many children to drop out of school. Girls are more likely than boys to drop out of school or be forced to stay home because of financial limitations or to care for a sick person” (Abt associates, 2002).

14. Finally, the HIV/AIDS epidemic creates orphans. Their educational situation is discussed under *Student characteristics*, below.

Community effects

15. A community feels the aggregate impact of AIDS on its families. This is particularly true in communities that depend on labour-intensive farming with a low level of mechanisation and agricultural inputs. Such communities are especially vulnerable to HIV/AIDS, which affects household labour quality and quantity. Initially, productivity falls when an HIV-infected person begins to fall ill; quantity of labour diminishes when the person dies. In most parts of Africa, women produce 80 percent of the food supply. Since women are more heavily affected by HIV/AIDS than men, agricultural production and food supply are disproportionately impacted by the epidemic (Baier, 1997). The decline in the local economy caused by reduced productivity and family income can have a devastating effect on education in communities that are in charge of building, equipping and repairing schools. Community schools are particularly vulnerable to the impact of the AIDS epidemic, as the community is usually responsible for vital functions, such as paying teachers' salaries.

Educational system effects

16. The teaching and learning conditions as well as the management of educational systems suffer from the effects of AIDS in several ways.

- First of all, although teachers' early retirement for health reasons or death during service is draining the pool of trained teachers, evidence on the effect of HIV/AIDS on pupil-teacher ratios is inconclusive, as HIV/AIDS may be similarly affecting the number of teachers and the number of pupils. Hence, average pupil – teacher ratios have not declined as much as could have been expected (Carr-Hill et al., 2002). The situation varies widely, however, between rural and urban areas and between areas of high and low HIV prevalence.
- Secondly, absenteeism due to being seropositive is a serious problem. Once the immune system is weakened and secondary illnesses begin to manifest, instructional and support staff tend to take time off, arrive at work late or leave early. For example, a survey was conducted in 168 primary schools in Swaziland in 2000, where 33.4 percent of the adult population is seropositive. The survey revealed that headmasters consider health problems, late arrival at school and absenteeism (listed in order of seriousness) as the most significant behavioural problems among teachers (Shabalala, 2003). In addition, teachers who are infected with the HIV virus may try to transfer to another area or, once visibly ill, “disappear” (Katahoire, 1993). Other teachers may also want to transfer out of heavily affected areas or refuse to be posted to them, thus decreasing the number of teachers available in these regions
- Moreover, absenteeism has a financial cost. The diversion of financial resources to unbudgeted funeral costs reduces critical services such as in-service teacher training, provision of textbooks, student scholarships or repairs to school buildings. In 2000 it is estimated that HIV/AIDS-related deaths among teachers and non-instructional staff in Malawi were preceded by 127 person months of absenteeism. Another 6,760 person months may have been lost due to HIV/AIDS-related illnesses. The cost in salary equivalents amounts to over two million USD (Malawi Government and UNDP, 2002). These are funds that are not used to improve teaching learning conditions.

3.1.2. Student characteristics

17. Recent research has revealed how the AIDS epidemic has an impact on students. Sex and age are very significant variables, as girls are generally sexually active at an earlier age than boys, shown by the significantly higher rates of HIV prevalence among adolescent girls in many African countries. Thus, preventive efforts are particularly important in keeping younger students, notably girls, AIDS-free.

18. Student characteristics

- Sex
- Age
- Intelligence
- Motivation
- Health and nutritional status
- Status as non-orphan or ward

18. Health and nutritional status have much to do with the “educability” of learners. Most studies point out that the grades attained and achievement in test scores of children with a history of malnutrition are lower than those of their peers. In populations where malnutrition is endemic, children with a history of severe protein energy malnutrition enroll late in school and drop out early, and manifest school aptitude deficits (Pollitt, 1990). Because of the drop in family income, the nutritional status of children may suffer. Health and nutrition issues are even more serious with orphans.

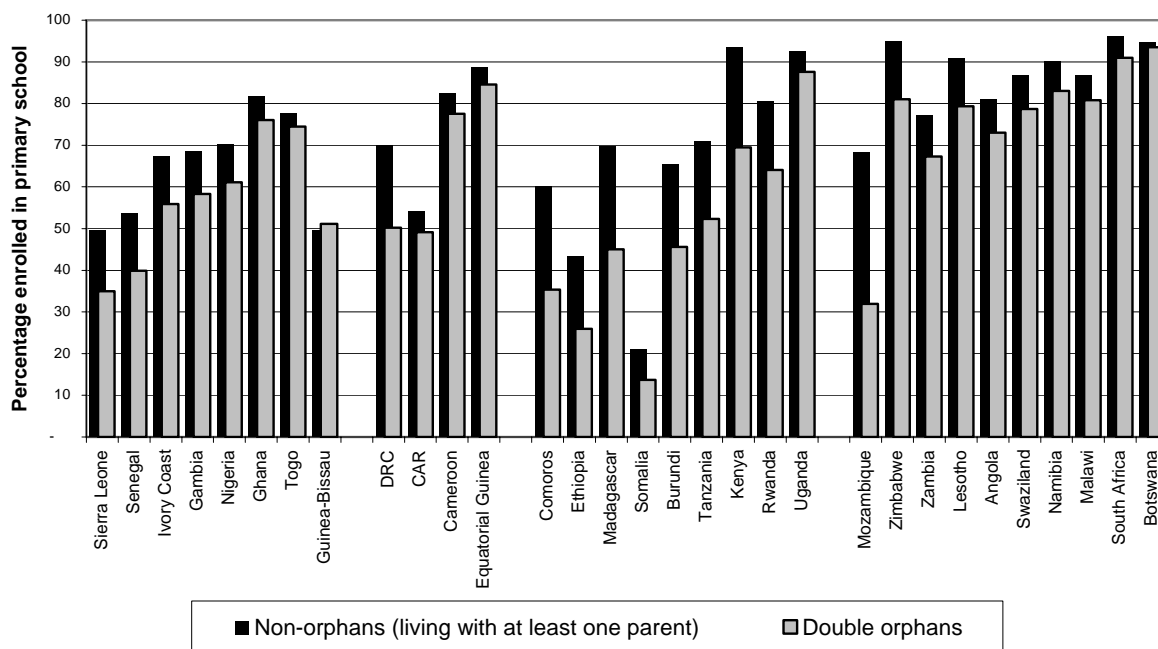
19. A growing body of literature is bringing to light the plight of AIDS orphans and other vulnerable children. Their “educability” is weakened not only by health and nutritional problems, but also by the stigma and discrimination associated with the epidemic. Lack of parental support weakens the ability of children to stay in school. Orphans and vulnerable children stand an increased chance of being malnourished and receiving inadequate medical care – factors that can adversely affect enrollment, attendance and performance (Global Partners Forum, 2003). Research in Malawi has shown growth in the number of orphans in a sample of 65 schools. In the researched schools, the percentage of students who had lost one or both parents increased from 12 per cent to 17 per cent between February 1999 and October 2000 (Harris and Schubert, 2001). The impact of orphanhood is felt mainly in terms of absenteeism, repetition and dropout rates rather than in performance as measured in scores in literacy and numeracy tasks (Harris and Schubert 2001). One study in Zambia (UNAIDS, 1999) found that in urban areas, seven per cent fewer orphans attend school than non-orphans, while in rural areas almost 20 percent fewer orphans attend school.³ Thus, poverty and attendant malnutrition and ill health become barriers to attendance and educational quality. In the absence of special measures such as the waiver of school fees or the provision of lunches, orphans may also attend irregularly or drop out of school because of the stigma and discrimination associated with the AIDS epidemic.

³ While the drop in educational demand might at first sight seem like a way of lowering pupil-teacher ratios and presumably enhancing educational quality, it must be remembered that HIV/AIDS is simultaneously reducing the supply and quality of education by creating attrition among teachers, teacher trainer-supervisors, inspectors and other staff that support quality of instruction.

20. A number of studies have documented the income effect of AIDS on school attendance. For example, a World Bank study reported that school attendance by students 15-20 years old was cut in half in households that lost an adult female in the United Republic of Tanzania (World Bank, 1995). Another study from Zimbabwe found that 31 per cent of the households interviewed had a child who was not attending school following the death of the mother (Mutangadura, 2000). This result was confirmed by another study in Zambia, which found that 55 per cent of AIDS-affected households in the Mansa district were unable to meet the costs of their children’s education because of AIDS (Kasawa, 1993).

21. The educational situation of orphans varies from one country to another. In general, however, the effects of poverty are such that in sub-Saharan Africa, children aged five to 14 who had lost one or both parents were less likely to be in school and more likely to be working more than 40 hours a week than children with both parents. The gap in enrolments between orphans and non-orphans is greatest in countries with low national enrolment figures (see Figure 3, below).

Figure 3 Likelihood to attend school by status



3.1.3. Enabling conditions

22. Efforts to maintain educational quality are hampered by a lack of informed leadership and policy in the education sector. While nearly all sub-Saharan African countries have a national multi-sectoral HIV/AIDS policy, the education sectors of these countries rarely have a sector-specific policy framework or effective HIV/AIDS focal point system, particularly outside of southern Africa. Research conducted by IIEP in Malawi, Uganda and Tanzania (studies forthcoming) has revealed a lack of strong leadership or sustained advocacy on HIV/AIDS issues in the education sector. For the most part, advocacy on HIV/AIDS in this sector centres on curricular issues such as preventive or life skills education for pupils. Efforts are often sporadic and scattered. In addition, policies such as prevention of discrimination against seropositive staff are

inadequately enforced. Partners such as teachers' unions have been slow to react in supporting HIV/AIDS policies. International partners tend to view HIV/AIDS as a health and/or human rights problem and when they develop interventions on HIV/AIDS in the education sector in Africa these are generally limited to promoting preventive education, often in a school health context.

Enabling conditions

- Effective leadership
- A capable teaching force
- Flexibility and autonomy
- High instructional time in school

23. The epidemic affects the personnel of teacher training colleges as well as the management structures of the sector, such as the central ministry, district education offices, and inspectorates. Much staff time is lost to funeral attendance, undermining the effectiveness of education management at all levels. In many countries it is not possible to replace an absent staff member who is terminally ill before he dies because the post is technically "filled". Small rural schools are particularly vulnerable to the impact of the epidemic, as they may have as few as two or three teachers in total. At the secondary level, the loss of teachers with scarce qualifications in subjects such as mathematics and science has a particularly acute negative impact on educational quality.

24. Instructional time is another victim of the HIV/AIDS pandemic. HIV/AIDS has the effect of shrinking the school year through scattered but increasingly frequent and longer teacher absences. Teacher absenteeism for AIDS-related or other reasons is effectively shortening the school year and time allocated to covering required syllabi in many countries. This has a very negative effect on educational quality. For example, empirical research on teacher absenteeism in KwaZulu Natal (South Africa) revealed a seven percent loss of available classroom contact time during the 2001 school year (Badcock-Walters et al., 2002). Fuller and Clarke (1994) find that even gross indicators of instructional time are consistently related to achievement in developing countries, longer school years being associated with higher student achievement. (See Annex 1 for a calculation of lost teaching time due to HIV-related illness).

25. The school's practical organization, its time-table, its yearly schedule and its fairly rigid pedagogical organization limit severely its flexibility to react to the specific situation of HIV/AIDS affected pupils. Schools are not allowed to make changes that could possibly make it easier for orphans to attend regularly. The HIV/AIDS crisis helped to reveal the poor relevance of the school's organization, especially in the rural areas.

3.1.4. School climate

26. This domain presents certain factors that have important links to HIV/AIDS. In particular, phenomena of stigmatisation and discrimination may affect the ability to learn of many orphans or pupils whose families are affected by AIDS.

School climate

- High expectations of and positive teacher attitudes towards male and female students
- Order and discipline
- Organized curriculum
- Rewards and incentives for teachers, male and female students.

27. The epidemic produces considerable psychological stress in schools. Recent research reveals “a school environment in which children are surrounded by constant change and often distressing events. Even children from healthy, intact families are surrounded by other children who have lost a parent or whose parents are dying. Children and teachers are absent because of their own illness or to attend funerals and to care for others who are sick. Often teachers with declining health continue to teach. While this reduces teacher shortage temporarily, other teachers and children are exposed to the dying process.” (Harris and Schubert, 2001).

28. Recent research shows that consensual and coerced sexual activity among pupils is not infrequent between teachers and pupils. (Bennell, Hyde and Swainson, 2002). Girls are particularly vulnerable to pressures from teachers to trade sexual favours for good marks or material advantages. While cultural factors and gender roles have much to do with these phenomena, the AIDS epidemic seems to be worsening them. For example, “sugar daddies” at the school gate are an increasing phenomenon as mature men seek (hopefully) AIDS-free sexual partners. Because of these unprotected sexual activities, there is a rising rate of teenage pregnancies leading to grade repetition and abandonment for many girls.

29. One increasingly popular medium of quality improvement, the preparation of School Improvement or Development Plans, is also being challenged. The quicker turnover of staff and the regular absences of teachers make it more difficult for a headmaster to get all staff involved in and committed to a school mission and improvement programme.

3.1.5. Teaching/learning process

Teaching/learning process

- Teaching/Learning Process
- High learning time
- Variety in teaching strategies
- Frequent structured homework
- Frequent student assessment and feedback

30. The teaching/learning process is one of the most important aspects of educational quality. It is also particularly vulnerable to the impact of HIV/AIDS. Sick teachers give less and less time to effective teaching, giving homework and assessing pupil progress in learning. Among students affected by HIV/AIDS, pressures to stay home to care for sick parents and relatives reduce learning time. As stated above, consistent attendance in school (or any at all) is problematic for orphans.

3.1.6. Learning outcomes

Learning outcomes

- Knowledge and attitudes
- Competencies/skills

31. The learning process is severely affected because of AIDS-related absenteeism, death and loss of parents. Several countries in Southern Africa involved in SACMEQ I and II studies (Malawi, Mauritius, Namibia, Zambia) experienced declining reading scores between 1995 and 2000 (Murimba et al., 2002; SACMEQ research reports). To what extent this decline can be attributed solely to the HIV/AIDS epidemic still needs to be investigated, but it is most likely that the increased teacher absenteeism and the high rates of teacher turnover in these countries have had a substantial effect.

3.1.7. Student outcomes

32. The final domain of analysis points to the ultimate impact of HIV/AIDS on educational quality. The orphaning process undermines the ability of pupils to participate effectively in the educational process, even in an environment that provides effective teaching. The inability of many students to complete the primary or secondary cycle leaves them ill-prepared for participation in economic life.

3.1.8. Contextual factors

33. Contextual factors exert a powerful influence on educational quality, as they mediate policy formulation and resource allocation toward and within the education sector. Thus, they must be considered not only in analyzing how the epidemic affects educational quality but also in how effective responses are to be conceptualized and implemented.

International

34. An international response to the impact of HIV/AIDS on African education systems is essential. However, international responses to HIV/AIDS still focus primarily on medical issues and attention to the education sector, while growing, is still limited. Attention is focused primarily on pupils rather than teachers or other staff. International partners tend to emphasise curriculum initiatives as the main response of the education sector to the epidemic. These initiatives typically concern life skills or other forms of “preventive education”. Ministries of education have done little to solicit technical and financial support for sector-specific measures of prevention, mitigation and care for teaching and administrative staff.

Cultural

35. Stigma and discrimination related to HIV/AIDS stem from cultural beliefs. Sexual exploitation of pupils by teachers exists and educational leaders have yet to deal seriously with attitudes that encourage male pupils and teachers to take advantage of girls. In many cultures, including those in the West, males are given the suggestion that they are virtually “entitled” to look for sex. At present, the African press is the major actor that reports on problems of sexual harassment and exploitation in schools. Teacher unions, parent-teachers associations and promoters of the Convention of the Rights of the Child have not yet addressed the issue of sexual exploitation in schools forcefully enough.

Political

36. Leadership from the highest levels is essential in combating AIDS. Active commitment to including the education sector in national AIDS strategies requires political support. National political leaders, including parliamentarians are key allies of the education sector. Research now being conducted by IIEP teams in Malawi, Uganda and Tanzania (studies forthcoming) reveals that leadership on HIV/AIDS within the education sector is sporadic and not forceful enough: too few managers at central and district level have spoken out on HIV/AIDS consistently or forcefully. At the local level, headmasters, school committees and boards of governors end up improvising policy on HIV/AIDS that is sometimes inconsistent with national policy frameworks.

Economic

37. The AIDS epidemic diverts scarce resources from development activities in all sectors. This compounds the problem of declining resources allocated to the education sector. In many African countries, education budgets have risen little in constant prices over the past decade while enrolments have climbed rapidly. The result is diminished spending per pupil and a decline in educational quality. At the local level, economic decline and growing poverty diminish community and family resources available to education. PRSP strategies are only beginning to focus on the role of the education sector and the impact of HIV/AIDS. Resource-starved schools do not have the means to provide high quality education and develop responses to HIV/AIDS.

4. PROMOTING EDUCATIONAL QUALITY IN AN AIDS ENVIRONMENT: IMPLICATIONS FOR POLICY DEVELOPMENT

38. The complexity of the factors supporting educational quality is such that promoting educational quality in an AIDS environment cannot be accomplished without formulating a comprehensive, sector-wide policy. Such a policy must be consonant with and linked to the national AIDS policy. Advocacy for the policy is indispensable, as having an enabling environment for implementation is essential. The technical nature of some of the services to be provided as well as the extra costs involved will require developing strategies with the ministry of health, community development agencies and specialized NGOs which have the skills to deal with the social and economic impact of the epidemic. This paper advocates a response that should centre on the following groups of factors that have been identified as mediators of educational quality and which are also sensitive to the HIV/AIDS impact:

4.1. Creating enabling conditions

39. AIDS prevention is not the only goal in responses to HIV/AIDS in the education sector. Maintaining sector capacity to operate as close to “normally” as possible and move ahead on implementing essential policies is extremely important (Cohen, 2002). To this end several factors and strategies are essential.

Leadership is key

40. The first and most urgent measures centre on leadership. It has been noted that the education sector in African countries has been slow to mobilize around HIV/AIDS issues. The formulation and implementation of new policies will therefore need active and sustained leadership and advocacy at central, district and local levels.

Fighting absenteeism and abandonment

41. Maintaining teachers and students in classrooms is the second component of this sub-strategy. Adequate planning requires accurate data on attendance, which is why an enhanced EMIS system is essential. Collecting and reporting data on teacher and student attendance will give educational managers information on schools and communities for priority interventions and investment of scarce resources to enhance educational quality. An EMIS is essential for monitoring and evaluating the implementation and impact of policies on educational quality in general and particularly in an AIDS environment. Partnerships are essential in this area, as teachers who are living with HIV/AIDS and orphans who have difficulty in attending school on a regular basis need to be referred to appropriate counselling and health care providers.

4.2. Enhanced supporting inputs

42. There is a number of ways in which ministries of education can enhance supporting inputs. Although ministries can only indirectly influence the effects of impoverished home conditions by offering scholarships for needy pupils, they can act forcefully and directly upon other factors. While solving the problem of the AIDS impact will not solve the problem of resource-starved schools, dealing with the epidemic is one important way of stabilizing the situation. In particular, teacher development must be balanced with the effects of attrition caused by the HIV/AIDS epidemic.

HIV/AIDS in the workplace policies

43. Policies protecting the teaching profession are essential. Thus, an HIV/AIDS in the workplace policy must be developed. Essential partners in developing and supporting such a policy include the teacher unions, teacher service commissions and boards of governors of schools. Local government will often be a partner in countries where teachers are hired and paid by local authorities.

44. HIV/AIDS in the workplace policies must also include non-teaching staff who work in central ministries, district education offices and other support structures. Succession planning, already established in the private sector, is a way of anticipating the effects of increasing absences and death of staff. Partnerships among teachers are needed as well as contingency plans that use other resources in the school or community, including retired teachers.

Enhanced services for pupils and students

45. Responding to the challenges and threats of the HIV/AIDS epidemic to instructional services for all students must be addressed in several ways. Increasing instructional time is important, given the impact of increased teacher absenteeism due to illness, bereavement, funeral attendance and other factors. Extending the school year or requiring that priority be given to maintaining minimum instruction in core subjects is therefore an important policy tool (Malaney, 2000). The following policy initiatives on educational quality are recommended by Harris and Schubert (2001):

- Promote continuity of instructional and emotional support by linking younger children with same sex older children for tutoring, support, and protection if needed;
- Provide instructional materials to support out-of-school learning (see below);
- Support greater flexibility for pupils whose school participation and learning is disrupted. Rather than relying on repetition, support individualized learning by creating sequenced learning materials that can be used individually or in groups;
- Assume that teachers will be expected to teach classes or subjects they have never taught before with virtually no notice or training support. Provide teacher instructional support materials that are totally inclusive of what is required to present and support the lesson. The goal would be to build the knowledge and capacity of untrained teachers and under-trained teachers as they teach.

46. Huge efforts in teacher training will be required not only to make up for staff lost to the AIDS epidemic and other factors, but also to achieve net improvements in learning. Also having teachers with more than one area of specialization is important in bridging gaps in curriculum delivery, especially in secondary education.

47. Besides these recommendations for strengthening and diversifying instructional services for all students, there are two areas of particular concern, particularly for orphans and other vulnerable children.

Providing for the learning needs of orphans

48. The needs of orphans will require special policy measures. These will centre on the following elements:

- Mobilization against stigma and discrimination in school;
- Provision of counselling to orphans or students affected by HIV/AIDS;
- Provision of school lunches;
- Offsetting the economic impact of AIDS on orphans. Exemption from school fees or bursary schemes should be considered to keep orphans from leaving school for want of resources to pay fees. Bursary schemes may be organized through community-based organizations or foster families.

Provision of alternative forms of educational delivery

49. HIV/AIDS, poverty and orphanhood are major causes of student inability to attend school during regular class hours. Alternative forms of delivery might include tutoring or educational radio broadcasts. Clusters of small schools composed of multi-grade classrooms are another delivery form that can offer special advantages for quality education in an AIDS environment where trained teachers are scarce.

50. In the area of educational broadcasting, sub-Saharan Africa has already shown that providing radio and audiocassette instruction to learners is possible using national resources alone. Various programmes in the 1960s, 70s and 80s in countries such as Côte d'Ivoire, Malawi, Kenya or Zimbabwe have shown the potential of using interactive radio to accompany and improve teaching and learning. The main challenge has been their sustainability. In the context of HIV/AIDS, such resources can offer a programme of modular instruction on a year-round basis for orphans and students who cannot attend during regular hours because of household chores or the need to engage in income-generating activities. While appropriate interventions will differ in each country based on these considerations, the following model of radio broadcasts for vulnerable children in remote areas of Zambia combines both effective delivery of education and adequate learning outcomes.

Radio learning centres fill an educational void in Zambia

51. A network of unpaid mentors has created over 300 community learning centres in areas hard-hit by AIDS and famine in Zambia (Education Development Center, 2003). Since the centres began to open in 2000, mentors use lessons delivered via radio to groups of young people gathered in homes, backyards, churches, or cement-block classrooms.

For example, in the Chimbwete district, a local mentor has set up an outdoor classroom in a clearing in the bush. The day's homework is written on a slate board hanging from a tree surrounded by a few benches. The mentor guides his pupils through the radio broadcasts, which feature active learning activities in mathematics, science, social studies, and English. For many children in the area, this "classroom" is the only one they know; the district school is several miles away—much too far to walk, particularly for children who must spend much of their day looking for food and tending to sick relatives.

52. The key partners of the initiative are the Ministry of Education, churches and communities. The USAID and Education Development Center, an American consulting firm, have provided financial and technical support to the radio learning centres. Formal schools are sometimes involved by sharing resources and infrastructure with the learning centres. On the other hand, the centres help to relieve overcrowding in the schools—as well as reaching children that the formal system cannot. The centres are proving popular in areas such as Chikuni/Monze, one of the areas hardest hit by drought and famine. The number of centres in this area has grown from two to 21 with support from the Catholic Church and formal schools. Meanwhile, the current mentors are actively recruiting and training other mentors.

For example, in Kamanga, a mentor named Lisa started the centre in her backyard, with 100 children in two sessions throughout the day. Initially, she borrowed a radio and used a wall of her house as a board until the local community centre provided space for a classroom. In order to keep the radio running, Lisa sold fritters so that she could buy fresh batteries. In the second year, a foundation donated a wind-up radio. Lisa recruited and trained assistant mentor, Benzic, so that she could care for her ailing husband. When Lisa died suddenly in late 2001, Benzic took over the centre and he has carried on despite many setbacks and some resistance from the community—families who had felt comfortable with Lisa. Benzic has won support from local churches and organizations that have donated books and supplies to the centre.

53. Three key questions have formed the basis of the research and evaluation of the radio schools:

- *Are children attending?* The project has tracked enrollments at each centre—and by specific groups—males, females, different ages, orphans, etc. Nearly 50 per cent of learners are female and most of the learners are orphans and vulnerable children. On a larger level, the number of centres continues to grow—despite the toll that hunger, disease, and poverty have taken on both mentors and learners, and despite the Minister of Education’s declaration of universal and free education in the formal school system. In many areas, the centres provide a much more feasible option than schools for most families.
- *Are the children staying?* In the early stages of the project, mentors were asked to keep good attendance registers, and recent data show that children are staying in the centres. About 80 per cent of the children initially registered in the first centres were still attending three months later. On average, the registered children attended at least 75 per cent of all of the lessons. Three years later, in April 2003, there were children enrolled in Grades 1, 3 and 5. Grade 2 and 4 was re-broadcast in July. In 2004, Grade 6 will be offered for the first time.
- *Are the children learning?* The project tested a small sample of 400 children in 2001. These children took a pre-test and post-tests in Grade 1 to determine their mastery of the skills taught via the radio lessons, and the results were very encouraging. Depending on the mathematics or language skill being assessed, average gain in scores between pre- and post-tests ranged from about 20 per cent to 60 per cent in Grade 1, depending on the content area being assessed. The highest gains occurred where learners knew least. In the area of comprehension of language, for example, mean gains were between 21.5 per cent and 46.0 per cent. Mentors reported that these learning gains manifest themselves in the fact that they do not have to translate everything that the radio teacher says as they used to in the past.

Multigrade classrooms and educational quality

54. Achieving Education for All goals in rural areas (where most of the population of sub-Saharan Africa still lives) requires a special educational model that is cost-effective in terms of quality results. As will be seen below, multigrade classrooms have the potential of providing good quality education with the right support. They can also lend themselves to responses to the HIV/AIDS epidemic. A study conducted by IIEP in co-operation with the educational planning services of seven sub-Saharan African countries (Benin, Burkina Faso, Guinea, Equatorial Guinea, Mali, Senegal and Togo) in 2002 focused on identifying ways of developing single-teacher schools and multigrade classrooms as a strategy of reaching EFA and educational quality goals (Brunswick and Valérien, 2003). The most successful examples of multigrade teaching all involved the clustering of small schools located in the same general area. This practice did much to overcome wasteful scattering of resources and the isolation of teachers in remote schools. The most common way of clustering was to identify a “hub” school with links to branch or affiliated schools at some distance. The principal of the hub school would thus become the principal of the branch schools or classes spread over a number of locations. The outcomes of such school clusters are generally very positive. For the most part, the enrolment rate as well as the stability of enrolments over the primary cycle are significantly improved, while repeating and dropping out diminish considerably. These positive results are linked to the increased availability of equipment and learning material (thanks to sharing arrangements), parental support as well as the quality of teaching. Some of the specific quality advantages to these grouping arrangements include the following:

- **More efficient management and use of resources**
 - School clusters have also made it possible to train principals on administration, approaches to daily monitoring of teachers as well as the development and monitoring of resource-sharing plans covering the schools in the cluster.
 - It is particularly important for multigrade classrooms to have adequate materials, especially textbooks and teacher’s guides. Lesson plans and wall charts are also essential elements to support quality in these classrooms.
 - Streamlined management means that there are fewer persons reporting to higher administrative authorities.
- **Advantages for teacher supervision and training**
 - The cluster model has the advantage of providing better psychological and professional support to teachers as well as ongoing guidance to teachers who are often under-qualified.
 - Teachers, who have the advantage of local training, are absent less often. It has been observed that school clusters are a good way of supporting and supervising teachers, especially because of the options for interaction among them.
- **Options for community partnership**

The cluster model makes it easier to integrate schools into the surrounding community and to mobilize community support for such schools. This can be done by using the school for educational activities for the community such as additional or refresher training for former pupils, literacy training or maternal and child services.

▪ **Efficiency and lower unit costs**

- Economically, micro schools or multigrade classrooms can offer savings through more effective deployment and use of human and material resources. Allocation of resources can be made to clusters in such a way that teachers and material resources are considered to be common resources for the cluster as a whole. This facilitates mutual support among teachers as well as sharing textbooks and equipment for teaching science.
- Multigrade classrooms offer cost-saving advantages by reducing grade repetition and dropping out. Thus, unit costs per graduate are significantly lowered compared to traditional single-grade classrooms. For example, research on the multigrade classes in the Escuela Nueva schools of Colombia showed that grade repetition and dropping out were 12.4 and 1.2 per cent lower than in comparable single-grade classrooms. Thus, the Escuela Nueva schools are able to move a larger cohort of pupils through the system at a faster pace than comparable schools with single-grade classrooms.

55. From the point of view of HIV/AIDS prevention, multigrade schools organized in clusters makes it easier to share teachers to cover for colleagues who fall ill. Without the enhanced management described above, an isolated single-class multigrade school would be extremely vulnerable to HIV/AIDS if the teacher became infected.

56. “*A healthy child is a better learner*”. Health and nutrition constitute another policy area requiring attention to maintain educational quality in an AIDS environment. In this case, the educational quality issue is defined in terms of regular attendance resulting in positive learning outcomes. School health programmes and school lunches can do much to keep students in school and make them more apt to participate in the learning process. These services are particularly important for orphans. Support from specialized partners, including ministries of health and community-based organizations will need to be part of the sector policy.

Enhancing school climate

57. It has been seen that certain school climate factors are powerful determinants of educational quality. Among these are high expectations of students. Therefore, the role of teachers, headmasters and parent-teacher associations is important in maintaining a proactive approach to learning, including efforts to fight stigma and discrimination.

- **Strengthening parent-teacher associations and school committees:** Experience shows that educational quality cannot be sustained without active support from key stakeholders. Parent-teacher associations can mobilize the primary stakeholders in the educational process in support of quality. In many countries, these associations play a significant role in building, equipping and repairing schools. Lack of leadership and financial management capacity can limit the effectiveness of parent-teacher associations in sub-Saharan Africa. Annex 3 presents an interesting innovation in strengthening these associations in Guinea with the explicit goal of promoting educational quality.
- **Fighting sexual harassment:** A little-explored factor in enhancing school climate is the extent of sexual harassment. Some school-based research and considerable press coverage indicate that coerced and consensual sex among students and between teachers and students is common in many schools, particularly at the secondary level. These practices put students and teachers at risk of contracting or spreading the virus. The favouritism linked to teachers obtaining sexual favours from students undermines the whole education process. Teacher unions, parent-teacher associations and boards of governors are key allies in fighting sexual harassment in schools.

- **Developing effective preventive education:** Finally, there are curricular approaches to enhancing the quality of education in an AIDS environment. Preventive or life skills education can play a role not only in fighting stigma and discrimination, but also in attitudinal and behavioural change among students. Behavioural change is essential in postponing sexual activity and/or avoiding unprotected sex. Designing culturally-sensitive and age-appropriate preventive education must take into account how it will fit into the broader curriculum; whether it will be an “examinable” subject as well as the need for special teacher training and support. Ministries of education must also decide on the delivery mode of preventive education. The role of peer educators, and non-formal educational approaches to complement in-class instruction must be considered.

5. CONCLUSION

58. HIV/AIDS undoubtedly presents a challenge to school quality. It increases pupil and teacher absenteeism and reduces instructional time. It diverts resources away from school supervision and support. It threatens the school climate and risks distorting the relationships between teachers and students. But, as many other threats, it can also be an opportunity to introduce reforms which were always desirable, but have now become essential. The development of alternative school models, more appropriate to the needs of orphans and many other poor pupils, is one example, to which this paper has given a lot of attention. The transformation of school supervision so that it becomes a tool for teacher guidance and motivation rather than control is another example. The need to track and to tackle absenteeism has become more urgent, emphasizing therefore the importance of a well functioning EMIS at local and central level. Finally, the author wishes to emphasise that the formulation and implementation of effective policies to respond to the challenges of HIV/AIDS and preserve sector capacity to nurture educational quality cannot progress without sustained commitment from leaders at central, district and local levels of the education sector as well as from its domestic and international partners.