THE IMPACT OF THE HIV/AIDS EPIDEMIC ON THE EDUCATION SECTOR IN SUB-SAHARAN AFRICA

A synthesis of the findings and recommendations of three country studies

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Abbreviations

ADF	African Development Forum
AMREF	African Medical and Research Foundation
AIW	AIDS in the workplace
ARVs	Anti-retroviral drugs
BMU	Botswana, Malawi, Uganda
CBOs	Community-based organisations
DHS	Demographic and Health Surveys
EMIS	Education Management Information System
FGDs	Focus group discussions
G&C	Guidance and Counselling
HAMP	HIV/AIDS Management Programme
HPC	High prevalence countries
KAP	Knowledge, attitudes and practices
LSE	Life Skills Education
MoE	Ministry of Education
MOES	Ministry of Education and Sports, Uganda
MOEST	Ministry of Education Science and Technology, Malawi
МоН	Ministry of Health
MTCT	Mother-to-child transmission
NCDC	National Curriculum Development Centre
PSLE	Primary School Leaving Examination
SPW	School Partnership World-wide
SRH	Sexual reproductive health
SSA	Sub-Saharan Africa
STD	Sexually transmitted disease
UAC	Uganda AIDS Commission
VCT	Voluntary Counselling and Testing

EXECUTIVE SUMMARY

This report presents the main findings and recommendations of an international research project, which has focused on assessing the impact of the HIV/AIDS epidemic on primary and secondary schooling in three countries, namely Botswana, Malawi and Uganda (BMU). Adult HIV prevalence rates were estimated to be 36% in Botswana, 21% in Malawi and 8% in Uganda in 1999. The report explores the following three areas: student prevention and the impacts on students and teachers.

It is widely accepted that the HIV/AIDS epidemic will seriously affect the education sector in Sub-Saharan Africa. However, little systematic empirical research has been undertaken, particularly in the high prevalence countries (HPCs) that seeks to assess the actual and likely future impacts on the supply of and demand for educational services.

Given the very limited amount of school-based research that has been undertaken on the impact of epidemic on the education sector, **Chapter 2** discusses in some detail the common methodology that was developed for the country studies. A range of qualitative and quantitative methods was employed. A total of 41 schools across the three countries were surveyed and extensive interviews were conducted with education managers and teachers as well as other key stakeholders, including other ministries, NGOs, and donor organisations.

Chapter 3 assesses the effectiveness of school-based HIV/AIDS prevention programmes at other activities in BMU. Despite the mounting concern about the vulnerability of young people in SSA, there is still not sufficient information available to be able to make a comprehensive and robust assessment of the extent to which adolescents have changed their sexual behaviour in response to the AIDS threat. The study did not attempt to survey directly the sexual behaviour of primary and secondary school children. It appears though that young people in Uganda have made important changes to their sexual behaviour, which makes them less vulnerable to HIV infection. Some indicators suggest that more limited changes towards safer sexual behaviour are occurring in Botswana as well. HIV prevalence among the 15-19 age group has fallen markedly in Uganda, but continues to rise in Botswana. In Malawi, prevalence rates for this age group appear to have declined in urban areas, but continue to increase in some rural areas.

The main conclusion of the three country studies is that there is little hard evidence to show that school-based HIV/AIDS education and, more generally, sexual reproductive health and life skills education has had a major impact on sexual behaviour. Generally speaking, students at the survey schools were well informed about the causes and consequences of HIV/AIDS. It is translating this knowledge into behaviour change that remains the major hurdle. Economic and social/cultural pressures that fuel unsafe sex among adolescents remain as high as ever, and in the poorest communities, are probably increasing. There is growing concern about the risk of female students contracting HIV

from teachers and other older men. Condom use remains highly controversial, particularly in Malawi.

Curriculum design and delivery of HIV/AIDS and SRH education remain seriously problematic. It is clear that the 'integration and infusion' approach where HIV/AIDS topics are included in carrier subjects is not effective. Teachers themselves lack both the competence and commitment to teach these topics in an already over-crowded and examination-driven curriculum. Little or no training has been provided. Guidance and counselling services and peer education are also seriously inadequate.

The report makes a number of recommendations about how schools can play a more effective role in the prevention of HIV. In particular, it argues that urgent efforts are needed to develop a professional cadre of full-time SRH/life skills teachers in both primary and secondary schools and that there should be regular time-tabled lessons for this subject for all children right from the start of the primary education cycle. This should be combined with the continued integration and infusion of HIV/AIDS in the curriculum. While HIV/AIDS education in schools should focus on sexual abstinence, the role of condoms in preventing infection cannot be ignored.

Chapter 4 focuses on school children who are most affected by the AIDS epidemic, in particular orphans, children who are looking after sick family members, and the small numbers of children who have AIDS-related illnesses. It is important to point out that among the estimated 8.2 million AIDS orphans in SSA in 1999 (3.6% of the under 15 population), less than one-third were AIDS-orphans. Information on the numbers of children most directly affected by the epidemic is very limited in most SSA countries. While schools in Uganda keep reasonably accurate records on orphaned students, this is not the case in Botswana and Malawi.

The country studies highlight the complexity of the living arrangements of school children in most of SSA. Even before the AIDS epidemic, relatively large numbers of children were living in single parent (usually female-headed) households and with other relatives. The extended family supports the large majority of double orphans. In Malawi and Uganda, orphan guardians are under considerable strain and many households do not have enough resources to absorb extra children.

The educational impact of the epidemic on the most affected children is complex and multi-faceted. The analysis of conventional education performance indicators highlights the difficulty of making broad generalisations about impact across countries. Although time series data on student absenteeism could not be collected because school records were so poor, current levels of student absenteeism, repetition and dropout in the survey schools were assessed.

Absenteeism rates in Botswana are relatively low and, in primary schools, orphans had better attendance records than non-orphans. An important reason for this is the strong schooling culture and already very low dropout rates in both primary and secondary school. Government has also introduced a comprehensive programme of material support for disadvantaged orphans. In Malawi and Uganda absenteeism is very high among all primary school children. The main causes are mainly poverty-related. While student absenteeism tended to be higher among orphans than non-orphans, the differences were much lower than expected. Illness in the family was not a major reason for absence, except for maternal and double orphans in Uganda. Generally it is the poorest orphans who have the most problems at school.

Although orphans are subject to insensitivity at school on the part of teachers and management, instances of deliberate discrimination were rare.

Nearly all governments in SSA have been slow to respond to the orphan crisis. Unlike Botswana, Malawi and Uganda have few resources to tackle the orphan problem. In Uganda, government is focusing more on encouraging family-based income generation rather than targeted assistance to individual orphans. Although NGO and CBO support for orphans expanded rapidly during the 1990s, (particularly in Malawi and Uganda), assistance remains localised and concentrated in urban and peri-urban areas.

Schools themselves offered very little targeted support for children most directly affected by HIV/AIDS. The following reasons for the limited school response are discussed: MoE policy and leadership, the perceptions and attitudes of school managers and teachers, the acute lack of resources (especially in Malawi and Uganda), identification and needs assessment, other children in especially difficult circumstances, the school environment, and discrimination and stigmatisation.

Chapter 5 considers how many children are likely to be directly affected by the epidemic during the next 10-15 years. Total AIDS cases will rise drastically in the next decade and, without appropriate levels of support for adult carers, many more children will be caring for the sick. In the HPCs, 30-40% of all children are projected to be orphans by 2010. It then considers what policy interventions are needed at both the national and school levels to prevent and mitigate the likely adverse impacts on the education sector. A key point is that the impact of the epidemic on the education sector will, to a large extent, depend on the overall level and effectiveness of assistance given to these children and their carers. The design and implementation of effective national HIV/AIDS strategies based on multi-sectoral community mobilisation is fundamentally important. In addition, well-resourced national poverty reduction programmes should support the most basic livelihood needs of all children, including those affected by the AIDS epidemic. As a general rule, therefore, orphans and especially AIDS orphans should not be targeted. The provision of home-based care programmes will do much to relieve the burden of care for children in AIDS-affected households.

The report discusses a number of important measures that can be realistically introduced in schools that will significantly improve the level and effectiveness of school-based support. Six priority areas are identified: identification, referral and monitoring, school feeding, pastoral care and counselling, financial assistance with fees and school-related expenses (especially at the secondary level), involvement of guardians and carers, and children living with AIDS. **Chapter 6** focuses on the impact of the epidemic on teachers and other staff in the three case study countries. Surprisingly, hardly any the other impact studies that have been undertaken to date have actually assessed trends in morbidity and mortality among teaching staff. The demographic projections that are the centrepiece of these assessments are based on the assumption that teachers will be affected in the same way as the adult population as a whole. The empirical evidence from Botswana, Malawi, and Uganda indicates that this assumption is not likely to be valid in most countries.

It is widely asserted that teachers are a high-risk behaviour group and that therefore HIV prevalence among the teaching profession is higher than the adult population. No supporting evidence for this assertion is found in the three country studies or any other country in SSA. Teacher mortality in Botswana, for example, was less than half than that projected for the overall adult population in the late 1990s. Mortality rates vary also widely among teachers according to type of school (primary and secondary), gender, location and marital status. In general, mortality rates are much higher among primary school teachers and male teachers. More research is urgently needed to establish the key factors underlying what appear to be very large mortality rate differentials among different groups of teachers.

Trends in mortality rates have also been investigated. In Uganda, mortality for both primary and secondary school teachers peaked at less than one percent during 1995-97. Probably around half of this mortality was AIDS-related. Both in absolute terms and in relation to high rates of attrition from other causes (resignations, retirements, etc), this level of mortality has not posed a serious threat to the development of the education sector in Uganda. Primary school enrolments expanded over threefold with the introduction of UPE in 1994 and there is currently an excess supply of secondary teachers. The overall mortality rate among teachers in Botswana was around 0.8 percent in 1999/2000. Although demographic projections indicate that AIDS-related adult mortality will rise to 3-4 percent by 2010, the mortality rate among Ministry of Education staff actually fell during 1999/2000. The reasons for this are not entirely clear, but there was over a threefold increase in the number of staff taking anti-retroviral drugs during this period. In Malawi, mortality rates among female and male primary school teachers were over two percent in 2000, but less than one percent for secondary teachers. Mortality rates among secondary school teachers had also fallen steadily since 1997.

The remainder of the chapter reviews the evidence collected on teacher morbidity and absenteeism, motivation and morale and discrimination and finally assesses the reasons for the limited response of Ministries of Education to the threat posed by the epidemic with respect to staffing.

Chapter 7 assesses the likely impact of the AIDS epidemic on teaching staff over the next 10-15 years. The main conclusion here is that unless morbidity and mortality projections are based on detailed and accurate information of HIV prevalence among teachers and other staff, they are likely to be of little or no value for planning purposes. For SSA as a whole, the report estimates that, on average, one school in nine will lose a

teacher to HIV/AIDS each year over the next decade. The worst affected country will be Botswana where annual AIDS-related mortality will average one teacher per school during this period.

It is widely believed that teacher recruitment will have to expand rapidly in order to make up for much higher levels of AIDS-related attrition. However, this is only likely to be true for a minority of HPCs because, with lower than expected school-age populations, fewer teachers will be required to educate these children.

Chapter 8 outlines the main activities that need to be incorporated in a comprehensive AIDS in the workplace strategy for teachers and other staff in the education sector. These include: robust prevalence and risk assessments, intensive education and prevention programmes, active promotion of HIV testing, establishment of work-based counselling and support groups, careful monitoring of teacher deployment and transfers, extra teaching cover for schools with sick teachers, new regulations and procedures to deal with sickness and absenteeism, and medical support and the provision of anti-retroviral drugs. Urgent steps also need to be taken to stamp out sexual misconduct by school managers and teachers.

The report recommends the adoption of a comprehensive implementation strategy for AIDS in the workplace programmes. In the worst affected countries, the AIW Programme should be managed by full-time personnel with expertise, authority, and resources to ensure rapid and effective implementation. At the school-level, there should be a cadre of full-time AIDS counsellors who can make regular visits to schools to meet with staff both individually and in groups.

Finally, **Chapter 9** considers the kind of organisational and management arrangements that should be put in place by MoEs in order to tackle the actual and potential impacts of the epidemic on both students and staff. For the HPCs in particular, current arrangements including HIV/AIDS co-ordinators and focal points are inadequate for a variety of reasons. The report argues that nothing short of a Ministry-wide mobilisation is required in order to deal with the crisis. HIV/AIDS management programmes should be established as soon as possible, which should be headed by a Director and other managers responsible for student and staff prevention and mitigation at both the national and regional levels.

CHAPTER 1 INTRODUCTION

1.1 STUDY RATIONALE AND OBJECTIVES

It is generally accepted that the HIV/AIDS epidemic will seriously affect the education sector in sub-Saharan Africa and, in particular, the high prevalence countries (HPCs) in Eastern and Southern Africa. The high profile UNICEF publication, The Progress of Nations, states that 'although HIV affects all sectors, its most profound effects are concentrated in the education sector' (UNICEF, 2000:10). More generally, 'HIV/AIDS appears to be in the ascendancy and to have virtually overcome education, swamping it with a wide range of problems' (Kelly, 2000:24).

However, even at this relatively late stage of the epidemic, our understanding of how HIV/AIDS is affecting educational provision in sub-Saharan Africa is generally poor. Without an adequate knowledge base, Ministries of Education (MoE) cannot develop well-conceived strategic responses to the epidemic, which will make a real difference in schools and other educational institutions. To date, interventions by MoEs to help prevent HIV infection and support students and staff directly affected by AIDS have remained very limited. This is mainly because national AIDS strategies have focused on HIV/AIDS education through community-based initiatives. While these programmes have achieved significant results in some countries, the opportunity within the education system to make a lasting impression on children before they become sexually active has not been fully exploited. The same is also true with regard to mitigating the impact on both teachers and students who are directly affected by the epidemic.

Very little systematic empirical research has been undertaken that specifically addresses the actual and likely impacts of the epidemic on the education sector in Eastern and Southern Africa. Country impact assessments¹ have relied heavily on demographic models to make projections of student enrolments and teacher requirements. While a number of more qualitative factors have been identified that are likely to affect the supply and demand for schooling, these have not been analysed in detail with adequate supporting evidence. In particular, little or no research has been undertaken in schools themselves. The lack of hard evidence about what is actually happening in schools has resulted in anecdotalism and broad generalisations about the impact of the epidemic on the education sector, which although largely unsubstantiated, have already been widely accepted as received wisdom.

¹ Assessments have been completed in Kenya, Uganda, Zambia and Zimbabwe (World Bank, 2000), Mozambique (Verde Azul, 2001), Swaziland (Swaziland, 2000), and South Africa (Abt Associates, 2001). The report on South Africa has not yet been officially released.

In an attempt to obtain a more in-depth understanding of the impact of the epidemic on the education sector, country impact assessments were undertaken in three countries, namely Botswana, Malawi and Uganda. This report presents the main findings and recommendations of these country studies. Where appropriate, evidence from other impact assessments and relevant research is also included.

Each country study has focused on the following questions:

- What has been the impact of HIV/AIDS to date on educational provision in primary and secondary schools?
- What are Ministries of Education and other organisations doing in order to prevent further HIV infection among students and teaching staff?
- What support is being given to students and staff who are directly affected by the scourge?
- Given current and projected rates of HIV prevalence, what are the likely impacts on education supply and demand over the next 10-15 years?
- What should schools do to minimise the spread of HIV among schoolchildren in the future?
- What should the MoE and schools do to support both students and teaching staff who are directly affected by the epidemic?

1.2 HOW HIV/AIDS AFFECTS THE EDUCATION SECTOR

There are four main 'institutional arenas' that collectively determine how the AIDS epidemic will affect the supply of and demand for education, namely the household, community, school, and government. The epidemic could lower the demand for schooling in three main ways:

- Smaller student intakes: Lower fertility levels will lead to smaller than expected cohorts of six year olds over the next few decades. In the worst affected countries, it is anticipated that the school-aged populations will actually contract.
- Impact on students: As the numbers of orphans, caregivers and children with AIDS related illnesses increase, the educational performance of these children is likely to deteriorate. More specifically, intake rates could fall and repetition and dropout rates increase.
- Level of poverty: Parents and guardians will be poorer because of the macroeconomic impacts of HIV. They will be less able therefore to support their children's schooling through the payment of fees, purchase of supplies, etc.

The supply of educational services could be affected by changes in:

• Teacher requirements: The number of teachers who will die of AIDS-related illnesses is expected to increase rapidly in high-prevalence countries during the next 10-15

years. At the same time, however, lower than expected student enrolments will reduce the demand for new teachers.

• Teacher productivity: There will be increased levels of absenteeism and morbidity among teachers, which will result in a reduction in the number teacher-hours available.

In addition, there are factors, which have potentially sizeable resource implications for the education sector. These include:

- HIV/AIDS education in schools: It has become necessary to either institute or enhance sexual and reproductive health education in schools. This will require substantial investment in materials and personnel.
- External support for education: The degree to which international donors and NGOs respond to the need for increased levels of assistance.
- Internal support for education: The extent to which governments, communities, local authorities and organisations can marshal additional funding for education.

1.3 STUDY DESIGN

The three countries selected for this study are among the worst affected by the AIDS epidemic in sub-Saharan Africa. However, they differ in a number of important respects. The AIDS epidemic has already peaked in Uganda and adult HIV prevalence had fallen to around 8% in 1999. In marked contrast, HIV prevalence rates are much higher and rising in Botswana and Malawi. In Malawi, prevalence was reported at between 17-30% and in Botswana higher still at 30-40% during 1999-2000 (ADF, 2000).

The research project was co-ordinated by Paul Bennell, Karin Hyde and Nicola Swainson who each had primary responsibility for one country study. The main focus was on assessing the impacts of the epidemic on primary and secondary schooling in each country. However, a supplementary study of the impact of HIV/AIDS at the University of Botswana was also completed². In Botswana and Malawi, Ministry of Education staff were full members of each study team.

To maximise the benefits of cross-country comparison, a common methodology was devised. The country teams met in Uganda in February and October 2000 for initial and final workshops. At the initial workshop, a common research strategy was developed, which included the core qualitative and quantitative information to be collected and the main groups of respondents to be interviewed. A number of survey instruments were developed and pre-tested for use in representative samples of schools. The final

² See Chilisa, B. with Bennell P.S. and Hyde. K. 2000. The impact of the HIV/AIDS epidemic on the University of Botswana: Developing a comprehensive strategic response.

workshop was used for reviewing country findings and identifying lessons learned for inclusion in the final country reports.³

1.4 DISSEMINATION

The main findings and recommendations were disseminated at one-day workshops in each of the three countries. In Botswana, the workshop for the school study was held in November 2000 and a second one for the university study in January 2001. In Malawi, two workshops were held in April 2001; for MoE staff, major donors and NGOs in Lilongwe and in Blantyre for district education officers, teaching staff and NGOs. In September 2001 a further workshop was held in Blantyre for schools which had participated in the research and NGOs. In Uganda, one workshop was held in November 2000 in Kampala, primarily for Ministry of Education officials.

Copies of the country reports have been distributed to respondents and informants in all countries and are available on request. Follow-up dissemination activities are planned for all three countries using a range of media and strategies to make the findings available to a wide range of audiences. These will include condensations, posters, pamphlets and dramatisations.

1.5 STUDY TEAM MEMBERS

Botswana

- Dr. Paul Bennell —Independent Consultant and Team Leader
- Dr. Bagele Chilisa—Senior Lecturer, Faculty of Education, University of Botswana
- Dr. Karin Hyde—Independent Consultant
- Mr Archie Makgothi—Head, Division of Planning, Statistics and Research, MOE, Gaborone.
- Mrs Enni Molobe--Education Officer, Division of Planning, Statistics and Research, MOE, Gaborone.
- Mrs Limpet Mpotokwane—Senior Education Officer, Department of Curriculum Development and Evaluation, MOE.

³ Bennell et al. 2001. The impact of HIV/AIDS on primary and secondary education in Botswana: Developing a comprehensive strategic response; Hyde et al. (2001) The impact of HIV/AIDS on formal schooling in Uganda; Kadzamira et al. (2001) The impact of HIV/AIDS on formal education schooling in Malawi. All these reports are available on request.

Malawi

- Ms. Esme Kadzamira—National Team Leader, Research Fellow, Centre for Educational Research and Training, University of Malawi
- Dr Augustin Kamlongera—Principal Planning Officer, Planning Unit, Ministry of Education, Science and Technology, Lilongwe
- Dr. Dixie Maluwa-Banda—Head, Department of Educational Foundations, Faculty of Education, University of Malawi
- Dr Nicola Swainson, Study Co-ordinator, Centre for International Education, University of Sussex.

Uganda

- Dr. Karin Hyde—Independent Consultant and Team Leader
- Ms. Catherine Barasa—Independent Consultant
- Dr. Andrew Ekatan—Independent Consultant
- Ms. Eunice Kyomugisha—Independent Consultant

1.6 FUNDING

The Rockefeller Foundation generously provided core funding for the Malawi and Uganda country studies and the preparation of this synthesis report. The UK Department for International Development funded the two Botswana studies. The Ministry of Education in Botswana provided logistical support for the school survey and the services of these senior saff members. USAID also supplemented the budget for the school survey in Malawi.

CHAPTER 2 STUDY METHODOLOGY

2.1 OVERALL APPROACH

Each country study adopted a three-pronged approach. The first was a school survey in 10-20 schools in two districts in each country; the second was the interviewing of key informants in the education, health, social work, financial and population sectors. And thirdly, secondary data was collected on the education system, and HIV prevalence and mortality.

School Survey

The survey schools were randomly selected in two urban and rural administrative districts, which were among those in each country with the highest recorded levels of HIV infection. A team member visited or communicated with each school before fieldwork to brief the head-teacher about the school survey.

The team spent a day in each survey school in Botswana and Uganda and two days in Malawi. Semi-structured interviews were held with the head-teacher and with members of the school management team to obtain their views of the impact of HIV/AIDS on their school, trends in numbers of orphans, levels of teacher deaths and sickness, sexual harassment, etc. These interviews were conducted in English.

Teachers were interviewed in several ways. All teachers were given a questionnaire that asked for basic background information and their views on a range of issues related to HIV/AIDS and education through a five-point rating of a series of statements. Up to 10 teachers were also randomly selected for interview. Then four to twelve teachers (depending on the number of teachers available after the interviews) were randomly selected for participation in semi-structured focus group discussion. Interviews and discussions with the teachers were conducted either in English or local languages.

Forty students (selected from the last two years of primary and each year of the main secondary cycle) were randomly selected for a group-administered questionnaire. A subgroup of 12-16 students from the same classes were selected for a focus group discussion. Both groups of respondents were gender balanced. The student instruments were usually administered either in the local language or by a local language speaker.

For the focus group discussions with both students and teachers, the facilitator utilised sets of statements, each printed on a separate sheet, that participants were asked to put in the following categories: 'agree', 'disagree' or 'not sure'. All the statements portrayed negative situations, for example "HIV/AIDS is a big problem in this school" or "Boys in

this school are fearful and anxious about their safety". The criterion was how true the statement was for their school (see appendix 1 for statements). Participants were asked to further categorise the statements they 'agreed' with as: 'not bothered', 'dislike a little' or 'dislike a lot'. The second level of classification was a way of indicating strength of feeling. The categorisations were done as a group (either one or two depending on the number of participants) and the group was required to adopt a consensus position. The discussion then centred on the reasons for the classifications and the reasons for differences between groups. Statements were translated into local languages for primary school students.

A small number of focus group interviews were held with orphans in Malawi and Uganda. The original plan was to interview an orphan group in each school surveyed. However, in Botswana, orphan interviews were considered too sensitive and were not part of the research protocol. The orphan interviews were conducted both in schools and under the auspices of NGOs that were service-providers.

	Botswana		Ma	lawi	Uga	Uganda	
Instrument	Prim	Sec	Prim	Sec	Prim	Sec	
Head-teacher interview	9	10	Part o	of SMT	6	4	
			inter	rview			
School data sheets	-	-	6	5	6	3	
Senior management	9	10	9	6	6	4	
team interview							
School committee focus	0	0	3	0	0	0	
groups							
Teacher interviews	67		63	34	43	37	
Teacher focus groups	9	10	6	3	6	4	
Teacher questionnaires			151	54	60	81	
Student questionnaires		383	361	291	231	138	
Student focus groups	9	10	12	10	6	4	
Orphan focus groups	()		7	5		
Orphan questionnaires	0		111		0		
Parents/carers focus	0		6		0	0	
group discussions							

 Table 2.1: School survey instruments

Team meetings were held at the end of each day to review and assess the data collected from each respondent or set of instruments. This triangulation was particularly important because of the nature of the study. Resistant respondents, who denied the existence of sexual harassment, for example, were present in almost every school. Fortunately, there were also very open respondents and the children, in particular, were more than happy to discuss their views.

Stakeholder Interviews

Four categories of stakeholder were interviewed:

- Stakeholders in basic education
- Government ministries and other agencies concerned with the welfare of children, including those working in HIV/AIDS prevention and the mitigation of the impact on children
- Donor agencies
- Government and parastatal officials concerned with the collection of health, education and mortality statistics.

Ministry of Education managers and senior officials were interviewed as well as officers in teacher training institutions and curriculum development organisations in all countries. Other government ministries were also interviewed, notably the Ministries of Health, Finance, Gender, and Labour.

There are relatively few NGOs in Botswana so it was possible to interview a substantial proportion of them. In Uganda on the other hand, systematic sampling for the stakeholder interviews would have been extraordinarily difficult since there are around 2000 NGOs dealing with different areas of HIV/AIDS. Consequently, the largest agencies were identified first and then a snowball strategy was used to identify other key NGOs. In other words, interviewees were asked to provide names of agencies working in the same area. The emphasis was on agencies working on AIDS education, particularly for young people, and the care of orphans. Other major institutional actors in the area of HIV/AIDS and orphan care were also consulted. Whenever possible, every effort was made to interview agencies both at the headquarters and in the field.

In Malawi, interviews were conducted with relevant NGOs and CBOs based in Lilongwe, Blantyre, and Zomba.

Modelling

Each country study tried to make enrolment and teacher requirement projections. Demographic data (projections of single year age groups) and data and targets from the Ministries of Education and Health were entered into a simple model developed by the Institute of Development Studies at the University of Sussex. Assumptions about the probable trajectory of the prevalence of HIV infections were then used to estimate the probable impact on the education sector.

2.2 COUNTRY LEVEL DIFFERENCES

The resources (financial, human and data) available to the three country teams led to country-level differences in both scope and design. In Botswana, it was possible (with the support of the Ministry of Education) to visit the largest number of schools (9 primary

and 10 secondary). However, because of sensitivities among senior MoE management about singling out of orphans, it was not possible to directly interview orphans.

USAID support in Malawi provided additional personnel for the school survey that made a more intensive data collection effort possible. The Malawi team was also able to extend data collection into the community (parents and community leaders). In Malawi, national teacher mortality statistics were obtained through a questionnaire posted to all District Education Officers. In Uganda, data from the Education Management Information System was particularly useful. A recent initiative within the Ministry of Education in Botswana to fully computerise all its staff records meant that detailed information on teacher mortality (including age, gender, marital status, and location) was available for the past two years. However, this kind of detailed data could not be obtained for the other two countries.

In Uganda, the NGO interviews were a more prominent part of the study, partly because of the number of agencies active in the area of HIV/AIDS and partly because of the need to document Uganda's experience. The absence of MoE staff members on the team also meant that access to government departments and officers was considerably more difficult here than in the other two countries.

2.3 STRENGTHS AND WEAKNESSES

The main strengths of the research design were the combination of qualitative and quantitative data collection and analysis and the contrasting views of the education system through both national statistics and the individual school surveys. The school survey provided a wealth of qualitative data about the concerns and feelings of teachers, students and administrators and the efforts being made to address the epidemic. The analysis of national statistics enabled the study team to develop quite robust answers to the question of the impact of HIV/AIDS on teacher mortality and attrition.

The sequential pattern of the fieldwork (first Botswana, then Malawi and finally Uganda) and the sharing of notes from the field helped maintain the link between the respective data collection exercises and enabled the team to share lessons across countries.

One of the most effective data collection strategies was the use of prepared statements during the focus group discussions. This method had several advantages. First, the prepared statements ensured that the same issues were consistently raised. Secondly, a single individual could conduct a focus group. Thirdly, the recording of each group's categorisation provided a handy quantitative measure to supplement the discussion. And fourthly, the discussion that led to the categorisations within the sub-groups helped introduce and facilitate the discussion within the larger group.

In each of the three countries, efforts were made to counter any resistance at the school level to what could be seen as a 'sensitive' study. This was done by working closely with

the Ministry of Education in each country and, whenever possible, briefing school managers prior to the arrival of the full survey team.

The main weaknesses were lack of resources and time constraints. Given the complexity of the study, more time and resources were needed than had been originally envisaged. Extra care had to be taken because of its perceived sensitivity. Several areas for potential improvement were identified:

- The country teams met together at the beginning of the project and after fieldwork and preliminary data analysis had been completed. However, more frequent meetings would have been beneficial, in particular after the draft survey instruments had been piloted and after the first drafts had been prepared.
- The piloting of the draft instruments was not as effective as it could have been. Limited resources meant that convenience samples were used (i.e. schools nearby) and they generally did not reflect conditions in the field. The documentation of the pilot results was also not as thorough as it could have been.
- A lot of very important information was either not being systematically kept by schools and Ministries or was never being collated at a central level. For example, teacher absenteeism or sick leave data at the school level was both poorly and unevenly kept in all countries. The quality of data on numbers of orphans was also poor. It was not unusual for head-teachers to use our request for orphan numbers to go from class to class to ask orphans 'to put up their hands'.
- The teacher interviews/questionnaires had open-ended items at the end to give respondents an opportunity to voice views on what could or should be done to meet the needs of students or teachers affected by HIV/AIDS. With hindsight, a more focussed strategy would have been better. Valuable information could have been gained by specifically seeking views on the timing of the introduction of HIV/AIDS education, on whether condoms should distributed in schools, and on the manner and degree to which teachers had changed their sexual behaviour. For example, a direct question as to whether or not the teacher would be willing to be tested (anonymously) for HIV would have provided unequivocal evidence of the level of support for a wide scale testing exercise.
- Some data was not sought that with hindsight could have been very useful. For example, teachers' marital status, lists of dropouts and their parental status, age, gender, marital status and cause of death of teachers (whether accident or illness).

2.4 RECOMMENDATIONS

The main lessons learned for future studies on the impact of HIV/AIDS are summarised below under the following headings: study preparation, general approach, and students and teachers.

Study Preparation

There are two issues that need to be dealt with at this phase to ease timely completion of the project. The first has to do with data. The availability of data needed for projections should be established early. While the required data should normally be part of census records or a Ministry of Education database, the process of gaining access to it can be time consuming and should be initiated as soon as possible. If any data is unavailable, the earlier this is known, the better. The option of obtaining it from the school survey or other data sources can then be exercised. Comparative mortality data for teachers at different levels and other professional groups is particularly informative (see Bennell et al, 2001 and Chilisa et al, 2001).

A community survey was not included in the country studies. However, they are particularly useful for addressing questions on parental attitudes to reproductive health education. Options for obtaining data on formal and informal community strategies for managing financial and emotional needs of children affected by HIV/AIDS and so on are considerably enhanced by using a community survey. Many of the issues surrounding HIV/AIDS and children reflect on social mores like attitudes to sexual harassment, appropriate age of sexual initiation, and attitudes to condom use and it would be useful to get community views on all these areas.

Much of the data requested during the school survey falls outside the usual run of information collected by school administrators. Prior warning of the data to be collected gives head-teachers or teachers an opportunity to assemble information on numbers of orphans, dates, ages and gender of teachers who have died, costs of funerals and other associated costs ahead of the survey team's arrival.

The second issue that needs special attention at this stage is the preparation and composition of the research team. Team members should be both insiders and outsiders—to the country, to the Ministry of Education, and to the education system in general. The inclusion of a researcher from outside the country is helpful in providing perspective. For example, cross-generation discussions about sexual behaviour or about discussing orphans' problems were seen as off-limits in some contexts, but an outsider can help to break down these barriers.

Getting access to schools, education officials, and educational data is considerably facilitated if one of the team members is a senior member of the Ministry of Education. Such a member can also help ensure that findings are brought to the attention of senior policy makers. However, the inclusion of outsiders also ensures that 'non-conventional ' strategies and recommendations are broached.

The multi-dimensional impact of HIV/AIDS calls for the inclusion of members who have training in demography, economics and sociology and some familiarity with the health sector.

Once the team has been constituted, the research team needs special preparation to deal with HIV/AIDS and sexual reproductive health topics. Everyone has to be comfortable talking about intimate sexual issues with both adults and children, male and female. Some counselling skills will also be needed. For some respondents, this study appeared to be a golden opportunity to ask questions about HIV/AIDS. Especially in one-on-one interviews, respondents seized the opportunity to work through a wide range of issues related to HIV/AIDS infection, vulnerability to infection, orphan-hood, and gender power relations with respect to sexual activity. Team members should be prepared to deal with the questions in some depth.

With a good team, and available data, six months is enough time to complete the study.

General approach

The sensitive nature of the research, particularly as it affects children, meant that ensuring ethical treatment of subjects and that valid data was obtained was particularly difficult under conditions where some respondents might have had strong incentives to conceal the facts. The following three strategies were used to address these issues: anonymity, triangulation and focus on social symptoms.

Anonymity should be assured and seen to be assured. Schools and respondents and even knowledgeable informants must not be identified unless they have explicitly given their permission. The anonymity should be transparent i.e. it should be apparent to the respondent that views and statements cannot be traced back.

Triangulation is a key strategy in most social research, but the sensitive nature of HIV/AIDS made it even more valuable in this context. The collection of both quantitative and qualitative data from each set of respondents was a useful strategy. The overlap between different sets of respondents in the data being sought was also very important, particularly with respect to the issue of sexual harassment.

The focus on social symptoms helped to lower anxiety among respondents and focus attention on factors that could be observed and tracked at the school level. For example, a school administration would find it difficult to assess the level of HIV prevalence in its catchment area. However, keeping track of the number of students who had lost their parents is relatively straightforward and gives them a direct measure of the factor they are ultimately interested in, that is the proportion of their student body that might need material or emotional assistance.

Sample size: Some events related to HIV/AIDS are rare (for example, having a child in school who has an AIDS-related illness), so a minimum sample size of twenty schools with at least 400 to 500 students each at each is recommended. The schools should be as representative as possible of the education system.

If the national educational database is good and only qualitative data is needed from the school survey, then a smaller sample (perhaps 10 schools at each level) would be

adequate. However, one of the key lessons of the research project is that much information that would be useful is not systematically collected either by the school or by the system as a whole. Therefore, it would be rare that the smaller option could be exercised.

If morbidity and/or mortality data has to be collected through the school survey then a bigger sample of schools would be needed. Twenty schools are unlikely to yield a representative sample that would lead to reliable population estimates.

Timing and Organisation: Data collection takes longer than expected; and it is advisable to expect and plan for extensive, unstructured discourse on HIV/AIDS issues with respondents. Just as an example, teachers' focus group discussions often lasted for an additional 30 to 45 minutes after the statements had been discussed as teachers brought up issues of concern or asked questions.

A strategy for dealing with either teachers or students who show signs of stress should be developed. Several options can be considered, including referral to guidance and counselling officers, referral to community health centres or hospitals, referral to NGOs or other institutions providing support to those affected by HIV/AIDS.

In one of the countries, the school survey preceded stakeholder interviews and the team was able to use the preliminary findings from the survey to challenge officials and provoke discussion.

Data Collection: With hindsight there were several specific issues with respect to data collection that would deserve attention in subsequent work. A key point of interpretation emerged during the data analysis process. It was not always possible to be sure that respondents saw some of the negative outcomes being discussed as directly linked to HIV/AIDS. More focussed questions would have helped to elucidate this question.

One topic that was not directly addressed with respondents was the reasons for the difference between institutions in the speed of their response to the epidemic. For example, why one headmaster in Uganda has instituted a programme to re-enrol all children who have dropped out of his school and others seem barely aware of the impact? If there were personal or institutional characteristics that encourage some schools or organisations to be pro-active, gaining some information of what these could be would be of benefit to the sector.

The study used an indirect approach that encouraged respondents to think about issues as they affected the school as a whole or teachers in general. The primary reason this approach was used was to reduce anxiety. The indirect approach was fruitful, primarily because it encouraged respondents to be more forthcoming, but more direct questioning to low vulnerability groups could be considered. For example, talking to head-teachers about teachers or students or teachers about students could have been more direct, without the subjects feeling threatened. Ultimately, the size and complexity of the study was unwieldy. Future studies could consider a modular approach to data collection and analysis depending on what concerns are seen as most pressing. There should be a core of questions to be investigated at every opportunity, but the emphasis for additional data could shift depending on whether or not teachers, orphans, HIV/AIDS education, etc. is the key problem. (See students and teachers sub-sections below).

Follow Up: A detailed review of the education management and information system to assess what kind of monitoring/analysis can be added to the established list of standard indicators would be a useful by-product of such a study. A revised EMIS would also be a way of institutionalising monitoring of the impact of HIV/AIDS and thereby providing handy quantitative indicators on a regular basis.

Repeated surveys in schools after every two years would be useful for tracking shifts in attitude and changes in the practice or effectiveness of HIV/AIDS education.

The Ugandan Ministry of Health uses a similar approach to tracking HIV prevalence. Annual monitoring of the results of antenatal HIV testing is supplemented by behavioural surveys every two or three years. The result is a good understanding of the way in which individuals have changed their behaviour to result in the lower prevalence levels.

Students

Even very young children in the high prevalence countries are very aware of and concerned about HIV/AIDS. The youngest children who took part in our study were in Year 4, which means that they were as young as nine. They had all heard of HIV/AIDS and the question as to whether young respondents have views and concerns about the syndrome was answered, resoundingly, in the affirmative.

Orphanhood is quite common so questioning can be general. It was striking how often children who were not orphans displayed familiarity with the difficulties faced by these children. However, children suffering from AIDS are relatively rare and those who are carers have experiences that are mostly domestic. Therefore, sampling for these two phenomena should differ from that done for general student views. Reaching carers and children infected with HIV through community structures, for example, health centres or social workers, would be more effective, rather than trying to identify them from within student populations.

The development of a longitudinal data base on academic performance, repetition, attendance, etc. for a sample of orphans, along with variables on socio-economic and household characteristics would add to the analysis and is an example of a data module that could be added to the core design.

In the absence of regular behavioural monitoring, a recent sexual behaviour survey of youth is essential and should be conducted as part of the study. However, in most cases it will not be possible to undertake this as part of the school survey. It should either be part

of a community survey or be complementary to the school survey. Out-of-school youth (15-19) should be included as part of this survey. Such a survey would provide vital information that could help shape an effective prevention campaign, whether school or community based.

Teachers

More purposive sampling with respect to the sexual and reproductive health syllabus is recommended for both questionnaires/ interviews and focus group discussions. Teachers who actually teach those subjects tended to give more balanced and informed responses than teachers in general.

For any study that is focussing on improving HIV/AIDS education, direct observations of a sample of HIV/AIDS or sexual/reproductive health classes should be part of the design. There are often widely differing accounts from teachers and students about what goes on in these classes and only direct observation could help reconcile the two versions. The observations would also provide valuable information on what the common strengths and weaknesses of the current teaching strategies are.

Just as for students, more should be known about the sexual behaviour of teachers. This information should be sought as part of a wider community sexual behaviour survey. The evidence from this survey suggests that teachers have a lower than average mortality rate. If this finding is supported from more direct research, teachers can then become an important community resource in the fight against HIV.

CHAPTER 3 SCHOOL-BASED HIV/AIDS EDUCATION AND PREVENTION

3.1 RATIONALE AND OBJECTIVES

School-based HIV/AIDS education programmes have been introduced in each of the case study countries during the last five to ten years. Each programme has similar objectives, namely:

- Reducting risky behaviours and promoting positive attitudes that can lead to HIV infection
- The promotion of positive attitudes and behaviours that will promote abstinence, chastity and safer sex
- Contributing to the creation of an environment in which the children are not being subjected to involuntary sexual activity, and
- Helping students to avoid infection through involuntary contact with contaminated body fluids (e.g. through care of AIDS patients).

Several reasons are commonly advanced for why the school is a particularly appropriate site for HIV/AIDS education. The first is that students are a captive audience. For virtually all the countries in the region, a majority of children enrol in school before they are 10 and spend several years in school. The inclusion of HIV/AIDS education in the curriculum would seem therefore to be an efficient and effective use of their time. Ensuring that the necessary knowledge, skills, and attitudes are inculcated in a manner that will lead to safe sexual behaviour calls for a range of learning objectives and related instructional strategies over the entire school cycle. Knowledge needs to be shared in an age-appropriate manner in the classic curriculum spiral.

School-based programmes also provide the opportunity to start educating children at an early age. Research shows that sexual and reproductive health education is likely to be more effective if it is started before children become sexually active and have already acquired attitudes and practices that are often counter-productive to positive sexual behaviours and attitudes (WHO 1993, Kirby et al, 1994). A key objective is to help children develop more equitable conceptions of gender roles. A long-term school-based programme can also address myths and other misconceptions in a dynamic, interactive way. For example, the widespread belief that condoms 'cause' HIV infection through being impregnated with microbes during manufacture is one that cannot be defused through a single declarative statement. As will be discussed later in this chapter, many of these myths have emerged from arenas that have little to do with science or biology

and therefore have to be countered by individuals who have a thorough grounding in the cultural backgrounds of the students.

3.2 OVERALL POLICY FRAMEWORK

Before considering the specific impact of HIV/AIDS school-based education in each of country, it is first of all necessary to briefly describe the overall policy framework with respect to HIV/AIDS education that has been adopted by each Ministry of Education.

Botswana

The Ministry of Education in Botswana issued a policy statement in September 1998 that followed the basic principles of the government plan of action with respect to HIV/AIDS. The MoE has adopted an infusion/integration approach where HIV/AIDS issues are integrated into the school curriculum and teacher training. "The key aim is to equip all students with skills and to develop attitudes and practices to curb the spread and manage HIV/AIDS". A post was created to co-ordinate development and implementation of HIV/AIDS education programmes, but this post has been vacant since the death of the incumbent in 1997. A statement on HIV/AIDS issued by the Ministry in 1998 lists the following objectives:

- HIV/AIDS should be integrated into education at all levels and made compulsory
- Content and methodology should be age appropriate
- All staff should share responsibility in HIV/AIDS education
- In-service courses should be developed and implemented to disseminate information on HIV/AIDS
- In-service curriculum and an implementation plan to be developed in collaboration with Ministry of Health
- AIDS counselling should be included in training of guidance and counselling teachers
- PTAs and the community should be involved in AIDS education.
- HIV/AIDS awareness programmes should be implemented for all MOE employees.
- Students, trainees, staff and all employees affected by HIV/AIDS (directly or indirectly) should not be discriminated against and should receive care and support as need arises. They should remain in school/college/employment as long as health permits.

Further, every department in the MoE is supposed have an HIV/AIDS committee that is responsible for workplace issues and condom distribution. There is also a Ministry-wide committee at which these departmental committees are represented. A strategic plan with respect to HIV/AIDS was developed in early 2001.

Malawi

Although the Government of Malawi has put HIV prevention at the top of the agenda for youth, the MoE has so far not played a prominent role. A steering committee was initiated in late 2000, but it has not yet developed any concrete programmes. A strategic plan on HIV/AIDS is in the process of being drawn up by five technical committees.

Uganda

The Ministry of Education and Sports in Uganda has also played a somewhat secondary role with respect to HIV/AIDS prevention and mitigation. However, most schools have actively collaborated with the many NGOs who are working in these areas.

The Government of Uganda is currently rejuvenating its anti-AIDS programme, in particular in order to guard against the threat of complacency. There are two linked initiatives that govern all the sectors and one initiative from the Ministry of Education and Sports that are relevant to HIV/AIDS. These are:

- Uganda AIDS Commission's Strategic Framework;
- World Bank's HIV/AIDS Control Project in support of the UAC's Strategic Framework.
- Ministry of Education's Strategic Plan for HIV/AIDS.

The Uganda AIDS Commission is co-ordinating the national fight against AIDS. The UAC has developed a National Strategic Framework for the period 2000/1 to 2005/6 in collaboration with all major stakeholders. The framework's goals are to: reduce HIV prevalence by 25% by the year 2005/6; mitigate the health and socio-economic effects of HIV/AIDS at individual, household, and community levels; and strengthen national capacity to respond to the epidemic.

Under this framework, the MOES has been identified as lead agency in a number of activities:

- Promote AIDS education and counselling in schools, colleges and institutions of higher learning.
- Develop and distribute materials and messages geared towards life skills and psychosocial development at all levels
- Developing standard training curricula on palliative care
- Integrating palliative care issues into the pre-service training curriculum for health workers and teachers

These roles are educational—developing syllabi, conducting training courses and also providing HIV/AIDS education to students. Since the focus for the educational system is

almost entirely preventative, the MOES is not being asked to take direct responsibility for mitigation, either for the impacts on children or teachers.

The Ministry has also recently formed a Task Force to design and implement an HIV/AIDS strategic plan with the following main objectives:

- To promote the development and implementation of policy guidelines and legal provisions relevant to the HIV/AIDS epidemic in the education and sports sector.
- To intensify advocacy and mobilization for HIV/AIDS education institutions and sports organisations.
- To incorporate HIV/AIDS and other reproductive health issues into the curriculum for all education institutions
- To promote specialised, skills-based teacher training in HIV/AIDS/STIs and reproductive health education
- To promote AIDS education, counselling and health care services at all levels of education
- To promote the welfare of AIDS orphans and staff living with HIV/AIDS in education and sports institutions/organisations including Ministry staff
- To promote partnerships and networking with NGOs/CBOs, private sector and other stakeholders in AIDS education, counselling/testing and health care in the Ministry, including education and sports institutions
- To strengthen information documentation and research relevant to the HIV/AIDS epidemic in the education and sports sector.
- To promote joint planning, co-ordination, monitoring and evaluation of HIV/AIDS activities in the education and sports sector.

3.4 EDUCATION AND BEHAVIOUR CHANGE

There are four main types of evidence that can be used to gauge the overall effectiveness of school-based education and prevention programmes,

- Overall trends in HIV prevalence among school-aged children
- Changes in key indicators of sexual behaviour
- Changes in information levels about the causes and consequences of the HIV/AIDS epidemic
- Qualitative assessments by students and teaching staff of the effectiveness of HIV/AIDS education.

This section considers the first three sets of evidence. Assessing the effectiveness of school-based HIV/AIDS education is particularly difficult because the school is only one of a number of institutions (family, church, youth clubs, other ministries, media, etc) that can potentially influence the sexual behaviour of young people. In practice, it is often not possible to separate out these different influences.

HIV prevalence

The overall trend in HIV prevalence rates among young people is clearly the most critical indicator of behaviour change. However, there is very little data on HIV prevalence in SSA, which is based on representative samples of the population as a whole. Primary reliance continues to be placed on HIV prevalence rates among (anonymous) samples of pregnant women attending antenatal clinics. There are two major problems with this sentinel survey data with respect to school children. First, pregnant women who are under 15 are a very small group and are usually excluded. And secondly, only relatively small proportions of school-aged children become pregnant. Consequently, prevalence rates maybe considerably higher among pregnant women aged 15-19 than the large majority who are not pregnant (either because they are not sexually active or they consistently use condoms).

In the BMU countries, HIV prevalence rates have fallen markedly in Uganda since the early 1990s, but continue to increase in Botswana. They appear to have stabilised in urban areas of Malawi, but are increasing in most rural survey sites. According to records from the largest voluntary testing organisation in Uganda, between 1992 and 1998 HIV prevalence rates among first time testers fell from 17% to 6% among females aged 15-19 and from 4% to 2% among males of the same age. However, declines have been much smaller in the older age groups. The National AIDS Control Programme in Malawi estimates that 46% of all new infections in 1998 were among young people aged 15-24 and, of these, 60% were female. For the 15-19 age group, HIV infection rates are five

	Lar	gest	Other	urban/	Ru	ral/	Nati	ional/
	ci	ty	semi-	urban	semi-	rural	Not sp	oecified
Country	+	-	+	-	+	-	+	-
Study countries								
Botswana	1	0						
Malawi	0	1	1	5	5	3		
Uganda	0	1	0	5				
Other countries								
Burundi	0	1	0	1				
Burkina Faso			0	1				
Cote d'Ivoire	1	0						
Cameroon	1	0						
Congo	0	1						
Ghana	0	1	3	6	3	4		
Kenya	1	0						
Lesotho							1	0
Mozambique	1	0	3	0				
Senegal	0	1						
South Africa							1	0

 Table 3.1:
 Trends in HIV prevalence among 15-19 year olds in selected African countries: ante-natal sentinel sites in selected African countries.

Swaziland						1	0	
Tanzania	0	1						
Zambia	0	4		1	4	4	8	
	-							

Notes: The table shows, for example, that at one of the urban/semi-urban sites in Malawi, HIV prevalence is increasing but it is decreasing at the five other sites in this geographical category.

times higher among female than males. Although the available data is rather fragmentary, the overall picture elsewhere in SSA is also very mixed (see Table 3.1). In some HPCs (including Zambia and Tanzania) the trend in HIV prevalence among adolescents appears to be downwards while it continues to be upwards in others.

A large population-based survey of HIV among youth and adults in Manicaland, Zimbabwe during 1999-2000 is particularly interesting. The results of the survey show that (i) HIV prevalence rates are much lower among 15-19 year olds who are attending school; and (ii) levels of HIV infection were very low among children in their mid-teens, but increased exponentially during late adolescence (see Table 3.2). If similar prevalence patterns prevail in other HPCs, it highlights the key role of formal education in protecting children against HIV infection and the importance of providing children with accurate, age-specific information about HIV prevalence. In Zimbabwe and probably elsewhere, primary and junior secondary students need to be convincingly informed that most of them are not infected, but that their behaviour from their mid-teens onwards will determine whether or not they will become infected.

Table 3.2:	HIV prevalence rates among school children and out of school youth in
rural Mani	caland, Zimbabwe 1999-2000: percentages

		FEMALE		MALE			
	School	Out of	All	School	Out of school	All	
AGE		school					
15-16	1.3	4.8	2.7	0	0	0	
17-18	1.4	8.4	6.4	0.4	0.8	0.6	
17-24	na	na	19.3	na	na	4.9	

Source: Gregson et al, 2001.

Sexual behaviour: quantitative indicators

Despite the gravity of AIDS crisis in SSA, it is still not possible to obtain an accurate, up to date assessment of the extent to which young people across the continent are changing their sexual behaviour in response to the AIDS threat. Again, the lack of good quality information has resulted in anecdotalism and generalisations that cannot be adequately substantiated. However, the general consensus is that, apart from a few countries (Uganda and Senegal are most frequently mentioned), most young Africans have not changed their sexual behaviour in ways that will effectively prevent HIV infection.

Country studies: The country studies did not attempt to collect detailed information on the sexual activity of primary and secondary school children. Unfortunately, the secondary data that is available does not usually provide a clear and detailed picture of key changes in the sexual behaviour of adolescents and other youth over time. In Botswana, a 1995 study by SIAPAC-Africa on the preliminary impact of an adolescent sexuality project in Lobatse suggested that knowledge about the risks of sexual activity was high. On the other hand, sexual activity was particularly highly valued among males although child bearing for teenagers was not. There were also serious misconceptions. For example, over one-quarter of respondents believed that AIDS was curable, transmission of the virus could be prevented by contraceptives other than condoms, and that virgins could not get pregnant or contract STDs with the first sexual intercourse. There is, however, more recent data collected by the Ministry of Health that gives a more positive picture. Among the 15-19 age group, condom use is up, pregnancy rates appear to be down and contraceptive use is increasing. The overall number attending STD clinics is lower and has fallen sharply for the youngest age group.

Young people in Malawi become sexually active at an early age. Almost 60% of secondary school students interviewed by Bandawe and Foster in 1996 said that they were sexually active with a mean age of first intercourse being 15 years. While there is little good quality evidence, it also seems that adolescents in Malawi are becoming sexually active younger. Male students in focus group discussions in Malawi indicated that there was strong peer pressure to become sexually active: 'the guys who have girlfriends are seen as heroes'. However, less than one-quarter of sexually active adolescents consistently used condoms in the mid-1990s.

In Uganda, there is firm evidence of significant changes in sexual behaviour, especially among young people. Researchers in Uganda believe that declines in HIV prevalence are directly linked to these changes in youth sexual behaviour. The first evidence of changed behaviour was produced as early as 1993 (see Asiimwe-Okiror et al, 1997).

- A two-year delay in the onset of sexual intercourse among youths aged 15-24 years. Among girls, the median age increased to 16.6 years and to 17.4 years among boys.
- A sharp increase in condom use: from 15.4% to 55.2% among men, and from 5.8% to 38.7% among women.
- A drop of nearly 50% in the proportion of men and women exchanging sex for money.
- A 9% decrease in casual sex in the previous year among male youths aged 15-24.

The June 2000 edition of the Ministry of Health's *HIV/AIDS Surveillance* Report also presents evidence that these positive changes in behaviour have been sustained. In particular, a 1998 KABP survey in six districts found very high levels of awareness, increases in levels of knowledge of protection from HIV/AIDS, and increases in condom use. While no additional delay in age of sexual initiation was reported, it had remained at the previously recorded level. Growing numbers of Ugandan adolescents, especially those still attending school, are having sex at a later age. Those adolescents who are sexually active are adopting condom use faster than other sections of the population.

The positive direction among the youngest age group is particularly noteworthy in Botswana and Uganda. While there is no definitive answer as to why this is happening,

there are several possible contributory factors. One possible cause is the higher enrolment levels among that age group, with virtually all children below the age of 15 in school. At a minimum, school attendance provides a regular, meaningful daily activity. Botswana has recently succeeded in extending universal enrolment to the end of the Junior Secondary cycle (i.e. 10 years of schooling) while Uganda initiated a universal primary education drive in 1996. Secondly, it is possible that here, as elsewhere, the education, both in and out of school, about HIV/AIDS, is helping to slow the rate of sexual initiation. Finally, for those who do become sexually active at a young age the use of contraceptives, particularly condoms, is becoming more acceptable. However, the drive for UPE in Malawi does not appear to have resulted in any marked changes towards less risky sexual behaviour.

Sub-Saharan Africa: UN-sponsored Demographic and Health Surveys (DHS), which are undertaken every five years in over 20 countries in SSA, provide the only source of country-comparative data on key sexual behaviour indicators over time. While not all the data is completely consistent, the DHS surveys broadly indicate that at least during the early-mid-1990s, the level of behaviour change among adolescents as a whole was relatively limited. In particular

- Sexual abstinence increased by only 2-3 percentage points in the HPCs (see Table 3.3).
- Age at first birth only increased very marginally. However, there is a strong negative correlation between teenage pregnancy rates and educational attainment. Pregnancy rates among teenagers with secondary education are 2-3 times less than teenagers with only primary education. The impact of secondary education in delaying the age of marriage is a key factor (see tables 3.4 and 3.5). In most countries in SSA, however, only small minorities of girls reach secondary school and most of these come from middle class homes. Social class and religion are key factors affecting the delay of marriage and sexual activity.
- While large majorities of 15-19 year old respondents indicated that they had changed their sexual behaviour in response to AIDS, less than 10% in most countries stated that they had stopped all sex, were using condoms, and/or had reduced the number of sexual partners. (see Table 3.6).

Country	Period	Beginning	End	Change	Average Annual change
Kenya	1989-98	45	43.4	-1.6	-0.16
Madagascar	1992-97	53.1	56.3	3.2	0.64
Tanzania	1992-96	50.5	47.7	-2.8	-0.7
Uganda	1988-95	62.3	61	-1.3	-0.19
Zambia	1992-96	60.1	57.9	-2.2	-0.55
Zimbabwe	1988-94	32	29.5	-2.5	-0.42
Burkina Faso	1992-98	53.4	48.6	-4.8	-0.8
Cameroon	1991-98	67.8	65	-2.8	-0.4

Table 3.3: Change in the percentage of 20-24 year olds who had had sexual intercourse before 20

Ghana	1988-98	49.6	37.5	-12.1	-1.2
Mali	1987-96	71.7	65.7	-6	-0.67
Senegal	1993-97	34.3	33.5	-0.8	-0.2
Togo	1988-98	64.2	60.5	-3.7	-0.37

Source: DHS

 Table 3.4:
 Change in median age of first birth among 20-24 year olds (years)

Country	Period	No	Primary	Secondary &
-		Education	-	Higher
Kenya	1989-98	1.4	0.7	2.5
Madagascar	1992-97	0.2	0.2	-1
Tanzania	1992-96	0.3	0.3	
Uganda	1988-95	0	0.1	-0.3
Zambia	1992-96	0.3	0	-0.5
Zimbabwe	1988-94	0.4	0.1	-1.3
Burkina Faso	1992-98	0	0	
Cameroon	1991-98	-1.7	1	2.2
Ghana	1988-98	0.5	0.3	
Mali	1987-96	-0.3	0.2	
Niger	1992-98	-0.3	-0.7	
Senegal	1986-97	1.5	4.3	
Togo	1988-98	1	1.4	

Note: When no medians are shown, median cannot be determined because half of women had already given birth.

Source: DHS

 Table 3.5:
 Teenage pregnancy rates by location and education level: rounded percentages

	LOC	ATION	EDUCATIONAL LEVEL		
COUNTRY	Urban	Rural	None	Primary	Secondary or higher
Eritrea 1995	7	33	42	19	4
Kenya 1998	18	22	41	24	9
Comoros 1996	9	9	14	9	2
Madagascar 1997	22	41	54	37	18
Malawi 1992	29	36	43	32	20
Rwanda 1992	10	11	22	8	3
Sudan 1990	7	14	21	13	4
Tanzania 1996	24	27	40	24	9
Uganda 1995	31	45	49	47	19
Mozambique 1997	31	44	50	38	11
Namibia 1992	24	20	50	21	20
Zambia 1996	27	34	48	33	21
Zimbabwe 1994	15	22	61	29	13

Burkina Faso 1999	14	28	29	19	10
Benin 1996	19	33	35	19	3
Central African Republic	35	37	40	34	34
Cameroon 1998	20	38	47	36	20
Ghana 1998	9	17	22	24	10
Guinea 1999	25	46	46	24	10
Mali 1998	30	49	46	36	15
Nigeria 1990	17	33	52	23	9
Niger 1998	24	49	49	29	10
Chad 1997	39	38	40	38	16
Togo 1998	12	25	38	16	4

Source: DHS

Table 3.6:Self-reported change in sexual behaviour in response to HIV/AIDSAmong 15-19 age group (percentages)

	Changed	Stopped all	Condom	Reduced
COUNTRY	sexual behaviour	Sex	use	Partners
Eritrea 1995	49	1	0	0
Kenya 1998	80	7	3	6
Comoros 1996	85	1	4	1
Madagascar 1997	62	1	0	2
Tanzania 1996	89	4	2	8
Uganda 1995	na	14	2	3
Mozambique 1997	78	1	2	6
Zambia 1996	81	10	3	3
Zimbabwe 1994	20	7	2	2
Burkina Faso 1999	62	1	6	1
Benin 1996	62	3	2	2
Central African Republic	71	4	5	9
Cameroon 1998	64	3	7	7
Ghana 1998	85	5	6	3
Guinea 1999	90	2	3	6
Mali 1998	61	2	3	1
Niger 1998	53	2	1	0
Chad 1997	72	1	1	1
Togo 1998	60	3	7	3

Source: DHS

HIV/AIDS knowledge levels

Although numerous surveys have been conducted over the years in individual countries in SSA that seek to assess the knowledge of young people about HIV/AIDS, there is little or no country-comparative time-series data. Most surveys show that while youth are increasingly better informed about the causes and consequence of the epidemic, there are
still gaps in their understanding, which have major implications for sexual behaviour and that there are strong economic and social pressures to engage in high-risk sexual behaviour.

Questions on various aspects of HIV/AIDS were included in the student questionnaires at the survey schools. The results are shown in Tables 3.7 and 3.8⁴. Levels of knowledge about the various aspects of HIV/AIDS varied widely between the three countries and often not in ways that could be anticipated. There is, however, a clear age/maturation effect with students in the fourth year of secondary school being considerably better informed. The assumption that Ugandan students would be the most knowledgeable, given the long history of public education in that country was not borne out. Generally speaking, students in Malawi are the most knowledgeable, particularly in the younger age ranges. This apparent contradiction between knowledge levels and change in sexual behaviour may be explained by high levels of poverty in Malawi and the low status of women.

		Prin	nary		Junior Secondary		Ser Seco	nior ndary
	Fer	nale	Ma	le				
STATEMENT	Std 6	Std 7	Std 6	Std 7	Fem	Male	Fem	Male
Traditional healers can cure AIDS	20	12	18	9	7	11	2	2
You can get AIDS by sharing	43	14	46	17	4	4	2	2
materials with students who are HIV								
positive								
Only immoral people get AIDS	75	57	65	49	8	13	9	17
It is possible to get AIDS from a	27	17	32	17	28	22	36	22
toilet seat								
The most common way of getting	7	5	16	10	7	5	0	2
AIDS is through sexual intercourse								
Pregnant women can pass AIDS to	14	9	16	11	4	6	0	7
their unborn children								
You can tell by looking at a person	60	62	72	56	24	23	16	26
whether they are HIV+								
One can get AIDS by donating blood	43	51	54	58	29	41	32	37
There is no cure for AIDS	27	14	29	18	11	11	7	13
Using condoms helps to prevent	6	13	11	9	18	19	14	15
AIDS								
Having sex with a virgin is one way	32	22	34	30	4	12	2	2
to cure AIDS								

Table 3.7:Student knowledge of HIV/AIDS in Botswana: percentage of incorrectresponses to statements

Student respondents in Uganda do considerably better on some questions (especially 'traditional healers can cure AIDS' and the 'the most common way to contract the virus is through sexual intercourse'). However, their knowledge levels are relatively poor for some key statements, including sex with virgins is a cure for AIDS, blood donations can transmit HIV, and pregnant women can transmit the virus to their unborn children.

⁴ The statements used in Malawi (Table 3.12) differ slightly from those used in the other two countries.

		PRIN	IARY			SECO	NDARY	
STATEMENT	St	td 6	St	td 8	Fo	rm 2	Fo	rm 4
	Male	Female	Male	Female	Male	Female	Male	Female
Only immoral people get the	51	60	44	40	20	26	10	22
You can tell if a person is HIV Infected simply by looking at them	53	44	39	39	19	24	14	18
There is no cure for AIDS	20	8	9	3	15	11	10	9
Pregnant women who are infected can pass the AIDS virus to their unborn baby	5	8	9	0	0	4	5	6
It is possible to get the AIDS virus from sharing a toilet seat with a person living with HIV/AIDS	18	10	9	7	4	4	1	6
The most common way for HIV to spread is through unprotected sex	8	2	7	0	3	4	3	5
One can get HIV by sharing writing materials with other pupils in class	5	5	3	1	4	1	1	0
One can get AIDS virus through witchcraft	8	6	5	3	1	8	0	8
Some traditional healers can cure AIDS	7	3	2	2	1	4	0	5
Using a condom properly helps to reduce the risk of contracting HIV	13	8	8	15	12	18	11	26
Having sex with a virgin is one way to cure AIDS	8	9	2	7	0	0	0	0
If one drinks 'kachasu' he/she will be protected from AIDS virus	8	2	4	1	0	0	0	0

Table 3.8: Student knowledge of HIV/AIDS in Malawi: percentage of incorrect responses to statements

The responses to the condom statement are intriguing. The proportion of senior primary school students giving incorrect answers is over twice as high than in Botswana and Malawi. However, among secondary student respondents, while there is an improvement in Uganda, the percentages of incorrect responses actually increase in Botswana and Malawi. It is not clear why this is the case, but the fierce arguments and counter-claims about condoms that are common in those two countries may be confusing older students.

Certainly condoms remain highly controversial, particularly in Malawi. Many churches believe strongly that condom use (even among adults) promotes promiscuity. The efficacy of condoms in preventing HIV transmission is also hotly debated, even among those without strong religious convictions. It is widely argued that, since condoms do not

offer absolute protection (because of improper use, re-use, inconsistent use, use while intoxicated, and manufacturing defects that lead to breakage or bursting), they should not be promoted as a method for preventing HIV transmission. The counter-argument is that, since the only options to condom use are total sexual abstinence and having only one sexual partner, (which are not realistic options for many youth and adults), condom use must be actively promoted.

Gender differences are also interesting. In Malawi and Botswana, girls are more likely to believe that only immoral people get AIDS. In Uganda, there is less than a twopercentage point difference between boys and girls. In Uganda and Malawi, boys are more likely to believe that condoms can help prevent the transmission of HIV, but in Botswana there is no clear gender difference. Boys are more likely to give an incorrect response to the question about whether one's appearance is an indicator of infection in Uganda and Botswana and among the younger age group in Malawi. Females in Uganda and Botswana (the older age group) are more aware of mother-to-child transmission of HIV than boys, but there is no clear gender dimension in Malawi. Nevertheless, in Malawi a disturbing gender difference can be observed in Table 3.8 where more than a quarter of Form 4 female secondary school students answered incorrectly the statement about the use of condoms.

STATEMENT	P6	P7	S1	S2	S3	S4	Boys	Girls
Having sex with virgins helps cure AIDS	35	16	24	25	29	14	31	18
Using condoms help prevent AIDS	23	17	8	16	24	7	14	21
There is no cure for AIDS	30	18	8	6	13	10	17	19
You can get AIDS by donating blood	71	76	57	55	40	38	60	65
AIDS virus can be passed to unborn child by	11	10	8	19	19	10	17	8
mother								
One can tell someone has AIDS just by	67	59	65	44	47	31	50	505
looking								
One can get AIDS through unprotected sex	18	8	5	3	11	0	11	9
with an infected person								
It is possible to get AIDS from a toilet	32	18	24	25	11	21	18	26
Only immoral people get AIDS	38	33	25	21	18	10	28	30
One can get AIDS by sharing writing	27	13	6	9	5	3	19	10
materials								
Some traditional healers can cure AIDS	13	6	3	6	3	0	9	7

 Table 3.9: Student knowledge of HIV/AIDS in Uganda: percentage of incorrect answers by class and gender

Some knowledge (in particular the efficacy of traditional healers, sexual intercourse as a mode of transmission, mother-child HIV transmission and the use of condoms) are relatively well known (with fewer than 20% of the primary school students giving incorrect responses). However, there are other areas where the level of student ignorance is worryingly high. These include 'only immoral people get AIDS' and 'you can tell just by looking that a person has AIDS'. If children believe that only immoral people are subject to HIV infection, they are likely to perceive their own risk as low. Arguably they will then neither make the behavioural choices that are likely to reduce their risk of infection nor pay as much attention as they should to the information that is being

disseminated. Believing that appearance indicates HIV status is also a dangerous piece of misinformation mainly because it gives children a false sense of confidence when they are assessing their own risk of infection from potential sexual partners.

Information sources

In Botswana, the media (radio, newspapers/magazines, TV) is by far and away the most important source of information on HIV/AIDS for primary school students (see Table 3.10). Both students and teachers feel very strongly that parents should play a much more active role. At the junior secondary level, teachers are the second most important source of information. This probably reflects the fact that most of the curriculum on sexual and reproductive health is delivered in Forms 1 to 3. Boys and girls have similar rankings at this level. At senior secondary level, medical personnel are more important than television for boys, but both genders rank radio, print media and teachers highly.

Over two-thirds of primary school students in Malawi identified teachers as one of their three most important sources of information on HIV/AIDS, but this dropped to 50% for secondary school students. Girls were more likely to identify teachers. The radio was also an important source.

In Uganda, teachers and the radio are the most common source of information. For boys and secondary students, the radio has the edge, while teachers are a more important information source among girls and primary students. The hospital and the home/parents are third or fourth for all categories. TV/movies are approximately the same level of importance as newspapers. However, 60% of the sample is from rural areas where access to both newspapers and TVs is relatively difficult. Teachers appear to be a particularly important source of information for rural students.

Girls are somewhat more likely than boys to identify parents as a useful source of information. Friends are more important for girls and for secondary students than for boys and primary students. The church appears to play very little role in disseminating information about HIV/AIDS among young people.

Given that teachers and the radio are important information sources for all students, this presents major opportunities for delivering messages that can be tailored to meet the needs of adolescents of different ages and situations. Despite their poor preparation, teachers are being forced to bear some of the burden for HIV/AIDS education. Their proximity to the students, their knowledge and the opportunities for continuous follow-up and contact make teachers an essential part of HIV/AIDS education.

3.5 STUDENT AND TEACHER ASSESSMENTS

The following discussion summarises the questionnaire and focus group responses of students and teachers at the survey schools with respect to school-based HIV/AIDS education. Student and teacher perceptions of the overall impact on sexual behaviour of

school-based HIV/AIDS education are summarised in Tables 3.11 and 3.12. Between 40% and 50% of primary school student respondents in all three countries felt that school-based HIV/AIDS education was impacting on sexual behaviour but, with the exception of Uganda, their teachers were much less positive.

 Table 3.10:
 Key information sources on HIV/AIDS among students: rounded percentages

	Botsv	vana	Mal	awi	Uganda		
Information source	Female	Male	Female	Male	Female	Male	
Radio	86	86	58	73	50	61	
Print media	50	52	10	9	19	24	
Posters	15	9	7	5	9	5	
TV	33	35	3	5	19	30	
Parents	17	14	25	10	40	37	
Medical personnel	38	49	23	16	48	56	
Friends	9	7	23	13	18	7	
Teachers	31	29	70	71	65	58	
Relatives	1	3	2	10	9	4	
Church	12	5	9	14	3	5	
Other	1	3	28	39	0	2	

PRIMARY

SECONDARY

	Botsv	Botswana		awi	Uganda	
Information source	Female	Male	Female	Male	Female	Male
Radio	75	70	73	87	48	68
Print media	43	39	21	23	47	34
Posters	7	3	8	9	1	2
TV	26	37	9	11	34	29
Parents	27	24	20	18	44	29
Medical personnel	42	47	3	0	27	40
Friends	8	12	19	10	29	21
Teachers	46	48	50	50	33	45
Relatives	1	6	8	4	6	3
Church	9	5	24	14	8	11
Other	0	0	0	0	1	2

More worryingly, perceived impacts are very limited among secondary school students, again with the exception of Uganda. A review of the literature also shows that school-based HIV/AIDS education has failed to have an appreciable impact on the sexual behaviour of school children throughout sub-Saharan Africa (see Gachuhi, 1999). This is both a consequence of weaknesses in the design and delivery of this education and the relatively limited role that schools can play in changing usually deep-seated social and cultural attitudes and behaviours.

Table 3.11: Response to statement 'students are changing their sexual behaviour inresponse to HIV/AIDS education in school' among survey primary schools:percentages

	STUDENTS			TEACHERS			
Country	Female	Male	All	Female	Male	All	
Botswana	44	42	44	10	12	11	
Malawi	40	41	41	18	21	19	
Uganda	45	56	51	51	33	42	

Table 3.12: Response to statement 'students are changing their sexual behaviour in response to HIV/AIDS education' among survey secondary schools (percentages)

		STUDENTS		TEACHERS			
Country	Female	Male	All	Female	Male	All	
Botswana	17	13	15	9	11	10	
Malawi	29	30	30	5	12	9	
Uganda	48	44	46	36	23	26	

A key reason for the limited impact of school-based HIV/AIDS education could be that students do not perceive HIV/AIDS to be a major issue in their school lives. In particular, less than one-quarter of student questionnaire respondents in Botswana and Uganda agreed with the statement 'HIV/AIDS is a big problem in my school'.

Curriculum design

The formal curriculum on HIV/AIDS has a number of common weaknesses in all three case study countries.

Botswana: In Botswana, curriculum developers have been given sensitivity training regarding HIV/AIDS and are now working on revising the primary curriculum. Guidelines for the senior and junior secondary schools have already been completed. Standard 7 classes in some primary schools have been trialing newly-designed WHO materials and it is expected that these materials will be used in all schools by 2002.

While the primary curriculum with respect to HIV/AIDS is adequate, there are important concepts or facts that are missing; namely, the active promotion of abstinence (or delay of sexual initiation) and life skills that will help children to avoid sex if they want to. There is also relatively little systematic coverage of the emotional changes that occur during puberty and adolescence This would provide students with advance knowledge so that they are more able to handle their feelings and emotions and be less vulnerable to the

common myths and misconceptions. In particular, they need to be taught that all sexual impulses do not have to be expressed through sexual intercourse.

Malawi: In Malawi, topics on HIV/AIDS are infused into carrier subjects such as Health and Science Education, which are core subjects in the Primary School Leaving Certificate exams (PSLE). In secondary schools the main carrier subject is biology and HIV/AIDS topics are only covered under the topic 'sexually transmitted diseases'. Biology is not compulsory at secondary level so many students do not even take this subject.

In Malawi in the late 1980s, the USAID-funded AIDS Control and Prevention Project developed a series of booklets on AIDS-related topics for primary and secondary school students. Over a quarter of a million booklets were distributed by the Ministry of Education. However, a preliminary evaluation in 1991 found that there was no noticeable improvement in knowledge about HIV/AIDS among students at primary schools mainly because teachers were not using the booklets.

The overall objective of the UNFPA-funded Population and Sexuality Education Project is to encourage children to 'control' their emotions. The project is a response not only to the rising incidence of HIV/AIDS, but also to the increasing number of girls dropping out of school through pregnancy. A wide range of grade and age-specific learning and teaching materials has been developed. In the lower primary grades, AIDS-related topics are integrated into the social studies curriculum while, in the upper primary grades; health/science education is the main carrier subject. Since 1997, AIDS education has also been incorporated into social studies, biology, agriculture and home economics at all Junior secondary schools. HIV/AIDS education is also an important component of a major World Bank-funded education support project. This includes the adaptation of HIV/AIDS education materials originally developed for secondary schools in Zimbabwe.

Beginning in 1997, the MOEST in Malawi (in conjunction with UNICEF) also began to develop Life Skills Education as part of youth reproductive health, although this was only introduced into primary schools in early 2000. LSE is a stand-alone subject for one hour a week but, currently, is only offered in Standard 4. The goal is to equip students with key competencies in problem solving, decision-making, stress and anxiety management, conflict resolution, interpersonal relationships, planning and entrepreneurship, self-esteem and assertiveness as well as AIDS prevention. Teaching and learning materials for Standards 5 to 8 are still being developed and will be introduced from 2002 onwards. The new secondary curriculum also recognises Life Skills as a core subject. However, it cannot be introduced into schools until the syllabus and appropriate materials have been prepared.

Uganda: A new primary education curriculum was introduced during 2000 in Uganda. The subject of Integrated Science has been organised into eight themes, three of which (Human Health, the Human Body, Community-Population and Family Life) are relevant to HIV/AIDS education. However, the coverage of HIV/AIDS is surprisingly sparse; it is first mentioned under the Human Health theme in the second term of P7, in other words just before the student leaves primary school. The module deals with causes, modes of

transmission, signs and symptoms, effect on individual prevention and control and then moves on to necessary life skills and behaviour change clubs. The teacher is asked to point out non-sexual modes of transmission and encourage the development of survival life skills (NCDC, 1999).

The new syllabuses for the Uganda Certificate of Education that guide instruction at the secondary level contain no references to HIV/AIDS in biology, health sciences, Christian or Islamic Religious Education, not even in the presentation of human reproduction or population growth. The biology syllabus is now being reviewed to incorporate recent advances in knowledge of HIV/AIDS and the links between HIV/AIDS and the environment. This new syllabus (which is expected to come into effect in 2002) will be incorporated in the new combined subject of biology and health education. Health education was formerly called health sciences but with the new emphasis, it has been renamed. All O-level students will have to take either biology or health education. The new syllabus presents HIV/AIDS simply as a sexually transmitted disease, the new syllabus includes key social aspects of the epidemic, such as stigmatisation and psychological impacts. Health education will exhaustively discuss traditional and religious attitudes and how they intersect with HIV/AIDS. Related issues such as support for the sick and alcoholism will also figure in the new subject.

There are many missed opportunities in the current primary curriculum, which was introduced in 2000. For example, the curriculum deals with hygiene in the context of caring for the sick and elderly and other 'weak' community members, but there is no direct reference to HIV/AIDS. A significant proportion of adults and children will continue to look after household members with AIDS-related illnesses and the lack of reference to it in this context is indeed surprising. Similarly, breast-feeding and nutrition is also covered, again without any reference to mother to child transmission of HIV or the role that good nutrition can play in living positively with AIDS.

While there has been a long-standing life skills project in Uganda, life skills have not yet been fully integrated into primary education. The results of a 1997 evaluation are being used to re-orient the development of this project to make it more student-centred.

Curriculum delivery

Well over half of primary school students in Malawi and Uganda agreed with the statement that 'topics on HIV/AIDS are well taught' compared to only one-quarter in Botswana. However, only a minority of teachers in each country feels confident teaching HIV/AIDS topics (see Table 3.13).

Less than one-third of secondary school students in Malawi and Uganda are satisfied with the way in which HIV/AIDS topics are taught. In Botswana, on the other hand, secondary school teachers appear to be more effective than their colleagues in primary school. However, less than half of the secondary school respondents said that HIV/AIDS topics were are well taught. Again, most teachers do not feel confident (see Table 3.13).

This lack of confidence is closely related to the very limited amount of training teachers have received in key areas, either pre-service or in-service (see Table 3.14).

agreement		
	STUDENTS	TEACHERS

 Table 3.13:
 Teaching of HIV/AIDS topics at primary schools: percentage in agreement

		STUDENTS			TEACHERS			
	Topics on H	HV/AIDS are	well taught	Teachers are confident teaching about				
					HIV/AIDS topics			
Country	Female	Male	All	Female	Male	All		
Botswana	26	22	24	25	24	24		
Malawi	60	57	61	24	28	25		
Uganda	66	59	63	42	20	35		

Table 3.14:	Teaching of HIV/AIDS topics at secondary schools: percentage in
agreement	

	Topics on H	STUDENTS IV/AIDS are	well taught	TEACHERS Teachers are confident teaching about HIV/AIDS topics			
Country	Female	Male	All	Female	Male	All	
Botswana	42	46	44	30	29	29	
Malawi	41	30	35	33	9	17	
Uganda	23	24	24	14	28	22	

Table 3.15:	Teachers are properly trained to deliver SRH topics: percentage in
agreement	

	Primary Teachers			Secondary Teachers		
Country	Female	Male	All	Female	Male	All
Botswana	9	8	8	26	24	25
Malawi	8	5	7	16	11	13
Uganda	50	12	35	14	22	18

Only 30-40% of the primary students in Botswana and Uganda are satisfied with the amount of information they get from their teachers about HIV/AIDS (see Table 3.16). In Malawi, a slight majority were satisfied with the information. Secondary school students in Botswana and Uganda were more likely to be satisfied than those in Malawi and a majority of students in those two countries were satisfied.

There are a number of constraints to the effective delivery of the HIV/AIDS curriculum. The first is the curriculum itself. Although there is a considerable range in depth of

coverage, a common failing of the curriculum in all three countries is that it is too academic. Furthermore, teachers are unwilling or unable to discus topics in depth. Teachers are generally unprepared to deal with the challenging questions that their students come up with and this often leads to unfortunate situations where teachers feel embarrassed and angry and/or students feel ashamed.

Table 3.16:	Students at this school get all the information and advice they need
about HIV/A	AIDS: (percentage in agreement)

	PRIMARY STUDENTS			SECONDARY STUDENTS		
Country	Female Male All			Female	Male	All
Botswana	39	36	38	53	50	52
Malawi	50	55	53	39	46	43
Uganda	28	33	31	62	52	58

Teachers also believe strongly that they are handicapped by a lack of appropriate learning aids. Very little material for HIV/AIDS education has been developed with children in mind and there is an urgent need for age-graded and age-appropriate materials. Although a great deal has been done in Malawi, the material developed is either poorly disseminated or remains unused at the school level. Most material that does exist is not considered to be stimulating enough and, in all three countries, teachers are crying out for good-quality video and audio materials. They also want students to interact directly with individuals who are living with HIV/AIDS.

Some teachers also feel that parents are unwilling for their children to be taught sexual and reproductive health topics. Teachers ascribed this unwillingness to a number of motives. In particular, they argue that parents believe that children should not be given any information about sex as this encourages experimentation. There is also a lack of trust that teachers can provide this information in an appropriate way and even a suspicion that teachers might use sex education as an opportunity to sexually molest their children.

Teachers, particularly in Botswana, also expressed deep embarrassment and reluctance about discussing sexual topics with their students. This is as true for primary school teachers as it is for teacher trainers. Part of this reluctance is attributed to the fact that Setswana (the widely spoken national language) does not have polite terminology for genitalia and sexual acts. In Malawi, this issue has been addressed quite effectively through a popular HIV/AIDS radio programme. The broadcasters have developed a vocabulary that allows them to talk about sexual issues 'politely' and that this vocabulary facilitates discussion between teachers and students. The Malawi research team used the same vocabulary during their interviews in schools.

The poor delivery of the HIV/AIDS curriculum in all three countries reflects a failure to fully recognise the substantial amount of training that is required if AIDS education is to be effective. Even though it is widely accepted that pre-service teacher training in this area has to change very substantially, not nearly enough is being done to make these

changes a reality. Even the attempts to introduce life skills approaches to deal with sexual and reproductive health topics have not met with much success, due to a great extent to teacher resistance stemming from their poor preparation.

3.6 OTHER INTERVENTIONS

The formal school curriculum is only one of a number of modalities that can be used to deliver HIV/AIDS education. There are two types of school-based intervention, which are commonly used by schools in the three survey countries. The first is extra-curricular activities, in particular AIDS clubs and the incorporation of HIV/AIDS issues into drama and other activities groups or peer education groups. The second is the use of outside personnel to teach HIV/AIDS education. Various NGOs do provide HIV/AIDS education services to schools. However, the main problems with this are it is not participatory enough for either students or teachers, and the opportunities for follow-up advice, services and counselling are very limited.

School-based activities

AIDS clubs exist in schools to a greater or lesser extent in each of the three survey countries. However, the AIDS Toto clubs in Malawi are the most extensive and well developed. UNICEF helped to establish these clubs in the late 1980s through the provision of learning materials and guidelines for action. The clubs operate in both primary (Standards 6-8) and secondary schools. The original intention was that teenagers should discuss with their peers the dangers of 'indulging in multiple partners, drugs, and alcohol' (UNICEF, undated). Club activities are centred on empowering students by providing them with all the necessary information and knowledge about HIV/AIDS to enable them to make informed decisions about their sexual relationships. They are the main extra-curricula anti-AIDS activity directed at school students in Malawi. There are also bible clubs with a more limited scope as well as UNESCO-supported clubs that focus more on life skills and family life education. AIDS clubs in Botswana and Uganda are the result of individual school initiatives.

AIDS clubs have a number of common shortcomings. Membership tends to be quite limited, as is the scope and intensity of outreach activities that are undertaken. Students in Botswana and Malawi are particularly unhappy about the lack of opportunity to participate in their own HIV/AIDS education; they were tired of being lectured at and not being able to ask questions or debate issues.

The three survey countries rely heavily on nurses and other health personnel to give talks on HIV/AIDS. While appreciated, teaching staff feel that they focus too much on condom use, which is frequently not appropriate. In the past, the Ministry of Health in Botswana and Malawi distributed condoms in schools but, in both countries, this has been stopped because of the objections of parents and teachers.

NGO activities

NGOs play an important role in school-based HIV/AIDS education in Malawi and Uganda. The WHY WAIT? programme in Malawi is based on Christian principles and has been particularly influential both with respect to the formal curriculum and in Anti-AIDS extra curricula activities. It was introduced in secondary schools in 1995 and primary schools in 1999. Its overall aim is to sensitise youth to abstain from premarital sex. Around 600 teachers have been trained to deliver a four-year programme.

- The first year focuses on the physical, socio-cultural and environmental factors that lead to premarital sex and explains the needs for a monogamous faithful marriage. The aim is to encourage youth to avoid 'harmful' behaviour.
- The second year involves a greater focus on psychological and emotional factors, which influence the sexual behaviour of youth.
- The third year demonstrates life principles and encourages students to follow a path informed by biblical principles.
- Acknowledging that many students come from homes that offer poor models of parenting, the fourth year focuses on positive parenting.

Numerous NGOs in Uganda are working in the area of HIV/AIDS and youth. The brief descriptions in Box 1 give an indication of the range of their activities. The major challenge is that virtually all the NGOs have a limited geographical area of activity and the majority only operates in and around larger urban centres.

3.7 GUIDANCE AND COUNSELLING

School-based guidance and counselling is at very different stages of development in the three survey countries. In Botswana, guidance and counselling was first identified as a priority over thirty years ago. The Department of Curriculum Development and Evaluation has produced guidance and counselling guidelines and conducts regular training workshops for guidance and counselling teachers. In addition, an attempt is being made to develop a corps of HIV/AIDS trainers at all levels of the Ministry to help counter the strong cultural resistance to discussing sexual matters between individuals of different generations.

School-based guidance and counselling in Malawi dates back to 1983 when the MoE appointed a career guidance officer for secondary schools. The main goal has evolved from focusing on the preparation of students for national examinations and career choices to personal counselling. Formal guidance and counselling services should include the following: vocational/career guidance, educational guidance, personal and social guidance, individual counselling, group guidance and counselling, learning resource centres, enterprise education and orientation service. However, over the past few years

these services have not been provided and the Ministry has yet to appoint an overall coordinator for the programme.

Box 1: HIV/AIDS-related NGOs in Uganda

The Straight Talk Foundation publishes two monthly newspapers--*Straight Talk* and *Young Talk*--which reach over one million young people in primary and secondary schools.

School Health and AIDS Prevention Programme: The African Medical and Research Foundation (AMREF) together with the Soroti District Administration runs a School Health and AIDS Prevention Project in the rural counties of Soroti District and in Soroti town itself. 95 primary schools are supported, with an enrolment of about 120,000 children. Students are encouraged to put reproductive health problems into their "health letter-boxes". The letters are read out to the students during morning assemblies, and answered on the spot by specially trained teachers. As a result of these activities, sexual activity among primary school students is reported to have decreased dramatically.

The Mobile Farm School Project: In August 1998, with funding from Caritas Norway, the Kitovu Mobile Programme (an off-shoot of Kitovu Hospital in Masaka) started a "Mobile Farm School" project for orphaned teenage school dropouts. The project, which operates at ten different centres (school or community buildings), is currently training about 400 young people (70% boys and 30% girls) in agricultural skills. In addition to the agricultural curriculum, the farm schools deal with sensitive issues such as sexual behaviour, AIDS, orphan-hood and relations with guardians. These issues are addressed both within the formal curriculum and through counselling.

Student Partnership Worldwide recruits, trains and deploys young volunteers, from Uganda and from overseas, to work as teachers in schools for a one-year period. SPW education volunteers have worked in 34 schools in Kapchorwa, Kamuli and Mbale districts where, *inter alia*, they have worked to raise awareness among young people about issues that affect their lives (including HIV/AIDS).

The AIDS Information Centre provides counselling and advice for those already infected and affected by HIV/AIDS and promotes the adoption of healthy lifestyles. AIC teams make ad hoc visits to schools in order to provide HIV/AIDS education, testing, counselling and condoms (if requested).

The three survey countries share common constraints with respective to the implementation of an effective school-based guidance and counselling programme that can contribute to the prevention of HIV infection. The availability of trained guidance counsellors is a major concern. Botswana has embarked on a programme of training counsellors but, so far, the overwhelming proportion of these are in secondary and not primary schools. Uganda and Malawi have very few guidance counsellors in schools. Schools in Uganda are beginning to have what are called 'senior women' and 'senior

men' teachers who are supposed to provide guidance and counselling to both students and other teachers. However, even where they have been appointed, they are not usually trained and even lack guidelines about their overall role and specific responsibilities. Senior men teachers at the survey schools were generally inactive and male students in particular do not feel that their needs are being met.

In all three countries, counsellors have full-time teaching loads and thus they have little time or energy to undertake their counselling duties. They also tend to deal mainly with disciplinary issues rather than more general counselling. Lack of proper space and other facilities to provide confidential advice is also a major problem.

Table 3.17:	Primary students feel free to talk to teacher counsellors about
HIV/AIDS:	percentage in agreement

	STUDENTS			TEACHERS		
Country	Female Male All			Female	Male	All
Botswana	30	34	32	29	44	35
Malawi	55	62	58	56	51	55
Uganda ⁵	55	49	49	na	na	Na

Table 3.18:	Secondary students feel free to talk to teacher counsellors about
HIV/AIDS:	percentage in agreement

Country	S	TUDENTS	5	TEACHERS		
Country	Female	Male	All	Female	Male	All
Botswana	44	44	44	45	48	46
Malawi	41	43	42	67	53	58
Uganda	38	30	34	Na	Na	Na

3.8 SEXUAL HARASSMENT AND TEACHER MISCONDUCT

There is growing concern that significant numbers of African schoolchildren are being infected with HIV by their own teachers and as a result of sexual harassment by other students. Urgent steps are therefore being called for to stamp out this behaviour (see Leach, 2001).

For the purposes of this study, sexual harassment was defined as "any unwelcome contact on breasts, buttocks or genitalia (private parts), ranging from touching to assault and rape, or verbal harassment that referred to sexual characteristics, either between students or between teachers and students." Understanding of the term varied from country to country. Ugandan teachers and students were relatively more familiar with the concept. Botswana teachers and students often needed the term explained. In Malawi, there was

⁵ This statement was not included on the teacher's questionnaire in Uganda.

also widespread misunderstanding of the term. Malawian school administrators seemed unclear as to whether sexual affairs between teachers and students constituted sexual harassment or 'normal' sexual relations.

'No sexual harassment has been reported. However, it has been rumoured that some teachers are having affairs with girls but this leads to consensual sex...these are normal discipline issues rather than sexual harassment'.

However, many respondents in all three countries tended to focus on rape or coerced sexual intercourse, particularly between male teachers and female students. The other manifestations, or events between students, between students and community members and homosexual harassment (in boarding schools between senior and junior students) were given less prominence, although it was clear that all these did occur.

The country studies asked for views from teachers and students about sexual harassment between teachers and students and also between students.

Table 3.19:	Teacher sexual harassment in primary schools: percentage in
agreement	

Country	S Love relation and teache	STUDENTS nships betwee ers are commo school	n students n in this	TEACHERS Sexual harassment of students by teachers is a big problem in this school			
	Female	Male	All	Female	Male	All	
Botswana	30	36	33	3	0	2	
Malawi	23	20	21	6	0	4	
Uganda	23	32	28	5	12	7	

Most teachers in each country deny that sexual harassment between teachers and students is a big problem (see Table 3.19). Notably, no male teacher in Malawi and Botswana admitted to its importance and only small proportions of female teachers felt that it was a 'big problem'. Other evidence suggests that this was probably true in Botswana, but not in Malawi. The Botswana primary teaching force is overwhelmingly female (79%) and this contributes to the development of an ethos within primary schools that is more hostile to sexual harassment. The situation in the Malawian teaching force (61% male in 1997) is the opposite and, evidence from this and other studies suggests that sexual harassment remains a serious problem in most Malawian schools.

In Uganda, male primary teachers are more likely than female teachers to feel that sexual harassment is a serious problem, but still only a very small minority agreed with the statement.

Among primary student respondents, similar percentages of students (20-36%) across the three countries felt that sexual harassment by teachers is a big problem, with the lowest

levels being reported from Malawi and the highest from Botswana. This result is somewhat surprising given that sexual harassment appears to be less of an issue in Botswana than in Malawi.

At the secondary level, again there is congruity among the students in the proportions feeling that love relationships are common, with slightly lower proportions in Botswana and Uganda feeling that these relationships are common. Among teachers, virtually no one agreed that it was a big problem and female teachers were more likely to feel it was not a problem than male colleagues (see Table 3.20). Evidence from the focus groups suggests that the students' perception is closer to the truth than the teachers'.

 Table 3.20:
 Teacher sexual harassment in secondary schools: percentage in agreement

	STUDENTS Love relationships between students and teachers are common in this			TEACHERS Sexual harassment of students by teachers is a big problem in this			
	school			school			
Country	Female	Male	All	Female	Male	All	
Botswana	23	32	27	4	4	4	
Malawi	28	22	25	0	3	2	
Uganda	21	27	23	0	0	0	

Both students and teachers in primary schools saw student on student sexual harassment as a bigger problem than teacher on student harassment. Botswana students were the exception. From the focus group discussions, two key issues emerged. The first is that it is a staple of school life and, secondly, that the students find it very difficult to deal with. Teachers usually do not take it seriously when it involves touching or verbal comments. Whenever they do take action and the culprit is punished, the victim usually has experienced reprisals. There is a tendency to regard it as 'play'.

At secondary schools, higher proportions of both students and teachers see sexual harassment among students as a problem, with students and teachers in Malawi having marginally higher agreement rates.

The questionnaire/focus group statements did not directly address the question of out-ofschool sexual harassment, but it emerged as an important issue for girls during the focus group discussions. More generally, both secondary and primary students consider themselves vulnerable to unwanted sexual contact, from other students, from teachers and from community members. A major concern is that adolescent boys and girls are being coerced into sexual activity with adults who may be infected. It is widely believed that that a young sexual partner is likely to be HIV negative. The need or desire of adolescent students to earn money also results in relatively high levels of 'transactional' sex. Sometimes this is for fees and books, but it can also be for clothes and make-up, a fact acknowledged by the students (both male and female) themselves in all countries.

	STUDENTS Love relationships between students are common in this school			TEACHERS Sexual harassment of students by other students is a big problem in this school		
Country	Female	Male	All	Female	Male	All
Botswana	12	21	18	11	4	10
Malawi	57	58	57	5	5	5
Uganda	36	48	42	8	12	9

 Table 3.21:
 Love relationships and sexual harassment among primary school students: percentage in agreement.

Table 3.22: Love relationships and sexual harassment among secondary school students: percentage in agreement.

	STUDENTS Love relationships between students are common in this school			TEACHERS Sexual harassment of students by other students is a big problem in this school		
Country	Female	Male	All	Female	Male	All
Botswana	74	62	68	12	16	14
Malawi	72	71	71	16	14	15
Uganda	55	58	56	11	11	11

Regulations concerning teacher sexual misconduct

The emphasis on rape and sexual assault is also apparent in the regulations that focus on sexual harassment between teachers and students. However, in Botswana and Malawi, these regulations are seen as not being effective in punishing teachers. In Botswana, the problem is reported to be the stringency of the burden of proof. As it is classified as a criminal offence, there have to be witnesses or incontrovertible physical evidence. Until the teacher is found guilty, he or she is allowed to continue teaching under the principle that one is innocent until proven guilty. In Malawi, an allegation is sufficient for interdiction. However, this seldom occurs because it depends on the action of individual head teachers. The most common punishment of a teacher is transfer to another school. In Uganda, the punishment is imprisonment and at least one teacher in the survey schools had been jailed. There has been a lot of awareness-raising and campaigning around the issue of sexual harassment and 'defilement' by prominent women (and men) in Ugandan society.

There are several weaknesses of the regulations in all countries. The first is that they rely on children coming forward to make allegations against adults in a situation in which the adults are seen as authority figures. Secondly, the resources for investigation are not always available to individual head-teachers and therefore there may be numerous difficulties in 'proving the allegation'. Thirdly, there are strong incentives for teachers to close ranks and put the allegations down to mischief making. Fourthly, the regulations do not systematically address the other manifestations of sexual harassment. Finally, in all countries the procedures can be easily derailed by cultural considerations: the payment of 'damages' to the girls' parents or a promise to marry her can often turn parents into adversaries who do their best to quash any proceedings.

	PRIM	ARY TEAC	CHERS	SECONDARY TEACHERS				
Country	Female	Male	All	Female	Male	All		
Botswana	36	37	36	51	45	47		
Malawi	42	53	45	50	44	46		
Uganda	57	64	60	82	76	78		

 Table 3.23:
 School management deals effectively with sexual harassment by students: percentage in agreement

A large majority of Ugandan teachers felt that their school administrations dealt effectively with sexual harassment by students. Secondary teachers have a more positive view in all countries. Teachers in Botswana and Malawi were less sanguine, but between 36% and 45% respectively felt that an effective procedure existed.

Table 3.24: School management deals effectively with sexual harassment by teachers: percentage in agreement

	PRIM	ARY TEAC	HERS	SECONDARY TEACHERS				
Country	Female	Male	All	Female	Male	All		
Botswana	20	35	25	26	25	25		
Malawi	32	47	37	33	24	27		
Uganda	51	71	58	69	66	68		

Even though teachers were quite clear that they did not believe that sexual harassment by teachers was a problem, most teachers felt that when it did occur, the school administration was less effective in dealing with sexual harassment by teachers than that by students (see Table 3.24). Again the teachers in Uganda were the most likely to feel that their school managements have an effective strategy for dealing with sexual harassment by students.

3.9 KEY LESSONS AND RECOMMENDATIONS

The school systems in the three survey countries have failed to develop a coherent, comprehensive approach to HIV/AIDS and, more generally, SRH education. The shortcomings in the design and delivery of the formal HIV/AIDS curriculum are being made up to limited extent through NGO interventions and other public education programmes targeted for adults. However, the end result is knowledge gaps,

misinformation, anxiety and the failure to develop the necessary skills and attitudes that would enable young people to protect themselves in those countries from unwanted or unsafe sexual behaviours and practices.

A key lesson is that school-based HIV/AIDS education must be multi-dimensional and part of a comprehensive approach to sexual and reproductive health. Students (and teachers) need to be equipped with 'effective' knowledge of the virus, that is, facts that will help them to protect themselves. But, in addition, they need particular skills. The decision to engage in or avoid sexual intercourse takes place within a context that can make the facts irrelevant. Peer pressure, the desire for love, companionship, and even financial gain seem to render meaningless HIV/AIDS knowledge (Bauni & Jarabi 2000; Hulton, Cullen & Khalokho, 2000). Therefore, students need focused training in the following areas: negotiation, assertiveness, attitudes of self-worth and self-confidence, positive attitudes towards sexual abstinence, and safer sex. Finally, there must be adequate accessibility to medical services and support institutions that will help sustain the positive attitudes that are developed.

Abstinence must be the linchpin of such a programme. Young people should be discouraged from engaging in sexual activity as long as possible. Any sexual activity (which ideally should only take place after the age of 18 and within the context of a committed relationship) must also include condom use at all times except when the couple desires to conceive a child.

Through discussions with teachers and teacher trainers and the analysis of the syllabus and curriculum guidelines in the three countries, it is clear that that there is a strong case for adopting a dual approach to HIV/AIDS education in schools. There needs to be a commitment to providing students with the 'basic facts' of HIV/AIDS—what is HIV, how it is transmitted, and how infection can be avoided. But, as was discussed earlier, this should be done iteratively rather than as a one shot deal. Some core HIV/AIDS education should be done every year; as the students mature, their questions and perceptions change and an opportunity for addressing them should be an explicit part of their education. This part of the curriculum can be included in such subjects as biology and/or health science. Another option is to have HIV/AIDS as a separately timetabled subject.

Secondly, in addition to getting the 'facts' about HIV/AIDS, students must develop a healthy awareness of the way in which HIV/AIDS touches their lives. They should have plenty of opportunities to discuss the ethical, social and practical dimensions of the epidemic. HIV/AIDS topics should therefore be included in religious/ethical education and in social studies/civics and even agriculture. This infusion also enables students to be informed of and discuss advances in knowledge about the virus, vaccines, and new treatments.

Main recommendations

The main recommendations on school-based HIV/AIDS education which emerge from this study are as follows:

- Knowledge is necessary but insufficient for behaviour change. The behaviour change that must accompany a reversal of the HIV/AIDS epidemic can only be effected if teachers with the skills to inculcate this behaviour change become commonplace in schools. This is a major challenge for educational systems—with implications for the content, personnel and strategies to be used.
- HIV/AIDS education cannot be restricted to 'facts'. Young people need ethical and moral guidance specifically with reference to sexual behaviour as well as practical strategies for maintaining positive behaviours. A broad-spectrum approach is required and would involve life skills, within a range of subjects including ethics, biology and even language.
- To be effective, HIV/AIDS education needs to start earlier. From the time children enter school, there are various issues that can be introduced with respect to HIV/AIDS that can take cognisance of their age and maturity. At a minimum, young children need to be helped to protect themselves from sexual harassment, to learn about how infection occurs, and how to respect their bodies.
- ★ A special cadre of SRH teachers should be developed. The interactive, dynamic teaching that is required, needs skills that the average teacher does not have. Consequently, the teaching of sexual and reproductive health in schools should be professionalised with properly trained, full-time SRH teachers and separately timetabled lessons for SRH and life skills.
- SRH education should be a 'foundational element' in all the pre-service training of all teachers, regardless of their specialist subject areas. Intensive in-service training, which draws heavily on the skills of outside trainers, is also a top priority.
- We still do not know enough about sexual behaviour and how it is changing among students and teachers. To assess the effectiveness of prevention programmes, changes in knowledge and behaviour should be monitored as routinely as student transition, completion and dropout rates.
- Cultural barriers still stand in the way of open discussion of sexual matters, even in Uganda. In-service training can be used to address the embarrassment that teachers feel in bringing up sexual and reproductive health topics and help them to develop viable approaches for leading such discussions.

- ✤ The development of age-appropriate, stimulating, multi-media materials in sufficient quantity for effective distribution is essential part of this process. Good materials have been developed for young people in a number of countries. This experience can be shared and built on by all countries in the region.
- The school is at the frontline; individual school administrators will need to deal face to face with children and teachers who need support. School managers need to be empowered so they can contribute positively through flexible, original approaches to both sets of needs.
- Guidance and counselling guidelines should be put in place. Even trained guidance counsellors will need to be given information on government or Ministry of Education policy, on recommended avenues for seeking further assistance. Given that most guidance and counselling personnel are untrained, the development and dissemination of these guidelines are even more important.
- To be effective guidance and counselling officers must be allowed space and time for group and one-to-one counselling. The setting aside of time and space when students or teachers can consult counsellors in privacy is essential.
- Peer education, whether using the existing programmes such as PACT, WHY WAIT, AIDS clubs, etc or individual initiatives at the school level, serve the dual purpose of intensifying pathways for information and for providing support networks for young people who would like to maintain positive behaviours.
- Messages need to be carefully targeted and tested for well-defined groups of school children. The overall approach should be on 'what is pleasurable? what is safe?'. While HIV/AIDS education in schools should focus on sexual abstinence, the role of condoms in preventing infection cannot be ignored. This means that primary school students should be given information and education about condoms and condom distribution for secondary students should be seriously considered. It is essential that condoms are not just merely 'handed out', but made available within a context in which students are made aware of how to use them, why they should use them, and how to persuade partners to use them.
- The schools should establish and maintain community involvement, in order to ensure that messages about HIV/AIDS education have community support. Links need to be established with health workers and youth workers and the school should play an active part in public campaigns against sexual harassment.
- HIV/AIDS education must be fully integrated into educational systems. Consequently district and/or regional structures should be developed to support specialist teachers and guidance counsellors with the full involvement of school inspectors.

- HIV prevalence appears to be increasing at a faster rate in rural areas in many countries in SSA. In addition, children in rural areas tend to be less exposed to HIV/AIDS education from other sources and schools are less well resourced. Special emphasis should be given, therefore, to improving HIV/AIDS education in rural schools.
- Surveys should be conducted in every country on parental attitudes to sex education as well as their views concerning the kind of SRH education that is being taught in school. Most parents in the survey countries are reported to believe that sex education leads to higher levels of sexual activity. Ministries of Education have to be able to show convincingly that this is not the case.

CHAPTER 4 SCHOOLCHILDREN MOST AFFECTED BY HIV/AIDS

4.1 INTRODUCTION

There are three groups of schoolchildren whose lives are most directly affected by the AIDS epidemic and whose education is, therefore, potentially at greatest risk: children who are HIV positive, children in households with sick family members, and children whose parents or guardians have died of AIDS. The extent to which the education of these children is adversely affected depends heavily on the level of physical and emotional support they receive from the extended family, the school, the community (including NGOs), and central government.

This chapter focuses on the size of these three groups of children in the three case study countries and elsewhere in SSA, their home situation and educational performance, and the kind of support they have received from government, NGOs and school themselves.

4.2 NUMBERS AFFECTED

Information on the numbers of children directly affected by the epidemic is very limited in most countries in SSA. Detailed surveys have rarely been undertaken and, typically, estimates of the sizes of these three groups vary considerably for any one country. A major part of the problem is that it is often difficult to establish whether a child, parent or carer is ill with or has died as a result of an AIDS-related illness. Another complicating factor is that there is no standard definition of an orphan. Schools themselves rarely keep accurate and up to date records, even on the parental status of children.

Children Living With AIDS

The silence, secrecy and denial that surrounds HIV/AIDS makes it especially difficult to obtain accurate information on schoolchildren who are HIV positive and/or have AIDS-related illnesses.

Without medical intervention, around one-third of infected pregnant women pass the virus on to their babies. However, over 90% of these children die before they are old enough to attend school. Consequently, even in a HPCs such as Botswana, fewer than one percent of primary schoolchildren are likely to be infected and no more than 0.2% have AIDS-related sicknesses. In the mid-1990s, around one percent of secondary school students randomly sampled by the Aids Information Centre in Uganda were HIV

positive. For SSA as a whole, there was an estimated 1.01 million children living with AIDS in 1999, which is 0.44% of the under 15 population.

Relatively very few teachers at the survey schools were able to identify children in their class who were likely to have AIDS-related illnesses. Mortality rates are also low. In Malawi, for example, mortality rates for primary and secondary students were 0.09% and 0.12% respectively at the survey schools, although these were increasing very rapidly.

Orphans

It is estimated that there were 8.2 million 'AIDS orphans' in SSA in 1999, which is 3.6% of the under 15 population. 2.8% of this group were maternal and double AIDS orphans (see Table 4.1). It is important to point out that less than one-third of all orphans were AIDS-orphans. Thus, even without AIDS, there are still a very sizeable number of orphans, particularly in conflict-affected countries. Orphans already exceed 20% of the under 15 population in at least six countries (Malawi, Rwanda, Uganda, Zambia, and Zimbabwe) (Hunter and Williamson, 2000).

The survey schools were purposively selected in relative high prevalence areas. Consequently, the proportion of children who had lost one parent is very high, both in relation to the overall incidence of orphans in each country and for the continent as a whole. As Table 4.2 shows, this is particularly the case in Malawi and Uganda, where over 35 % of student questionnaire respondents indicated that one or both of their parents was deceased.

For a number of reasons, the education of double and maternal orphans is likely to be most seriously affected. Around 10-12% of the children attending the survey schools in Malawi and Uganda had lost both parents compared to only 3-4% in Botswana. Due to the infection patterns of HIV, there is a high probability that maternal and paternal orphans will become double orphans when parents co-habit.

The Ugandan government has kept a roster of orphans for some years in order to provide support for 'victims of war'. The number of registered orphans in primary school was close to 500,000 in 1998, 10% of all students. Similar information is not available in either Botswana or Malawi.

Children looking after sick family members

It is very difficult to establish the number of children whose parents or guardians have AIDS and who are likely therefore to have to shoulder all or some of the burden of care. The 1999 National Household Survey in Uganda found that 8.8% of households had someone with an AIDS-related illness (see Uganda, 2000).

	DATA	AIDS	ALL	MATERNAL &	ALL
COUNTRY	Vear	ORPHANS % <15 POP	ORPHANS % < 15 POP	DOUBLE % <15 2010	ORPHANS % <15 2010
	1008	1	11	70 <13 2010	11
DEMIN	1990	1	11	10	11 27
DUDVINA EASO	1990	9	10	5	12
	1995	4	13	5	13
CAMEROON	1990	2	18	0	18
CAMEROUN	1997	3 5	9	3	9
CAR	1991	5	22	14	31
CONGO	1998	3	33	2	10
COTE D'IVOIRE	1996	4	Γ/	6	16
DRC	1998	2	9		
ETHIOPIA	1996	3	17	7	18
GABON	1996	1	11	4	13
GHANA	1991	1	7	2	8
KENYA	1995	4	9	5	12
LESOTHO	1997	3	9	9	20
MALAWI	1997	6	20	9	22
MOZAMBQUE	1997	3	18	11	27
NAMIBIA	1998	7	16	16	32
NIGERIA	1995	2	9	4	11
RWANDA	1991	6	30	9	22
SOUTH AFRICA	1996	3	9	16	30
SWAZILAND	1997	2	15	15	32
TANZANIA	1998	4	10	5	11
TOGO	1997	3	7	4	9
UGANDA	1999	8	20	4	14
ZAMBIA	1998	10	$\frac{1}{27}$	10	23
ZIMBABWE	1998	14	24	18	34
TOTALS		4	13	6	17

 Table 4.1:
 Orphans in sub-Saharan Africa, mid-late 1990s (rounded percentages)

Source: Hunter and Williamson, 2000

In Malawi, most student respondents could identify at least one person in their class who was helping to care for a sick relative, but only 20-30% of teachers interviewed could do so. This could simply be due to teacher insensitivity, large class sizes and lack of interest. However, it may also be because the educational performance of the large majority of these student carers has not been adversely affected and therefore their specific situation goes unnoticed. In Uganda, 22% and 12% of student absenteeism in primary and secondary schools respectively was attributed to 'family sickness'. In Botswana, however, only 1-2% of students gave 'sickness in family' as the main reason for being absent.

Country	Level	Paternal	Maternal	Double	Total	National <15
Botswana	Primary	11	3.9	3.7	18.6	
	Secondary	16.5	3.2	2.9	22.6	16
Malawi	Primary	22.5	6.3	12,7	41.4	
	Secondary	19.9	5.1	10.6	35.6	20
Uganda	Both	16.2	8.6	10.2	35	20

Table 4.2 : Incidence of orphans in survey schools and total under 15 population:percentages

4.3 THE HOME SITUATION

There are two key questions concerning the home situation of orphans, namely who do they live with and how adequate is the physical and emotional support they receive from these carers?

Living arrangements

Very little information is available on the living arrangements and burden of care for orphans. The three country studies reveal just how complex these arrangements are both orphans and children where both parents are alive.

Both parents alive: Tables 4.3a and 4.3b show that, even where both parents are alive, very sizeable proportions of children do not live in two-parent households. This is particularly the case in Botswana where nearly two-thirds of non-orphans at the survey primary schools do not live with both parents. The corresponding figure of 44% for Uganda is also very high. This is a consequence of the preponderance of female-headed households as well as high levels of rural-urban migration. An additional factor in Botswana is that many children in rural areas are left on their own for quite long periods of time while their parents or other adult carers are working on their 'lands', which are usually some distance away from the home village.

Maternal orphans: Relatively few of the maternal orphans at the survey primary schools live with their father (Malawi 19%, Botswana 29% and Uganda 43%). This factor coupled with relatively large number of female-headed households means that, with the death of the mother, many children effectively become double orphans. Men who are widowers tend to leave the care of their children to grandparents and other relatives. In better-off households, they also rely heavily on domestic servants. In Malawi, orphans are far more likely to be boarders at secondary schools compared with children with their parents alive, and a much higher proportion of maternal orphans board than paternal orphans.

Paternal orphans: Much higher proportions of paternal orphans live with their mothers. However, where the father was the main breadwinner, his death can result in households becoming destitute. **Double orphans**: The extended family supports the large majority of double orphans in the three survey countries. Grandparents shoulder a particularly large share of the caring burden in Uganda (58% of double orphans at primary school). In Malawi, these children are more evenly distributed between grandparents (23%), other relatives (21%) and orphanages (21%). Institutional care does not feature at all Botswana. Relatively smaller number of double orphans attend secondary boarding schools in Malawi probably because they do not have financial means to pay boarding and other fees. Child-headed households only exist in any appreciable numbers among double orphans in Malawi. In Uganda, child-headed households are reported to be rare because communities strongly disapprove of unsupported groups of children.

 Table 4.3a:
 Living arrangements of students at survey primary schools: rounded percentages

	BOT	H PAF	RENTS	PA	TERN	AL	MA	ATERN	AL	D	OUBL	E
LIVING		ALIV	E	C	RPHA	N	C	RPHA	N	C	DRPHA	N
WITH	B*	Μ	U	В	Μ	U	B	Μ	U	В	Μ	U
Both parents	37	77	56	0	0	8	0	0	10	0	0	0
Mother only	30	7	20	49	68	61	0	0	14	0	0	4
Father only	4	1	9	3	0	0	29	19	43	0	0	4
Grand Parents	15	4	9	21	13	22	21	23	29	35	23	58
Siblings	7	3	2	8	8	3	7	11	0	15	15	4
Child- headed	0	0	0	0	2	0	0	0	0	0	6	0
Other relatives	7	6	1	3	6	6	14	23	5	28	30	23
Orphan- Age	0	0	0	0	0	0	0	8	0	0	21	0
Other	0	2	0	1	3	1	21	16	0	23	5	0

PRIMARY

*Botswana, Malawi, Uganda

Emotional and physical support

Very few assessments have been made of the living situation of orphans and other children directly affected by AIDS. However, given the scale and rapid growth in the numbers of AIDS orphans, the general view is that the extended family in the HPCs is increasingly unable and/or unwilling to provide adequate emotional and physical support to AIDS orphans. With economic reform, the extended family is itself under considerable strain and many households simply do not have the resources to absorb extra children. Poverty levels are increasing in many countries.

LIVING	BOT	H PAF ALIV	RENTS E	PA C	TERN DRPHA	AL N	MA O	ATERN ORPHA	AL N)OUBL)RPHA	LE LN
WITH	B	Μ	U	B	Μ	U	В	Μ	U	В	Μ	U
Both parents	59	41	56	9	0	8	8	0	0	13	0	0
Mother only	19	6	22	60	33	58	0	0	0	0	0	0
Father only	2	1	7	0	0	4	0	0	42	0	0	0
Grandpare nts	9	2	3	4	3	12	25	6	25	38	17	29
Siblings	5	6	8	11	5	0	17	12	17	13	17	21
Child- headed	0	0	0	0	0	0	0	6	0	0	7	0
Other relatives	5	5	2	7	8	12	33	12	8	13	27	29
Boarding	0	36	0	0	42	4	0	59	0	0	30	0
Orphanage	0	1	0	0	0	0	0	0	0	0	0	0
Other	1	3	1	7	9	4	17	11	8	23	2	29

 Table 4.3b:
 Living arrangements of students in survey secondary schools: rounded percentages

Notes: Paternal and maternal orphans in Uganda include 'mother and stepfather' and 'father and stepmother'

Double orphans who are forced to live with impoverished grandparents or other relatives are seen as being particularly vulnerable. However, paternal orphans can also be driven into destitution where the father was the main breadwinner. The emotional impact of losing a mother is usually much greater than the death of the father, because mothers are more likely to provide nurturing and psychological support. The evidence from the schools was that maternal death was more detrimental to schooling than loss of a father.

The large majority of orphans continue to reside with members of the extended family. Their living conditions are often very poor mainly because of the high incidence of poverty, especially in rural areas. When they are residing with 'other relatives', it is frequently suggested that their inferior status results in discriminatory behaviour against them by other household members. Reports of orphans being treated less favourably than other children in the family are widespread in most countries. Not only are they frequently denied access to food and medical care, but they are expected to do more work than the household's own children. This labour is within the household as well as income generation activities outside of the household. Interviews with students and NGOs in Malawi reveal that female orphans are particularly vulnerable and instances of sexual abuse of girls in such situations are not uncommon. There also reports of unsupported female orphans being forced into marriage by their guardians in order that they can be relieved of the burden of caring for these children. It is also commonly asserted that those who do not get married often indulge in transactional sex in order to raise cash for survival. Grinding poverty coupled with very limited income earning opportunities in rural areas compels many orphans to migrate to towns in search of work.

Without proper needs assessments, it is not possible to gauge the extent of orphan deprivation, both in absolute terms and in relation to other groups of children. It is certainly not the case that all orphans are 'children in especially difficult circumstances'. In Botswana, where a comprehensive survey of orphans has been undertaken, around a half of all orphans were assessed as being in need of additional support from the state.

4.4 EDUCATIONAL IMPACT

It is generally believed that there has been a marked deterioration in the educational performance of children most directly affected by AIDS. In particular, given very difficult home situations, both orphans and children in AIDS-affected households are often forced to dropout of school altogether with little chances of ever returning. In overall terms, however, repetition and dropout rates at both the primary and secondary levels have fallen in the three study countries during the 1990s. Equally significant, Malawi and Uganda embarked on universal primary education in the mid-1990s. In Uganda, this led to a threefold increase in primary school enrolments at the same time that the AIDS epidemic (in terms of mortality) reached its peak.

As noted earlier, it is very difficult to identify schoolchildren who are looking after sick household members and the tiny minority who are themselves persistently sick with AIDS-related illnesses. The school surveys focused more therefore on orphans since the parental status of children could be established fairly easily and orphans are by far the largest of the three groups of seriously affected children.

Given the time available, it was not possible to conduct detailed dropout surveys in order to establish the extent to which parental status affects educational attainment. Nor was it possible to compare the examination performance of orphans and non-orphans. However, good quality quantitative data on three key performance indicators was collected, namely absenteeism, repetition, and school interruption as well as qualitative data from individual interviews and focus group discussions. It is important to distinguish clearly between primary and secondary schools particularly in Malawi and Uganda because the direct costs of education are so markedly different and relatively fewer orphans attend secondary schools.

The analysis of performance indicators once again highlights the fact that it is often not

possible to make broad generalisations about the impact of the epidemic across countries.

Absenteeism

For all three countries, information on rates of student absenteeism over time could not be collected because proper schools records are not available. It was possible, however, to collect information on current levels of student absenteeism in each survey school.

Primary schools. Overall rates of absenteeism in Botswana are relatively low. Furthermore, orphans attending primary school in Botswana have consistently much lower rates of absenteeism compared with non-orphans (see Table 4.4).

Table 4.4: Percentage point difference in absenteeism rates among orphans and non-orphans

	PRIMA	ARY S	TUD	ENTS	SECON	DARY	Y STU	DENTS
	Botswana	Mal	awi	Uganda	Botswana	Ma	lawi	Uganda
		F	Μ			F	Μ	
Paternal orphan	-8	16	6	9	1	4	12	-16
Maternal orphan	0	0	5	10	19	-3	11	-2
Double orphan	-21	14	1	-9	-10	22	14	27
Absenteeism rate	21	47	40		22	22	22	<i>5</i> 2
among non- orphans	21	4/	49	63	23	33	32	52

Among double orphans in particular, there had been no absenteeism whatsoever during the month prior to the survey. There are four reasons for this. First, household demand for child labour appears to be generally low and/or can be met during out of school hours. Secondly, orphans have particularly strong material and emotional/psychological incentives to attend school. Although the school-environment is not very child-friendly, attending school is still an important part of leading a 'normal' life. In other words, orphans want to be like everyone else, especially in a country such as Botswana where most children attend primary and junior secondary school. Thirdly, the provision of school meals is also a major incentive to attend school among disadvantaged children. And fourthly, the home environment for orphans is likely to be much less attractive than school, with little or nothing to do during the day and/or relatively inattentive carers.

In Malawi and Uganda, which are more typical low-income countries, the overriding issue is that absenteeism is very high indeed among all primary schoolchildren. Over half of children surveyed had been absent at least once during the previous two weeks in both countries. This is a consequence of the very high incidence of poverty with the large majority of children facing a range of problems, which prevent them from attending school regularly. Although absenteeism tends to be higher among orphans, in the context of these very high rates of absenteeism for the primary school population as a whole, the differences between the two groups of children are generally not that great. Only female paternal and double orphans in Malawi have significantly higher (i.e. more than 20%)

absenteeism rates. Again, it is noticeable that the attendance record for double orphans in Uganda is better than among non-orphans.

		PRIMARY								5	SECON	IDAF	RY		
Deserve for	Non-	Pat	iternal M		Maternal Double		N	on-	Paternal		ma	terna	Do	ouble	
Reason for	orpnan	or	onan	or	pnan	or	onan	or	pnan	or	pnan	I or	pnan	or	pnan
being absent	F M	F	Μ	F	Μ	F	Μ	F	Μ	F	Μ	F	Μ	F	Μ
Illness of self	51 56	39	56	57	29	44	17	52	19	44	44	67	33	46	0
Death in the family	18 9	1	0	14	14	17	54	16	9	11	13	33	33	0	0
Illness in family	78	9	7	0	0	17	8	10	6	11	0	0	0	27	0
Needed at home	12 17	12	19	29	14	7	0	3	13	0	6	0	0	0	100
Sent home/fees	90	0	11	0	14	0	23	16	47	33	25	0	33	18	0
Lack of clothes	0 6	18	7	0	29	11	8	3	0	0	0	0	0	9	0
Other	4 5	6	0	0	0	6	8	3	3	0	13	0	0	0	0
Number	57 66	33	27	7	7	18	13	31	32	9	16	3	3	11	1

 Table 4.5: Main reason for student absenteeism in Malawi by type of school and parental status (rounded percentages).

The reasons for absenteeism are illuminating (although differences in data analysis and presentation between the three country reports make it difficult to make detailed crosscountry comparisons). Illness of the self accounts for well over half of all absences from schools in the three countries. This is particularly serious, therefore, in Malawi and Uganda where rates of absenteeism are so high. Poor children are frequently ill, which seriously affects their education. Much higher levels of illness-related absenteeism among orphans would indicate that these children are not being as well looked after than other children. Interestingly, however, there is no evidence to suggest that orphans are any sicklier than non-orphans (see Tables 4.5 and 4.6). Nor do orphans as a whole appear to be 'needed at home' significantly more than non-orphans. In Malawi, the death of a mother does appear to lead to an appreciable increase in household demand for female child labour. In Uganda, on the other hand, it is the loss of the father that increases the demand for child labour. What is striking in that in all three countries 'needed at home' as a reason for absenteeism is so much lower among double orphans than other types of orphans as well as non-orphans.

Illness in the family is not a major reason for absenteeism with the important exception of maternal and double orphans in Uganda. Death in the family is not a major reason of absenteeism in Botswana and Malawi and among the majority of children who are not orphans in Uganda. It is, however, a relatively important reason for absenteeism among paternal and double orphans in Uganda. Finally, 'sent home from school' can be a major reason for absenteeism in some countries. In Uganda, nearly one-third of children at the survey primary schools had been sent home during the previous two weeks because of non-payment of fees, lack of materials, and discipline problems. However, orphans were slightly less likely to be sent home than non-orphans. 'Being sent home' is a much less important reason in Malawi, but lack of appropriate clothing does result in quite high levels of absenteeism among orphan schoolchildren. In focus group discussions, orphans in Malawi clearly indicated that lack of clothes and money to buy detergent for washing clothes as well as food and other basic needs are the main reasons why they miss school

'We lack clothes to change so that sometimes we absent ourselves from school waiting for washed clothes to dry'

'Lack of food and money to buy food forces us not to go to class because we are often hungry and there is no way we can listen and concentrate in class. We live like birds and this affects our schooling. We come back home from school and there is no food for us to eat'.

	Both alive	Mother alive	Father alive	Both parents dead
Absent this term	58.3	56.2	64.7	62.5
Was sick	41.3	45.7	47.6	32.0
Death in family	10.5	45.7	19.0	28.0
Teacher absence	4.9	8.6	4.8	0.0
Family sickness	14.0	11.4	52.4	28.0
Needed at home	11.9	25.7	9.5	4.0
Sent home by school	32.9	28.6	28.6	28.0
Other reason	16.2	5.9	4.8	20.0

Table 4.6:	Student absenteeism	by parental	presence in	Uganda:	percentages
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Many orphans but also non-orphans are forced to undertake income-generating activities (known as 'ganyu') so that they can buy these necessities. This can result in frequent absenteeism. Over 80% of the 111 orphans who were interviewed out of school in Malawi identified lack of basic needs as their most pressing problem. The next most serious issue was discrimination/mistreatment by carers although this was only cited by 8% of interviewees. Only 7% said that they faced no serious problems.

Generally speaking, income-earning opportunities are greater for boys than girls. In Malawi, 28% of male orphans said that they earned income to meet their own schooling activities as compared to only 10% among female orphans.

Secondary schools: There is no obvious pattern to the differences in rates of absenteeism between orphans and non-orphans attending secondary schools. In Botswana, where junior secondary education is free and almost universal, absenteeism is again lower among double orphans, but is much higher among maternal orphans.

In Malawi, the small numbers of maternal and double orphans at the survey schools means that considerable caution is needed in interpreting this data. The percentage of secondary students who are orphans is considerably lower than at the survey primary schools, which may be due the fact that only orphans from relatively well off households successfully finish primary school and can afford to attend mainly secondary boarding schools. Absenteeism rates among female double orphans certainly appear to be much higher. Male paternal and maternal orphans also have relatively high rates of absenteeism but, looking at the main reasons for absences, there is no obvious reason for

this differential. Payment of school fees is the most important reason for absenteeism among all male secondary students in Malawi, but this is a less salient factor among orphans compared to non-orphan students. Fees for female students are waived as part of a USAID-funded scholarship scheme. Illness in the family accounts for about 10% of absenteeism and appears to be relatively high among female double orphans.

In Uganda, absenteeism rates are considerably lower among paternal orphans, but much higher among double orphans. Payment of school fees is also the most important reason for absenteeism among secondary students. Likely AIDS-related absences (death in family and family sickness) are less important reasons among secondary than primary school students. Demand for household labour ('needed at home') is relatively unimportant in all three countries⁶.

Repetition

Repetition rates are a reasonably good indicator of academic performance in all three countries.

Primary schools: Less than 20% of Standard 4 and 6 students in the survey primary schools in Botswana have ever-repeated. Ever-repeated rates are lower among paternal and double orphans, but much higher among maternal orphans. It is not clear why this is the case (see Table 4.7).

In Malawi, nearly 70% of the primary schoolchildren surveyed had repeated a grade at least once. Poor student performance is the result of a myriad of factors including irregular attendance and generally poor quality of schooling. Ever repeated rates are consistently lower among all three types of male orphans and only slightly higher among female paternal and maternal orphans. In Uganda, over one-third of students had repeated a grade. Ever-repeated rates are again lower for maternal and double orphans, but higher among paternal orphans.

Secondary schools: Ever-repeated rates are generally the same or lower for orphans compared to orphans in all three countries. One reason for this superior performance in Malawi and Uganda is that orphans who are able to attend secondary school may be highly motivated. In Malawi only a very small proportion (12%) of the relevant age cohort actually proceed to secondary school.

⁶ With the exception of female maternal orphans in Malawi and paternal orphans in Uganda.

	PRIMA	RY S	TUD	ENTS	SECONE	ARY	STU	DENTS
	Botswana	Malawi		Uganda	Botswana	Mal	awi	Uganda
		F	Μ			F	Μ	_
Paternal orphan	-3	6	-5	7	-1	6	2	-5
Maternal orphan	18	5	-8	-12	0	-25	-2	-1
Double orphan	-3	0	-3	-4	5	-20	1	3
Ever-repeated rate	18	68	70	35	8	65	59	26
among non-orphans								

 Table 4.7: Percentage point differences in ever-repeated rates between orphans

 and non-orphans

Access and dropout

There are three main dimensions that have been considered with respect to access and dropout.

Out-of-school: It is generally accepted that 'orphans run greater risks of being denied education than children who have parents to look after them' (Kelly, 2000:2). The best statistical evidence comes from national Demographic and Health Surveys undertaken in 15 countries in SSA during the 1990s. The median difference between the percentage of orphans and non-orphans aged 10-14 who were attending school is 19% (see UNICEF, 1999). However, no simple correlation exists between the size of this attendance gap and HIV prevalence levels in a country. High prevalence countries tend to have the lowest orphan-non-attendance gap mainly because these countries have high enrolment ratios and there is therefore a strong schooling culture that keeps most children in primary school.

The findings of the country studies suggest that the relationship between parental status and school attendance is complex and varies considerably within and between countries. Drawing on detailed and up to date data from a national survey of orphans, the Botswana study concludes that in the three districts in which the survey schools were located 'dropout rates among orphans are not significantly higher than among non-orphans' (p.36). Only one-third and one-quarter of primary and secondary school questionnaire respondents respectively agreed with the statement that 'children who have lost parents are more likely to drop out of school' (see Table 4.8). Three reasons for low orphan dropout in Botswana have already been identified, namely low household demand for child labour, a strong schooling culture, and a comprehensive school feeding programme. In addition, two other factors are very important. First, the government of Botswana now provides relatively generous food rations and other kinds of material support directly to the households of all registered i.e. disadvantaged orphans. And secondly, there appears to be little serious discrimination against orphans by teachers and students in both primary and secondary schools. Elsewhere, serious discrimination is often mentioned as a major push factor discouraging orphans and other children directly affected by HIV/AIDS from attending school.

While the available evidence in Malawi is less comprehensive, the study concludes that 'most orphans are in primary school'. Consequently 'the alleged correlation between dropping out and orphan-hood is more apparent than real' (p.46). Only 18 of the 111 (16.2 %) orphans who were located and interviewed in the communities served by the survey schools were not in school. This is certainly a biased sample, but it suggests that dropout rates among orphans are probably not appreciably higher. Again, a large majority of primary school students do not think that orphans are more likely to drop out of school (see Table 4.8).

	BOTS	WANA	MAI	JAWI	UGA	NDA
STATEMENT	Pri	Sec	Pri	Sec	Pri	Sec
Students whose parents						
die often dropout of	37	25	36	49	44	57
school						
Students who look after						
sick relatives often	28	17	42	39	42	39
dropout of school						
Orphans receive a lot	12	23	40	22	50	22
of help from this school	72	23	40		39	

 Table 4.8: Percentage of student respondents agreeing with student carer and orphan statements

The financial costs of attending secondary school in Malawi and Uganda are a major constraint for all children from poorer backgrounds, including orphans. Again, without a proper dropout survey, it is difficult to establish precisely whether orphans are disproportionately affected. In Botswana and Malawi, the number of orphans attending secondary schools is 4-6 percentage points lower than in primary school.⁷ In Uganda, on the other hand, the proportion of orphans attending secondary school is 2.5% higher for secondary than primary school students. Secondary education is free for all children in Botswana and school fees are waived for girls in Malawi.

Interrupted schooling: Student questionnaire respondents were asked if they had ever stopped attending school for any reason. It can be observed in Table 4.9 that orphans, and double orphans in particular, are considerably more likely to interrupt their schooling than non-orphans in all three countries. This is especially the case for double orphans at secondary schools in Uganda and for male double orphans at secondary schools in Malawi where financial constraints are far more serious. Female paternal orphans at primary schools in Malawi are also particularly vulnerable. For Uganda and Botswana, interrupted schooling is more of a problem for maternal than paternal orphans.

Even where 'ever dropped-out' rates among orphans are lower, this could simply be because these children are less likely ever to return to school once their education has been interrupted.

	PRIMARY				SECONDARY			
	Botswana	Malawi		Uganda	Botswana	Malawi		Uganda
		F	Μ			F	Μ	
Paternal orphan	-3	17	7	0	0	0	1	2
Maternal orphan	-3	10	16	10	15	-4	4	7
Double orphan	12	1	13	13	11	1	23	27
Ever-stopped								
attending rate among	3	3	7	14	2	4	10	16
non-orphans								

 Table 4.9: Percentage point differences in ever-stopped attending rates between orphans and non-orphans

Generally speaking, it is orphans from the poorest socio-economic backgrounds who have most problems at school.⁸ Thus, while there are problems that relate specifically to orphanhood, it is the existence of endemic poverty in all three countries, particularly in rural areas, that is largely responsible for many of the difficulties faced by orphans as well as other 'needy' children.

Teachers and students at the survey schools identified a range of problems that affect orphans who are in difficult circumstances. The most common are as follows:

- Behavioural problems that affect relationships with teachers and students (disruptive/ aggressive, withdrawn, crying in class): 'Orphans in this school are de-motivated. They are not free, they don't mix, and if you joke with them they fight. They react aggressively to others sometimes-as a defence mechanism. If we sing a burial song in class, some cry' (primary school students, Botswana).
- Poor concentration (including falling asleep in class) often aggravated by hunger and/or tiredness.
- Poorly dressed/lack of school uniform.
- At secondary schools, problems with homework; in unsupportive home environments, orphans find it difficult to complete homework assignments on time and to the required standard.
- Physical and/or sexual abuse by adults living in the carer's household.
- General isolation at school and/or the community at large. 'Pupils whose parents are affected or have died through the disease seem not to be part of the school community, though teachers try by all means to bring them close, others end up leaving the school.'

⁸ Information from focus group discussions in all three countries.
4.5 GOVERNMENT, NGO AND COMMUNITY SUPPORT

Government policy and practice

With a few exceptions, governments in SSA have been slow to respond to the emerging orphan crisis. In most countries NGOs and community-based organisations CBOs provide the bulk of support to orphans.

National orphan programmes: Botswana is a good example of a country where the government has introduced a well-resourced, national programme of targeted support for orphans. The government commissioned a Rapid Assessment of Orphans in 1998, which concluded that traditional safety nets were failing to respond adequately to the orphan crisis. A Short Term Plan of Action for Orphans has been developed for the period 2000/01-2002/03 where needy orphans receive a comprehensive package of support, which covers most of their basic needs. As in many other SSA countries, there are strong cultural prohibitions concerning institutional care for orphans. Fostering is therefore the preferred policy option when relatives cannot cope.

Compared to Botswana, central and local governments in Malawi and Uganda have very limited resources available to tackle the orphan problem. The growing number of AIDS orphans in Malawi has overwhelmed the limited capacity of the government's social welfare agencies. However, the need to provide support for orphans has been recognised by government. In particular, the proposed National Safety Nets Programme has identified orphans who are not in households or in very poor households as the second most important target group. Currently, the Ministry of Gender, Youth, and Community Services (MGYCS) runs several programmes that target orphans including foster care, adoption services, public assistance and institutional care. Orphans and other children in care are placed with foster families who are paid a monthly fee. The Ministry also facilitates the legal adoption of children (adoption legislation is currently being updated) as well as registering and supervising orphanages run by NGOs and private individuals.

Given the very limited public funding available for social welfare activities, the main policy thrust of the national orphan care programme in Malawi is community-based care. The responsibility of government is to ensure that appropriate assistance is given to the extended family and to the community. Although the MGYCS is supposed to co-ordinate all support activities for orphans, both in and out of government, this is not done mainly due to lack of resources. Furthermore, there is little collaboration between social welfare and other key Ministries including health and education.

The main weaknesses of national orphan programmes and other related government policies are as follows.

- They are seriously under-resourced in most countries. .
- Appropriation of support by guardians and other carers. In Botswana, for example, it is alleged that problems have arisen when carers have appropriated food rations and sold them.

- Existing child protection laws and policies are fragmented and need to be up-dated. Social workers invariably do not have the necessary legal powers to intervene decisively.
- Inter-sectoral co-ordination (mainly between Ministries of Health and Local Government) is weak.
- Too much emphasis is being placed on meeting the material needs of children and not enough on their emotional and psychological needs.
- Support is being provided for orphans, but other needy children are being excluded.

Home-based Care Programmes: The overall level of support given to terminally ill adults has major implications for the welfare of affected children and their attendance and performance at school. Again, Botswana has a relatively well resource, a national home-based programme. Registered patients received P216 (US\$30) per month in 2000.

NGOs and community support

There was a rapid expansion of NGO and CBO support for orphans during the 1990s. These organisations provide a wide range of services, which include residential care, fostering services, advocacy, skills training, counselling, income generating activities and HIV/AIDS education. In Malawi, more than 20 NGOs had orphan-support programmes or activities in the late 1990s. In addition, numerous CBOs have been established. Community-based orphan care programmes, which are managed by elected committees, were operational in all the communities covered by the school survey. Some 20% of double orphans at the survey primary schools in Malawi were in residential care.⁹

There is no comprehensive national policy statement for orphans in Uganda. The Uganda Women's Efforts to Save Orphans (UWESO), a national NGO, is the lead agency dealing with orphans and it has chapters in most districts. According to UWESO, the main strategy for dealing with orphans is to absorb them into families. The first option is to reunite them with other family members, but failing that, with other families within their community. As a last resort, for children whose family cannot be traced, it supports a Children's Village in Mpigi District. It was reported that, while child-headed households do exist, these are a temporary phenomena as communities disapprove of unsupervised groups of children since they are regarded as socially disruptive. There is explicit state provision for orphans' schooling within the UPE programme and a limited scholarship programme for secondary students.

UWESO has over the past couple of years moved from a strategy of school fees support to a strategy of income generation support (through revolving credit schemes) for the families looking after orphans. Initial reports from the field are that this new strategy has proved very successful and it reaches many more orphans.

However, generally speaking, NGO assistance to orphans in all three countries remains limited, is very localised, and tends to be concentrated in urban areas. Funding is

⁹ Many of these are run by religious organisations.

seriously inadequate and there is a heavy reliance on ad hoc donations from religious and other charitable organisations. In Malawi, only 15% of orphans interviewed received any help from NGOs and churches.

4.6 SCHOOL-BASED SUPPORT

A common finding of the three country studies is that, to date, schools have provided relatively little targeted support for orphans and other children affected by HIV/AIDS. The following discussion summarises the kinds of support that schools have provided to these children and then considers the main reasons why the response to date has been so limited. For example, the orphan survey in Malawi found that two-thirds of the primary and half of the secondary students who were interviewed had received no special assistance from their school.

Types of support

In varying degrees, schools have provided three types of support to orphans and other vulnerable children: financial assistance, counselling/pastoral care, and referral and liaison with social welfare agencies. Generally speaking, however, it has been left to individual teachers to assist orphans and other needy children as they see fit. Consequently, support to these children both within and between schools in each country is very uneven. Social workers are extremely busy and are unable therefore to spend much time in schools.

Financial and material assistance: Schools in all three countries have virtually no resources to assist students in need. There are relatively isolated examples of particularly proactive and concerned school managers and teachers who have provided assistance. For example, in Uganda, the head teacher at one of the survey primary schools managed to re-admit 150 orphans who had previously dropped out when guardians had been unable to pay their fees. These orphans were exempted from fees and given uniforms, school supplies, and textbooks. In Uganda, some secondary schools give fee waivers to orphans who are in financial difficulties or they are allowed to pay their fees in instalments. In secondary schools, there are a limited number of 'school dependants'. These are orphans who are outstanding students and whose fees are waived either completely or in exchange for their labour during holidays and weekends. Commonly these orphans were enrolled in the school prior to the death of their parent(s) or are children of deceased staff members.

Reasons for the limited school response

There are five main reasons why schools have provided so little targeted support to orphans: absence of MoE policy, dominant perceptions about the role of the school, resource constraints, unsupportive school environment, and absence of serious discrimination.

MoE leadership: MoEs in each country have not given any real direction or leadership with respect to assistance to orphans and other vulnerable children. Furthermore, few if any resources have been earmarked for this purpose. The only policy directives that have been issued concern discrimination against children directly affected by HIV/AIDS. Only 5-10% of the teacher questionnaire respondents in each of the three countries felt "the Ministry of Education has an adequate policy on this issue."

Role, attitudes and resources: Most school managers and teachers believe that support for orphans and other needy children is primarily the responsibility of other agencies. Faced with acute resource constraints, most primary schools, even in relatively well - endowed Botswana, are struggling to provide a reasonable education. Most primary school teachers in Malawi have large classes and are very poorly paid. With the rapid expansion of primary school enrolments during the 1990s, many teachers have little or no training. Massive educational demands are already being placed on schools and school managers and teachers are barely coping with their existing responsibilities. Given this situation, there is very little that schools feel they can do to assist needy children.

It is, nevertheless the case that many head teachers and teachers are very concerned about the rapid increase in the number of orphans in their schools. There are many examples from the survey schools of individual staff members doing what they can to support the educational and other needs of disadvantaged children in their class. However, many do nothing or very little to help. Often, this is because they do not have the means to do so. As one primary teacher in Uganda put it 'I cannot do anything about it, so I would rather not raise expectations by asking questions'. However, there is also a strong feeling that is not appropriate for schools to play a more interventionist role. The following comment by a head teacher in Botswana neatly sums up this view: 'We can't just get into the family'. This reluctance to get more involved in the personal lives of disadvantaged students is frequently compounded by the widespread perception that parents/guardians as well as the orphans themselves do not want to be identified and actively resent attempts by schools to provide additional support.

Most the orphans who were interviewed in Malawi feel that their teachers are unconcerned about their situation. 'They do not recognise us as orphans'. This could well be symptomatic of the silence and denial that surrounds AIDS in most schools.

Even though NGOs make informal contributions to AIDS education in schools, most of their activities target young people who are out of school.

Identification and needs assessment: Very few of the survey schools had a good overall picture of the number and profile of orphans and their particular needs. As a result, teachers are frequently unaware who among their students are orphans and are clearly not, therefore, in a position to help them. This is particularly the case in secondary schools with specialist subject teachers. The following comments from a head teacher and a teacher focus group in Botswana summarise the situation with regard to orphan identification quite well.

'I think we have a few (orphans), but I can't say who is an orphan. They are sometimes brought to me by the Guidance and Counselling teachers or parents We only get to know that pupils are orphans if they get into trouble...The guidance teacher may know who is orphaned but the rest of the teachers don't know anything about orphans. The orphaned children at this school don't want to be identified. Their guardians are also secretive' (Head teacher, Senior Secondary School).

'There are orphans in this school, but the teachers don't quite know who is an orphan. We only find out if they get into trouble. The guidance teacher is responsible for finding out what is wrong with children when there are problems. But some pupils are brave enough to let us know. They approach members of the Guidance Committee. The school has referred some orphans to the social workers... The school does not keep a record of who is an orphan. Guardians would not like it if we did. ... Teachers at secondary schools don't have time to offer support to pupils with problems. Pupils are taken for granted. Our curricula is too crowded to allow us to address student problems' (Junior secondary teacher focus group).

Children in especially difficult circumstances: Quite apart from AIDS orphans, there are many more children attending schools in BMU who are in especially difficult circumstances. The majority of children at many schools live in poverty and many suffer from parental neglect. While orphans are a very large group, their needs are often not markedly different from other needy children.

School environment: The school environment is generally not child-friendly. In Botswana, for example, bullying and fighting are common in both primary and secondary schools. Teaching is not child-centred, corporal punishment is widespread, and many teachers lack sensitivity to the needs of children in especially difficult circumstances, including orphans. There were numerous instances where teachers had sent orphans home when they could not meet some school requirement. In Malawi, parents/guardians frequently complained that 'teachers do not seem to listen to orphan's complaints'.

Discrimination and stigmatisation: It is commonly asserted that orphans and children living with AIDS are subject to widespread discrimination and stigma. However, very few students at the survey schools in BMU agreed with the questionnaire statements that orphans and children from HIV/AIDS affected families are treated unkindly either by teachers or students. Certainly, cases were reported of teasing and bullying, but this did not appear to be widespread. In general, though there is little serious overt discrimination. Schools have not, therefore, had to play an active role in dealing with high levels of discrimination against students directly affected by AIDS.

CHAPTER 5 SUPPORTING CHILDREN DIRECTLY AFFECTED BY HIV/AIDS

Over the next 10-15 years, the AIDS epidemic will profoundly affect the lives of a large proportion of children in the HPCs. This is particularly the case in countries such as Botswana where already very high HIV prevalence rates have still not peaked. The International Development Targets for education are unlikely to be met in most of the HPCs unless decisive action is taken to counter the threat posed by the AIDS epidemic.

The overall level and quality of support for orphans from government agencies as well as other non-governmental organisations during the next decade will affect how the AIDS epidemic impacts on the education system in all three countries. Many of these children are in danger of becoming seriously marginalised unless proper support is provided. In other high prevalence countries, the number of orphans who have become 'street children' engaging in high risk, anti-social activities (prostitution, drug taking, and crime) has grown exponentially and is at crisis levels in some countries. Once children take to the streets, it is very difficult to rehabilitate them (Hunter and Williamson, 2000). It is crucial, therefore, that decisive action is taken now in order to avert this situation.

This chapter discusses what should be done in order to ensure that the children most directly affected by AIDS are properly educated. The first part of the discussion considers, given the likely demographic and other impacts of the epidemic, how many children will need to be educated over the next decade. The second part focuses on what interventions by schools and other organisations need to be made in order to support these children.

5.1 PROJECTED NUMBERS

There are three groups of children whose lives will be most affected by the epidemic: those who are themselves infected, children who have to care for parents and other household members who are ill, and children who lose parents. While it is important to estimate the likely numbers of children in each of these three groups over the coming decades, AIDS demographic projection models are seriously problematic in a number of key respects and are subject to possibly very wide margins of error. Most projections make conservative assumptions about the impact of various interventions that can reduce infection and mortality. However, the wide scale availability of anti-retroviral drugs to pregnant women and infected individuals would significantly reduce the number of children directly affected by the epidemic over the next 10-20 years. Consequently, great care needs to be taken in interpreting these estimates.

Children living with HIV/AIDS

The number of children living with AIDS is particularly difficult to estimate. This is because the provision of inexpensive anti-retroviral drugs to pregnant women dramatically reduces the level of mother-to-child HIV transmission. The Ministry of Health in Botswana now has a policy to provide AZT to all pregnant women with HIV. If completely successful, the level of MTCT could be halved very quickly - from around 35% to 17%. This would mean that, even in the worst affected country, less than 0.4% of six-seven year olds enrolling in primary schools would be infected over the next 5-10 years. However, results from pilot tests show that there are significant problems in getting all pregnant women to agree to and then comply fully with the necessary drug therapy regime.

AIDS mortality among the 15-19 age group in Botswana is projected to remain constant at 0.24% between 2000 and 2010 in which case the number of AIDS-related deaths among secondary students in Botswana will increase by around 25% - from 435 in 1999 to 558 in 2009. While this is tragically high, it is still much less than might be expected.

Children as carers

Total AIDS cases will increase very rapidly in most HPCs during the next decade. In Botswana, they are projected to double - from around 20-25,000 in 2000 to 45-50,000 in 2010 (AbT, 2000a). In Malawi, the number of new AIDS cases is projected to increase from 57,000 in 1998 to nearly 100,000 per annum in 2010.

Without appropriate levels of support by adult carers, it is very likely, therefore, that many more children will become heavily involved in directly caring for the sick as well as undertaking household activities, which can no longer be performed by sick parents and other family members. Unless government adopts comprehensive measures to reduce the household burden of care, repetition, dropout and absenteeism rates could increase significantly among these children.

Orphans

Table 4.1 shows projected AIDS maternal and double orphans and total orphans as percentages of the projected under 15 population in 2010. The total number of AIDS maternal and double orphans for SSA as a whole is expected to increase from 6.4 million in 1999 to 14.4 million in 2010. It can be observed that there is group of seven HPCs (Botswana, Central African Republic, Lesotho, Mozambique, Namibia, South Africa, Swaziland and Zimbabwe) where the percentage of orphans (from all causes) is projected to increase very significantly over the next decade. However, in the remaining 21 countries which are listed in the table, this percentage will remain largely unchanged (Benin, Burkina Faso, Burundi, Cameroon, Cote d'Ivoire, Ethiopia, Gabon, Ghana, Kenya, Malawi, Nigeria, Tanzania, Togo, Zambia) or fall quite appreciably (Democratic Republic of the Congo, Rwanda, Uganda). Thus, while there will continue to be very

large numbers of orphan schoolchildren in Africa, it is only in a handful of HPCs (accounting for around 10% of the total population of SSA) where there will be a mounting orphan crisis.

5.2 NATIONAL STRATEGIES AND POLICIES

Ministries of education and other education institutions cannot act in isolation. Supporting affected children is the responsibility of the entire community working closely with government and other organisations at the national and local level. Consequently, the impact of the epidemic on the education sector will, to a large extent, depend on the overall level and effectiveness of the assistance given to these children and their carers *outside of school*.

Every country must develop a comprehensive national policy framework in order to tackle the AIDS crisis. National poverty reduction and HIV/AIDS strategies are the two key areas of intervention.

National AIDS Strategy

National HIV/AIDS strategies are being implemented in all HPCs. Important lessons learned from earlier efforts to design and implement comprehensive policy frameworks to tackle the AIDS crisis are being incorporated into these national strategies. In particular, it is essential to have a national AIDS agency or commission with the expertise, resources, and political power to ensure that HIV/AIDS prevention and mitigation policies are mainstreamed in all ministries and that there is a co-ordinated multi-sectoral response at both the national and local level.

Multi-sectoral community mobilisation: Innovative community-based HIV/AIDS strategies are being implemented in many HPCs. These focus on closely co-ordinated inter-agency action for community-wide mobilisation. With respect to schoolchildren, this involves school managers, teachers, and parents working closely with officials from the ministries of education, health, social welfare and community development and a wide range of NGOs and CBOs. Appropriate decision-making and service delivery structures are required in order to ensure that close co-ordination of all these stakeholders is achieved and communities as a whole are effectively mobilised both to prevent the spread of HIV and support those who are most directly affected.

In a number of countries, Child Welfare Committees have been or are being established at district and sub-district levels. These committees should be given the authority and resources to mobilise effectively community efforts in support of orphans and other needy children. Dedicated multi-disciplinary teams should be responsible for programme implementation. It is crucially important that school managers, teachers and other MoE staff participate actively in all these community level structures. Senior MoE management should, therefore, take the necessary steps to ensure that this happens.

Targeting issues

There is an on-going policy debate concerning the extent to which orphans should be treated as a separate category who are targeted for special support, both by MoEs and other government agencies. In many countries, targeted support for orphans has been both 'artificial' and 'difficult' (World Bank, 1997). With regard to education policy, equity issues also feature prominently in this debate. A particular concern is that 'special measures' to boost enrolment among orphans would neglect the needs of non-enrolled children who are not orphans' (ibid.). This is much less of an issue in countries (such as Botswana) where nearly all children already go to school. Unless done very carefully, targeting 'AIDS orphans' and 'orphans' both in and out of school could result in these children feeling even more 'different' and isolated and actually increase the overall level of stigmatisation. As a general principle, therefore, government should have a comprehensive set of policies for child support and protection that target all needy children. In particular, national poverty reduction programmes should address the needs of all poor children, including those affected by AIDS.

Key interventions

There are three main policy areas outside of education that have a particularly important bearing on the extent to which the epidemic will impact on the education sector itself. These are poverty reduction, child protection legislation and support for the sick and orphans.

Poverty reduction: The most effective way to combat both the causes and consequences of HIV/AIDS is to achieve large and sustained reductions in the incidence of poverty, particularly in the rural areas. However, improving the livelihoods of the poor is complex and must be based on a long-term strategy.

Child support and protection: Social welfare provision must be extended in order to meet the basic needs of children in especially difficult circumstances. Over the next decade, it is likely that the care of orphans will have to shift away from the present reliance on the extended family. As the number of orphans rises, alternative methods will have to be introduced in the worst affected countries, in particular community-based residential care using 'family models' and more extensive adoption and fostering.

With 30-40% of all children projected to be orphans by 2010 in the worst affected countries, it is clear that government 'safety net' funding will have to increase very significantly over the next decade if the basic needs of these children are to be adequately catered for¹⁰. School managers and teachers at the survey schools all agree that all disadvantaged orphans should be provided with food, clothing and, where necessary, shelter. In addition, a much-enlarged cadre of social workers will be needed, who can work closely work with schools.

Much greater emphasis should also be given to the rights of children. Child protection legislation must be firmly based on the principle that the interests of the child are paramount. Child abuse of any kind must, therefore, be dealt with decisively. In some countries, the interests of children continue to compromised by pervasive concerns about not wishing to upset 'traditional' cultural beliefs and practices. If orphans and other children are seriously abused they should be removed immediately from the home and be accommodated in 'places of safety'.

Support for the sick: With rising numbers of sick adults, children will increasingly become carers, which may seriously disrupt their education. Well-resourced home-based care and other material support for the terminally ill would not only provide relief to those affected, but it would mitigate any adverse impacts on schooling.

5.3 SCHOOL-BASED SUPPORT

The role of the school

While schools should do a lot more to support affected children, it is equally clear that they cannot do everything. Some commentators believe that, given the seriousness of the AIDS crisis in large parts of Africa, schools must be 'transformed' into altogether new types of institution that can provide comprehensive care and livelihood opportunities for very large numbers of children. This is particularly the case in countries where governments are unable to provide basic welfare and other benefits.

The school surveys show that schools are not doing enough to support the emotional, educational and material needs of orphans and other vulnerable children. However, given the prevailing situation, schools are very constrained in taking on additional responsibilities in support of these children. To reiterate, it is the level of support given by government and other organisations that will ultimately determine the overall impacts of the epidemic on the education system.

While providing reasonable quality basic education to all children must remain the central objective of all schools, there are some important steps that can realistically be taken that will significantly improve school-based support for affected children.

Creating a child-friendly school environment

Even without the AIDS epidemic, decisive action would still be needed to improve the school environment so that it is both more child-friendly and teacher-friendly. The AIDS crisis dramatically increases the urgency of addressing this fundamental weakness of the school system, which exists in nearly all countries. Without substantial improvement in this area, all school-based HIV/AIDS prevention and mitigation policies are likely to founder.

The majority of school managers, teachers and students at the survey schools in BMU are fully aware of the importance of creating a more supportive school environment: The following comments made by teachers in Botswana are typical of the concerns that were expressed in this area:

'We have got to organise ourselves into a supportive community'

'We must create an environment where students can approach teachers for help knowing that it will be given.'

'Schools are not dealing with the lack of parental care and love'.

'The school should take greater responsibility in caring for orphans, because they have greatest contact with these students and so know them better.'

'We need to counsel orphans, give them love, and build their self-esteem.'

In Malawi, students, teachers and school management made a number of suggestions for the support of orphans, particularly those attending secondary school. These included: paying school fees in instalments, setting up an all-purpose fund to help orphans with schooling costs, (transport in particular), and the identification of sponsors from the private sector and charitable foundations.

School managers and teachers must become far more proactive in identifying students who are affected by HIV/AIDS and in supporting their learning needs. A lot more openness is needed if schools are to play an effective supportive role.

Appropriate pre- and in-service training is needed in order to promote the required change in the attitudes and behaviour of school managers and teachers. However, most teachers do not have sufficient time, resources, and incentives to be able to support students properly. Most already feel heavily over-burdened by a crowded curriculum and other work-related commitments. Merely exhorting teachers to be more supportive will achieve very little. Consequently, it is essential that the right enabling environment is created for teaching staff so that they can perform this key function effectively. This may entail changes in the job descriptions of school managers and teachers. Criteria should be developed for assessment and promotion of teachers, which is linked to the inspection system.

Priority areas

The findings of the school surveys indicate that there are six priority areas for schoolbased support for orphans and other needy and affected children.

- Identification, referral and monitoring
- School feeding
- Pastoral care and counselling

- Financial assistance with fees and other school-related expenses
- Involvement of guardians and carers
- Children living with AIDS.

Identification, referral and monitoring: Schools must become a lot more proactive in keeping close track of orphans and other children who may be in difficult circumstances. At the very least, every school should undertake a simple needs assessment and carefully monitor school performance, including dropouts.

In close collaboration with social welfare agencies, the home situation of children at risk should also be closely and regularly monitored. Social workers should inform schools immediately about children who are in especially difficult circumstances. Schools should investigate promptly students who are repeatedly absent. All referrals should be quickly followed-up in order to ensure that appropriate action has been taken. Social workers/child welfare officers should be assigned to work with clusters of schools in every locality.

In Botswana and Malawi, in particular, there needs to be much greater co-ordination between different government departments and agencies in order that vulnerable children do not fall through the net.

Counselling and pastoral care: All teachers should be trained to counsel and provide pastoral care to students, but particularly those who are most in need. It is important, however, that there are professionally trained guidance and counselling (G&C) teachers who can take overall responsibility with school managers for all school-based support for orphans and other needy children. Larger schools should have full time G&C staff.

School feeding programmes: Providing a free school meal is not only important in ensuring that at least some of the nutritional needs of children are met, but it is also a major incentive for orphans and other disadvantaged children to attend school. Where poverty is endemic, a strong case exists for all children to have one nutritious meal each day at school, which be should free or nearly free of charge. Where this is not financially possible, children in need should be targeted.

Schooling costs: Given the already high incidence of poverty in most HPCs coupled with the likely impacts of the AIDS epidemic, increased cost recovery for primary and secondary schooling will seriously affect school attendance and performance. Basic education should, therefore, be free and targeted assistance to meet essential schooling costs (fees, clothing, examination fees, and transport) should be provided for needy children as part of a comprehensive package of support.

Guardians and carers: It is widely agreed that schools should make special efforts to meet with the carers of orphans. Guardians and other carers should be encouraged to attend meetings at the school and it may also be necessary for teaching staff to visit carers in their homes.

Children living with AIDS: Clear policy guidelines for schools should be developed for children living with AIDS. As is the case now, schools will generally not know for certain the HIV status of persistently sick children. However, it is important to ensure that these children are properly supported and, in particular, are not discriminated against by either students or staff. Obvious precautions also need to be taken to prevent infection among children and staff at schools, in particular treatment of cuts and other blood injuries in the playground and from sports activities (use of rubber gloves, disinfectant). Most schools in HPCs already take these precautions.

Other interventions

Other school-based interventions and measures have been proposed in order to support children and youth affected by HIV/AIDS. Some of these are key components of the school transformation agenda mentioned earlier.

The school day: It has been suggested that the increasing numbers of orphans and other children directly affected by the epidemic will require adjustments in the length of the school day as well as changes in the timing and duration of school terms. However, it is important to point out that in the majority of countries in SSA, primary school children attend school for only 5-6 hours a day (with many schools finishing by midday or early afternoon), which means that there is usually sufficient time for income earning activities. Certainly, changing either the start and/or finish of the school day or the dates of school terms did not emerge as important issues in the school surveys.

Curriculum vocationalisation and income generating activities. Many teachers and NGOs stressed the importance of designing curricula which are more 'relevant' to employment needs (especially of affected children) and support income generating activities in and out of school. However, schools world-wide generally have a poor track record in undertaking activities of this kind and many would argue that seriously extending the role of the school in this way is not appropriate. This is especially the case in low-income countries, which are unable to resource properly most vocational training activities.

Vocational training and non-formal education are, however, very important for out-ofschool children and youth, many of whom will be directly affected by the AIDS epidemic.

School health programmes: Schools cannot replace government hospitals and clinics, but regular visits by health personnel can ensure that the health status of all children is regularly monitored and, where appropriate, some basic medical services can also be provided.

Boarding facilities: Another suggestion is that schools could provide additional boarding facilities for orphans and other children who cannot be properly cared for. Being a boarding student has none of the stigma that is attached to orphanages and other

residential homes and is likely, therefore, to be more acceptable among relatives. However, high boarding costs make this an unrealistic option in many countries.

PART II IMPACT ON TEACHERS AND OTHER STAFF

There are approximately 2.1 million primary school teachers in sub-Saharan Africa, 42% of whom are women. The corresponding figures for secondary school teachers are 0.65 million and 32% respectively (see appendix 2). The AIDS epidemic in sub-Saharan Africa is widely expected to have a highly adverse impact on the overall staffing situation throughout the education sector. All categories of personnel will be affected - school managers, teachers, and support staff. Much higher morbidity and mortality, especially among experienced and well-qualified teaching staff, could pose a major organisational challenge. More generally, unless appropriate measures are taken, the morale, motivation, and overall performance of all teachers and support personnel could be seriously undermined. It is also widely asserted that teachers are a high-risk group and that they will therefore be more seriously affected by the pandemic than the adult population as a whole.

The discussion concerning teacher impact is presented in two chapters. Chapter 6 summarises the impact to date of the epidemic on education sector personnel in the three case study countries, including any interventions that have been made by MoEs with regard to HIV/AIDS prevention and mitigation. Chapter 7 then considers what levels of mortality and morbidity are likely to be over the next 10-15 years and presents a set of recommendations about what should be done to minimise the impact of the epidemic on education personnel, and in particular teachers.

CHAPTER 6 TEACHER IMPACTS TO DATE

This chapter focuses on the impact of the epidemic on teachers and other staff in the three case study countries. First, it briefly discusses the extent to which teachers are a relatively high-risk group and then looks at patterns of mortality and morbidity among teachers. The final section assesses the response of Ministries of Education with respect to staffing issues.

6.1 ARE TEACHERS A HIGH-RISK GROUP?

It is widely argued that schoolteachers in SSA are being and will continue to be particularly badly affected by the AIDS epidemic.

'For reasons that are not entirely clear, HIV seroprevalence is very high among teachers and school administrators' (UNICEF, 2000).

'All teaching and support staff are a high-risk group for HIV infection' (ECA, 2000: xii).

'In several countries, the bulk of serving teachers may be experiencing infection rates higher than those than in the general population, and hence higher proportions of them may be dying in the coming decades from AIDS-related causes' (Kelly, 2000: 6)

Higher risk is almost exclusively seen as the consequence of a higher incidence of unsafe sexual behaviour among teachers compared to the rest of the adult population. The extent to which high-risk behaviour of teachers is the outcome of occupational-specific factors or is the consequence of wider phenomena, which affect professional and skilled occupations as a whole is rarely made explicit. However, three main reasons are typically identified for why teachers are more 'prone' to engage in higher-risk sex behaviour, namely relatively high social status and income, mobility, and spouse separation.

'The apparent vulnerability of currently serving teachers may be due to their status and conditions of service. As a group they are better educated than the general population, their income is higher, and their mobility is greater' (Kelly, 2000).

Mobility and spouse separation are occupational-specific characteristics whereas higher status and income are, by definition, universal characteristics of higher socio-economic groups in general. However, both sets of factors are seen to be mutually reinforcing.

In many key respects, teachers are regarded in the same way as other economic migrants in Africa. Where they are often separated from their spouses and families due to lack of suitable housing, coupled with the reluctance of spouses and children to live in rural locations, this could lead to teachers having more sexual partners than less mobile occupational groups.

Separation and mobility are seen to be further compounded by relative affluence, which enables teachers to engage in commercial and other forms of 'transactional' sex. Higher incomes result in higher levels of drunkenness, which research has shown to be closely linked to high-risk sexual behaviour, especially among males (see Trigg et. al, 1997). Finally, the status, authority and power enjoyed by teachers in schools and the wider community results in the widespread sexual abuse of female students, which also increases their risk profile. Thus, teachers are themselves seen as 'sugar daddies' who are particularly well placed to take advantage of vulnerable schoolgirls who are seen to be 'clean'.

Large income differentials exist between unqualified and qualified teachers and between primary and secondary schoolteachers in most countries in SSA. If a positive relationship exists between income and HIV prevalence, one would expect therefore that better-off teachers should, ceteris paribus, be more at risk of HIV infection than their poorer teaching colleagues. Kelly suggests that this might be the case: 'Teachers and lecturers in secondary schools, training institutions, and universities are as vulnerable to HIV/AIDS as their colleagues in primary schools. Indeed, the current cohorts may be even more vulnerable, since, like their primary school counterparts, they reached their current professional status in the 1980s and early 1990s, but unlike them they reached even higher educational levels, a factor which at that time was associated with a considerably higher risk of infection' (op cit: 65).

Evidential requirements

The following four types of evidence are required to demonstrate convincingly that teachers are a relatively high-risk group:

- Teachers have the specific characteristics that are likely to predispose them to high-risk sexual behaviour.
- Teachers engage in higher levels of high-risk sexual behaviour
- HIV prevalence rates are relatively high among teaching staff compared to the adult population as a whole.
- AIDS-related mortality rates are higher among teachers than the rest of the adult population.

Bennell (2001) has reviewed the limited amount of evidence in each of these areas. The main conclusion that emerges from this review is that there is very little hard data that supports the contention that teachers are a high-risk group. Rather, the balance of the evidence suggests that teachers are, in fact, a relatively low-risk occupational group in

most countries in SSA. However, the epidemic will still have a serious impact on the teaching profession in the HPCs (see Bennell, 2001).

The most important findings of this review are as follows:

- The impact of the epidemic varies very significantly among male and female teachers and between primary and secondary schools. It is quite incorrect, therefore, to treat teachers as though they are a homogeneous occupation with respect to the impact of the epidemic.
- Much of the discussion of the impact of HIV/AIDS on the teaching profession is based on an implicit occupational stereotype of the African teacher, who is predominantly male, married, and living apart from his wife or partner. However, this bears little relationship to the diverse composition of the teaching profession across SSA. For example, in the HPCs of Southern Africa, the majority of primary school teachers are female whereas male primary schoolteachers predominate in most Francophone countries in Africa. Marital status also varies markedly. In Botswana, for example, nearly 70% of female primary schoolteachers are single, but the corresponding figure in Swaziland is only 31%. This obviously raises major concerns about the degree to which it is possible to generalise about their sexual behaviour and thus the risk profile of teachers.
- There no longer exists a strong statistically positive relationship between socioeconomic status and HIV prevalence. If anything, the available suggests that higher socio-economic groups have changed their sexual behaviour and are now at less risk than the general population (Glynn and Hargreaves, 2001).
- Teacher mortality rates are generally much lower than the adult population as a whole. In Botswana, the overall teacher mortality rate in 1999/2000 was 0.76% compared to projected AIDS-related mortality rates of 1.43-1.59 percent for the 15-59 population ¹¹. In Malawi, mortality rates for primary and secondary schoolteachers were 1.01% and 0.8% respectively in 1998 compared to the overall mortality rate of 1.37% for the 20-49 adult population¹². Given the age and gender profiles of teachers (see Table 6.1), one would have expected that mortality rates among teachers would be much higher than adult mortality rates.
- More generally, there exists a strong negative relationship between mortality rates and socio-economic status. Even within the teaching profession, mortality rates are negatively correlated with socio-economic status (see below). Levels of mortality are generally considerably higher among primary schoolteachers than secondary

¹¹ Again, it is important to emphasise that the AIDS-related adult mortality rate is only a projected figure, which has been generated by a particular model of the demographic impact of the AIDS epidemic.

¹² Over 90% of teachers in Malawi are aged between 20 and 49. Adult mortality is an actual figure from the 1998 Population Census.

schoolteachers, who are much better educated and trained and better paid¹³. Mortality rates by main grade for permanent and pensionable and industrial employees of the Ministry of Education and all central government ministries in Botswana in 1999/2000 are presented in Table 6.2. Levels of mortality are at least three times higher among the lowest (Grade A) workers than senior civil servants.¹⁴.

 Table 6.1: Age profile of teachers in Botswana, Malawi and Uganda, 2000:

 percentages

PRIMARY						
Age group	<20	20-24	25-29	30-39	40-49	>50
Botswana	0.3	5.2	18.1	44.9	23.6	7.9
Malawi	0	2.4	21.8	40.9	10.7	4.4
Uganda	1.4	18.8	29.2	32.5	13.9	4.1

SECONDARY

Age group	<20	20-24	25-29	30-39	40-49	>50
Botswana	0.9	16	38	35.1	7.8	2.2
Malawi	0	10.4	28.4	44.3	19.7	4.9
Uganda	0.4	6.8	34.1	42.5	12.8	3.5

6.2 TYPE OF IMPACTS

Teachers who are HIV positive are likely to become sick and eventually die. With the eventual onset of AIDS-related illnesses, affected teachers will be frequently absent and, when they are at work, many will find it difficult to be effective classroom teachers.

The epidemic also indirectly affects teaching and other staff. Morale and motivation will fall as a result of high levels of morbidity and mortality among colleagues. Workloads could also increase as a result of higher levels of AIDS-related absenteeism and vacancies, and teachers (especially women teachers) will have to look after sick relatives, which could result in increased absenteeism and generally lower performance levels.

¹³ The much higher levels of mortality among male teachers is also unexpected, given much higher levels of prevalence among females in the 20-29 age cohorts in most countries (see Bennell et al, 2001). Comparisons between teacher and adult mortality rates over time are also needed, but data are not available.

¹⁴ Mortality rates need to be adjusted for age. However, senior civil servants are likely to have older age profiles than unskilled public servants and thus adjusting for age would increase AIDS-related mortality rate differentials with respect to grade.

	Ministry of Education		Cen Gover	tral nment
Grade	Female	Male	Female	Male
А	1.31	2.82	2.28	1.88
В	0.95	2.08	0.68	1.2
С	0.73	11	0.53	0.91
D	0	0	0.37	0.68
Е	0	0	0	0
F	0	0	0	0

Table 6.2: Mortality rates among Ministry of Education and all centralGovernment staff by grade in Botswana in 1999/2000: percentages

Notes: Grade A unskilled workers, Grade F permanent secretary Source: Government of Botswana, Infinium human resource database

Mortality rates

The mortality rates for teachers in the three case study counties are presented in Table 6.3. It is important to emphasise that this is mortality from all causes and that it is not possible to determine precisely the extent to which deaths are AIDS-related. However, it is likely that at least two-thirds of adult deaths are AIDS-related in Botswana and Malawi.

Table 6.3:	Mortality rates for primary and secondary teachers in Botswana,
Malawi, Ta	Inzania and Uganda: percentages

		Prim	ary	Secondary		
Country	Year	Female	Male	Female	Male	
Botswana	1999/00	0.76	1.21	0.21	0.36	
Malawi	2000	2.49	1.96	0.93	1.02	
Uganda	1998	0.92	0.97	0.13	0.93	
Tanzania	1999	0.58	1.10	Na	na	

As expected, there are sizeable differences in mortality rates among teachers between the three case study countries, which reflects differences in the stage of the epidemic and overall national prevalence levels. Whereas, in Botswana and Uganda, overall mortality rate for teachers is between 0.6% and 0.9%, in Malawi mortality rates are closer to 2 percent. Fragmentary data on teacher mortality rates is available for some other HPCs: Cote d'Ivoire 0.97% (1997/98), Kenya 0.57% (1998), Namibia 0.41% female and 1.21% male (1998), Swaziland 0.84% (1999), Tanzania primary schools 0.87% (1999), and Zambia 2.8% (1998).

Type of teacher

Mortality rates are much higher among both male and female primary school teachers in Botswana and Malawi and roughly the same among primary and secondary school teachers in Uganda. More data is obviously needed from other countries, but it may well be the case there that the impact of the epidemic on primary school teachers is far more serious. The reasons for this are likely to be directly related to the fact that primary school teachers are generally much less well educated than colleagues in secondary schools. However, they are more heavily located in rural areas, which, ceteris paribus, should make them a lower risk group. Although, in Uganda, living in rural areas means significantly less access to information and medical care. More research is urgently needed in order to establish the key factors underlying what appear to be very large mortality rate differentials between these two main groups of teachers.

Gender

In most countries in SSA, HIV prevalence rates among females tend to be considerably higher than males in the 20-35 age cohorts. Furthermore, female teachers tend to more heavily concentrated in higher prevalence urban areas. Given the young age profile of the teaching profession, one would expect therefore that female mortality rates would be considerably higher than male teachers. However, this is only the case among primary school teachers in Malawi and secondary school teachers in Uganda. In Namibia and Tanzania, also, mortality rates among male teachers are two-three times higher¹⁵. It could be, therefore, that male teachers are a higher-risk group than their female colleagues. If this is the case, male teachers should be the main target group for school-based prevention activities.

Marital status

The marital status profile of teachers could be a key factor in influencing the impact of the epidemic. In Botswana, for example, it can observed in Table 6.4 that single female primary school teachers have higher mortality rates than married female colleagues whereas the opposite appears to be the case among male teachers. Clearly, some of these differences are age-related, but marital status is likely to be an important determinant of sexual behaviour.

Table 6.4: Mortality rates by marital status and type of school in Botswana, 1999:percentages

	SINC	GLE	MARRIED		
	Female	Male	Female	Male	
Primary	0.87	0.72	0.52	2.96	
Junior sec	0.42	0.48	0	0.56	
Senior sec	0.36	0.52	0	0.96	

¹⁵ In Namibia, male mortality rate was 1.21 percent compared with 0.41 percent for female teachers in 1998. The corresponding figures for primary school teachers in Tanzania were 1.05 percent and .58 percent respectively in 1999.

Location

Teacher mortality rates do appear to be positively correlated with the overall levels of HIV prevalence in the areas in which they work. Among the survey schools in Malawi, mortality rates between 1994 and 2000 were three times lower in rural primary and secondary schools. In Botswana, mortality rates for male primary school teachers working in the very high prevalence North Region are well over double the national average, although it is significant that inter-regional mortality rate differentials are much less among female primary school teachers. In Uganda, while mortality rates for primary school teachers vary considerably from one district to another, they were over 1.5% in only 4 out of a total of 45 districts in 1999 (see Table 6.5).

Table 6.5: Mortality rates among primary school teachers in Uganda, 1999:percentages

Mortality rate	<0.5	0.599	1-1.49	1.5>
Number of districts	10	19	12	4
% districts	22.2	42.2	26.7	8.9
a) (a E a				

Source: MOES

Trends

Trends in mortality rates vary very considerably among the primary and secondary teachers within and between the three study countries. There is no time series data on teacher deaths in Botswana, but the total number of teacher deaths fell between May-October 1999¹⁶ and November-April 2000 by over 10%. This surprising decline in mortality is probably due to the rapid increase in the number of teachers taking anti-retroviral drugs (see below).

In Malawi, mortality rates among both female and male primary school teachers have increased very rapidly since 1995 (from 0.43% to 2.49% among females and 0.68% to 1.96% among males). However, in marked contrast, mortality rates have fallen very significantly among secondary school teachers - from 2.3% in 1996 to less than 1% in 1998. In Uganda, mortality rates for secondary school teachers peaked in 1995 (at 1.3%) and, for primary school teachers, two years later in 1997 (at 1.11%). Mortality rates for primary and secondary teachers were 0.9% and 0.71% respectively in 1999. Another 0.41% of primary school teachers and 0.39% of secondary school teachers retired due to 'prolonged illness' during 1999¹⁷.

¹⁶ Accurate information on teacher deaths was only recorded from May 1999 onwards.

¹⁷ Data on teacher departures as a result of prolonged illness are not available for earlier years.

6.3 JOB PERFORMANCE

Morbidity

AIDS-related morbidity is expected to be one of the most serious impacts of the epidemic on school systems in SSA. Sickness lowers teaching quality and results in higher rates of teacher absenteeism. Longer-term, persistent absenteeism is particularly disruptive. However, there is no good-quality data on the extent and causes of teacher absenteeism over time in any country in SSA.¹⁸ In the three case study countries, poor record keeping by most schools makes it impossible to track rates of teacher absenteeism over time. In the HPCs, being able to effectively monitor absenteeism is clearly very important.

It was not possible to gauge accurately the level of AIDS-related morbidity in schools. However, only very small percentages of teachers at the survey schools had 'long-term' illnesses, which were likely to be AIDS-related and were also absent for long periods of time. In Malawi, for example, 1% of teachers fell into this category. The general pattern is that sick teachers continue to teach for as long as they can despite the fact that most of them cannot cope in the classroom.

Rates of teacher absenteeism (percentage of days lost) among primary school teachers are relatively low (with the exception of female teachers in Botswana) (see Table 6.6). They are lower still for secondary school teachers in Botswana and Malawi, but are much higher in Uganda. Female teachers have higher rates of absenteeism than their male colleagues. Only around 8-12% of absences totalled more than five days per term in each country.

	Primary			Secondary		
	Botswana	Malawi	Uganda	Botswana	Malawi	Uganda
Female	7.4	4.5	4.3	6.1	3.4	12.6
Male	4.2	4.6	2.4	3.7	2.4	9.1

Table 6.6:	Teacher absenteeism	rates at survey	schools:	nercentages
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Most teachers and students do not regard teacher absenteeism as being a serious problem (see Table 6.7). However, it was clear from the focus group discussions that absenteeism particularly to attend funerals, has been increasing rapidly (see below).

¹⁸ None of the other impact assessments provided information on actual levels of teacher absenteeism.

		TEACHERS			STUDENTS		
STATEMENT		Botswana	Malawi	Uganda	Botswana	Malawi	Uganda
Teacher absenteeism is a	Primary	22	3	11	31	6	na
big problem in this school	Secondary	13	6	12	21	9	na
Teacher absenteeism has	Primary	7	4	7	na	na	na
increased significantly	Secondary	5	13	7	na	na	na

 Table 6.7:
 Teacher responses to statements on teacher absenteeism: percentage in agreement

There are five main reasons for absenteeism: sickness of self, attendance at funerals, looking after sick relatives, school-related (in particular attendance at in-service training workshops), and 'other' (most notably maternity leave, collecting pay, not required to be in school etc). Personal illness accounted for 35-45% of absences (of least one day) in Botswana and Malawi, but only 20-30% of absences in Uganda, where school-related absences are the most important reason for absenteeism in both primary and secondary schools (see Table 6.8). In Malawi, attendance at funerals accounts for roughly the same level of teacher absences as personal sickness (approximately 35-40%), but only 10-20% of absences in Botswana and Uganda. Looking after sick relatives is not a major reason for teacher absenteeism in any of the three countries.

		Sickness of self	Funerals	Sickness Of others	Work- Related	Other
PRIMAR	Y					
Botswana	Female	42	18	18	15	8
	Male	35	14	14	15	20
Malawi	Female	42	31	20	2	4
	Male	38	47	11	5	0
Uganda	Female	29	24	10	29	5
-	Male	33	17	0	42	8
SECOND	ARY					
Botswana	Female	50	10	8	9	25
	Male	26	21	16	16	21
Malawi	Female	40	27	7	13	13
	Male	42	38	17	4	0
Uganda	Female	23	23	14	32	9
-	Male	16	16	11	35	22

 Table 6.8:
 Reasons for teacher absences at survey schools: percentage breakdowns

Notes: 'Other' includes collecting pay, maternity leave.

Motivation and morale

Low teacher morale and motivation is a serious problem in many schools. This is especially the case in Botswana and Malawi where well under half of the teacher questionnaire respondents agreed with the statement that 'teacher morale at this school is high'. However, the school surveys found little evidence to show that lower teacher morale and motivation can be directly attributed to the impact of HIV/AIDS. While many teachers are being adversely affected by increasing levels of staff morbidity and mortality, the overall incidence of AIDS-related deaths and illness is too low in most schools to have a major impact on morale. In focus group discussions with teachers, low pay, poor conditions of service and inept school management were most frequently cited as the most important causes of low morale. Given this situation, many teachers are reluctant to take on more duties and responsibilities as a result of increasing morbidity and mortality among AIDS-affected colleagues. Many teacher respondents pointed out that what is happening in their personal lives outside of school often has a much greater impact on their morale.

Discrimination

The general consensus is that teachers living with AIDS in Africa are seriously discriminated against by school managers, teaching colleagues, and students (see Kelly, 2000). The findings of the school surveys do show high levels of secrecy and denial among teaching staff concerning the likely extent of HIV infection and clinical AIDS in their schools. Given the level of stigma that is attached to HIV/AIDS, teachers are not prepared to reveal their HIV status for fear of the adverse reaction among colleagues and the community as a whole. In some schools, very ill teachers continue to work for fear of being talked about as being infected. However, there was relatively little serious overt discriminatory behaviour at the survey schools. The following comment made by a head teacher of a senior secondary school in Botswana is typical of verbal and written responses on this issue: 'There is no discrimination against the sick in this school, but in the outside community there is lots of gossip and discrimination'. In nearly every school, numerous examples were given of the ways in which teaching staff have supported sick colleagues.

Teacher responses to questionnaire statements concerning discrimination also support this view. Fewer than 10% of respondents agreed with the statements that teachers with AIDS are discriminated against by Ministry officials, school management, or other teachers. However, large proportions of respondents indicated that they are 'not sure' if discrimination is occurring, which is symptomatic of the secrecy that surrounds this whole issue coupled with the fact that relatively few teachers are ill. While there is little overt discrimination, many teaching staff are clearly concerned about the risks of working with infected teachers. Various incidents were reported concerning the sharing of cooking and eating utensils and toilet facilities in the three case study countries. With appropriate education programmes, most of these concerns could be easily allayed.

6.4 MINISTRY OF EDUCATION RESPONSES

There are a variety of good employment practices that should be adopted by organisations especially in high prevalence countries, in order to prevent and mitigate the impact of HIV/AIDS on staff. These include: comprehensive prevention programmes (information, behaviour change, contraception); counselling with and without testing; medical support (including the provision of anti-retroviral drugs); adaptation of working arrangements and delivery of services; multi-skilling; and modifying employee benefits.

Government is the largest employer in each of the three case study countries. However, it is only very recently that any systematic efforts have made to develop 'AIDS in the workplace' (AIW) programmes for government employees in these countries. In the absence of any government-wide initiatives, it is perhaps not surprising that MoEs have not introduced their own comprehensive AIW programmes. Generally speaking, there is little awareness or understanding of AIW policy and practice among senior management in each MoE. This is also because personnel management is often conceived rather narrowly as a largely administrative function. Another key factor is the division of 'administrative' and 'professional' responsibilities for teaching staff in most MoEs.

At the school level, little has been done to try to minimise the impact of AIDS on teaching and other staff through prevention and support activities. While, on a day to day level, most head teachers and school management teams are dealing as best they can with specific AIDS-related problems, the overall response to date has generally been very inadequate. The fact that there are so many small, geographically dispersed workplaces (schools) also makes it especially difficult to mount an effective AIW programme. There are, on average, only nine teachers per school in SSA.

Teacher mortality

Another important reason why MoEs have been slow to respond is that teacher mortality has not been sufficiently high to justify a major programme of interventions. With some important exceptions (Zambia and Malawi), teacher mortality rates were still below one percent in most HPCs in the late 1990s and, as noted earlier, in some countries mortality rates had already peaked for all or some groups of teachers. Equally important, overall teacher attrition is high in many countries as a result of low pay and morale in the teaching profession. Consequently, teacher deaths account for less than 20% of all attrition in a number of HPCs, including Malawi, Namibia, South Africa, and Uganda. In Uganda, when primary teacher mortality peaked during 1997-98, deaths accounted for only 25% of all attrition. It is perhaps not surprising, therefore, that the MoE did not prioritise teacher prevention and support programmes.

Similarly, the movement of teachers in and out of schools, especially in remoter rural areas, is typically so high that school management's have become accustomed to very high levels of turnover, both in absolute terms and relative to AIDS-related mortality and morbidity among teachers.

In many countries, MoEs have reduced the numbers of teachers employed (for example in Tanzania) and/or graduates from teacher training colleges cannot find employment. In situations such as these where there are too many trained teachers, increasing AIDSrelated mortality is much less likely to be perceived as a serious threat to the overall quality of education provision.

Teacher organisations

None of the teaching trade unions in the case study countries have actively campaigned about and/or negotiated on any AIW issue. Their almost exclusive focus has been on improving salaries and other benefits (especially transport and housing). As democratic organisations, they are merely reflecting the views and demands of their respective memberships. Most MoEs have not, therefore, faced any concerted pressure from teacher organisations to respond decisively to the AIDS threat.

6.5 SPECIFIC INTERVENTIONS

Planning

Human resource planning by MoE in all three countries is rudimentary. Consequently, as one senior manager in Botswana stated, 'we are always in crisis management mode'. Given the severity and long term impacts of the epidemic, it is essential that more detailed, comprehensive planning, especially with respect to human resources, is undertaken on an on-going basis.

Prevention

There has been very little targeted HIV/AIDS education for teaching staff. At the survey schools in each of the study countries, AIW issues are rarely, if ever, discussed in staff meetings and there is no peer education. However, most teachers and many school managers are poorly informed about HIV/AIDS. Denial about the causes, extent, and consequences of HIV/AIDS is widespread in the teaching community. As one primary teacher in Botswana put it 'HIV/AIDS is the best-kept secret... Most teachers deliberately do not change their behaviour precisely in order to emphasise to others their lack of vulnerability and freedom of suspicion'.

Little is known about the sexual behaviour of teaching staff. Obtaining this kind of information from adults is not easy, but it is essential in designing an effective information and education programme and in order to monitor properly the impact of AIW interventions.

Support

The findings of the school surveys highlight the general lack of support for teaching staff affected by HIV/AIDS in the three study countries. Only 13-15% of teachers in each

country agreed with the statement that 'teachers who are HIV positive are being properly supported by school management'. With regard to the MoE, only 20% of teachers in Botswana, 30% in Malawi and 38% in Uganda agreed with the statement that the Ministry is 'tackling effectively the impact of HIV/AIDS on teacher morale'.

This lack of support is part of a more pervasive problem of schools not being teacherfriendly, of poor quality school management, and a general lack of resources (especially in Malawi and Uganda).¹⁹ In all three countries, only around a half of primary school teachers 'feel able to discuss their personal problems with school management'. Less than one half of secondary school teachers in Botswana and Malawi felt able to do so. Tackling AIDS in the workplace in the education sector will, to a very large extent, depend on how quickly management attitudes and competencies in this critically important area of people management can be strengthened.

Anti-discrimination: As noted earlier, overt discrimination of teachers living with AIDS is not a serious problem in the three countries. However, very few teachers believe that school mangers are tackling discrimination effectively when it does arise in their schools.

Testing and counselling: A critically important element of the Ugandan government's national AIDS control strategy has been the provision of voluntary counselling and testing (VCT) services. However, it should be pointed out that, although VCT is constantly emphasised, the resources to carry it out effectively are mainly in urban areas. While teachers participating in the school survey were not specifically asked if they knew their HIV status, it is clear from interviews that testing among the teaching profession in Uganda has become a lot more common since the mid- 1990s. In marked contrast, VCT services have not, until quite recently, been widely available in Botswana and Malawi nor do MoEs have explicit policies on VCT. Again, although hard data are not available, very few teachers have voluntarily submitted to testing in these two countries.²⁰ This is symptomatic of the widespread fear and denial among teaching staff concerning HIV/AIDS.²¹

Deployment and transfers: As discussed earlier, high levels of staff mobility, isolated locations, and separation from spouses are seen as key factors predisposing teaching staff to HIV infection. High transfer rates among teaching staff will increase the HIV risk profiles of teaching staff only if higher mobility results in higher probability of unprotected sex and/or increased numbers of sexual partners. However, there is no solid evidence available from any country in SSA or elsewhere to test this proposition.

It is also expected that HIV/AIDS will lead to large increases in staff transfers because sick staff will want to be posted near hospitals and other health facilities where they can

¹⁹ A survey of management practices in primary schools in Botswana found that at about half of the 80 schools visited relations between headteachers and their staff were 'strained' with teachers often falling into different 'camps' within the school.

²⁰ This is certainly the case for those teachers who are have symptoms of HIV related illnesses.

²¹ In Botswana, it is government policy that all expatriates must be tested prior to taking up their employment. Contract renewal is also conditional on HIV status.

receive proper treatment.²² In the case of sick single teachers, many will want to be looked after by their parents or other friends and relatives, and teachers will themselves be called upon to look after sick dependants and other relatives, often in their home areas. This will complicate still further the deployment of teaching staff, especially in less attractive rural and remote areas.

There is little or no information available to assess whether transfer rates have increased appreciably as a result of the epidemic. In Botswana, however, transfer rates have remained at around 7-10 percent for both primary and secondary teachers for the last five years. Nor is information systematically collected that would enable an assessment to be made of the extent to which transfers are AIDS-related. It is essential, therefore, that the reasons for staff transfers are properly recorded. It is particularly important to establish whether transfers are voluntary (i.e. requested by the staff member) or involuntary (i.e. decided by management).

Spouse separation: In Botswana, in particular, the separation of male teachers from their wives is a long standing issue because many women have jobs themselves and are, therefore, unable to accompany their husbands wherever they are posted. The HIV/AIDS epidemic has heightened concerns about spouses living apart. Clearly, separating spouses seriously disrupts normal marital and family life, quite apart from the potential risks of separated spouses engaging in high-risk sexual behaviour.

Sickness, retirements and other benefits: There have been no changes to any benefit entitlements and related regulations as a consequence of HIV/AIDS in any of the three case study countries. This includes selection and recruitment, pay and pensions, and sickness, and retirement. Senior MoE managers recognise that the epidemic has created additional staffing problems, but are loathe to introduce any new measures for fear of being seen to be discriminating against teachers and other staff living with AIDS. Measures to control absenteeism amongst teachers are currently being debated in all three countries, although this inevitably raises sensitive issues around culture and tradition.

Despite the increase in AIDS-related illness, very few sick teachers at the survey schools are on long-term sick leave or have taken early retirement. There are a number of reasons for this:

- The levels of stigma and denial around AIDS are such that most sick teachers continue to work even though this seriously worsens their condition and they are frequently unable to teach their classes properly. When they are too ill to come to work, most doctors continue to give sick notes for the days that they are absent.
- Most doctors are reluctant to 'sign off' affected teachers for long-term sick leave.

²² One of the survey schools in Botswana, which was in Francistown, had a total of seven sick teachers who had been transferred to the school in order to be near the referral hospital. This is creating a serious strain on the school.

- Teachers are concerned about loss of income. Government employees in the three study countries who are on long-term sick leave are only entitled to full and/or part pay for up to one year. Most teachers fear that once they take long-term sick leave, they are unlikely ever to return to work.
- The professional commitment of many sick teachers is such that they keep on teaching even when they are too ill to do so properly. Many feel 'tortured' about leaving their classes unattended.

Sick leave regulations need to be urgently revised in most countries. In Malawi, for example, there is a clause in the regulations that states that sick leave may only be granted 'as long as there are reasonable prospects of eventual recovery and fitness for duty'.

Teaching cover: Quality of learning could be seriously affected unless no effective teaching cover is provided for sick teachers who are persistently absent. In all three countries, proper teaching cover is rarely available. The normal practice in primary schools is that when a teacher is absent, her/his class is combined with another class or split up and distributed among the other classes in the same standard (or another standard if this is not possible). Consequently, without appropriate action, increasing teacher absenteeism as a result of HIV/AIDS will lead to larger classes and increased teacher workloads. In secondary schools, the most common practice is for classes with absent teachers to be given written assignments. Temporary replacement teachers can only usually be appointed once a teacher has been granted long-term sick leave.

Medical support: Proper medical support is critically important during any epidemic, but this is especially the case for one as devastating and as widespread as HIV/AIDS. Only Botswana has a well-resourced and relatively generous medical scheme for all government employees. A growing realisation among public servants of the seriousness of the AIDS crisis has resulted in a very rapid growth in membership in recent years. Teachers at the survey schools were not specifically asked about medical care and medical aid schemes. However, in Malawi and Uganda teachers made strong demands for better medical support through insurance schemes.

Anti-retroviral drugs: There is still considerable controversy, uncertainty, and ignorance about the (medical and cost) effectiveness of anti-retroviral drug therapies in reducing HIV viral load and prolonging life in low-income developing countries. The evidence from developed and higher income developing countries (such as Brazil²³) is that, with proper patient compliance and medical support, ARVs are effective. There are, however, major concerns about the affordability of these drug therapies in SSA and increasing levels of drug resistance.

Quite apart from their direct medical benefits, the mass provision of ARVs would be a major incentive for teaching staff to test for HIV. This, in turn, would help to transform the current climate of secrecy and denial in schools, thereby creating the necessary

²³ The mass provision of ARVs in Brazil has reduced AIDS-related mortality rates by a half since 1997.

enabling environment for the successful implementation of a comprehensive strategy of prevention and mitigation.

The cost of ARVs are still well beyond the reach of teachers in Malawi and Uganda. However, teachers in Botswana who belong to the government medical aid scheme are entitled to ARVs. The total number of teachers and other MoE staff taking ARVs increased from 86 in April 1999 to 253 in November 2000. Most of these teachers are likely to have clinical AIDS. This could, therefore, be the main reason for the observed decline in teacher mortality rates during 2000. More specifically, these drugs could have prolonged the lives of up to 225 individuals, many of whom would otherwise have died of AIDS-related illnesses

Sexual misconduct: In spite of the genuine concern among MoE senior management about teacher-student 'love relationships' and other forms of sexual harassment, little has been done to tighten either the law or regulations in either Botswana and Malawi. Very few teaching staff have been dismissed for professional misconduct of this kind. It is rare for cases to reach court, mainly because the female students who are involved are unwilling to bring charges and/or testify. Accused teachers also frequently put 'pressure' on the parents of the female student, with many of them being 'bought off' by promises of marriage and/or monetary 'compensation'. For those cases that do reach court, the burden of legal proof is so great that the majority of cases result in acquittals. However in Uganda (which has a Ministry of Women), a number of teenage males have been imprisoned for having sex with their underage girlfriends. This does not mean that sexual misconduct is not present in Uganda, the government has made more of an effort to curb such behaviour.

Death and funeral benefits: In Botswana and Malawi, MoEs are obliged to meet the bulk of funeral expenses of teaching staff who die while in-post. The costs of providing transport and a coffin in Malawi now absorbs most of the very limited funds made available to District Education Offices. Teachers in Uganda have to meet their own funeral expenses.

CHAPTER 7 THE FUTURE IMPACT OF THE AIDS EPIDEMIC ON TEACHERS

AIW strategies and human resource development plans require robust projections of future rates of morbidity and mortality among well-defined groups of personnel. The first part of this chapter critically evaluates how demographic and other models have been employed to derive projections of teacher morbidity and mortality over the next 10-15 years. The second part discusses estimates of the projected impact of the AIDS epidemic on teacher morbidity and mortality and overall teacher requirements.

7.1 PROJECTION MODELS AND ASSUMPTIONS

Prevalence, morbidity and mortality rates

AIDS impact assessments for the education sector have focused primarily on demographic modelling in order to generate projections of the school-aged population and AIDS-related teacher mortality. However, both the methodologies and the assumptions that underpin these modelling exercises are flawed in a number of key respects. Thus, apart from alerting MoE policy makers and other managers to the likely overall impacts of the epidemic, these projections have little operational value for planning purposes. There are four main shortcomings of these projection exercises:

Occupational categorisation: Teachers are almost always treated as a homogeneous occupational category. It is assumed, therefore, that all types of teachers will be affected identically by the epidemic. However, as has already been discussed, this is unlikely to be the case. In particular, there are very large differences in mortality rates between primary and secondary school teachers in most countries.

HIV prevalence: In the absence of information about actual HIV prevalence rates among appropriately defined groups of teachers and other education personnel, it is assumed that teachers have the same HIV profile as the adult population as a whole. Key factors, such as educational background, marital status, employment location are, therefore, ignored. Given the widespread assertion that teachers are a high-risk group (with respect to their sexual behaviour), the implication is that the 'same HIV' modelling projections are probably under-estimates of actual prevalence and mortality rates among teachers.

Projected HIV prevalence rates: There is very considerable uncertainty involved in projecting HIV prevalence rates. In Kenya, for example, Goliber argues that 'no one knows how much further prevalence will rise'. He assumes that HIV prevalence will

plateau at 15 percent by 2003 until 2010 (World Bank, 2000). Similarly, the entire modelling exercise for the impact assessment of the education sector in Mozambique hinges on the assumption that adult HIV prevalence will increase from 16 percent in 1998 to 17.1 percent in 2010. In South Africa, projected HIV prevalence among teachers is projected to increase form around 13 percent in 2000 to almost 30 percent by 2010 (see AbT Associates, 2001).

Intervention scenarios: Most impact assessments do not develop alternative mortality projections based on different intervention scenarios that would reduce infection and/or mortality among teaching staff. In part, this is because it is believed that there is little that can be done to reduce mortality rates over the next decade among teachers who are already infected. However, this is unduly pessimistic because reducing infection rates will result in reductions in mortality within five years and the widespread availability of anti-retroviral drug therapies could have an immediate impact on both rates of morbidity and mortality.

Impact on repetition and dropout rates: Impact assessments do generally not take into account the impact of the AIDS epidemic on repetition and dropout rates. Even small changes in these rates can have a significant impact on future enrolments and thus teacher requirements.

7.2 PROJECTED AIDS-RELATED MORTALITY

Country studies

For Botswana, AIDS-related mortality rates for each age cohort among the 15-59 adult population for the period 2000 to 2010 have been estimated. Given the current age profile of teachers, these can be used to calculate projected mortality rates among teachers for the same period. If it is assumed that HIV prevalence and mortality are the same for teachers as for the adult population as a whole, then projected annual mortality rates will increase to 5.6% for primary and 7.6% for secondary teachers by 2010 (see Table 7.1). This is 6.7 times the overall mortality rate among primary school teaching staff in 1999/2000 and 34.5 times the current level for secondary school teachers. Mortality rates of this magnitude would have a very significant impact on teacher supply.

However, if the AIDS-related mortality differentials between teachers and the adult population that prevailed in 1999/2000 persist over the next ten years, then projected annual teacher mortality will be much lower - 2.8% among primary and 1.0% among secondary teachers in 2010. While these levels of mortality are tragic, they do not pose a major threat to the education system as a whole in Botswana. Furthermore, with an effective AIW programme (in particular, widespread testing and availability of ARVs), these mortality rates could be much lower still.

Table 7.1:	Projected AIDS-related mortality rates for primary and secondary
school teac	hers in Botswana, 2005 and 2010: percentages

	Projection scenario						
	Same HIV rates as ad	prevalence ult	1999 teacher-adult mortality differentials				
	population		litor currey a	iner entituis			
	2005	2010	2005	2010			
Primary	4.6	5.6	2.6	2.8			
Secondary	5.8	7.6	5.7	1.0			

Detailed AIDS-related mortality projections were not available in Malawi and Uganda. However, in Uganda, given projected HIV prevalence rates coupled with the current (downward) tend in mortality, adult mortality rates are likely to fall by at least a half between 1998 and 2010. The modelling exercise in Malawi was based on the assumption that mortality rates among primary school teachers will increase from 2% in 2000 to 3-4% in 2010.

Impact assessment estimates

Table 7.2 summarises the projected mortality rates for teachers that have been estimated by the impact assessments that have been undertaken to date. Although various demographic forecasting models have been employed (most commonly AIM and Doyle-Metropolitan), average annual mortality rates for the period 2000-2010 are all between 8 to 11% of adult prevalence rates in 1999 (with the exception of Malawi). While overall HIV prevalence rates are appallingly high in the HPCs, the resulting mortality is spread over a relatively long period of time. Over the next decade, average AIDS-related mortality rates of 1.5-2.5% per annum are serious, but do not pose a fundamental threat to overall teacher supply. This is especially the case in the majority of countries where total annual teacher attrition is already well over 5%. Mortality rates in the worst affected countries are likely to peak at around 3-4% percent between 2010-15. With proper planning, MoEs should be able to make up for any shortfalls in teacher supply should these arise (see below).

Africa-wide projections

Turning to the Africa region as a whole, it is possible that 260,000 teachers, 9.4% of the total employed in 1999, could die of AIDS-related illnesses over the next decade (see Table 7.3). This projection is based on the three key assumptions, namely that teachers have the same age and HIV profiles as the rest of the adult population, that the 1999 adult HIV prevalence rate in each country will not increase, and teachers are unable to access life-prolonging ARVs. Five countries will account for nearly two-thirds of these AIDS-related deaths among teachers²⁴ - Kenya (25,400), Nigeria (22,100) South Africa (44,900), Uganda (14,900), and Zimbabwe (16,200).

²⁴ Three countries Kenya, Nigeria, and South Africa will account for nearly half of all AIDS-related teacher deaths (47.3%).

	Adult HIV			MORTALITY RATES		
Country	Prevalence 1999	1999	2010	Average annual	% 1999 HIV	Source
Botswana	36	0.7	6.8	3.7	10.4	AbT
Kenya	14	0.6	na	1.4	10	Goliber
Malawi	16	2.1	3	2.5	15.6	Kadzamira
Mozambique	13.2	12	1.7	1.45	11	Verde Azul
South Africa	22	0.4	3.4	1.9	8.6	AbT
Uganda	6	0.8	na	0.5	7.5	Goliber
Zambia	20	2.8	na	1.7	8.5	Goliber
Zimbabwe	25	na	na	2.1	8.4	Goliber

 Table 7.2: Projected AIDS-related mortality rates for teachers in SSA, 2000-2010 (percentages)

Assuming that these deaths are evenly spread over an eight-year period, then one out of every nine primary schools in SSA can, on average, expect to have an AIDS-related death each year (see Table 7.3). The worst affected country will be Botswana where, on the basis of the above assumptions, each school will, on average, lose one teacher every year to AIDS during this period. This will mean that instead of each school having to recruit, on average, one new primary teacher every year, as is currently the case, school management will have to find two new teachers. Staff turnover averages three teachers per annum at secondary schools so the impact of AIDS-related deaths will be to increase school-level recruitment by roughly one-third. Relatively high levels of teacher attrition and/or turnover in many of the other HPCs also mean that the impact of the AIDS-related teacher deaths at the school level will be much smaller than expected. One obvious way of cutting down the disruption caused by AIDS deaths is, therefore, to try to reduce the overall level of staff turnover in the education system as a whole.

7.3 AIDS-RELATED MORBIDITY

No in-depth research has yet been undertaken that would allow robust estimates to be made of the AIDS epidemic on the overall number of days lost through increased teacher absenteeism. Two key issues have to be addressed. First, in any one country, what is the average period between the onset of AIDS-related illnesses and death. The overall productivity of the teacher is most likely to be affected during this period. And secondly, what proportion of this period does the affected teacher take-off sick? This depends very heavily on a variety of factors including the overall quality of medical treatment, sickness benefit regimes, and the support given by school management and teaching colleagues.

Estimates of the overall likely magnitude of AIDS-related absenteeism among teachers vary very considerably from one impact assessment to another. The Goliber study

assumes that each infected teacher loses a total of 18 months of working time. The corresponding estimates for Swaziland are 12 months and 4-6 months for South Africa. The Botswana study assumes that a teacher with clinical AIDS is off sick for six months per year.

No hard evidence on the extent of AIDS-related teacher absenteeism was collected as part of the BMU country studies. However, sick teachers in all three countries feel under very considerable pressure to soldier on in the classroom for as long as possible. As discussed earlier, most are very reluctant to take long-term sick leave and that the period of absence immediately prior to death is often no more than a few weeks. Given current sickness-related absenteeism and overall mortality rates, it is seems unlikely that any more than 3-4 months are being lost per affected teacher.

7.4 NET IMPACT ON TEACHER REQUIREMENTS

Mortality and morbidity

The net impact of the epidemic on teacher requirements will depend on how the epidemic affects the overall school-age population, repetition and dropout rates, teacher mortality rates, and other types of attrition. Various enrolment and teacher requirement scenarios can be developed using conventional simulation models. However, to reiterate, because there is so much uncertainty about how these parameters will be affected by the epidemic, all projections will be subject to very large margins of error.

It is generally believed that teacher recruitment will have to be expanded rapidly in order to make up for much higher levels of attrition and that this will have a very detrimental impact on the attainment of the Education for All objectives. 'The high rates of AIDSrelated mortality may raise the demand for new college graduates above the supply, prolonging the dependence of schools on unqualified teachers' (Kelly, 2000: 65). This assertion only appears to be true for a minority of HPCs because, with lower than expected school-age populations, fewer teachers will be required to educate these children.

Estimates have been made for six countries (the three country studies and also Kenya, Zambia, and Zimbabwe) In all six countries, the reduced demand for teachers outweighs the increase in AIDS-related mortality over the next decade. Somewhat perversely, therefore, the AIDS epidemic will make it easier to reduce student-teacher ratios and meet Education For All targets. As Goliber points out the 'the epidemic seems to influence the demand for educational services moderately more than the supply' (World Bank, 2000:45). However, additional teachers will still be needed in order to cover for teachers who have clinical AIDS (see below).
	HIV RATES ADULT	AI REL DEA	DS- ATED ATHS)00)	Deaths/ primary school	Primary schools/death Annual average
COUNTRY	15-49 1999	PRIM ARV	SECON DARY	2000-2008	2000-2008
ANGOLA	2.78	0.9	NA	NA	NA
BENIN	2.45	0.9	0.1	0.13	63
BOTSWANA	35.8	4.6	22	673	1
BURKINA FASO	6 44	0.7	0.2	0.75	39
BURUNDI	11 32	13	0.2	0.21	9
CAMEROON	7 73	3.0	1.2	0.36	22
CAR	13.84	0.6	NA	0.53	15
CHAD	2.69	0.0	0.1	0.10	78
COMOROS	0.12	0.0	0.0	0.01	1557
CONGO	6.43	0.0	0.0	0.01	29
COTE D'IVOIRE	10.76	44	17	0.20	14
DEM REP CONGO	5.07	6.1	NA	0.41	19
DIIBOUTI	0.12	0.0	0.0	0.02	436
EQUIT GUINEA	0.51	0.0	0.0	0.02	875
ERITREA	2.87	0.0	0.0	0.26	31
ETHIOPIA	10.63	99	2.7	0.26	8
GABON	4 16	0.2	0.1	0.18	43
GAMBIA	1.95	0.1	0.0	0.33	24
GHANA	3.6	2.6	14	0.21	38
GUINEA	1.54	0.2	0.1	0.06	139
KENYA	13.95	25.4	5.8	1.60	5
LESOTHO	23.57	1.9	0.7	1.53	5
MADAGASCAR	0.15	0.1	0.0	0.00	1750
MALAWI	15.96	7.3	0.5	1.98	4
MALI	2.03	0.2	0.1	0.09	91
MAURITANIA	0.52	0.0	0.0	0.01	594
MAURITIUS	0.08	0.0	0.0	0.02	442
MOZAMBQUE	13.22	3.4	0.7	0.81	10
NAMIBIA	19.54	2.1	0.8	1.76	5
NIGER	1.35	0.2	0.0	0.05	146
NIGERIA	5.06	22.1	7.7	0.57	14
RWANDA	11.21	2.1	0.4	1.24	6
SENEGAL	1.77	0.4	0.1	0.10	82
SIERRA LEONE	2.99	0.3	0.2	0.18	44
SOUTH AFRICA	19.94	44.8	25.6	2.15	4

Table 7.3: Projected AIDS-related deaths for primary and secondary schoolteachers in SSA, 2000-2008

SWAZILAND	25.25	1.5	0.8	2.91	3
TOGO	5.98	1.1	0.3	0.34	24
UGANDA	8.3	14.9	1.2	1.49	5
TANZANIA	8.09	8.6	1.0	0.76	10
ZAMBIA	19.95	7.1	NA	1.82	4
ZIMBABWE	25.06	16.2	7.6	3.44	2
TOTALS/AVERAGE	S	195.5	64.4	0.86	9

Other attrition

The impact of HIV/AIDS on other types of attrition, in particular, resignation rates could be potentially very significant. It has been frequently suggested that the education sector could lose large number of teachers to both the public and private sectors as AIDS-related labour shortages increase over time. However, attrition rates could also decrease in a number of countries. This is mainly because the proportions of fully qualified teachers who enjoy generally much better pay than untrained teachers is expected to increase rapidly over the next decade both through upgrading of untrained teachers and recruitment of qualified teachers. More generally, the AIDS crisis heightens the need to professionalise the teaching cadre as quickly as possible and improve teacher morale through better remuneration and other conditions of service (in particular housing)

Three other factors also need to be taken into account. First, the marketability of untrained primary teachers will remain very low in most countries. Second, higher mortality rates will improve promotion prospects. And thirdly, there are already large teacher surpluses in a number of countries (including South Africa and Tanzania).

CHAPTER 8 DEVELOPING AN 'AIDS IN THE WORKPLACE' STRATEGY

A comprehensive 'AIDS in the workplace' strategy for all MoE personnel must be designed and implemented as soon as possible. in order to mitigate effectively the impact of HIV/AIDS on teaching and support staff over the next 10-15 years. The twin objectives of this strategy are to prevent further HIV infection and create a supportive environment for all staff, both those who are living with AIDS and those who are not.

The size of the challenge in developing effective interventions should not be underestimated: Public education systems are made up of a very large number of highly dispersed and relatively small workplaces (schools) usually with relatively poor quality management and low paid and quite demoralised staff. An effective AIW requires very high levels of management commitment and expertise and has sizeable resource implications.

As a key national resource, there is a strong case for taking all possible steps to safeguard teaching staff from the impact of the AIDS epidemic. However, targeting any group for special assistance using public resources also raises important moral and ethical issues, which must be very carefully considered before any interventions are made.

8.1 KEY ELEMENTS OF AN AIW PROGRAMME

The following discussion outlines the main activities that must be incorporated into a comprehensive AIW programme.

Prevalence and risk assessment

It is very important that each MoE undertakes a comprehensive assessment of HIV prevalence and risk among teachers and support staff. This is not only essential for planning purposes, but also in order to design effective prevention programmes. In particular, it will enable staff with relatively high prevalence rates and/or risk profiles to be targeted as part of the HIV/AIDS prevention programme.

Two types of information are required. First, teachers at randomly selected schools should be requested to participate in a voluntary, anonymous testing programme. Staff will only be required to provide a saliva specimen. The only information that is collected is the age and gender of the staff member and type of school. A reputable organisation with proven expertise in conducting tests of this kind should be contracted to conduct this

survey. The overall findings of the survey should be made public and head teachers should meet with their staff to discuss the main findings of the survey and, in particular, what they mean at both the institutional and individual level.

The reasons for this voluntary testing programme will need to be very carefully explained to teachers and teacher organisations. It is essential that most sampled teachers are willing to provide a saliva specimen. Otherwise the results may too biased to be of much value.

Secondly, Knowledge, Attitudes, and Practices (KAP) surveys should be undertaken in order to identify the extent to which teachers and other staff are at risk from HIV infection. Again, this survey should be contracted out to an organisation with the appropriate expertise in conducting sensitive survey work of this kind.

Education and prevention

Every MoE should mount an intensive education and prevention programme for all teachers and support staff. The main objectives of this programme are to:

- Confront the silence, denial, and secrecy about HIV/AIDS, which pervades the teaching community in all countries and to create in its place a culture of openness and acceptance.
- Provide information and appropriate life skills training that will prevent infection.
- Ensure easy access for staff to contraceptives in every school and other education workplace.
- Highlight the benefits of testing.
- Counter discrimination.
- Encourage supportive behaviour for colleagues who are infected and sick.

Critical to the success of such a programme will be the dissemination of a comprehensive set of multi-media learning materials. This includes a Teacher's Handbook on HIV/AIDS (which should be distributed to every school manager and teacher), and other written material (posters, pamphlets), and video and audiocassettes on specific topics. There is a lot of relevant material that has already been developed around the world, which can be used and, where necessary, modified.

Testing and disclosure

Teacher attitudes to testing were not fully explored in individual and interview discussions at the survey schools in the three country studies. However, comprehensive voluntary testing with professional pre- and post- test counselling is essential for both effective prevention and mitigation of HIV/AIDS. MoEs should do all they can, therefore, to encourage teaching staff to test for HIV.

Governments in most HPCs are in the process of establishing national networks of testing and counselling centres. There is no need, therefore, for each MoE to establish its own

testing programme. However, there must be sufficiently strong incentives for staff to test. The most powerful incentive would be the provision of ARVs when teachers test positive (see below).

With appropriate education and training, infected teachers should be increasingly prepared to divulge their status, knowing that their colleagues will support them, both emotionally and professionally. Teachers who have disclosed their HIV status should be used as peer educators in order to encourage other colleagues to test.

Counselling and support groups

It is extremely important that teachers and other staff are able to access high quality counselling support and be assured of total confidentiality. In the worst affected countries, specialist 'AIDS counsellors' should be employed by each MoE who can make regular visits to schools to meet with staff both individually and in groups (see below). Living positively support groups should also be established among teaching staff in each district.

Deployment and transfers

There are no easy solutions to the serious problems that arise when deploying teaching staff to schools across large geographical areas and at remote and unattractive locations. As noted earlier, the HIV/AIDS epidemic could aggravate these deployment problems unless appropriate steps are taken.

Very little information is available that would allow senior managers and planners to monitor the overall deployment and related movements of teaching staff in the context of the HIV/AIDS epidemic. It is very important therefore that every MoE establishes an information system, which provides comprehensive up-to-date information on staff deployment and transfers. This will enable detailed assessments to be made on a regular basis about how staff deployment is being affected by the epidemic.

AIDS-related transfer requests from teachers should be dealt with sympathetically and as a matter of priority. Where there is a obvious need for a teacher to be re-deployed to a school near appropriate medical facilities, this should be done as quickly as possible.

Teaching cover

In view of the increasingly serious deployment constraints that are likely to arise as the AIDS crisis deepens, additional teaching staff will be required in order to ensure that all schools are properly staffed. In particular, schools that have sick teachers should be provided with extra teaching cover.

When it becomes clear that a teacher is suffering from a long-term illness, head teachers should be able to call on the services of temporary teachers without the sick teacher having to go on long-term sick leave.

Sickness and absenteeism

New personnel policies and practices should be introduced in order to deal effectively with the consequences of rising levels of AIDS-related illness among teaching and other MoE staff. As discussed earlier, denial and secrecy result in most affected teachers refusing to take long-term sick leave. Many continue to come to school when it is clear that they cannot cope with a full teaching load. When head teachers are unable to recruit a temporary replacement teacher, they also have a strong incentive (at least in the short term) to keep sick teachers in school. To allow the current situation to continue is neither in the best interests of the individual staff members who are affected nor that of the school.

New sickness regulations must carefully balance both individual and institutional needs. While sick teaching staff must not be discriminated against in any way, each MoE has a duty to take all necessary steps in order to prevent any serious deterioration in teaching and learning that may occur as a result of higher levels of staff morbidity.

The following actions need to be carefully considered:

- Once it is clear, that a teacher is no longer able to work properly, a head teacher should be able to call immediately on the services of a qualified replacement teacher.
- The workload of sick staff should be reduced to appropriate levels. The possibility of re-assignment of sick staff to other 'lighter', non-teaching duties' is often quite limited, but extra temporary teachers could help to lighten teaching loads of affected teachers. If necessary, these teachers could be shared by more than one school.
- In a more open and supportive school environment, sick teachers will feel less tortured about being absent from school and will be more prepared to take long-term sick leave if this is necessary. However, head teachers in consultation with their managers should be far more proactive in dealing with sick staff. Where it is clear that a sick teacher is not coping and is persistently absent, they should receive proper counselling and be encouraged to go on long-term sick leave. If they refuse, they should be required to go before a properly constituted Medical Board, which will recommend the best course of action.
- Other sick leave and retirement regulations should remain unchanged.

Medical support

Given the scale and nature of the epidemic in the HPCs, it is crucial that all teaching and support staff should receive adequate medical support. Where voluntary medical aid

schemes already exist, every effort should be made to maximise membership among teachers and other MoE personnel. Two types of co-ordinated action will be needed in order to achieve this. First, intensive information and education campaigns should be mounted, which publicise the benefits of belonging to the scheme. Secondly, where the financial burden of individual contributions is too high, these should be reduced as soon as possible. This could be done on a permanent basis or, at the very least, as a temporary measure during the duration of the epidemic.

In most countries in SSA, teachers and other public servants are not covered by medical aid schemes. In order to mitigate the impact of the epidemic on critical human resources, governments should take decisive steps to improve the availability of medical treatment. This clearly raises extremely difficult equity issues. However, there is a strong case for the establishment of medical aid schemes (at least for the duration of the epidemic) in order to ensure the availability of public services that are critical for the attainment of poverty reduction and other development objectives.

Anti-retroviral drugs

With proper medical support and high levels of patient compliance, the mass provision of ARVs to all infected teaching and support staff would be the single most effective intervention to mitigate the impact of the HIV/AIDS on the education sector. On the basis of the few evaluations that have been undertaken, morbidity and mortality rates could be at least halved. Once prevalence levels have been established among teaching staff, it will be possible to make reasonably accurate estimates of the total cost of making ARVs available to all those who are infected.

Nutritional advice

The energy needs of a person with HIV are 20% higher than are those of a healthy person and HIV also causes numerous vitamin deficiencies. Infected individuals should have a diet that is high in anti-oxidants in order to reduce the level of damaging free radicals in the body. The AIWP programme should, therefore, provide comprehensive information on nutrition to all teaching and support staff.

Sexual misconduct

All MoEs should take decisive action to deal with the widespread incidence of sexual relationships (both voluntary and involuntary) between male teachers and female students. Much broader policy initiatives are also urgently required in order to stamp out the 'sugar daddy' phenomenon, which exists in many countries in SSA.

The following co-ordinated interventions should be considered:

• A concerted education campaign among teacher trainees and serving teachers as well as mid-late adolescent female students.

- Much greater management commitment and competence among head teachers and Ministry managers in dealing with alleged cases of sexual impropriety among teaching staff.
- A blanket legal prohibition on all sexual relationships between adults and children below the age of 16.
- Reducing the legal burden of proof so that it is easier to take adults who are suspected of having sexual relationships with children to court and obtain convictions.
- Significantly increasing the legal penalties for teachers who are found guilty of having sexual relations with anyone who is under 18 and also any student over 18 at the school at which they teach. This should also cover other individuals in 'positions of responsibility' and/or have a professional 'duty of care' (police, doctors, social workers).
- When serious allegations of sexual impropriety arise, the teacher involved should be immediately suspended from teaching duties and legally forbidden from contacting either the girl with whom he is alleged to have had sexual relations or her parents/guardians.

Staff development

The HIV/AIDS epidemic could adversely affect the longer-term objective of upgrading all untrained teachers Increased teacher morbidity and mortality will, without appropriate interventions, make it considerably more difficult for teachers to be released on study leave. Increased workloads and generally lower morale could also adversely affect the extent to which teachers are able to study on the job.

Death and funeral benefits

In view of escalating costs, especially in very resource-constrained education systems, governments in HPCs should urgently review current death and funeral benefits. The Malawi report, for example, recommends that coffins and transport should only be provided for government employees. While such recommendations often go against 'traditional' cultural practices, decisive action is called for if the AIDS epidemic is to be tackled effectively.

8.2 AIW IMPLEMENTATION

A general set of recommendations are presented below concerning how the AIW programmes should be implemented.

AIW Co-ordinator and AIDS Counsellors

In the worst affected countries, the overall management of an AIW Programme should be undertaken by full-time managers who have the expertise, authority and resources to ensure rapid, effective implementation (see below). At the school level, MoEs should develop cadres of full-time AIDS counsellors who can make regular visits to schools to meet with staff both individually and in groups. If each school is visited at least once a term then, given travel time and other professional responsibilities, each counsellor could provide services to 30-40 schools during a 12-14 week term. While this is a major resource commitment, only by developing such a critical mass of specialised, full-time expertise will it be possible to ensure effective prevention and support interventions in schools.

Given that MoEs do not generally have the required training capacity, the design and delivery of this training programme should be contracted out to an appropriate organisation in the private sector.

School managers and AIDS Counsellors

All heads and school managers should receive intensive training in AIW issues. They, along with Guidance and Counselling teachers, should attend one workshop every year, which focuses explicitly on achieving AIW objectives.

Teacher organisations

Teacher unions must be centrally involved in the design and implementation of AIW policies in schools and other MoE institutions. National 'Teachers Against AIDS' organisations should be established and actively supported by both MoEs and teacher unions.

8.3 HUMAN RESOURCES INFORMATION SYSTEM

The AIDS epidemic heightens the need for detailed and up to date human resource information system. The following information is particularly crucial:

- □ Age, years of service, marital status, location of spouse, qualification level, professional grade
- □ Mortality rates by main staff category by cause of death (accident, illness)
- Other attrition by main reasons
- **D** Teacher absenteeism by main reasons
- □ Staff on long-term sick leave
- **u** Transfers by type, size and location of school and other institution/department.

- □ Up-take of medical aid entitlements by main type of treatment (eg ARVs, hypertension, diabetes, TB, cancers)
- Sexual misconduct reported cases and outcomes

CHAPTER 9 DEALING WITH THE AIDS THREAT

As has already been discussed in some detail, the response of most MoEs in Africa to the AIDS threat has been quite limited. This concluding chapter briefly considers the kind of organisation and management arrangements that should be put in place if MoEs are to effectively tackle the actual and potential impacts of the epidemic on both students and staff.

9.1 ORGANISATION AND MANAGEMENT

Current arrangements

Most MoEs have appointed an official to act as the HIV/AIDS Focal Point for the Ministry. Ministry-wide HIV/AIDS committees have also be established in many countries. However, to date, officials appointed as the HIV/AIDS Focal Point have usually been relatively junior and they have therefore lacked the power and authority to ensure that all departments and units properly mainstream HIV/AIDS with respect to both policy and practice. Furthermore, most are expected to take on the responsibility for HIV/AIDS issues over and above their normal duties. HIV/AIDS Committees tend to meet irregularly and most senior officials have neither the time nor the expertise to design and implement the comprehensive strategy that is required.

An HIV/AIDS Management Programme

MoEs in the high prevalence countries must make the HIV/AIDS crisis a top priority for at least the next ten years. Nothing short of a ministry-wide mobilisation is required in each country in order to deal with this crisis. It is essential therefore that an HIV/AIDS Management Programme (HAMP) is established as soon as possible. Figure 9.1 presents the main features of the organisation and management structure of such a programme, which was recommended by both the Botswana and Malawi country study.

HIV/AIDS National Management Team: Since HIV/AIDS is a ministry-wide problem, no one department should be given overall responsibility for the planning and management of this process. The National HIV/AIDS Management Team should not therefore, be formally attached to any one department, but should instead be a free standing 'project team'. In most HPCs, this team should comprise of least four managers. The national director should have overall management responsibility for the entire programme and related strategy. It is essential that this person has the power and authority to ensure that each department within the Ministry fulfils the specific objectives of the overall strategy and annual action plans. Ideally, therefore, the Director should

have the rank of a Deputy Permanent Secretary and report directly to the Permanent Secretary. The other three members of the team should each be responsible for the management of three separate sub-programmes, namely student HIV prevention, student support, and staff prevention and support.

Figure 9.1: Proposed Organisational structure for an HIV/AIDS Management Programme in Botswana



MoEs do not currently employ staff with the expertise and experience that is needed for the planning and managing a large and complex HIV/AIDS management programme of this kind. In most countries, therefore, the National Director and some of the National Programme Co-ordinators will have to be external appointments.

Long bureaucratic delays in getting the HAMP operational must be avoided at all costs. However, it is extremely difficult to create new posts, especially at senior levels in most civil services. So that national teams can be appointed as quickly as possible, each HAMP will probably need to be established as a separate project.

HIV/AIDS Regional Management Teams: The implementation of the HAMP should be the responsibility of regional teams. Each team should have a Regional Programme Manager and at least three other professional staff. Between them they should have overall responsibility for the implementation of the HAMP all schools and other education and training institutions in each region.

The proposed HAMP for Botswana has 20 full-time professional staff. While this is a major commitment of personnel and resources, such a critical mass of professional expertise is essential.

School and Departmental HIV/AIDS Management Teams: At the school and departmental level, implementation of the HAMP should be the responsibility of School and Departmental HIV/AIDS Management Teams, which should be chaired by head teacher and heads of departments respectively. Key resource people at the school and regional level are Guidance and Counselling teachers and AIDS Counsellors.

MoE committee structure: Every MoE should have a single, high-powered HIV/AIDS Committee, which advises the Minister and senior management and supervises the work of the HAMP. All heads of department should be members of this Committee, which should be normally chaired by the Minister of Education. Specialist committees should also be set up for each of the three sub-programmes. Their memberships should be drawn from the relevant MoE departments as well as other relevant government ministries and NGOs. Finally, each Education Region should have its own Regional HIV/AIDS Management Programme Committee.

9.2 INFORMATION AND RESEARCH

Given the gravity of the AIDS crisis in many countries, there is an understandable urgency to convince politicians and policymakers about the need to take decisive action to prevent and mitigate the impacts of the epidemic. However, advocacy-without-facts is not a sound basis for the development of well-conceived prevention and mitigation strategies. Instead, it tends to encourage an excessively negative and simplistic assessment of the impacts of the pandemic, which, in some ways, is as serious in its consequences as the denial about the epidemic, which it seeks to counter. The widespread assertion that teachers are a high-risk group is perhaps the most notable example of the emergence of a received wisdom about the impact of the epidemic on the education sector, which is based on fragmentary, anecdotal evidence coupled with a general lack of analytical rigour. Consequently, the analysis of the AIDS impact on the education sector must be based on detailed, robust and on-going empirical research in each affected country.

APPENDIX 1 FOCUS GROUP STATEMENTS

STUDENT STATEMENTS

- 1. Students whose families have been affected by HIV/AIDS are treated unkindly by teachers
- 2. HIV/AIDS is a big problem in this school
- 3. Topics on HIV/AIDS are not taught well in this school
- 4. Students have not changed their sexual behaviour as a result of HIV/AIDS education
- 5. Teachers in this school are not hard-working
- 6. Students do not feel free to talk to teachers about HIV/AIDS
- 7. Students at this school do not get all the information and advice they need about HIV/AIDS
- 8. Students whose families have been affected by HIV/AIDS are treated unkindly by other students
- 9. Students who have to look after sick relatives often drop out of school
- 10. Students who have lost close relatives often drop out of school
- 11. Students who are orphans do not receive any help from this school
- 12. Our teachers are often absent from school
- 13. Fighting and bullying are common in this school
- 14. Girls in this school are fearful and anxious about their safety
- 15. Boys in this school are fearful and anxious about their safety
- 16. Love relationships between students and teachers are common in this school
- 17. Love relationships among students are common in this school
- 18. Student pregnancy is a big problem in this school

TEACHER STATEMENTS

- 1. The school curriculum on sexual and reproductive health is not well designed
- 2. Teachers are not properly trained to deliver the sexual and reproductive health curriculum
- 3. Teachers are not confident teaching the sexual and reproductive health curriculum
- 4. Teachers cannot discuss their personal problems with school management
- 5. Parents do not want teachers to teach reproductive and sexual health topics to their children
- 6. Student absenteeism is a serious problem in my class
- 7. Students whose family members are HIV positive are discriminated against by other students
- 8. HIV/AIDS is a big problem in this school
- 9. Love relationships among students are common in this school

- 10. Pupils at their school who have lost one or more parents have more problems than others
- 11. The number of orphans at this school is going to grow in the next three years
- 12. The number of teachers with persistent illness will grow over the next three years
- 13. The Ministry of Education does not have an effective policy to deal with students whose lives are affected by HIV/AIDS
- 14. Sexual harassment among students is a big problem in this school.
- 15. Sexual harassment among students at this school has got worse in recent years Students are changing their sexual behaviour in response to the sexual and reproductive health curriculum

APPENDIX 2 PRIMARY AND SECONDARY SCHOOL TEACHERS IN SUB SAHARAN AFRICA, 1998 ('000)

COUNTRY Female Male Total % female Female Male Total % females ANGOLA 31.1	CONTRAC	PRI	MARY	TEAC	HERS	SECO	NDAF	RY TE	ACHERS
ANGOLA 31.1 31.1 BENIN 3.8 12.2 16 23.6 0.9 4.40 5.30 17.0 BOTSWANA 9.9 2.9 12.8 77.3 2.7 3.50 6.20 43.5 BURKINA FASO 5.3 5 10.3 51.5 0.6 2.70 3.30 18.2 BURKINA FASO 6 5.4 11.4 52.6 0.5 2.10 2.60 19.2 CAMEROON 13 26.4 39.4 33.0 3.7 11.20 14.90 24.8 CAP VERDE 1.2 2 3.2 37.5 0.5 0.9 1.4 35.7 CAR 1 3 4 25.0 0.2 1.10 1.30 16.0 COMOROS 1.1 0.3 1.4 78.6 0 0.60 0.60 0.0 DIBOUTI 0.3 0.8 1.1 27.3 0.1 0.30 0.40 25.0	COUNTRY	Female	Male	Total	% female	Female	Male	Total	% females
BENIN 3.8 12.2 16 23.6 0.9 4.40 5.30 17.0 BOTSWANA 9.9 2.9 12.8 77.3 2.7 3.50 6.20 43.5 BURKINA FASO 5.3 5 10.3 51.5 0.6 2.70 3.30 18.2 BURUNDI 6 5.4 11.4 52.6 0.5 2.10 2.60 19.2 CAMEROON 13 26.4 39.4 33.0 3.7 11.20 14.90 24.8 CAP VERDE 1.2 2 3.2 37.5 0.5 0.9 1.4 35.7 CAR 1 3 4 2.00 2.10 1.2.0 1.80 3.6 COMGOS 1.1 0.3 1.4 78.6 0 0.60 0.0 1.44 DEM REP CONGO 26.9 94.2 121.1 22.2 5.9 53.40 59.30 10.0 DIJDBOUTI 0.3 0.8 1.1 <td>ANGOLA</td> <td></td> <td></td> <td>31.1</td> <td></td> <td></td> <td></td> <td></td> <td></td>	ANGOLA			31.1					
BOTSWANA 9.9 2.9 12.8 77.3 2.7 3.50 6.20 43.5 BURKINA FASO 5.3 5 10.3 51.5 0.6 2.70 3.30 18.2 BURUNDI 6 5.4 11.4 52.6 0.5 2.10 2.60 19.2 CAMEROON 13 2.6.4 39.4 33.0 3.7 11.20 14.90 24.8 CAP VERDE 1.2 2 3.2 37.5 0.5 0.9 1.4 35.7 CAR 1 3 4 25.0 0.2 1.10 1.30 1.6.0 COMOROS 1.1 0.3 1.4 78.6 0 0.60 0.0 CONGO 2.3 4.6 6.9 33.3 1.1 6.10 0.720 15.3 COTE D'IVOIRE 8.3 3.2.2 40.5 2.0.5 2.3 1.370 16.00 1.4 DEM REP CONGO 26.9 94.2 121.1 <	BENIN	3.8	12.2	16	23.6	0.9	4.40	5.30	17.0
BURKINA FASO 5.3 5 10.3 51.5 0.6 2.70 3.30 18.2 BURUNDI 6 5.4 11.4 52.6 0.5 2.10 2.60 19.2 CAMEROON 13 26.4 39.4 33.0 3.7 11.20 14.90 24.8 CAP VERDE 1.2 2 3.2 37.5 0.5 0.9 1.4 35.7 CAR 1 3 4 25.0 0.2 1.10 1.30 16.0 COMOROS 1.1 0.3 1.4 78.6 0 0.60 0.60 0.0 COMOROS 2.3 4.6 6.9 33.3 1.1 6.10 7.20 15.3 COTE DIVOIRE 8.3 32.2 40.5 20.5 2.3 13.70 16.00 14.4 DEM REP CONGO 26.9 94.2 121.1 22.2 5.9 53.40 59.30 10.0 DIJBOUTI 0.3 0.8 <t< td=""><td>BOTSWANA</td><td>9.9</td><td>2.9</td><td>12.8</td><td>77.3</td><td>2.7</td><td>3.50</td><td>6.20</td><td>43.5</td></t<>	BOTSWANA	9.9	2.9	12.8	77.3	2.7	3.50	6.20	43.5
BURUNDI 6 5.4 11.4 52.6 0.5 2.10 2.60 19.2 CAMEROON 13 26.4 39.4 33.0 3.7 11.20 24.8 CAP VERDE 1.2 2 3.2 37.5 0.5 0.9 1.4 35.7 CAR 1 3 4 25.0 0.2 1.10 1.30 16.0 CHAD 0.8 9.3 10.1 7.9 0.1 2.70 2.80 3.6 COMOROS 1.1 0.3 1.4 6.6 9 3.33 1.1 6.10 7.20 15.3 COTE D'IVOIRE 8.3 3.2 40.5 20.5 2.3 13.0 10.0 14.4 DEM REP CONGO 26.9 94.2 121.1 22.2 5.9 53.40 59.30 10.0 DIBOUTI 0.3 0.8 1.1 27.3 0.1 0.30 4.0 2.3 180 2.10 1.4 35.4	BURKINA FASO	5.3	5	10.3	51.5	0.6	2.70	3.30	18.2
CAMEROON 13 26.4 39.4 33.0 3.7 11.20 14.90 24.8 CAP VERDE 1.2 2 3.2 37.5 0.5 0.9 1.4 35.7 CAR 1 3 4 25.0 0.2 1.10 1.30 16.0 CHAD 0.8 9.3 10.1 7.9 0.1 2.70 2.80 3.6 COMOROS 1.1 0.3 1.4 78.6 0 0.60 0.60 0.0 CONGO 2.3 4.6 6.9 33.3 1.1 6.10 7.20 15.3 COTE D'IVOIRE 8.3 32.2 40.5 2.3 13.70 16.00 14.4 DEM REP CONGO 26.9 94.2 121.1 22.2 5.9 53.40 59.30 10.0 DIBOUTI 0.3 0.8 1.1 27.7 27.0 25.40 10.6 GABON 2.2 2.9 5.1 43.1 0.6	BURUNDI	6	5.4	11.4	52.6	0.5	2.10	2.60	19.2
CAP VERDE 1.2 2 3.2 37.5 0.5 0.9 1.4 35.7 CAR 1 3 4 25.0 0.2 1.10 1.30 16.0 CHAD 0.8 9.3 10.1 7.9 0.1 2.70 2.80 3.6 COMOROS 1.1 0.3 1.4 78.6 0 0.60 0.60 0.0 COMOROS 2.3 4.6 6.9 33.3 1.1 6.10 7.20 15.3 COTE D'IVOIRE 8.3 32.2 40.5 20.5 2.3 13.70 16.00 14.4 DEM REP CONGO 26.9 94.2 121.1 22.2 5.9 53.40 59.30 10.0 DIJBOUTI 0.3 0.8 1.1 2.3 5 40.0 0.3 1.80 2.10 14.3 ETHIOPIA 26.2 66.6 92.8 28.2 2.7 22.70 25.40 10.6 GAMBIA 1	CAMEROON	13	26.4	39.4	33.0	3.7	11.20	14.90	24.8
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	CAP VERDE	1.2	2	3.2	37.5	0.5	0.9	1.4	35.7
CHAD 0.8 9.3 10.1 7.9 0.1 2.70 2.80 3.6 COMOROS 1.1 0.3 1.4 78.6 0 0.60 0.60 0.0 CONGO 2.3 4.6 6.9 33.3 1.1 6.10 7.20 15.3 COTE DIVOIRE 8.3 32.2 40.5 20.5 2.3 13.70 16.00 14.4 DEM REP CONGO 26.9 94.2 121.1 22.2 5.9 53.40 59.30 10.0 DIJBOUTI 0.3 0.8 1.1 27.3 0.1 0.30 0.40 25.0 EQUIT GUINEA 0.4 1 1.4 28.6 0.1 0.50 0.60 16.7 ERTIREA 2 3 5 40.0 0.3 1.80 2.10 14.3 GABON 2.2 2.9 5.1 43.1 0.6 2.50 3.10 19.4 GAMBIA 1.3 3.2 4.4 </td <td>CAR</td> <td>1</td> <td>3</td> <td>4</td> <td>25.0</td> <td>0.2</td> <td>1.10</td> <td>1.30</td> <td>16.0</td>	CAR	1	3	4	25.0	0.2	1.10	1.30	16.0
COMOROS 1.1 0.3 1.4 78.6 0 0.60 0.0 CONGO 2.3 4.6 6.9 33.3 1.1 6.10 7.20 15.3 COTE D'IVOIRE 8.3 32.2 40.5 20.5 2.3 13.70 16.00 14.4 DEM REP CONGO 26.9 94.2 121.1 22.2 5.9 53.40 59.30 10.0 DIJBOUTI 0.3 0.8 1.1 27.3 0.1 0.30 0.40 25.0 EQUIT GUINEA 0.4 1 1.4 28.6 0.1 0.50 0.60 16.7 ERITREA 2 3 5 40.0 0.3 1.80 2.10 14.3 GABBN 2.2 2.9 5.1 43.1 0.6 2.50 3.10 19.4 GABBN 2.2 2.9 5.1 43.1 0.6 2.50 3.10 19.4 GAMBIA 1.3 3.2 4.4 29.	CHAD	0.8	9.3	10.1	7.9	0.1	2.70	2.80	3.6
CONGO 2.3 4.6 6.9 33.3 1.1 6.10 7.20 15.3 COTE D'IVOIRE 8.3 32.2 40.5 20.5 2.3 13.70 16.00 14.4 DEM REP CONGO 26.9 94.2 121.1 22.2 5.9 53.40 59.30 10.0 DIJBOUTI 0.3 0.8 1.1 27.3 0.1 0.30 0.40 25.0 EQUIT GUINEA 0.4 1 1.4 28.6 0.1 0.50 0.60 16.7 ERITREA 2 3 5 40.0 0.3 1.80 2.10 14.3 ETHIOPIA 26.2 66.6 92.8 28.2 2.7 22.70 25.40 10.6 GABON 2.2 2.9 5.1 43.1 0.6 2.50 3.10 19.4 GAMBIA 1.3 3.2 4.4 29.3 0.3 1.20 1.5 1.60 2.10 1.0 GUINEA	COMOROS	1.1	0.3	1.4	78.6	0	0.60	0.60	0.0
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	COTE D'IVOIRE	8.3	32.2	40.5	20.5	2.3	13.70	16.00	14.4
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	DEM REP CONGO	26.9	94.2	121.1	22.2	5.9	53.40	59.30	10.0
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ERITREA 2 3 5 40.0 0.3 1.80 2.10 14.3 ETHIOPIA 26.2 66.6 92.8 28.2 2.7 22.70 25.40 10.6 GABON 2.2 2.9 5.1 43.1 0.6 2.50 3.10 19.4 GAMBIA 1.3 3.2 4.4 29.3 0.3 1.20 1.50 20.0 GHANA 24.7 47.2 71.9 34.4 9.8 30.10 39.90 24.6 GUINEA 3.4 10.5 13.9 24.5 0.6 4.50 5.10 11.8 GUINEA 72.7 109.3 182 39.9 13.6 27.90 41.50 32.8 LESOTHO 1.7 6.4 8.1 21.0 1.5 1.40 2.90 51.7 MALAGASCAR 21.4 19.2 40.6 52.7 7 9.80 16.80 41.7 MALAWI 18.3 27.5	EQUIT GUINEA	0.4	1	1.4	28.6	0.1	0.50	0.60	16.7
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ERITREA	2	3	5	40.0	0.3	1.80	2.10	14.3
GABON 2.2 2.9 5.1 43.1 0.6 2.50 3.10 19.4 GAMBIA 1.3 3.2 4.4 29.3 0.3 1.20 1.50 20.0 GHANA 24.7 47.2 71.9 34.4 9.8 30.10 39.90 24.6 GUINEA 3.4 10.5 13.9 24.5 0.6 4.50 5.10 11.8 GUINEA BISSAU 0.7 2.4 3.1 23.0	ETHIOPIA	26.2	66.6	92.8	28.2	2.7	22.70	25.40	10.6
GAMBIA 1.3 3.2 4.4 29.3 0.3 1.20 1.50 20.0 GHANA 24.7 47.2 71.9 34.4 9.8 30.10 39.90 24.6 GUINEA 3.4 10.5 13.9 24.5 0.6 4.50 5.10 11.8 GUINEA BISSAU 0.7 2.4 3.1 23.0 7 7 109.3 182 39.9 13.6 27.90 41.50 32.8 LESOTHO 1.7 6.4 8.1 21.0 1.5 1.40 2.90 51.7 LIBERIA 7 7 9.80 16.80 41.7 MALAWI 18.3 27.5 46 39.8 3.20 MALI 2.5 8.4 10.9 22.9 0.8 3.80 4.60 17.4 MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6<	GABON	2.2	2.9	5.1	43.1	0.6	2.50	3.10	19.4
GHANA 24.7 47.2 71.9 34.4 9.8 30.10 39.90 24.6 GUINEA 3.4 10.5 13.9 24.5 0.6 4.50 5.10 11.8 GUINEA BISSAU 0.7 2.4 3.1 23.0 KENYA 72.7 109.3 182 39.9 13.6 27.90 41.50 32.8 LESOTHO 1.7 6.4 8.1 21.0 1.5 1.40 2.90 51.7 LIBERIA MALI 2.5 8.4 10.9 22.9 0.8 3.80 4.60 17.4 MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9	GAMBIA	1.3	3.2	4.4	29.3	0.3	1.20	1.50	20.0
GUINEA 3.4 10.5 13.9 24.5 0.6 4.50 5.10 11.8 GUINEA BISSAU 0.7 2.4 3.1 23.0 13.6 27.90 41.50 32.8 KENYA 72.7 109.3 182 39.9 13.6 27.90 41.50 32.8 LESOTHO 1.7 6.4 8.1 21.0 1.5 1.40 2.90 51.7 LIBERIA 18.3 27.5 46 39.8 3.20 3.80 4.60 17.4 MALI 2.5 8.4 10.9 22.9 0.8 3.80 4.60 17.4 MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 2.10 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER	GHANA	24.7	47.2	71.9	34.4	9.8	30.10	39.90	24.6
GUINEA BISSAU 0.7 2.4 3.1 23.0 10.0 10.0 10.0 10.0 KENYA 72.7 109.3 182 39.9 13.6 27.90 41.50 32.8 LESOTHO 1.7 6.4 8.1 21.0 1.5 1.40 2.90 51.7 LIBERIA MADAGASCAR 21.4 19.2 40.6 52.7 7 9.80 16.80 41.7 MALAWI 18.3 27.5 46 39.8 3.20 3.20 0.8 3.80 4.60 17.4 MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 2.10 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60	GUINEA	3.4	10.5	13.9	24.5	0.6	4.50	5.10	11.8
KENYA 72.7 109.3 182 39.9 13.6 27.90 41.50 32.8 LESOTHO 1.7 6.4 8.1 21.0 1.5 1.40 2.90 51.7 LIBERIA MADAGASCAR 21.4 19.2 40.6 52.7 7 9.80 16.80 41.7 MALAWI 18.3 27.5 46 39.8 3.20 3.20 MALI 2.5 8.4 10.9 22.9 0.8 3.80 4.60 17.4 MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 2.0 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 <td< td=""><td>GUINEA BISSAU</td><td>0.7</td><td>2.4</td><td>3.1</td><td>23.0</td><td></td><td></td><td></td><td></td></td<>	GUINEA BISSAU	0.7	2.4	3.1	23.0				
LESOTHO 1.7 6.4 8.1 21.0 1.5 1.40 2.90 51.7 LIBERIA MADAGASCAR 21.4 19.2 40.6 52.7 7 9.80 16.80 41.7 MALAWI 18.3 27.5 46 39.8 3.20 3.20 MALI 2.5 8.4 10.9 22.9 0.8 3.80 4.60 17.4 MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 2.10 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 <t< td=""><td>KENYA</td><td>72.7</td><td>109.3</td><td>182</td><td>39.9</td><td>13.6</td><td>27.90</td><td>41.50</td><td>32.8</td></t<>	KENYA	72.7	109.3	182	39.9	13.6	27.90	41.50	32.8
LIBERIA And Add Add Add Add Add Add Add Add Add	LESOTHO	1.7	6.4	8.1	21.0	1.5	1.40	2.90	51.7
MADAGASCAR 21.4 19.2 40.6 52.7 7 9.80 16.80 41.7 MALAWI 18.3 27.5 46 39.8 3.20 3.20 MALI 2.5 8.4 10.9 22.9 0.8 3.80 4.60 17.4 MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 2.10 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3	LIBERIA								
MALAWI 18.3 27.5 46 39.8 3.20 MALI 2.5 8.4 10.9 22.9 0.8 3.80 4.60 17.4 MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 2.10 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SENEGAL 4.6 16.7 21.3 21.6	MADAGASCAR	21.4	19.2	40.6	52.7	7	9.80	16.80	41.7
MALI 2.5 8.4 10.9 22.9 0.8 3.80 4.60 17.4 MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 2.10 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE	MALAWI	18.3	27.5	46	39.8	,	2.00	3 20	,
MAURITANIA 1.1 5.1 6.2 17.7 0 2.10 2.10 0.0 MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SENEGAL 4.6 16.7 21.3 21.6 0.9 5.30 6.20 14.5 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE	MALI	2.5	8.4	10.9	22.9	0.8	3.80	4.60	17.4
MAURITIUS 3.2 3.2 6.4 50.0 1.5 2.20 3.70 40.5 MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SENEGAL 4.6 16.7 21.3 21.6 0.9 5.30 6.20 14.5 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE 10.9 1 5.00 60.3 68.30 128.6 46.9 SOUTH AFRICA 165.	MAURITANIA	1.1	5.1	6.2	17.7	0	2.10	2.10	0.0
MOZAMBQUE 5.6 20.9 25.6 21.9 1 4.60 5.60 17.9 NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SENEGAL 4.6 16.7 21.3 21.6 0.9 5.30 6.20 14.5 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE 10.9 1 5.00 60.0 16.7 SOMALIA 4.5 0.8 5.3 84.9 50.3	MAURITIUS	3.2	3.2	6.4	50.0	1.5	2.20	3.70	40.5
NAMIBIA 7.1 3.8 10.9 65.1 1.8 2.20 4.00 45.0 NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SENEGAL 4.6 16.7 21.3 21.6 0.9 5.30 6.20 14.5 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE 10.9 1 5.00 6.00 16.7 SOMALIA 4.5 0.8 5.3 84.9 30 30 12.8.6 46.9 SUTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	MOZAMBOUE	5.6	20.9	25.6	21.9	1	4 60	5 60	17.9
NIGER 4 8.9 12.9 31.0 0.7 2.90 3.60 19.4 NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SENEGAL 4.6 16.7 21.3 21.6 0.9 5.30 6.20 14.5 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE 10.9 1 5.00 6.00 16.7 SOMALIA 4.5 0.8 5.3 84.9 9 SOUTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	NAMIBIA	71	3.8	10.9	65.1	1.8	2 20	4 00	45.0
NIGERIA 207.3 230.3 437.6 47.4 54.9 97.70 152.6 36.0 RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SENEGAL 4.6 16.7 21.3 21.6 0.9 5.30 6.20 14.5 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE 10.9 1 5.00 6.00 16.7 SOMALIA 4.5 0.8 5.3 84.9 30 30 128.6 46.9 SUTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	NIGER	4	89	12.9	31.0	0.7	2.90	3 60	19.4
RWANDA 9 9.9 18.9 47.6 0.7 2.70 3.40 20.6 SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SENEGAL 4.6 16.7 21.3 21.6 0.9 5.30 6.20 14.5 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE 10.9 1 5.00 6.00 16.7 SOMALIA 4.5 0.8 5.3 84.9 500 500 SOUTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	NIGERIA	207.3	230 3	437.6	47.4	54.9	97 70	152.6	36.0
SAO TOME 0.3 0.3 0.6 52.0 0.12 0.38 0.50 0.2 SENEGAL 4.6 16.7 21.3 21.6 0.9 5.30 6.20 14.5 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE 10.9 1 5.00 6.00 16.7 SOUTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	RWANDA	9	99	18.9	47.6	0.7	2 70	3 40	20.6
SENEGAL 4.6 16.7 21.3 21.6 0.9 5.30 6.20 14.5 SEYCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE 10.9 1 5.00 6.00 16.7 SOMALIA 4.5 0.8 5.3 84.9 SOUTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	SAO TOME	03	03	0.6	52.0	0.12	0.38	0.50	0.2
SEVCHELLES 0.5 0.1 0.6 83.3 0.4 0.30 0.70 57.1 SIERRA LEONE 10.9 1 5.00 60.0 16.7 SOMALIA 4.5 0.8 5.3 84.9 60.3 68.30 128.6 46.9 SUDTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	SENEGAL	4.6	16.7	21.3	21.6	0.12	5 30	6.20	14.5
SIERRA LEONE 10.9 1 5.00 60.1 60.3 60.1 51.1 SOMALIA 4.5 0.8 5.3 84.9 1 5.00 60.3 68.30 128.6 46.9 SOUTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	SEVCHELLES	0.5	0.1	0.6	83.3		0.30	0.20	57.1
SOMALIA 4.5 0.8 5.3 84.9 SOUTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	SIERRALEONE		0.1	10.9	05.5		5.00	6.00	167
SOUTH AFRICA 165.4 59.5 224.9 73.5 60.3 68.30 128.6 46.9	SOMALIA	45	0.8	53	84 9	1	2.00	0.00	10.7
	SOUTH AFRICA	165 4	59 5	224 9	73 5	60.3	68 30	128.6	46.9
ISUDAN 63.9 39.2 103.1 62.0 1 7 8.50 15.50 45.2	SUDAN	63.9	39.2	103.1	62.0	7	8.50	15 50	45.2

TOTALS	880.9	1138.5 2089.7	42.2		666.3	
ZIMBABWE	28.1	36.1 64.5	43.6	9.8	20.70 30.50	32.1
ZAMBIA	17.2	18.2 35.4	48.6			
TANZANIA	46.8	59.6 106.4	44.0	3.3	9.20 12.50	26.4
UGANDA	61.4	117.7 179.1	34.3	3.2	11.20 14.40	22.2
TOGO	2.6	15.9 18.5	14.1	0.5	4.90 5.40	9.3
SWAZILAND	4.6	1.5 6.1	75.4	1.2	1.80 3.00	40.0

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