MINISTRY OF EDUCATION, SCIENCE, TECHNOLOGY & SCIENTIFIC RESEARCH

Rwandan Education Sector Support Programme

Assessment of the Impact of AIDS on the Education Sector in Rwanda

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SUMMARY

Rwanda faces major challenges in strengthening its education system to meet national development objectives, as well as specific education goals of Universal Primary Education and Education for All. The HIV/AIDS epidemic creates an additional challenge to the system.

This study is intended to provide information on current and expected HIV/AIDS impacts on the education sector in Rwanda, to inform planning. The study employed a quantitative national survey of schools; discussions in schools with learners, teachers and managers; interviews with other key informants; reviews of documents and other data; and projections of HIV/AIDS impacts. Accuracy of projections was limited by scarcity of data, but the main conclusions drawn from them are likely to be an adequate guide for most planning decisions.

A key finding is that recent data suggest that Rwanda's epidemic is not as severe as was previously thought, as estimated adult infection levels are below 8%. However, HIV/AIDS remains a substantial public health and societal problem that creates extra obstacles to achieving education and development objectives. There are reasons for concern that infection rates may become more severe, rather than declining from current levels.

1. How will HIV/AIDS impact on demand for education?

1.1 Numbers of children in school-going age groups.

HIV/AIDS affects demand for education by reducing the number of children who are born or survive to school going age. The disruptive effects of the genocide and war, and scarce demographic data, limit accuracy of population projections. However, projections suggest that:
- The number of children in official primary school ages (7-12 years) will grow from around 1.2 to about 1.8 million by 2015.
- HIV/AIDS will have a relatively small impact, reducing the number of children in this age group by about 4% by 2015.
- The genocide, war and fertility rates are much more important determinants of the school-going age population than HIV/AIDS. Genocide effects will mainly influence numbers in late primary and secondary school ages over the next decade.

1.2 AIDS orphans

HIV/AIDS can also affect enrolment by increasing the number of orphans. Key findings are:
- The number of children aged 0-16 who have lost at least their mother to AIDS, is projected to climb from around 65 000 in 2003 to 208 000 by 2015.
- Most AIDS orphans will be in primary and in early secondary age groups. Almost 10% of 13-16 year olds are expected to be orphans by 2015, with higher levels in many communities. AIDS orphans will, over time, replace a large proportion of the current generation of genocide and war orphans in schools.
- Enrolment rates of Rwandese orphans are estimated to be 93% of those of non-orphans. There is also evidence of poorer performance and attendance by orphans.
- Priority obstacles to orphan wellbeing are similar to those of other vulnerable children in Rwanda. Most are related to poverty: school fees and expenses, as well as basic needs such as money, food and clothing, are major hurdles. However, AIDS orphans also have important psychosocial needs and extra obstacles, particularly due to stigma and secrecy.

Overall, HIV/AIDS is expected to have a marginal effect on need for education and enrolment compared to other factors. The numbers of children requiring schooling to achieve UPE and EFA are still a major challenge. However, HIV/AIDS highlights the need to address needs of orphans and other vulnerable children (OVC) to achieve these goals.

2. How will HIV/AIDS affect ability to supply education?

2.1 Impacts on staff and delivery of education

Precise data on the HIV infection risk among education staff is not available. Although teachers are at risk due to inadequate knowledge about HIV/AIDS, poor condom access and their high status, other factors such as social norms may protect them. Projections suggest the following:

- AIDS death rates are likely to grow and around 2500 staff could be lost over the decade.
- AIDS seems likely to add a fairly small amount to current levels of attrition among teachers. AIDS death rates seem unlikely to exceed 0.9% per year (1 in 110 staff) even in a worst case scenario, so other causes of attrition are likely to remain more prominent.
- Antiretroviral (ARV) drugs could reduce AIDS deaths over the next decade by around 50%.

Very limited levels of HIV/AIDS impacts among education staff are reported at present. However, the study highlighted limited ability to respond to staff with AIDS-related and other problems. It also highlights system weakness that already impede education quality and access, and that are likely to be made worse by HIV/AIDS. These include:

- Absenteeism. This is already considered a substantial problem for education quality in schools. Systems to cover for teachers with longer term illness, in particular, are weak.
- Vacant posts. These are already a problem in many schools (15% have vacancies). HIV/AIDS is likely to add a significant but relatively small extra burden to this problem.
- Reduced performance due to lower morale, illness and stress. Morale among teachers is already reported to be low due to their conditions of service. In schools where staff are infected, or affected by illness of colleagues and family, this can be expected to worsen.
- Loss of skills and experience. The system has limited capacity and is vulnerable to loss of skilled staff. Key positions or areas of skills shortage that were noted include lecturers, school and other managers, inspectors, specialised staff, and teachers in small, remote or unattractive schools where replacements are hard to find.
- Teacher provisioning. When provisional EFA targets, educator losses and reduced numbers of learners are considered together, it seems likely that HIV/AIDS will make less than a 5% difference to teacher training requirements over the next decade. This suggests that HIV/AIDS losses alone should be manageable although they will increase challenges of creating capacity to achieve UPE and EFA .

Overall, HIV/AIDS will be a systematic drain on delivery and quality but is not expected to be the main determinant of ability to achieve education policy targets. Nevertheless, HIV/AIDS highlights limitations in education human resource planning and management that make achievement of targets for coverage and quality more difficult.

2.2 Impacts on costs of delivering education

Despite limitations of data to assess costs of HIV/AIDS for education, it is possible to predict that these costs will be small compared to costs of reaching UPE and EFA. Furthermore, costs of important options for response also seem potentially manageable.

- The most significant costs are likely to be related to an ARV programme for staff. Projections indicate that these could amount to an extra 4-6% on top of the sector's basic staff costs by 2015, although roughly half of these costs may be offset by reduction of other costs.
- Extra teacher training costs are likely to be limited. Requirements for up to 5% greater training output can probably be met by adding slightly to intake size rather than creating large and costly new training capacity.
- Costs of AIDS absenteeism, or financial costs of a relief teacher system to cover staff with AIDS, are likely to not exceed an extra 0.4% of payroll over the coming decade.
- Caisse Sociale benefits may add to costs but a full actuarial valuation of the scheme was beyond the scope of this study.

Another important HIV/AIDS impact is reduced household ability to contribute to schooling costs. AIDS orphanhood will create financial difficulties for a substantial number of children. However, not all orphans will be unable to pay for fees and other costs, and general levels of poverty (around 60% of households) are likely to be a bigger challenge than HIV/AIDS impacts.

2.3 Recommendations – impacts on ability to deliver education

Priority given to responding to HIV/AIDS among teachers and trainees needs to balance HIV/AIDS needs with the huge current Human Resource (HR) challenges of EFA and UPE, as well as the limited capacity for Human Resource management, planning, development and administration. With these issues in mind, the following responses are therefore recommended.

1. *Prioritise prevention programmes, particularly for trainees*.
2. *Finalise an AIDS or Life threatening diseases policy* to provide basic protection for employees' rights
3. *Prioritise strengthening core HR management, planning and development capacity and systems*. Strong basic HR management and planning are a pre-requisite for effective impact management at the same time as improving overall system performance. Specifically consider HIV/AIDS needs when systems are developed. A particular need is stronger information systems, including those to monitor teacher attrition and training outputs.
4. *Strengthen succession planning for key posts and staff*. This has wider relevance given the capacity constraints that already affect the sector.
5. *Ensure appropriate teacher training outputs, monitoring and roles* in prevention and developing impact management skills.
6. *Advocate for better medical care for staff* with MINISANTE, RAMA and CNLS. This includes supporting efforts to provide ARVs to educators in an affordable and effective way.
7. *Consider other aspects of employee care and support*. Feasible options that also fit with non-AIDS support priorities include: developing networks with other providers of support and counselling; a basic Employee Assistance system; and streamlining of pension administration and benefits to respond to ill employees' needs.

3. How does HIV/AIDS influence the role and content of education?

3.1 Prevention HIV infection among youth

Results of this study reinforce the priority of HIV prevention in the education sector response to HIV/AIDS. Prevention will be an ongoing need in Rwanda and youth are a critical target group in efforts to control the epidemic.

A number of schools have implemented some HIV/AIDS activities and only radio is a more common source of HIV/AIDS information for students than schools. However, coverage is limited and school students clearly have limited of knowledge and skills for practicing safer behaviour. Only 20% of Secondary 3 students could correctly answer all of four basic questions on HIV/AIDS, and many student express needs for information related to basic knowledge, myths and skills. There is limited indication of abuse or widespread sexual activity in most schools, but it is evident that many learners face higher risk during holidays, after leaving school or through sex with older community members. Some schools' students seem to be at particular risk. These schools are often identifiable through high reported rates of sexual activity or pregnancy, because they have limited infrastructure (fences, hostel capacity), or because of high-risk environs (e.g. urban areas, transport routes, construction projects, bars or barracks).

There are several important limitations on current prevention programmes.
- Stigma, denial and difficulty talking about sexuality remain widespread.
- Basic information and materials are not available in many schools.
- Teachers have low knowledge, skills and confidence to deal with HIV/AIDS issues
- Activities are mainly discretionary, non-examinable and unmonitored so they do not occur reliably.
- Few Anti-AIDS Clubs are really functioning.
- Schools make little use of NGO and other support in programme implementation.
- In many schools there is a false sense of security that students are not exposed to high risk situations, because of moral education and tight controls while they are actually at school.
- Many staff and students are confused by conflicts between safer sex and abstinence messages.
- Poor condom access for sexually active students and punitive attitudes to learners with condoms: only 30% of S3 students have "easy access" to condoms.

3.2 Recommendations – prevention of HIV

Immediate priorities
There is a great deal of momentum behind HIV/AIDS prevention. Also the skills and systems it can create are relevant to a number of other education and development priorities (e.g. life skills, civic education, improved teaching skills, school and reproductive health, and population policy). Thus, it is proposed that HIV/AIDS prevention should be used as a "lead initiative" to develop skills relevant to other objectives. The following specific interventions will be important

1. *Targeting.* Within the general programme, prioritise consolidation of programmes in schools with higher risk. Also place greater emphasis on primary schools so that learners are reached before they become sexually active or leave education.
2. *Reduce delays in programme implementation.* Developed curricula and materials already exist and the opportunity to use them without delay should be taken.
3. *Fast track supply of HIV/AIDS materials.* There is a major need for materials in schools and high likelihood that they will be used while there are shortages of other

materials. Immediate opportunities include distributing "Choose Life" to schools. Also pursue development of School Health Resource Centres, and radio, TV or videos to supplement print materials.

4. *Strengthen Anti-AIDS clubs.* Important needs include: provision of materials; development of systems such as guidelines and networking; more systematic choice, training and support of facilitators; monitoring; and incentives such as competitions.

5. *Develop capacity for HIV/AIDS education.* Important needs include:
   - Active support and guidance to mainstream HIV/AIDS into in- and pre-service training.
   - Developing formal local, province and national networks with partners who can be a resource to schools (eg NGOs, VSO, health services)
   - Training of District or cluster level mentors who can then support roll-out to each school.
   - Ensuring that development of Guidance and Counselling, and civic education systems incorporates HIV/AIDS to ensure efficient use of capacity.

6. *Address system management issues* to ensure implementation. Key issues include: selection criteria for trainees and coordinators; timetabling of HIV/AIDS activities; monitoring and evaluation systems; and developing skills of school heads and inspectors for support, monitoring and community liaison on sensitive issues.

7. *Disseminate clear policy and guidance to reduce confusion around abstinence and safer sex messages*.

8. *Do not rely on infusion of HIV/AIDS into other subjects.* Infusion is useful to reinforce knowledge but has serious limitations in developing life skills which enable students to actually practice safer behaviour.

9. *Review policy on condom provision for sexually active learners*.

10. *Maximise coordination and synergy between staff and student HIV prevention programmes.*

Medium term action
Once a solid foundation of HIV/AIDS interventions has been established, the following issues should receive greater attention.

11. *Refinement of life skills curricula and teaching skills*
12. *Refining integration with Guidance and Counselling* systems, capacity and curricula
13. *Broadening emphasis to include wider School Health and Reproductive Health*
14. *Engaging communities and parents more effectively* to influence the environment outside school that is a major determinant of youths' HIV/AIDS risk.

3.3 Support for vulnerable children

HIV/AIDS orphanhood highlights the need to address problems of vulnerable children in order to achieve EFA and deal with core challenges such as repetition and drop out rates. A new generation of orphans will have to be catered for in future, and HIV/AIDS orphans' needs cannot be considered separately those of large numbers of other OVC. Priority problems include those created by poverty, as well as incentives and norms around schooling. Children infected or ill with HIV in schools are expected to remain a very small minority of learners. However, there are particular challenges to ensure that their rights are not violated.

The education system has a strong interest in responding to OVC. The sector also has huge potential to respond to OVC due to it presence in more communities than any other sector, teachers' status and skills, and daily contact with children. Important findings on existing responses include the following:

- Schools have very little active involvement in responding to OVC. Many staff recognise the problem of OVC but most know little about individual children's home circumstances, and few learners feel that they can turn to teachers for help.
- FARG and MINALOC grants, and the School Feeding Programme offer key opportunities to enhance school attendance, but they have limitations in coverage and efficiency.
- There are limited alternative support mechanisms and no single sector can manage OVC needs alone. Community-based support is over-stretched and faith-based organisation (FBO) and NGO coverage is limited.
- There are major constraints on school roles. These include large class sizes; demotivated, overloaded teachers; limited involvement of expatriate teachers; and limited resources.
- The few examples of strong school responses suggest that a major obstacle is that few schools have an idea of what can be done and how to do it.

3.4 Recommendations – support for vulnerable children

Effective strategy to reduce impacts of OVC on education requires active involvement of the education sector. However, it is important to have realistic expectations of schools and teachers. The following recommendations should be achievable and manageable over time.

1. *Prioritise and build on existing processes to strengthen basic education quality.*
   - General initiatives to improve quality (e.g. reducing class size; teaching skills; budgets for materials and other non-staff items) will increase incentives to remain in school and perform well, as well as strengthen staff capacity and motivation to respond to OVC.
   - Consider other basic interventions to enhance OVC access to relevant education. These may include scheduling that is more responsive to seasonal or household demands on children's time, and more access to distance and vocational education.
2. *Use existing OVC support capacity and systems more efficiently.*
   - Promote school and higher level action to improve grant system coverage and efficiency.
   - Rapidly evaluate and extent School Feeding Programme interventions
   - Encourage coordination with Faith-based and NGO projects to provide material and psychosocial support to OVC.
3. *Define key school roles and develop guidelines around OVC support.* These should cover, for example, non-exclusion; identification and monitoring of OVC; and referral and networking.

Consider the following interventions as soon as feasible, probably mainly in the medium term.

4. *Refine resource allocation systems* to deal with differences in schools ability to collect fees.
5. *Develop formal networks for efficient use and allocation of resources.* At national, provincial, district and local level, formal networks of role players should be developed to assist schools to access support and to coordinate efficiency and equitable use of resources. Each school should designate specific teachers and/or community members to coordinate networking.
6. *Refine the role of Guidance and Counselling staff in OVC support* as this system gains capacity. However, avoid over-reliance on them, as their capacity and skills may be limited.

7. *Consider possibilities for using FARG resources for other OVC* when the number of genocide orphans in education declines.
8. *Ensure that rights of infected and sick children are protected* in line with protection of general children's rights.
9. *Develop guidelines on accidental HIV exposure* as part of HIV/AIDS policy, but reduce unnecessary anxiety about risks of infection which has potential to increase stigma.

4. Higher education

Higher education accounts for a high proportion of Rwanda's investment in education. A large investment in each student can be lost if they are infected in HIV. Most institutions are in urban areas and there are indications that many students are at high risk of HIV infection, including frequent reports of pregnancies, sugar daddies and low condom use. Most illness and deaths of students will likely to occur mainly after they graduate and are likely to be under-recognised. Impacts of HIV/AIDS on staff and students are reported, but seem limited.

With some promising exceptions, responses to HIV/AIDS in higher education are weak. There are low levels of involvement of key leadership, staff and students. Many motivated staff and students have limited resources and technical support to implement effective programmes.

Recommendations –higher education

1. Develop an active partnership with higher education institutions to ensure prioritisation of HIV/AIDS prevention and to develop coordinated, well-supported efforts in all institutions.
2. Place particular emphasis on mainstreaming HIV/AIDS in teacher training programmes. This is critical for success of other components of the MINEDUC response.

5. Overall conclusions and recommendations

HIV/AIDS will undermine quality and access in education over the next decade. At current infection rates, more than 10% of investment in education could be lost. While it is not expected to be the dominant determinant of system viability and performance, it will severely affect many learners, educators and institutions.

There is a critical opportunity to ensure control of the epidemic, and the education sector has a key strategic role in the national response. Furthermore, HIV/AIDS highlights existing weaknesses of the education system that undermine other education and development objectives. It therefore provides an <u>opportunity</u> to reinforce responses to these weaknesses, and should not be seen just as an extra burden, distraction or threat. The following key strategic issues should be considered in developing responses to HIV/AIDS.

1. *Prioritise prevention.* The current focus on staff and student prevention in HIV/AIDS strategy is appropriate and will have spin-off benefits for impact management.
2. *Prioritise basic education and management strengthening, but mainstream consideration of HIV/AIDS impact issues into planning.* A stronger basic education system is needed to be a foundation for more effective action on HIV/AIDS. However, all planning in the sector should routinely consider HIV/AIDS-related issues and take opportunities to act on them.

3. *Ensure strong, informed leadership at all levels.* This is needed to enforce accountability, and reduce sigma and denial.
4. *Ensure decentralised approaches.* Provincial and lower levels should be prioritised for support. Actively involve school staff, learners and communities in response planning.
5. *Reinforce central roles of teacher education in managing HIV/AIDS.* Their key role in creating capacity to respond to staff and learner needs cannot be over-emphasised.
6. *Refine HIV/AIDS Strategic and Operational plans.* Key issues for consideration include prioritisation, targeting, role clarification and lessons from implementation so far.
7. *Strengthen inter- and intra-sectoral partnerships.* At each level, networks of role players should be organised to maximise use of resources for prevention, care and support. For each province, formal agreements with development partners and other large role players should be considered to define roles and ensure equitable coverage of resources.
8. *Improve information and monitoring* of impacts and responses in relation to staff and learners.
9. *Clearly define roles and accountabilities at each level and develop practical guidelines* for implementation.
10. *Strengthen HIV/AIDS programme capacity and structures.* This is needed at central level but also for each province, district and cluster of schools.
11. *Develop strategy on budgeting and resource mobilisation* to ensure adequate funding and prioritisation of HIV/AIDS related action at all levels and in all components of the system.

1. Introduction

1. Rwanda is a densely populated country of 8.16 million people. Around 83% live in rural areas and are mainly involved in subsistence farming. The nation is one of the world's poorest, with around 65% of the population estimated to live in poverty. Rwanda's development still faces major challenges due to the disruption and loss of people, including educationalists, caused by the 1994 genocide and subsequent war. A major focus of development strategy is to establish the country as an information technology and communications hub for the region, and reduce dependence on agriculture.

2. Education has been identified as a priority means to promote socio-economic development and reconciliation in Rwanda. After the massive disruption of education by the 1994 genocide and war that followed it, the Ministry of Education (MINEDUC) focused on rebuilding capacity to provide education at all levels. In 1998, the government of Rwanda adopted the Education Sector Policy to guide the restructuring of the education sector. Restructuring is still in progress and, from 2003, is being guided by a new policy for the sector. This consolidates the move from a phase of emergency management to one of consolidating education sector development. The policy incorporates various international and regional goals in education and ensures that the education system is aligned with the guidelines of Vision 2020, the Poverty Reduction Strategy (PRS), the Decentralisation policy and the Information and Communications Technology policy. The new policy also adopts a Sector Wide Approach (SWAp), which recognises the roles of all actors in the area of education.

3. Rwanda is committed to international development targets in education including Education For All (EFA) by 2015, narrowing gender disparities in education by 2005, and Universal Primary Education (UPE). These targets are incorporated as the main education objectives in Vision 2020. The Government of Rwanda (GoR) recognises that to achieve the targets, it will need to addressing a number of key challenges in the education system, including review of school curricula and teaching methodology. The GoR has committed itself to eliminating gender based discrimination in all sectors including education.

1.1 Rwanda's education sector

4. Rwanda has made great progress in rebuilding and strengthening the education system after 1994. Enrolment has increased markedly since 1996/7 and by 2001/02 Rwanda had a total of 2172 primary and 393 secondary schools. Teacher qualification levels have risen very rapidly since 1997/8. In addition, there are a number of higher education institutions, several of them new, which include the University in Butare, KIST, KIE, HIS and several private universities.[1]

5. Nevertheless, basic education still has some way to go in achieve UPE and EFA. In 2001/2, the primary school gross enrolment rate was 103.7% but the net enrolment rate was 74.5%.[2] Access to secondary school remains low, and there an estimated 37% rate of transition from primary to secondary schooling. High repetition and drop out rates are major problems at all levels of the system. The majority of primary schools still have two shifts per day in Grade 1 and 2 to accommodate shortages of classrooms or teachers.

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[1] Private sector institutions account for almost a quarter of all students.

[2] This is lower than the estimated global average of 82%.

6. Plans to achieve education and development objectives have already been articulated in various policies and strategies. A number of pressing challenges to accessibility and quality of education need to be tackled during implementation.

- *Limited numbers, skills and motivation of teachers.* In 2001/2 the average teacher learner ratio was 58.9 in primary and 24.7 in secondary schooling, with much higher levels in many schools and classrooms. The proportion of unqualified teachers was still 19% in primary and 48% in secondary schools in 2001/2, and many qualified teachers have limited teaching skills. There is still heavy reliance on expatriate teachers, mostly Congolese, particularly in secondary schools. Staff morale and motivation places constraints on performance in many schools and institutions.
- *Infrastructure backlogs.* A large number of schools and classrooms need rehabilitation and many need more classrooms. Many schools lack services such as electricity and adequate sanitation.
- *Lack of materials, supplies and equipment.* Many schools have shortages of basic materials such as chalk and books, as well as desks and chairs. Secondary school infrastructure is for the most part in better condition, but many school heads report inadequate equipment and supplies especially for science subjects.
- *Management capacity and systems.* This remains limited at all levels of the system. Decentralisation of management in line with general government policy presents an opportunity but also a challenge to management and planning.
- *Financial constraints.* Despite relatively high priority given to education, the sector still has to confront major financial constraints at each level.
- *Gender inequities.* National gross and net enrolment rates of girls in primary and secondary school compare favourably or even exceed boys. However, particularly in secondary schooling, girls remain disadvantaged in several provinces and in access to public schools. This seems to be due to factors such as higher drop–out and repeat rates among girls, lower performance in examinations and less access to boarding facilities.[3][4] Girls also tend to be under- represented in higher education.
- *Limited household and community resources.* Households make important financial and other contributions to education institutions. Many face great difficulty in making contributions and limited adult literacy, ability to support learning and perceptions of the value of schooling place major constraints on the system and performance of learners.
- *Optimising the role of non-public schools in education.* Private and state subsidised Libre subsidié (LS) schools have an important role in education. Although there were only 35 private primary schools, private secondary schools (208) are slightly more numerous than government and LS schools (185) and they are seen as a major means to expand access to secondary education.

7. In summary, there are major capacity, system and resource constraints on Rwanda's education system as it tackles the challenges of achieving greater accessibility and quality of education. Already, the push for greater access creates potential constraints on quality in the short to medium term. These constraints need to be carefully considered in prioritising various aspects of the response to HIV/AIDS.

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[3] A 2001 survey found a decline in the proportion of girls passing the primary school leaving exam over the period from 1996/97 to 2000/2001 (Sectoral Data Summary, Education Sector March 2002).

[4] In this impact assessment, certain community informants reported that some households favour the education of boys over girls, but there was little evidence of this as a widespread practice. However, a 2002 survey suggests that boys are given preference for payment of school fees and other education expenses. Domestic responsibilities of girl children are also cited as impacting negatively on girl performance at school. Girls are reported to spend longer hours on domestic chores that include child care, agricultural activities, food preparation, caring for the sick and providing food to parents in detention (MINEDUC/WFP, Feb 2002).

1.2   Rwanda's HIV/AIDS epidemic

8. Rwanda has had a well-established HIV/AIDS epidemic since the 1980s. The epidemic has been most severe in urban areas, particularly Kigali Ville, where levels of infection among pregnant women peaked at 26.7% in 1991 and were still above 13.5% in 2002. This means that few people in larger urban centres have not experienced the impact of AIDS on their families, friends and colleagues.

9. Understanding of the levels and trends in HIV infection in the overall population in Rwanda has been complicated by the disruption of the genocide and war, and because certain surveys were not representative the general urban and rural populations.

Figure 1.1: Levels of HIV infection among pregnant women in Rwanda[5]
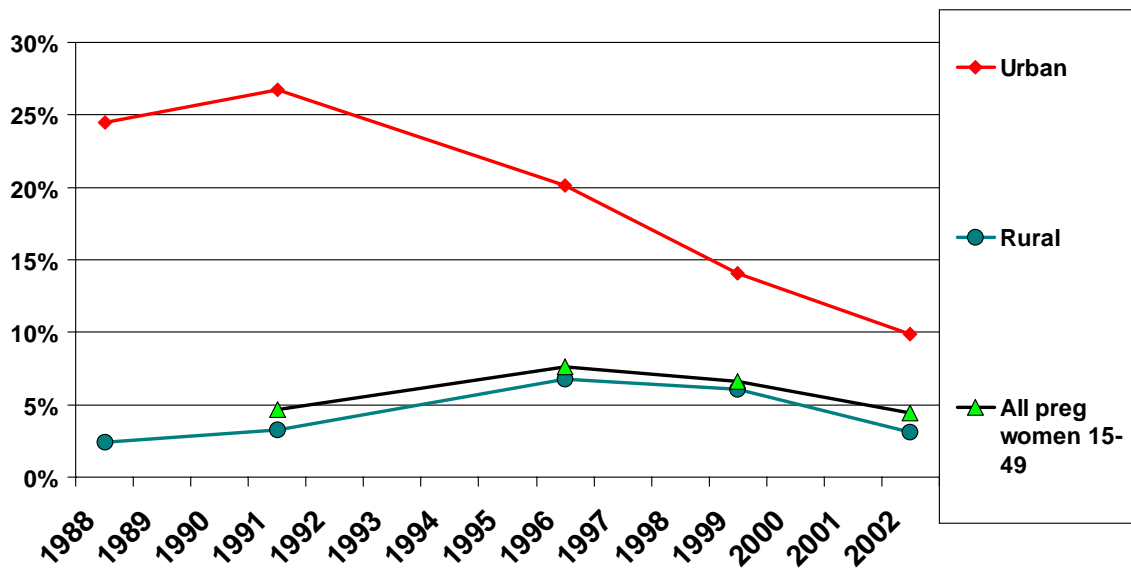
10. Rwanda's epidemic has several important features that have become clearer particularly since the 2002 survey of pregnant women. These are shown in Figure 1.1.
- In urban areas there are strong indications that levels of infection have been decreasing.
- The rural epidemic as been much less severe than in urban areas and has risen later.
- The overall level of infection in Rwanda's population is much closer to the rural levels, as illustrated by the estimated levels among women 15-49. This is because 87% of the population lives in rural areas, with only 17% in urban areas, many of which have lower infection rates than Kigali itself.

11. There should not be complacency because infection rates are lower than generally assumed before the 2002 survey. There are several reasons for concern.
- *There is still uncertainty about the levels at which urban and rural rates will stabilise*. For statistical and other reasons, 2002 results may under-estimate urban and rural rates and exaggerate any declining trend.

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[5] Source: Rwanda HIV Sentinel Sero Surveys. For estimates of all pregnant women 15-49, adjustments were made using data from population surveys and 2002 Provisional Census results. 1996 Antenatal Survey results are thought to have severe limitations.

- *Levels of infection in urban and rural areas could actually increase* in future. Resettlement schemes, urbanisation, and post-war changes such as reduction of restrictions on movement create potential for higher risk behaviour. [6] Persisting poverty and lower rural understanding about HIV/AIDS are fertile ground for the epidemic. At the same time, "modernisation" threatens to erode traditional social norms that have limited sexual networking in many communities. In such situations, remaining conservative traditions can undermine prevention if it limits open discussion of HIV/AIDS risk and impacts. International experience also suggests that epidemics are difficult to control once infection rates exceed about 5% of adults.

12. *New understanding of the epidemic influences prioritisation of different HIV//AIDS interventions within education.* Firstly, it must be emphasised that HIV/AIDS is still a major, ongoing public health and social challenge for Rwanda. However, because the epidemic is not as severe as previously thought, resource allocation to AIDS impact management will tend to become less urgent when compared to HIV prevention and other education priorities. HIV/AIDS responses that can strengthen basic education objectives are likely to become much more attractive. These considerations have influenced recommendations of this study.

1.3   Rwanda's response to HIV/AIDS

13. Rwanda's initial response to HIV/AIDS was mainly driven by the health sector. However, government has increasingly recognised HIV/AIDS as a serious long-term threat to national development in Rwanda, and the need for a multi-sectoral response with high level leadership. The GoR has now established a National AIDS Commission (CNLS), a national policy framework and HIV/AIDS plan, and a Ministerial portfolio for HIV/AIDS. The importance of HIV/AIDS in Rwanda is recognised in its vision 2020 which outlines roles of a number of sectors to address it. The role of the education sector is given prominence in this document in recognition of its ability to reach the largest number of people through its institutions of learning.

14. MINEDUC established an HIV/AIDS Unit in 2000, and has made important progress in developing a HIV/AIDS education policy, a comprehensive HIV/AIDS education strategic plan, and beginning implementation of this. Prevention is the main focus of the plan, but it also covers aspects of care, support and mitigation of impacts on both educators and learners. The HIV/AIDS unit role is to develop policies and plans, and to coordinate all information about HIV/AIDS, activities, partnerships and funding at national levels. Support from DFID is being provided for these functions and for capacity development to manage the expected HIV/AIDS impact within the education sector.

1.4   Terms of reference and methodology

15. The overall objective of this study is to better assess the impact of HIV/AIDS on MINEDUC's capacity to meet its mandate, in particular in relation to providing formal education at every level. The study is intended to provide information that is a basis to plan, manage and monitor an effective and comprehensive response. The study is also intended to assist DFID and other funding agencies to target future support. Specific issues to be examined include impacts of HIV/AIDS on:
   1. Demand for education

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[6] In several communities, people commented that levels of sexual networking were higher in the new environment of resettlement s where people live much closer together. UNAIDS considers that upward trends in the epidemic that are now seen in Angola cannot be ruled out in other post-conflict zones, including Rwanda (UNAIDS, 2002).

2. Supply of education
3. Costs of education
4. Process and quality of education
5. Content and role of education, including assessment of the foundations for a concerted response to HIV/AIDS from school up to central administrative levels. In-depth assessment of existing HIV/AIDS prevention in schools was beyond the scope of the present study.
6. Planning and management of the education sector

The study was also to address: gender and rights issues; implications for non-formal education; the role, structure, workplan and capacity of MINEDUC's HIV/AIDS Unit; and other current responses and make recommendations to refine strategy.

16. The study used the following methodology:

- *A school survey.* This covered school heads, teachers and 872 third year Secondary (S3) students in a nationally representative sample of 150 primary and 50 secondary schools stratified to ensure inclusion of all provinces.
- *Interviews and group discussions with* managers, teachers, children and youth, and stakeholders outside the education sector. Schools in six regions[7] were visited during this component of the study, in addition to many interviews in Kigali.
- *Document and data review,* including EMIS data, MINEDUC and broader GoR policies and legislation.
- *Demographic projections* to assess current and future levels of various HIV/AIDS impacts. These were produced using the Spectrum Model[8]. "Best", "Mid" and "Worst" scenarios were projected to test the effect of different possible paths of the epidemic in future.

17. Findings from the school survey and provincial visits are expected to be reasonably indicative of current levels of HIV/AIDS impacts, responses and capacity. However, there are likely to be certain unavoidable biases. These include for example, sensitivities around providing information on certain issues. To address this, research instruments were carefully designed, and data obtained from all sources was integrated and used to cross-check interpretation.

18. Projections produced in this study are expected to give a reasonable indication of the size and types of HIV/AIDS impacts to be considered in education planning. However, projections involve a number of assumptions, and their accuracy is limited by many factors. These include limited data on the population structure and trends, and the HIV/AIDS epidemic. The effects of events of 1994 and subsequent years are still not completely understood, and only preliminary 2002 Census and Antenatal Survey results were available. *Planners should use the projections with some caution and consider different possible scenarios, to limit the risk that projections are not accurate.*

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[7] Butare, Byumba, Cyangugu, Kigali Ville, Kigali Ngali, Umutara.

[8] This has been developed by Futures Group International and has been used extensively in many African countries to model HIV/AIDS epidemics and their demographic impacts.

2. How will HIV/AIDS affect demand for education?

19. The expected demand for education is critically important to plan capacity to deliver EFA and UPE. International experience has shown that the HIV/AIDS epidemic has important influences on the number of children who will present themselves for education. Firstly, HIV/AIDS can reduce the number of children reaching school-going age. This is due to deaths among women who would otherwise have had children, lower fertility among HIV infected women, and death of children infected at birth and through breastfeeding. Secondly, orphanhood can affect enrolment and drop-out rates.

2.1 Projected numbers of children and youth

20. Projections of the number of young people in Rwanda are illustrated in the following figures.[9] They have several important features for planning.

- *The most important influence on numbers of children is the genocide and war.* After 1994 there was a marked drop in the size of the 0-5 age band in particular. Figure 2.1 shows how, as this smaller group of children grows older, it causes negative or flat growth rates in older age groups over time. The 20-24 age group is affected last. The 5-9 and 10-14 year age groups are most affected at present.[10]
- *The size of the official primary school age group (7-12 years) will grow rapidly* over the next decade (Figure 2.2). The direct impact of the genocide and war has almost come to an end in this age group.
- *HIV/AIDS does reduce the size of school-going age groups, however its effect is limited (*Figure 2.2). The projected size in the no-AIDS scenario is not very different from those in AIDS scenarios.[11]
- *The new estimates of the number of children in various age groups suggest that net enrolment rates may be higher than previously assumed.[12]*
- *Important uncertainties remain* about projected numbers of children and youth, and resulting demand for schooling.
  - New knowledge about trends in Rwanda's HIV/AIDS epidemic or interventions that prevent mother-to-child transmission of HIV seem unlikely to have a large effect on projected numbers.
  - New data from the 2002 Census on the population age profile and fertility rates could have a marked effect.
  - Factors such as "catch up" enrolment of older children in school in the late 1990s, as well as repetition and drop out, mean that the relationship between appropriate age population size and demand is not simple.

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[9] Detailed projections for each age band have been provided to MINEDUC in electronic format.

[10] A child born in 1994 is now aged 8-9, so the affected age cohort crosses these two age bands.

[11] The 7-12 age group is around 4% smaller in 2015 than it would have been without the epidemic.

[12] For example, the Net Intake rate of 7 year olds into grade 1 has been assumed by MINEDUC to be around 60%, when it would be around 71% based on new projections.

Figure 2.1: Projected number of children by age group – Mid AIDS scenario
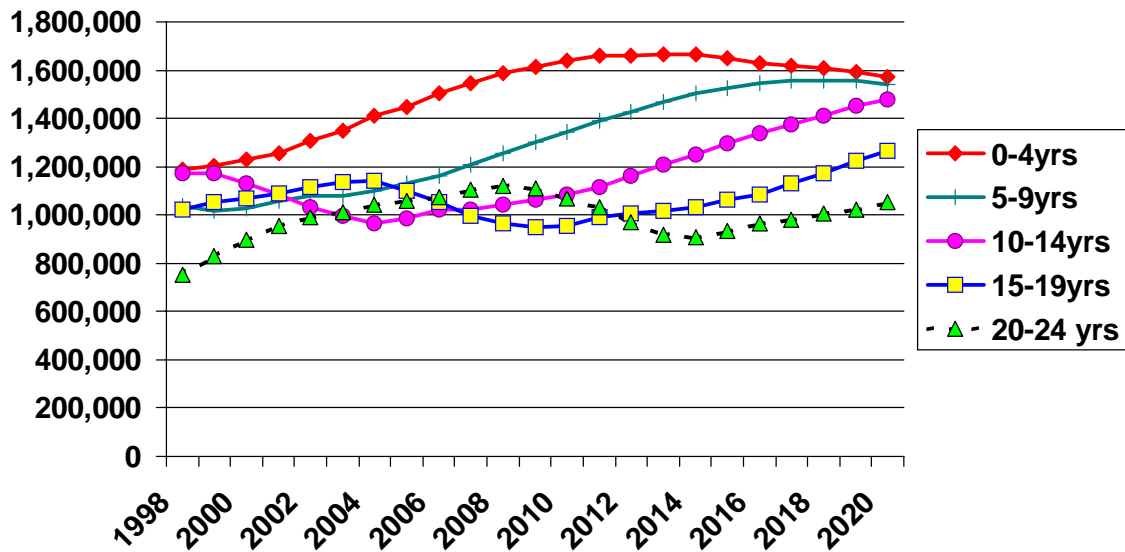
Figure 2.2: projected numbers of children in official primary school ages (7-12yrs)
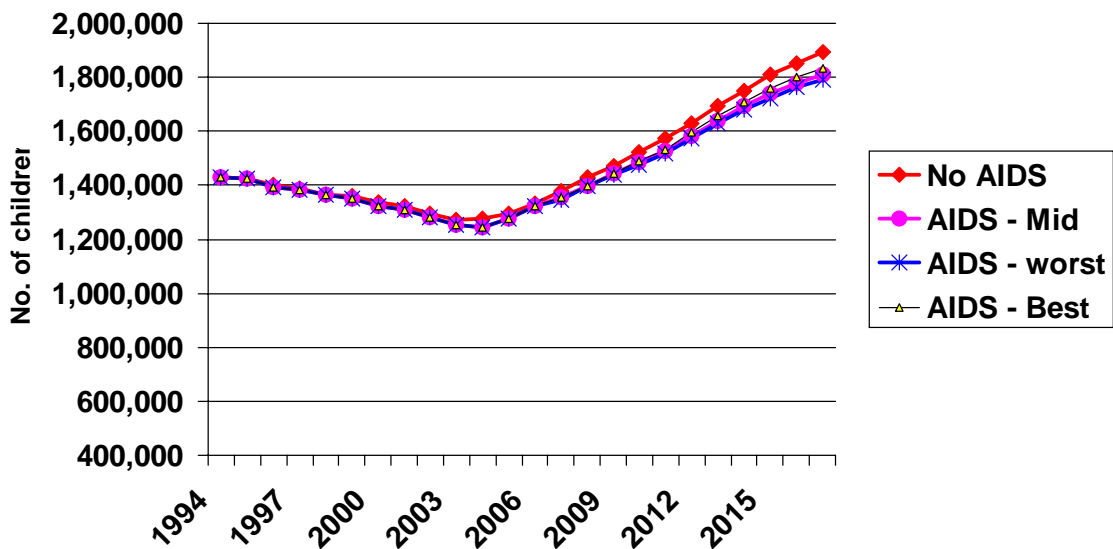
2.2   Effects of orphans and other vulnerable children on demand

21. Rwanda is familiar with the challenges of orphans for school enrolment and attendance due to the large numbers orphans particularly due to the genocide and war orphans. In the school survey, teachers estimated that an average of 17% of learners were *imfubyi*[13]. Among Secondary 3 (S3) students, 18% were maternal orphans (44% due to genocide/war) and 37% were paternal orphans (51% due to genocide/war). Twelve percent were double orphans.[14] The HIV/AIDS epidemic threatens to produce large numbers of new orphans to challenge progress towards UPE and EFA.

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[13] Children who have lost parents. There was no statistically significant difference across provinces or school type.

[14] These figures could under-estimate levels of orphanhood if orphans are less likely to attend secondary school, and thus would not have been included in the school-based sample. However, this could be offset by

2.2.1 Projected numbers of AIDS orphans

22. *Rwanda is still at an early stage in its AIDS orphan epidemic* (Figure 2.3), because the orphan epidemic rise after AIDS deaths rise and because of the relatively late development of the rural AIDS epidemic. The number of maternal AIDS orphans aged 0-16 is projected to rise from about 64 000 in 2003 to 208 000 in 2015.

Figure 2.3: Projected number of children who will have lost at least their mother to AIDS
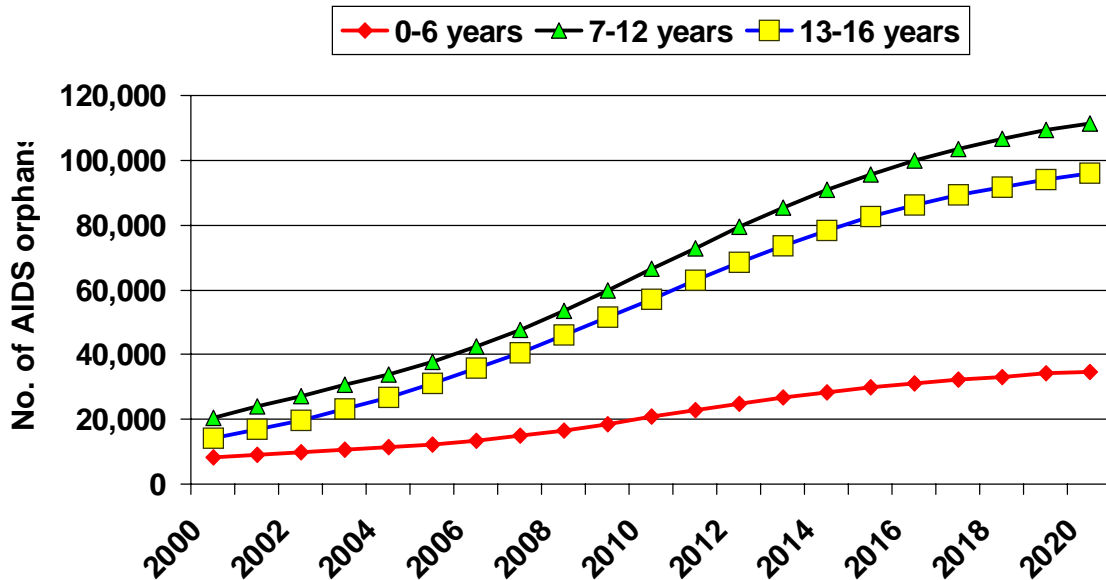
23. *Most AIDS orphans will be in school going ages.*[15] As shown in Figure 2.4, almost 10% of children in late primary and early secondary school ages are expected to be AIDS orphans within 10 years.[16]

24. *Many schools and classes can be expected to have higher rates of orphanhood* than the average. This is illustrated by the finding that estimated rates of orphanhood from all causes varied widely from 10-70% between the schools visited in this study.

25. *AIDS orphans will replace a large proportion of the genocide and war orphan generation* as they becomes less of a challenge to education and society over time, while the AIDS epidemic mounts. For comparison, 8% of surveyed Secondary 3 students had lost at least their mother and 19% their father to genocide or war.

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the FARG and MINALOC grant system that may improve chances of school attendance by many orphans.

[15] This is because many mothers will have children before they are infected, and most mothers with HIV will live for a number of years after their children are born.

[16] In the School Survey, 3% of Secondary 3 students had been orphaned by long illness of their mother. This seems to be consistent with the 2002/3 projections for relevant age groups.

Figure 2.4: Projected percent of children by age who will have lost at least their mother to AIDS
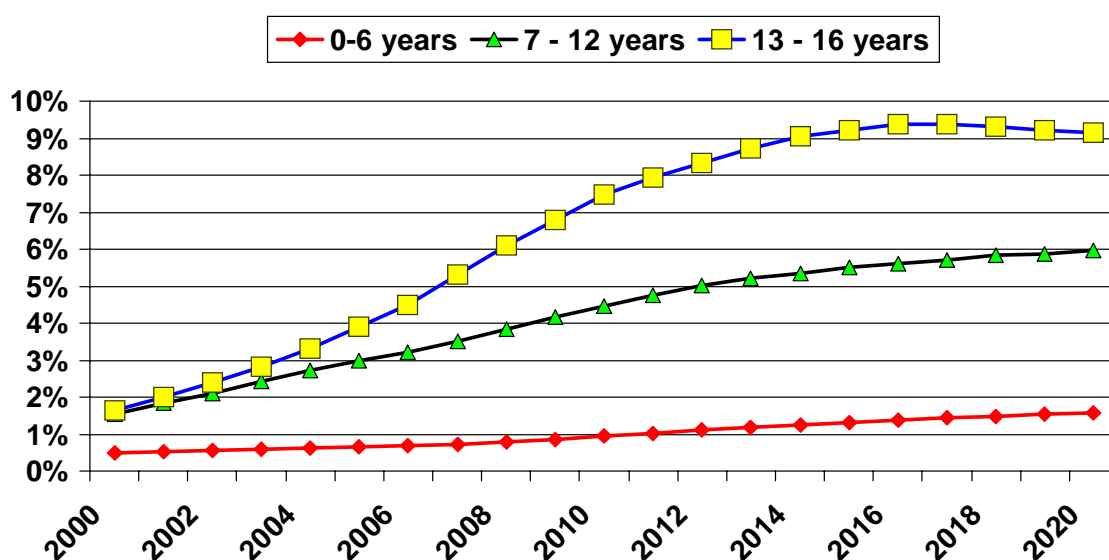
2.2.2 Effects of orphanhood on enrolment and performance

26. *In Rwanda, even among non-orphaned children, there are high levels of drop out, erratic attendance and poor performance*. This context is important for understanding the impact of orphanhood on education and appropriate responses. In the school survey, over a third (37%) of S3 students reported that they or another child in their home missed school for periods of two weeks or longer in the past year, and 36% of students had previously been out of school for a year or more.

27. *Orphanhood adds to the risks of lower school attendance, but other factors may be more dominant for many children.* Death of parents was specifically identified as an important reason for drop-out by students and teachers. Recent analyses indicate that the enrolment rate among orphans aged up to 14 in Rwanda is 93% of that of non-orphans (UNAIDS 2002).[17] Thus, orphans are more vulnerable to drop out, but the extra risk of drop out is perhaps surprisingly small. Also orphans may not be much more vulnerable than large numbers of other vulnerable children in Rwanda; many informants noted that children from poor families are in same situation as orphans. Other recent studies internationally also suggest that poverty tends to be a much more dominant determinant of enrolment than orphan status *per se* (Ainsworth, Filmer 2002).

28. *Orphanhood seems to substantially affect school performance*. Enrolment is a fairly crude indicator of education impact. There were strong indications that orphanhood may affect regularity of attendance, performance and completion rates. In the school survey, 86% of teachers thought orphaning lowers performance and 33% felt that a major decline occurs.[18] Nevertheless, teachers noted that many orphans perform well.

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[17] The rate of orphan vs. non-orphan enrolment in Rwanda compares favourably with rates in most other countries eg Malawi 92%, Kenya 75%, Mozambique 46%, Burundi 69%, Cameroon 92%, CAR 89%, Cote d'Ivoire 77%, Tanzania 72% and Zimbabwe 85%.

[18] It is uncertain how much of this decline is temporary or permanent.

29. *A number of reasons for poorer attendance and performance were highlighted* by qualitative and quantitative data in this study. Poverty-related factors seem dominant.[19]

- *Fees and school-related expenses* such as uniforms and books were the most common reasons cited by S3 students for non-attendance at school (Table 2.1).[20] Inability to pay clearly creates great anxiety among learners and tendencies to delay enrolment or drop out even if schools does not formally exclude them.
- *Food security.* Teachers and students often mentioned effects of hunger on attendance and concentration. Food security also had strong correlation with attendance (χ^2 = 0.000). Only 22% of children who always had enough to eat said that a child in their household had missed school for two weeks or longer, compared to 54% of children who had gone hungry at least once a month or more, and 34% of students who had gone hungry on a daily basis.
- *Need to work for money or food* also affects students' household school attendance (χ^2 = 0.00). Only 42% of students had never had to work for money or food. Students who had never done work were also less likely to have missed school for an entire year compared to those who had (χ^2 = 0.007)

A number of informants indicated that the influence of the genocide, poverty and limited employment prospects despite schooling, already makes Rwanda's youth more likely to neglect longer-term goals that require education. This predisposes them to poorer performance, drop out and high risk sex

30. *Several reasons that orphans are at particular risk* of educational disadvantage were identified. Many orphans need to care for sick parents and younger siblings, and face greater demands for their labour in their own or foster homes.[21] Events leading to orphanhood were often reported to precipitate poverty of children's households due to costs of illness, loss of income and labour, and more stretched resources of households that take in orphaned children.[22] A substantial number of orphans reportedly need to farm or generate other income to provide for surviving family members.

Lower levels of parental supervision and motivation, while not only affecting orphans, were said to lead to lower performance and less application to homework.

Psychosocial problems among genocide and other orphans such as depression, stress and withdrawal were often noted. Discipline problems were also cited, including difficulties because orphans reacted negatively or felt victimised when disciplined, or because they used orphanhood as an "excuse" for actions. Many fostered children face the stress of transfer, often to cheaper schools.

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[19] Findings were consistent with results of other studies. The Core Welfare Indicators Survey (2000) reported that the cost of education was a strong disincentive to attend school. The Household Living Conditions Survey (2001) reported the main reasons for drop out at primary level as cost (26.3%), lack of interest (29.8%), illness (13%) and domestic tasks (12.7%).

[20] Recent analyses by the World Bank have highlighted the high costs of fees and uniforms to Rwandan households and that this predisposes to drop out. (World Bank 2002)

[21] However, school survey data also did not clearly indicate that orphans have to do more household work on average than non-orphans despite frequent complaints of this

[22] Some pupils report that money intended for school fees is sometimes used to care of sick parents.

Table 2.1: Reasons for non-attendance or drop-out by S3 students and household children

Reasons for staying absence for <u>two weeks or more</u> by student or household children	Frequency	%
No school close by	16	1.8
Problems with paying fees	250	28.7
Problems getting uniforms, books, other materials	140	16.1
Working in fields or farms for family	22	2.5
Working for money	41	4.7
Death or illness in family	92	10.6
Other	23	2.6
Reasons for being out of school for an <u>entire year</u>	**Frequency**	**%**
No school close by	7	0.8
Problems with paying for fees	196	22.5
Problems getting uniforms, books, other materials	76	8.7
Working in fields or farms for family	12	1.4
Working for money	23	2.6
Finished primary school	15	1.7
No school place available	7	0.8
Failed exams	17	1.9
Other	44	5.0

31. *Several categories of orphans and vulnerable children appear to be at higher risk* of drop out or poorer performance. These may assist in prioritising support.

- *Girl children.* Among surveyed primary and secondary teachers, 54% said that girls dropped out more than boys, compared to 17% for boys. [23] Although it is unclear whether girl orphans' enrolment rates are disproportionately worse than rates for girls generally, there are strong indications that they are at high risk.[24] Demands to care for ill and dying parents, or siblings particularly affects adolescent girls in upper primary and secondary ages. Girl orphans were also widely cited as being at greater risk due to lower family priority given to girls schooling, pressure for girl orphans to marry early and greater tendencies to assume responsibility for heading child headed households. They were also noted to be at greater risk of sexual abuse or entry into commercial sex work.[25]
- *Maternal orphans.* Among S3 students, both maternal and paternal orphans' households tended to have poorer attendance than non-orphan households, but the association was much more marked for maternal orphanhood (χ^2 = 0.01 vs 0.187). The relationship between maternal orphanhood and a history of drop out for a full year was even stronger, with over 40% having dropped out (χ^2 = 0.00). The risk was not significant for paternal orphans (χ^2 = 0.254).
- *HIV/AIDS orphans.* There were strong indications that AIDS orphans are under-recognised and under-supported by schools and other players. School heads, teachers, learners and community members were often reluctant to talk about AIDS orphans although they acknowledged that they exist. Stigma is a major factor that encourages secrecy and non-disclosure, and undermines support. In the survey 30%

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[23] There was no marked difference between primary and secondary responses. The most common reasons given for girl drop-out were housework and care of family members. Others that were frequently given were that families do not see school as important (43%) and that girls were working for money or payment in kind (31%). Pregnancy (22%) and repeated academic failure (25%) were other reasons given.

[24] Ainsworth and Filmer (2002) found that, internationally, orphan girls tended not to be disproportionately worse off than girls in general.

[25] Several informants suggested that unsupported boys go into small trading while girls more often rely on sex for survival.

of teachers and 14% of learners said AIDS orphans were stigmatised. To an important extent, this seems to be due to lack of knowledge and unnecessary fear: 35% of S3 students said that AIDS orphans are usually infected with HIV.

- *Older children in later primary and secondary age groups.*[26] A major factor is direct costs of schooling, which are higher in secondary than primary, although FARG and MINALOC grants reduce this obstacle for many orphans. Secondary level teachers reported school expenses two to three times as often in various questions about reasons for non-attendance. However, other demands on older children as household providers and carers were also reported to be greater.

- *Child headed households (CHH).* Older children in CHH were noted to have to drop out or attend erratically due to needs to provide and care for siblings: S3 students from child-headed households were about twice as likely (50%) as other respondents to have to work daily for money or food. The quality of care they can provide to other siblings is often limited.[27]   In a number of cases it was noted that children in *grandparent- headed households* also tend to have less supervision and support, or greater demands to take on more household and income generating activities.

- *Double orphans.* Many sources indicate that these children are more vulnerable than children with one or both parents. A higher percentage of double orphans (25%) said they had gone hungry on a daily basis compared to those with parents alive (15%).

International experience has often also highlighted the *vulnerability of children before they are orphaned at the time when their parents are ill or die.* At these times children often face extra demands on them, lower household resources and great uncertainty and psychological stress.

2.3   Conclusions – impact of HIV/AIDS on demand for education

32. The number of people in school going ages can be expected to increase substantially from 2003 to 2015. Population growth therefore remains a challenge for UPE and EFA, although population growth is not the only determinant of demand.[28]

33. Genocide, other disruption and fertility trends are likely to be more dominant demographic factors than HIV/AIDS in determining demand for education.

34. AIDS orphanhood itself will probably have marginal impact on enrolment. This is due to the limited proportion of children and youth who will be HIV/AIDS orphans and the fairly high enrolment rates among orphans compared to other children.

35. AIDS orphans highlight the importance of addressing needs of vulnerable children in general in order to achieve UPE, EFA and greater efficiency in the schooling system. In addition, general measures to improve enrolment and performance are likely to reduce risk of drop out among orphans by improving access and incentives to stay in school. Nevertheless, HIV/AIDS orphans can be expected to be a particularly vulnerable group.

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[26] This factor is not well researched internationally. Most analyses, such as Ainsworth and Filmer, only examine children up to age 14.

[27] Particular vulnerability of children in CHH in Rwanda has been noted in other studies (Veale et al 2001).

[28] Planners should be cautious in assuming that the official school-going age population size determines demand for schooling (see Gould, Huber 2002). In Rwanda, increases in primary enrolment from present levels may not be quite as marked as projections suggest. For example, the extra burden of older children still in primary school due to the 1990s disruptions, and high repetition rates, may become less pressing.

3. How will HIV/AIDS affect ability to deliver education and system costs?

36. MINEDUC already faces substantial challenges to maintaining acceptable levels of education quality and provision. Despite major progress, teacher pupil ratios remain high, a large number of teachers are under- or un-qualified, and there are concerns that many qualified teachers still have limited up-to-date teaching skills.

Finances are a major constraint on education delivery. Morale is limited by current conditions of service including salary levels, irregular payment, poor housing, and limited availability of materials and infrastructure. Many teachers were reported to do additional extra jobs to supplement their salaries. Several schools reported loss of teachers due to low salaries, and there were many reports that qualified teachers would prefer to work in other jobs (eg driving) due to low incentives to teach, particularly in more remote areas. Non-staff budgets are very limited, with widespread problems of poor infrastructure and limited availability of materials and books.[29]

Management capacity and systems remain limited in many areas. The current process of decentralisation creates both opportunities and new challenges to management.

3.1 Susceptibility of staff to HIV/AIDS and projected levels of infection, illness and death

37. As there is no HIV prevalence survey data for education staff, it is uncertain whether they are at higher or lower average risk of HIV infection than that estimated for other adults in Rwanda.[30] There are important indications that teachers remain at substantial risk of HIV. Pre-and in-service HIV/AIDS programmes for teachers have been very limited. Only 80% of teachers could correctly answer all of three basic questions about HIV/AIDS transmission, and only 68% know that faithfulness to an uninfected partner reduces risk.[31] This suggests that teachers have even lower levels of life skills that help them to control their risk exposure. Furthermore, only 44% of teachers said they had easy access to condoms. As in other countries, teachers probably have greater opportunities for high risk sex due to their status, incomes and mobility. However, compared to other counties, there are indications that relatively strong community norms limit sexual networking by teachers, and fewer teachers, particularly at primary level, are posted far away from their home communities. Also, better educated people seem to have adopted lower-risk behaviour, particularly in urban areas.

38. For the purposes of projections in this study, education staff are assumed to have the same risk as adults in the general population with a similar age and sex profile (for

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[29] In 2001, staff accounted for around 80% of all spending on schooling, but 96% of primary spending and 60% of secondary spending.

[30] Teachers are often cited as having higher HIV infection rates than other adults. However, there is mixed evidence on educator HIV risk from other countries. There have also been indications for some time that empowered and informed people such as teachers are better able to reduce their HIV risk once they are aware of it (World Bank 1997). The Rwanda 2002 Antenatal Seroprevalence Survey collected some data on socio-economic variables and may provide more information, but this data has not yet been analysed.

[31] School heads' knowledge seemed somewhat better with corresponding scores of 81% and 78%. The three questions related to whether people can get HIV from a mosquito; sharing food with a person who has AIDS; or a healthy looking person. There were no significant differences in knowledge between men and women, or school level or type, although private school teachers scored lower.

further details of methodology see Annexure III).[32] Data did not allow for differentiated projections of different categories of education sector staff.

39. Projections suggest that at 4-7% of education employees in 2002 were HIV-infected. Levels could soon be as high as 8%, or almost one-in-10 staff (Figure 3.1).

Figure 3.1: Projected HIV infection levels among education staff
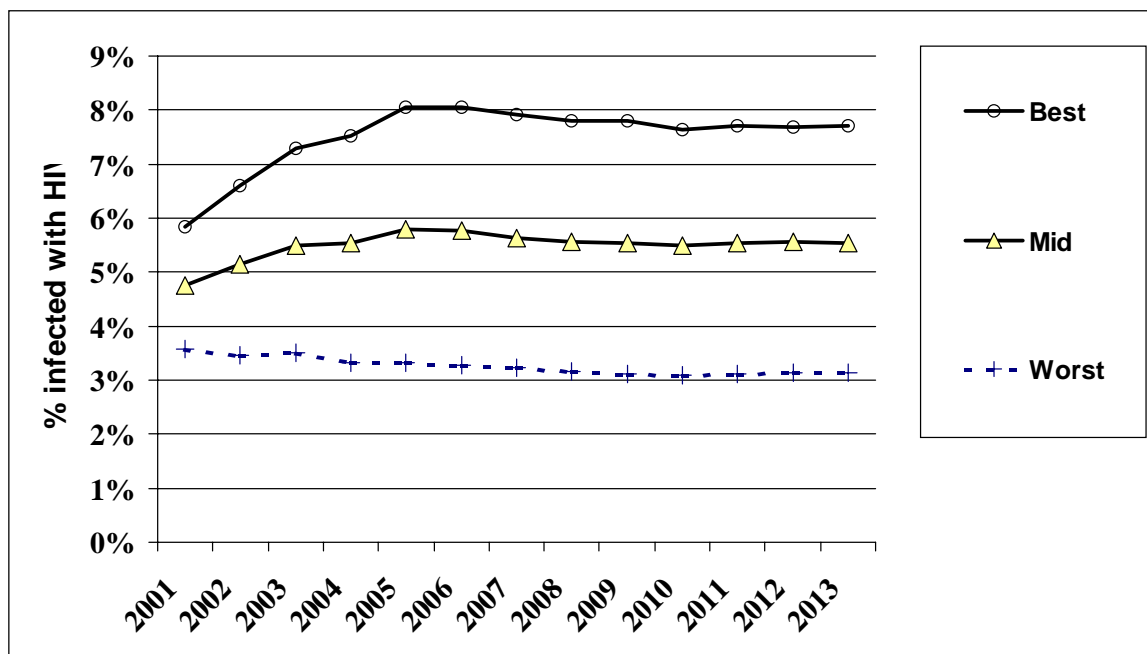
40. AIDS deaths among education staff are projected to rise from just above 100 in 2002 to between 250 and 300 per year by 2015. AIDS death rates are projected to be equivalent to approximately 0.4% of teachers in 2002, and this rate is likely to stabilise between 0.6% and 0.9% per annum in the Mid and Worse case scenarios (Figure 3.2).

41. Other causes of death in service are likely to outnumber HIV/AIDS deaths for the foreseeable future. AIDS deaths are currently estimated to account for about one in five deaths among education staff. Although this is expected to rise over the decade as the rural AIDS epidemic climbs, it seems unlikely to rise much above 50% of deaths.

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[32] The age, gender and geographic distribution of any population all have a strong bearing on risk of infection, illness and death.

Figure 3.2: Projected percentage of staff who will die of AIDS per year
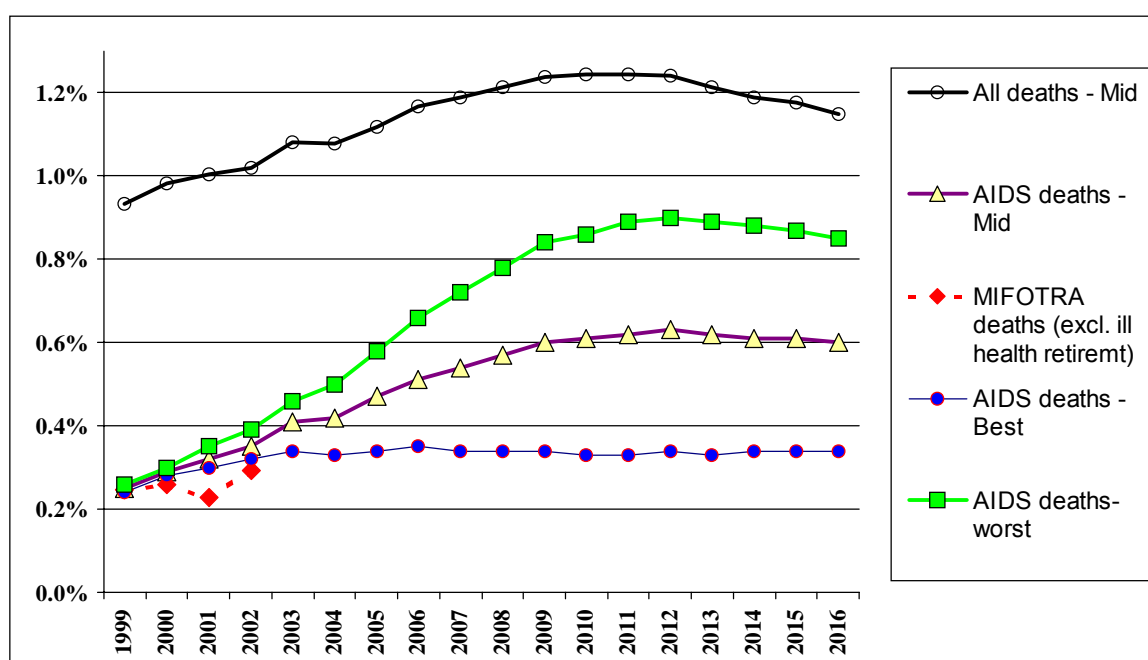
42. If the projected rates of attrition apply among education sector employees the cumulative loss of staff by 2013 could be between 1400 and 2750 teachers, equivalent to almost 4.5% and 9% of the current teaching workforce respectively (Figure 3.3).

43. Data to validate projected death rates with confidence is not available as all sources seem to have limitations. As illustrated in Figure 3.2, MIFOTRA records suggest total death rates that are well below those that are projected. On the other hand, the school survey, where data submitted was difficult to interpret, suggest rates of staff loss to illness and death were between 1.2 and 1.6%. (see Annex D for discussion)

3.1.1 Effects of Antiretroviral treatment

44. Data to model the potential effects of an Antiretroviral drug programme for education staff is limited. Coverage and effectiveness of such a programme will, for example, depend to a large extent on the specific delivery mechanisms and treatment failure rates, which remain uncertain (see Annexure D for assumptions used in modelling).

45. Projections show, however, that an ARV programme could make a substantial difference not only to infected individuals, but also to loss of staff for education delivery. ARVs could be expected to reduce the total number of AIDS deaths between 2003 and 2015 by almost 50%, or around 1000 people in a mid-case scenario. One important implication of the programme however, would be a rapidly increasing and substantial proportion of education staff would be on chronic medication (Figure 3.4). As ARV therapy is quite complex, this would be a major challenge to the programme and sector.

Figure 3.4: Projected number of teachers on ARV treatment
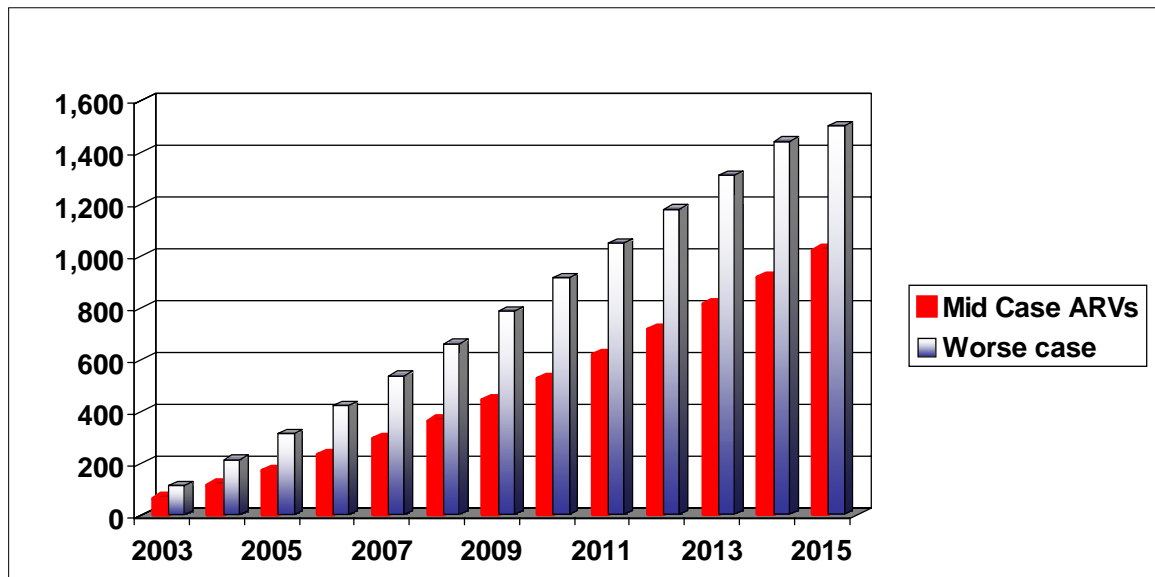
3.1.2 Conclusions – projected levels of HIV infection and deaths

46. Key conclusions can be made even given the limitations of data:
- *There is potential for substantial numbers of new infections among staff* if prevention among teachers and trainees is not effective. Even when infection rates reach a plateau, newly infected people are replacing the infected people who die.
- *AIDS death rates are expected to rise from existing levels as the effects of the rural epidemic increase but to remain less than one out of every 120 staff.* This is equivalent to around one AIDS death a year in every 10 schools (worst scenario).
- *The cumulative loss of skilled employees over the next decade will be substantial even though the death rate in any one year limited.*
- *Many schools and districts may be affected much worse (or less) than average.*

3.2 How will HIV/AIDS affect education delivery?

47. Very few schools and districts that were visited reported HIV/AIDS impacts on staff. Although there was clear reluctance to talk about AIDS illness and death in those schools that were affected, this seems to be consistent with projections and death statistics. In the school survey, 7.5% of school heads (around one in fourteen schools) reported that they had had staff that they knew or suspected had HIV/AIDS.

There are several ways in which HIV/AIDS can affect ability to supply accessible, quality education. These tend to highlight areas of weakness that already impede education objectives.

i. Absenteeism

48. Problems of teachers who are absent due to illness, family responsibility and funerals were not frequently reported in schools visited. However, in the school survey, 20% of school heads indicated that absenteeism was a serious quality problem in their schools and 56% said it was sometimes a problem.[33] Primary schools reported severe

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[33] A possible indication of teacher absence on quality was that students with a recent history of an absent

impacts of absenteeism (24%) more frequently than secondary schools (13%). The most common causes were illness (50%) family matters (28%) and funerals (8%).[34]

The most frequent ways of covering for absent teachers were merging classes (41%), using another teacher (33%) and taking on a substitute teacher (7%). In school visits it was noted that primary schools could be worse affected because large classes were more difficult to merge, and it is more difficult to find competent replacements who can cover a broad range of subjects. In secondary schools, extra solutions are available such as giving students assignments, particularly if teachers and colleagues plan ahead when they think they will be absent .

Although substitute teacher cover is available to some schools, many reported that it was very difficult to recruit substitutes due to unreliable payments by MINEDUC and limited school resources to pay the teachers themselves.

ii. Staff attrition and vacant posts

49. Attrition of staff creates administrative challenges of replacing staff efficiently and loss of skills from the sector. Existing attrition data has important deficiencies.[35] However, projected AIDS death rates (0.35-0.9% in future) seem likely to increase attrition to a limited extent when compared to attrition of staff for other reasons and recent attrition estimates (Table 3.1).

Table 3.1: Estimated rates of attrition of education sector staff

	Caisse Sociale*	MIFOTRA	School survey***	Projected AIDS attrition
2002	2.4%	12%**	5.2-3.8%	0.32-0.39%
2001	2.5%	26.7%	5.2-3.8%	0.30- 0.35%
2000	4.0%	17.6%		0.28- 0.30%
1999	0.6%	22.8%		0.24-0.26%

*   New registration of beneficiaries
** Annualised
*** Annualised, excludes transfer to other posts

50. Under current conditions, inability to fill posts for other reasons seems more important than HIV/AIDS attrition. Among surveyed schools, 15% reported that they had vacant posts. In these schools, there was an average of two unfilled positions, and 5% and 3% reported vacant school head and deputy head/Head of Department posts respectively.[36]

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teacher reported more absenteeism themselves (χ^2 =0.008). However, it is difficult to prove causality.

[34] This finding differs from countries with severe AIDS epidemics such as Zimbabwe, Zambia and Uganda, where absence for funerals tends to be a more prominent reason.

[35] MIFOTRA data is heavily influenced by factors such as dismissal of unqualified teachers and cannot be disaggregated. School survey data was incomplete and difficult to interpret with confidence. Caisse Sociale data (numbers of new beneficiaries registered due to retirement or death) may be incomplete.

[36] A higher proportion of secondary schools than primary schools had unfilled posts (24% versus 10%) and private schools were more affected than others.

iii. Reduced performance due to illness, stress, lower morale

51. Reduced performance of staff due to illness, stress and lower morale has frequently been noted in countries with severe HIV/AIDS epidemics. This occurs both in infected staff, and among staff who are affected by illness and death among their colleagues, families and friends.

These impacts of AIDS were not reported often in Rwandan schools. Other causes of poor motivation and morale, mentioned above, were much more prominent. However, the following HIV/AIDS-related problems were noted:

- When frequent illness or death of a staff member occurred, it was considered to cause major or moderate quality problems by 55% and 32% of school heads respectively. Most sick teachers were noted to stay on the job as long as possible to avoid reduction in income, even when they could no longer teach well.
- A number of staff reported stress related to HIV/AIDS, illness or deaths. This included anxiety that they might be infected and about the future of their children if they became ill. Staff also reported financial stress when they have to contribute when family members die or are ill.
- Female teachers often have larger burdens due to traditional caring responsibilities.
- Many informants indicated that there were low levels of support for sick and affected teachers, and significant stigmatisation. It was reported at one school that when teachers were seriously ill but continued teaching they were taunted by pupils who presume that the sickness was due to "immoral behaviour". In some schools staff are expected to make up hours when they were covered by a colleague, which may add to stress, damage their health and lower quality of teaching.

iv. Vulnerable posts and functions

52. Absence or loss of staff with several types of posts or functions was noted have potential to be particularly problematic. These tended to be where posts involved critical management functions that were disrupted, or where there was a shortage of skilled people to provide cover or replacements. Several informants mentioned problems when lecturers or school heads had become ill with AIDS. Others noted that problems would occur if key managers, inspectors or specialised staff were lost. Small, remote and disadvantaged schools also have greater difficulties when staff were ill or died.

v. Skills losses and training requirements

53. When educator losses and reduced numbers of learners are considered together with provisional EFA targets, it seems likely that HIV/AIDS will only make around 1-3% differences to required teacher training outputs over the next decade when compared to a no-AIDS scenario.[37] [38] Thus, HIV/AIDS losses alone should be manageable without major increases in teacher training output. Other attrition and demand factors are likely to be much more dominant determinants of any shortfalls.

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[37] Teacher training capacity is changing rapidly, and current and future outputs of teacher training are not clear. Output seems likely to shortly reach over 4000 per year. HIV/AIDS related losses of around 275 per year would amount to about 6.5% of teacher training output but this ignores reduction in learner numbers.

[38] Final proposed policy targets were not available, but MINEDUC planners have been provided with a version of the teacher provisioning model which can be used to test HIV/AIDS and other influences.

vi. Complications in staff allocation and distribution.

54. In other countries with severe AIDS epidemics, it as been noted that other complexities arise for education planning and management occur when staff become ill or die. Although they were not reported in Rwanda, they should be borne in mind in planning. They include tendencies for infected and sick teachers to congregate in urban areas with better medical services. This issue may become prominent if large numbers of teachers require ARV treatment. In addition, loss of staff tends to further disadvantage areas that traditionally having difficulties attracting staff.

3.3 Impacts on costs of Education

55. The major costs of HIV/AIDS to education systems arise from impacts on staff. These can manifest as financial costs, or alternatively in indirect costs of reduced education quality and efficiency. The major potential costs which were identified in Rwanda are summarised in Table 3.2.[39] All cost estimates are subject to various data limitations and assumptions which are discussed further in Annexure C. However, they are likely to provide a reasonable basis for general strategy development.

Table 3.2: Projected sector costs of HIV/AIDS among employees to 2015

	Estimated costs
1.Caisse Sociale	• Needs full actuarial valuation
2.RAMA/ medical care	• ARVs: 4-6 % of total staff costs • FRw 420 – 630 million in the year 2015 (Mid and worst scenario) • Non-ARV care: up to 1% of staff costs in 2015?
3. Extra teacher training	• 1400-2750 extra trainees (2003-2015) • FRw 370-985 m (ARV vs no ARV mid; 2003-2015)
4. Absenteeism/ relief teachers	< 0.4% of payroll per annum in 2015 (no ARV)

- *An ARV programme for staff* is likely to be the most significant potential cost. Projections indicate that this could amount to an extra 4-6% on top of the sector's basic staff costs by 2015. Figure 3.5 compares the extra costs of ARV treatment to current levels of MINEDUC contributions to RAMA medical insurance.[40] Data was not available to assess costs of non-ARV treatment with any certainty, but rough estimates suggest that they could be equivalent to 1% of the basic salary bill by 2015. When reductions in non-ARV treatment and other cost areas are considered, it is possible that roughly half of the ARV costs could potentially be offset by these reductions.
- *Extra teacher training* costs are likely to be limited. To compensate for premature deaths of teachers due to HIV/AIDS, teacher training may have to be increased by up to around 5% of expected output per annum on average. This need can probably be

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[39] Other costs that could not be quantified included costs of relocation of national or expatriate replacement staff, and return to home areas of bodies of teachers who have died. These expenses can create overruns for specific budget lines, but are expected to be relatively small compared to other costs discussed above.

[40] Direct costs to MINEDUC would be reduced if part of the increase in costs was paid from employee rather than employer contributions. However, it is uncertain whether this could be negotiated with employees.

met by adding slightly to intake and class size rather than creating large extra training capacity. This would limit extra costs to below 5% of expenditure on training.

- *Costs of AIDS absenteeism*, or financial costs of a well-managed relief teacher system to cover staff with AIDS, are likely to not exceed an extra 0.4% of payroll over the coming decade.
- *Caisse Sociale pension benefits* may add to costs but a full actuarial valuation of the scheme was beyond the scope of this study.

Figure 3.5. Increase in RAMA costs due to ARV therapy
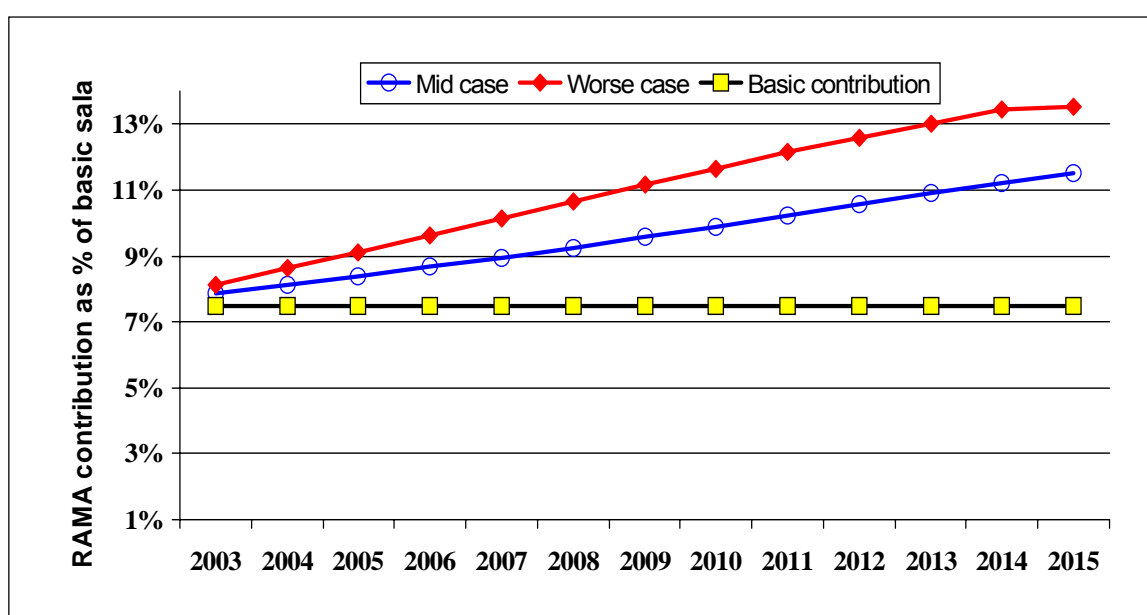
- *HIV/AIDS impacts on household ability to contribute to schooling costs* are another important consideration.[41] These contributions are critical for schools to buy basic materials and other inputs that are needed for quality education. AIDS orphanhood will create financial difficulties for a substantial number of children. However, not all orphans will be unable to pay for fees and other costs, and general levels of poverty (around 60% of households) are likely to be a bigger challenge than HIV/AIDS impacts alone.

3.4 Conclusions – impacts on delivery and costs

1. HIV/AIDS will be a systematic drain on delivery and quality over the next decade, but is not expected to be the main determinant of delivery, costs or ability to achieve staffing and other policy targets.
2. Low average levels of impact will hide a significant number of schools and classes where impacts on quality and access are much more severe.
3. Basic rights of staff with HIV/AIDS can easily be violated in current circumstances, due to stigmatisation and lack of policy guidelines on protecting confidentiality and non-discrimination.
4. HIV/AIDS highlights limitations in education human resource planning and management and adds to other stresses, demoralisation and challenges to achievement of targets for coverage and quality of education.

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[41] Recent analyses suggest that households provide around 30% of education expenditure in Rwanda (World Bank 2002).

5. Despite limitations of data to assess costs of HIV/AIDS for education, it is possible to predict that these costs will be small compared to the other costs involved in achieving UPE and EFA.
6. Costs of important options for response to HIV/AIDS among staff also seem potentially manageable.

3.5 Recommendations – managing impacts on education provision

56. Priority given to responding to HIV/AIDS among education staff and trainees has to balance HIV/AIDS needs with the huge current Human Resource (HR) challenges of EFA and UPE, as well as the limited capacity for Human Resource management, planning, development and administration. With these issues in mind, the following responses are recommended. Human Resources and Teacher Management should take a lead role in developing the sector's response to HIV/AIDS among staff.

Immediate priorities

1. *Prioritise prevention programmes for staff, and particularly for pre- and in-service trainees.* This will have benefits for both staff and learner HIV prevention. It will also help to reduce stigma and generate knowledge that assists in all aspects of impact management, care and support. Most teachers who were interviewed also expressed a desire for additional information and materials, as well as personal life skills training.
2. *Finalise an AIDS or Life threatening diseases policy* to provide protection for employees' rights, including confidentiality and non-discrimination. These can establish safeguards and trust which are critical for effective impact management.
3. *Prioritise strengthening core HR management, planning and development capacity and systems, but integrate HIV/AIDS related issues into system planning.* Strong basic HR management and planning are a pre-requisite for effective impact management and, at the same time, improve overall system performance. Particular issues and systems for consideration as soon as feasible include:
   - Strengthening HR management skills from national through to district levels to deal with impacts of illness, stress and deaths
   - Strengthening routine management information on issues such as levels and causes of staff turnover and attrition, and training outputs. Sources to be improved and coordinated include the payroll, EMIS and Caisse Sociale.
   - Ill health and absenteeism management systems and guidelines. These should include a review of sick leave and pension benefits and administrative systems, as well as improving school and other managers' skills and confidence in dealing with sick or under-performing staff.
   - Substitute teacher systems and budgets to cover for absent staff.
   - Identification of vulnerable posts to prioritise them in planning and administrative processes.
   - Staff development, skills transfer and succession planning systems to reduce impact of losing staff in key positions. This has wider relevance given the capacity constraints that already affect the sector.
   - Efficient transfer, recruitment and redeployment systems to fill vacant posts
   - Refined plans of teacher training output with better data and new policy targets
   - Staff allocation and incentive systems to ensure equitable allocation of capacity.
   - Remuneration and other ways to raise morale and motivation to take on new challenges.

Issues to be tackled as soon as is feasible

4. *Ensure appropriate teacher training outputs, monitoring and roles* in prevention and developing impact management skills.
5. *Advocate for better medical care for staff* with MINISANTE, RAMA and CNLS. Support efforts to provide ARVs to educators in an affordable and effective way, but also strengthen general medical care, non-ARV care for opportunistic infections and staff who do not yet have advanced disease requiring ARVs.
6. *Consider other aspects of employee care and support.* Feasible options that also fit with non-AIDS support priorities include:
   - *Developing networks with other providers* of prevention, support, care and advice/ counselling services (eg health and VCT services, NGOs, MIFOTRA, other Ministries), and distributing information on sources of support to staff.
     - Teacher Syndicats have potential to be an important ally in developing prevention, care and support.
   - *A basic Employee Assistance system.* This could involve designation of contact people at national and provincial level who can be approached under conditions of confidentiality. They could provide services or referral for counselling and other support for employees with HIV/AIDS-related or other personal problems.
   - *Working with Caisse Sociale to streamline pension administration and to review benefits* to respond to ill employees' an dependents' needs. Current benefit structures are targeted mainly at normal retirement rather than the younger people with more dependent children who are usually affected by AIDS. They provide little incentive for them to take early retirement before they are incapacitated or die. Pension administration also involves long delays.[42] This has negative consequences for staff, their families and system function.

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[42] There are indications that many staff are not registered with Caisse Sociale and are not paying contributions, which has serious implications if they need to access benefits.

4. How does HIV/AIDS affect the role and content of education?

International and Rwandan experience shows great potential for interventions to mitigate negative impacts of HIV/AIDS on staff and learners.

4.1 The need for HIV prevention

57. This impact assessment was not concerned primarily with how education institutions and curricula can reduce the spread of HIV/AIDS in Rwanda. However, HIV prevention must be a central focus of the education sector. More than any other sector, education has opportunities to influence levels of HIV infection among young people, through its direct contact with them in the classroom and through extra-curricula activities. Prevention programmes can also promote knowledge and attitudes that create a foundation for HIV/AIDS impact management.

58. Available data indicates strongly that rates of new HIV infection among young people in Rwanda are a major cause for concern. Projections based on Antenatal survey and other data indicate that HIV prevalence among young people is close to zero in the early teens, and then rises rapidly from the mid-teens to almost 6% in women aged 20 (Figure 4.1). Among urban pregnant women aged 25-34, levels exceeded 11% in 2002, and levels as high as 24% and 14% were found among all adults aged 26-40 surveyed in urban and rural areas respectively in 1997.

Figure 4.1: Projected HIV infection levels among young people in Rwanda by age group (Mid Case)
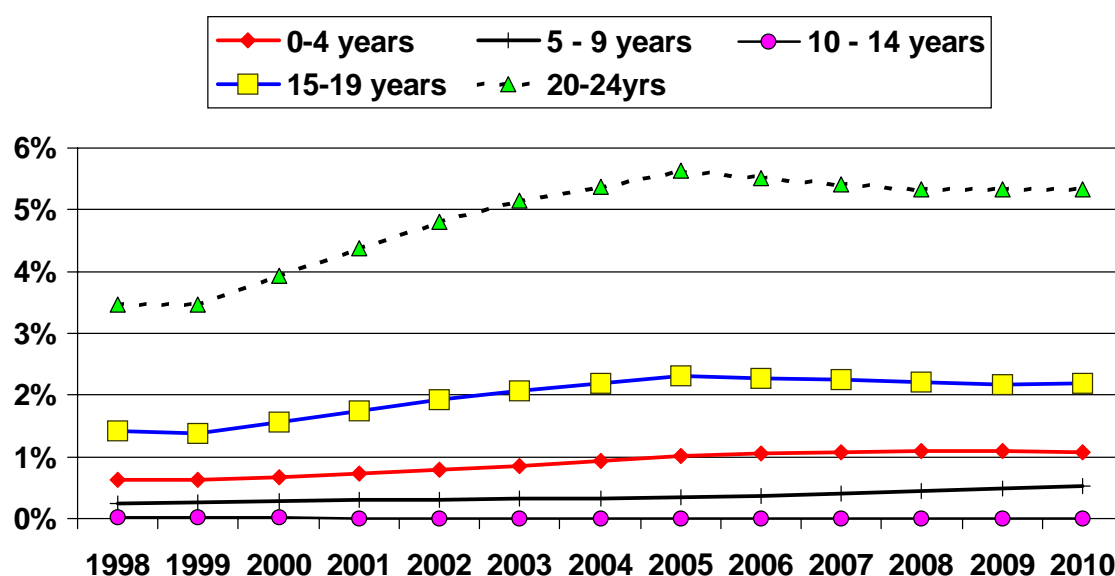
59. The education sector has a critical opportunity to give youth prevention skills before they enter high risk ages. In addition, data suggests that in many communities, well over 10% of investment in education could be lost through premature death of learners who become infected with HIV.

60. A major concern in many education systems is abuse and defilement of learners in unsafe school environments.[43] There is limited indication of abuse or widespread sexual activity in most schools in Rwanda compared to some other countries. However:

- Substantial numbers of learners *are* sexually active, and there are indications that their sexual activity starts early. Among S3 students, 22% have been sexually active and, of these, most began having sex between the ages of 10 and 13 (56%). .
- Many learners face high risk, particularly during holidays, after leaving school or through sex with older community members, mainly to obtain material support.
- Some schools' students seem to be at particular risk. These schools can often be identified through high reported rates of sexual activity or pregnancy, because they have limited infrastructure (fences, hostel capacity), or because of high-risk environs (e.g. urban areas, transport routes, construction projects, bars or barracks).

4.1.1 Current responses

61. The teaching of HIV/AIDS in Rwanda schools was initiated some years ago without formal guidelines. More recently MINEDUC has required formation of Anti-AIDS clubs and outlined a number of initiatives within its strategic plan for HIV/AIDS 2002-2006, which places emphasis on prevention.[44] These include:

- HIV emergency guidelines (including instructions on condom distribution and use) for all educators,
- Introduction of life-skills curriculum and teaching for upper primary, secondary and post-secondary education. HIV/AIDS life skills were expected to be introduced in the pre-service teacher training curriculum in 2003.
- Design and promotion of national media campaigns targeting young people,
- Establishment of peer health educator teams in learning institutions.

62. Important progress has been made. Many schools have started Anti-AIDS Clubs in response to a national directive. Most primary and secondary schools incorporate the teaching of HIV/AIDS in their curricula to some extent, most often through infusion in science subjects, moral education and sometimes home economics. Many school principals also report that they talk about the dangers of HIV in assemblies. The national programme as also begun raising levels of awareness and knowledge among provincial and district managers and inspectors. The school survey indicated 46% of S3 students had received HIV/AIDS information in school, and that only radio is a more common source of HIV/AIDS information for them.

4.1.2 Limitations on effectiveness

63. Despite progress, coverage and effectiveness of HIV/AIDS prevention programmes in schools is limited. Students clearly have limited of knowledge and skills for practicing safer behaviour. Around 29% of S3 students said they had not received any HIV/AIDS information. Furthermore, only 20% of S3 students could correctly answer all of four basic questions on HIV/AIDS, and in discussions with students, pregnancy was a much more dominant fear than HIV/AIDS. Many students express needs for information related to basic knowledge, myths and skills.

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[43] In Rwanda strict codes of conduct are in place to prevent teacher-student relationships and are reinforced by general social and school norms. In discussions with both pupils and teachers there was agreement that such relationships are not condoned. Although 12% of S3 students said that teacher–student sex is "frequent", this figure could be due to sampling issues.

[44] Strengthening Capacity for an Accelerated Educational Response to HIV/AIDS in Rwanda. June 2002.

64. There are several important limitations on current prevention programmes at school level.

- *Stigma, denial and difficulty talking about sexuality.* These remain widespread in most schools and communities.

- *Basic information and materials are not available in many schools.*

- *Teachers have low knowledge, skills and confidence to deal with HIV/AIDS issues.* Although nearly 80% of school directors said that teachers are comfortable discussing HIV/AIDS issues with learners, this view was not backed up by other evidence. Only 45% of schools had received training in HIV/AIDS for staff, [45] and many teachers expressed discomfort about their levels of knowledge and skills for this, particularly because of the difficult questions asked by students. Many teachers and heads also needed to clarify very basic HIV/AIDS facts with the study team..

- *Activities are mainly discretionary, non-examinable and unmonitored.* As a result they are often neglected.

- *Few Anti-AIDS Clubs are really functioning.* Many clubs and their patrons have little idea of what to do and have no guidelines, materials or funds are available. Membership usually seemed limited to less than 10% of learners in the schools that do have clubs and many clubs have ceased to function or have very sporadic activities.

- *Limited staff support for school based HIV/AIDS activities.* In most schools visited, only one teacher, the club patron, was involved in Anti-AIDS activities and even they seemed unreliable in many schools. Most schools said it is difficult to get teachers to volunteer for any extra activities, particularly due to crowded timetables, heavy workloads and lack of incentives.

- *Schools make little use of NGO and other support* in programme implementation. This occurs even when schools are located very close to HIV/AIDS NGOs.

- *False sense of security about risks faced by students.* Many schools have great confidence that sexual activity is controlled through moral education, strict codes of conduct and tight policing of students. There is no consideration that students could still be involved in risky sexual behaviour during holidays or after leaving school. However, even in many of these schools, impregnation of students and coerced sex, particularly during holidays, were acknowledged.

- Rape of school girls during holidays was mentioned as a prevalent problem. In one school it was even proposed that a commission on sexual violence is needed to address the seemingly escalating cases and weaknesses in the law.

- *Many staff and students are confused by apparent conflicts between safer sex and abstinence messages.* In practice, learners report, most emphasis is placed on abstinence. There is effective exclusion of safer sex and condom-related messages in the vast majority of schools visited, and failure to come to terms with the needs of students who are or will soon become sexually active.

- *Low condom access and knowledge of how to use them among sexually active students.* Only 30% of S3 students report "easy access" to condoms. In addition, many schools have punitive attitudes to learners who are found with condoms.[46] Interestingly however, 15% of S3 students said condoms were available in their schools. In discussions with students in schools where high levels of sexual activity were disclosed, it emerged that large numbers of young people do not use condoms mainly because they inaccessible and students do not know how to use them.

65. Of great concern, pre- and in-service programmes have built up very limited momentum to train teachers in HIV/AIDS and life skills topics. This suggests that implementation of the new curriculum will be delayed and difficult.

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[45] There was no association between whether training ha been received and province or type of school.

[46] In 20% of schools, teachers have instructions to report a youth to parents if they are found with a condom.

- None of the TTCs visited had introduced life-skills or HIV/AIDS in pre-service training, although some had active Anti-AIDS Clubs. While some TTC leadership were concerned about HIV/AIDS, others seem not to recognise the deficiency.
- In-service training in HIV/AIDS was not reported by teachers in any schools that were visited, and HIV/AIDS is currently competing with prioritisation of in-service upgrading of teacher skills in other subjects.

4.2   Recommendations – prevention of HIV among learners

66. HIV prevention among learners, including life skills development, should continue to be the main priority of the education sector's response. There is a great deal of momentum behind HIV/AIDS prevention at present, but the sector's HIV/AIDS prevention initiatives need to be strengthened considerably to protect young people and society adequately.

The skills and systems that HIV/AIDS life skills programmes can create are relevant to a number of other education and development priorities (e.g. life skills, civic education, improved teaching skills, school and reproductive health, and population policy). It is therefore proposed that HIV/AIDS prevention should be seen as a "lead initiative" to develop skills and systems relevant to other objectives.

Immediate priorities
The following specific interventions are proposed to strengthen HIV/AIDS and life skills programmes in the near future.

1. *Targeting.* Within the general programme, prioritise programmes in schools with higher risk, and also place greater emphasis on primary schools in order to reach children before they become sexually active or leave education.
2. *Reduce delays in programme implementation.* Developed curricula and materials already exist and the opportunity to use them without delay should be taken.
3. *Fast track supply of HIV/AIDS materials.* There is a major need for materials in schools and high likelihood that they will be used while there are shortages of other materials. Immediate opportunities include distributing "Choose Life" to schools.[47] Also pursue development of School Health Resource Centres[48], and radio, TV or videos to supplement print materials. It is important to increase variety and avoid perceptions that materials are repetitive, unchallenging and unable to respond to learners' needs for more detailed, explicit information and skills.
4. *Strengthen Anti-AIDS clubs and peer education.* Important needs include: provision of materials; development of guidelines and resource lists for networking; more systematic choice, training and support of facilitators; monitoring and evaluation of particular models; and incentives such as competitions.[49]
5. *Develop capacity for HIV/AIDS education.* Important initiatives to consider include:
   - More active support and guidance to mainstream HIV/AIDS in pre- and in-service training. In particular, improve skills to use participatory approaches and

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[47] Choose Life is a particular opportunity to communicate on more sensitive issues and respond to real concerns, needs and misunderstandings of learners and teachers.

[48] As a first step, resource centres for school health and related subjects could be set up in training institutions such as TTCs. Resource centres should include reference materials, videos, pamphlets and newsletters such as "Choose Life" that teachers can use to improve their teaching. Teacher patrons of Anti-AIDS clubs would be able to access these to support their club activities. Resource centres could be set up for clusters of schools and even individual schools to improve access when conditions allow.

[49] Also explore options for Anti-AIDS clubs to incorporate wider issues of interest to young people in order to attract wider participation of the student body.

materials. Rwanda's teachers have very limited experience and confidence in these methods.

- Developing formal local, province and national networks with partners who can be a resource to schools (eg NGOs, VSO, health services).
- Greater use of community members in schools to enhance capacity and improve community acceptance.
- Training of District and cluster level mentors who can then support roll-out to each school. Training of mentors and teachers who work in HIV/AIDS education should also focus on giving them skills to educate and influence fellow teachers and community members.
- Ensuring that planning for development of Guidance and Counselling, and civic education systems incorporates HIV/AIDS to ensure efficient use of capacity.

6. *Address system management issues* to ensure effective implementation.[50] Key issues include:
   - Implementation of monitoring and evaluation systems;
   - Defining selection criteria for trainees and coordinators;[51]
   - Enforcing appropriate timetabling of HIV/AIDS activities;
   - Incentives for staff involvement, including career development options; and
   - Developing skills of school heads and inspectors for support, monitoring and community liaison on sensitive issues.

7. *Work with CNLS and other stakeholders to disseminate clear policy and guidance to reduce confusion around abstinence and safer sex messages.*

8. *Do not rely on infusion of HIV/AIDS into other subjects.* International experience confirms that infusion is useful to reinforce factual knowledge. However, it has serious limitations in developing life skills which enable students to actually practice safer behaviour and confront difficulties with socio-economic and peer pressure, gender relations and desire for status.

9. *Review policy on condom provision for sexually active learners.* Greater access should be considered particularly for older primary and secondary learners, and where health service or other sources are inaccessible or unaffordable.

10. *Promote interventions targeted at safer school and home environments.* Reinforce policies and discipline systems to prevent harassment and abuse. Also place particular emphasis on reducing risk of learners with absent parents, including those living in hostels, boarding in the community or living in child-headed households.

Medium term actions
Once a solid foundation of HIV/AIDS interventions has been established, the following issues should receive greater attention.[52]

11. *Refinement of life skills curricula and teaching skills*
12. *Refining integration with Guidance and Counselling* systems, capacity and curricula
13. *Broadening emphasis to include wider School Health and Reproductive Health. Consider creating 'healthy schools' through the FRESH Partnership.*[53]

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[50] In several other countries, poor programme management and support systems has been a major reason for poor coverage and effectiveness.

[51] Candidates need to be enthusiastic, trusted and respected by learners

[52] In the short term, there is risk that too much formal consideration of these broader agendas in HIV/AIDS initiatives will increase complexity, reduce momentum and cause new delays.

[53] The FRESH (Focusing Resources on Effective School Health) approach was developed by UNAIDS cosponsors and launched at the Dakar World Education Form in 2000. FRESH revolves around core activities that include skills-based education; school policies to protect students and staff from HIV/AIDS related discrimination; and linking of students to health services such as VCT, treatment for HIV and other STIs, and access to condoms. Strong school/community partnerships are encouraged.

14. *Engaging communities and parents more effectively* to influence the environment outside school. This is a major determinant of youths' HIV/AIDS risk and ability to change behaviour.
15. *Maximise coordination and synergy between staff and student HIV prevention programmes.*

4.3   Responding to Orphans and other vulnerable children

67. HIV/AIDS orphanhood highlights the need to address problems of vulnerable children in order to achieve EFA in Rwanda. A new generation of orphans will have to be catered for in future.

Section 2.2.2 highlighted many of the key reasons that orphans and other children are at higher risk of drop out, erratic attendance and poorer performance. Priority problems that need to be addressed include:

- Poverty and basic needs. A dominant obstacle of direct relevance to education is the costs of schooling, including fees. However, other basic needs issues such as hunger and need to generate income also need to be considered.
- Incentives and norms around schooling. An important factor is the perceived benefit of staying in education.
- Psychosocial needs. These are particularly prominent for genocide and HIV/AIDS orphans. In many instances they seem to be related to insecurity related to basic needs.[54]
- Potential for abuse and high risk sexual behaviour among OVC.

Overall, HIV/AIDS orphans' needs cannot for practical purposes be considered separately the needs of many other OVC, although particular vulnerabilities of orphans, certain categories of orphans and vulnerable girls need to be considered in responses.

Another issue that is relevant to response development is that relatively short interventions to stabilise children in periods of crisis seem to have considerable potential to improve attendance and thus efficiency of the schooling system, while limiting demands on school support mechanisms.[55]

The education system has a strong interest in responding to OVC. Responses can strengthen basic education and its objectives by helping to deal with core challenges such as repetition and drop out rates. The sector also has huge potential to respond to OVC due to it presence in more communities than any other sector, teachers' status and skills, and daily contact with children. This gives it huge advantages to perform several key roles, even if capacity for more ambitious direct support is too limited:
1) Identification of vulnerable children as early as possible
2) Referral to various sources of assistance when these cannot be provided in-house
3) Monitoring of children to ensure that support remains adequate.

4.6.1 Current responses to OVC needs

68. Important findings on existing responses include the following:

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[54] Of interest, almost a quarter of surveyed S3 students (23%) had experienced death in their homes in the past year. This suggests that many non-orphans in schools may face psychosocial stress.

[55] This is suggested by the relatively high levels of previous drop out among orphans and other children in S3 classes. These children have clearly been able to return to school and perform reasonably after the crisis has passed. Studies and experience in other countries has suggested similar dynamics.

- *There has been minimal systematic, active school involvement in responding to OVC needs*, although though many staff perceive needs of OVC.[56] Few, if any schools help learners to access grants or other help in times of crisis, leaving it up to them or their families. Most schools know very little about individual children's home circumstances, and few learners feel that they can turn to teachers for help: only 0.8% of S3 students said they turn to a teacher first when they need help and 7% said there is no-one is there to help in times of need.[57]
- *FARG and MINALOC grants are key mechanisms that reduce drop out and attendance problems.* They are widely considered to have major benefits in reinforcing attendance and wellbeing by paying for school fees, uniforms and stationary. However, the systems are restricted to secondary students, and have limited coverage and efficiency.[58] In addition, the level of grants was noted to be too limited for very poor children, who struggle to attend even if direct school expenses are paid for.
- *There are limited alternative support mechanisms, and it is clear that no single sector can manage OVC needs alone.*[59] MINALOC, in partnership with various development partners and NGOs have been most active in OVC support. However, Ministries responsible for administering support face problems of limited capacity. Faith-based organisation and NGO coverage and capacity are also limited.

  Community- and family-based support is critical, but is over-stretched and has been limited by community and family disruption and suspicion since 1994. Grassroots Social Development Committees nevertheless function in many communities. Many have shown strong commitment and developed systems to identify and prioritise the most vulnerable children for support.
- *The School Feeding Programme*, which is currently being piloted in several Districts, has potential to reinforce attendance by many children.
- *There are major constraints on school roles.* These include large class sizes; de-motivated, overloaded teachers; lack of learner trust; limited involvement of expatriate teachers; and limited resources and communications to facilitate responses to children's needs.
- *Few schools and teachers have an idea of what can be done and how to do it.* The few examples of strong school responses suggest that if this obstacle can be overcome, there is considerable potential to respond more effectively to OVC.
- *Minimal formal psychosocial support is provided to orphans and OVC.* However, schools generally acknowledge the need for this.

4.7 Recommendations – support for vulnerable children

69. Effective strategy to reduce impacts of OVC on education objectives requires active involvement of the education sector. However, it is important to have realistic

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[56] About 64.2% of teachers said that the school or MINEDUC makes attempts to get out-of-school children into school, but concrete examples of action were very seldom seen in schools.   Teachers in certain provinces reported attempts more often and inter-provincial difference were statistically significant (p=0.03) .

[57] In the survey, 60% of teachers said they would always know if a learners parent died, but only 30% would always know if a parent was chronically ill. However, a quarter of the 71% teachers who had students in their classes who had been absent after more than a month did not know what had happened to them or whether they were attending another school. Seven percent of S3 learners said they had no-one to turn to if they had a serious problem.

[58] State grant support to was reported to cover less than 3% of school children in 2001, and in 2002, the number of children on FARG and MINALOC grants was estimated to be 35 000 and 51 000 respectively.

[59] Surveyed teachers ranked the most important sources of support for OVC as family > neighbours > teachers (limited mainly to non- material support) > FBO >> NGOs.

expectations of schools and teachers. The following recommendations should be achievable and manageable.

1. *Prioritise and build on existing processes to strengthen basic education.*
    - General initiatives to improve quality (e.g. class size reduction, teaching skills and budgets for materials, communication and other non-staff items) will enhance incentives to remain in school and perform well, as well as strengthen staff capacity and motivation to respond to OVC needs.
    - Consider other basic interventions to enhance ability to provide relevant, accessible education to OVC. These may include:
        - Responsive scheduling to accommodate seasonal or household demands on children's time.
        - Use of distance education and non-formal methods and materials.[60]
        - Greater access to vocational training at primary and higher levels.[61] [62]
        - Options that allow vulnerable children greater access to accommodation.[63]
2. *Use existing OVC support capacity and systems more efficiently.*
    - Promote school and higher-level action to improve grant system cover and efficiency. Greater decentralisation of grant system management by MINALOC at present creates opportunities for successful provincial and local coordination.
    - Rapidly evaluate and extent School Feeding Programme interventions
    - Encourage Faith- based and NGO projects to coordinate with schools and provide material and psychosocial support to OVC.
    - Investigate the use of foreign volunteers i.e. VSO, Peace Corps, to initiate counselling and other support. This may be an interim measure to begin building trust and linkages between teachers, learners and other resources.
3. *Define key school roles and develop guidelines around OVC support.* These should cover, for example, non-exclusion; identification and monitoring of OVC; and referral and networking, particularly in relation to securing grants.

Consider the following interventions as soon as feasible, probably mainly in the medium term.

4. *Refine resource allocation systems* to accommodate differences in schools ability to collect fees.
5. *Develop formal networks for efficient use and allocation of resources.*[64] At national, provincial, district and local level, formalised networks of role players should be developed to assist schools to access support and coordinate resources for efficiency and equitable coverage.

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[60] Other options (eg planning more, smaller schools) may also be able to reinforce access for children with competing duties and less resources (cf. World Bank 2002).

[61] Informants and experience in other countries have noted that the early death of farming parents disrupts the transfer of knowledge and skills from generation to generation. Children growing up as orphans have fewer opportunities to learn how to use and sustain land and to prepare nutritious food for family members. (AIDS epidemic Update 2002, UNAIDS) . This suggests that basic vocational training in primary schools, possibly linked to mentorship programmes can considerably improve the prospects of many orphans.

[62] It should be noted that vocational training is often more expensive and has greater shortages of qualified personnel than normal schooling. Also, some vocational training models may not increase accessibility.

[63] The World Bank (2002) indicates that providing boarding schools is not a financially viable option to extend secondary access. Other options (eg accredited community boarding establishments) may need to be considered to reconcile accessibility, cost and reducing risks of abuse and HIV.

[64] Rwanda's plan of action on OVC places strong emphasis on the need to establish coordination committees at provincial and District level. Participation in, and use of, these is likely to be a key part of network development.

- For each school and school cluster, designate and orientate specific teachers and/or community members to coordinate networking. Roles should include coordinating MINALOC and FARGE support and assisting in identification of children in need of support.
- Actively involve youth, children and communities.

6. *Refine the role of Guidance and Counselling staff in OVC support* as this system gains capacity. However, avoid over-reliance on them as their capacity will be limited. Schools should also consider ways to participate in, and coordinate with, community based and other psychosocial support systems which are being proposed under the National policy on OVC.

7. *Work with MINALOC to refine grant systems.*
   - Explore ways to increase ability to increase grant amounts for children in more severe circumstances.
   - Explore possibilities to use FARG resources for other OVC when the number of genocide orphans in education declines.

In general, it is recommended that the MINEDUC responses should focus on learners in school and early action to keep them in school. Learner needs are much easier to address while they are still engaged in schooling and active outreach to bring out-of-school children and young people back to education involves significant complexities and capacity.

4.8   Special needs of infected students

70. Children infected or ill with HIV in schools are expected to be a very small minority of learners. Figure 4.1 shows projected numbers of AIDS cases among children and youth in Rwanda. It illustrates that numbers are very low in relation to total school enrolments and that most children infected by parent-to-child-transmission of HIV will become ill and die before they reach school-going age.

Figure 4.1; Projected number of AIDS cases by age group in Rwanda (Mid case)
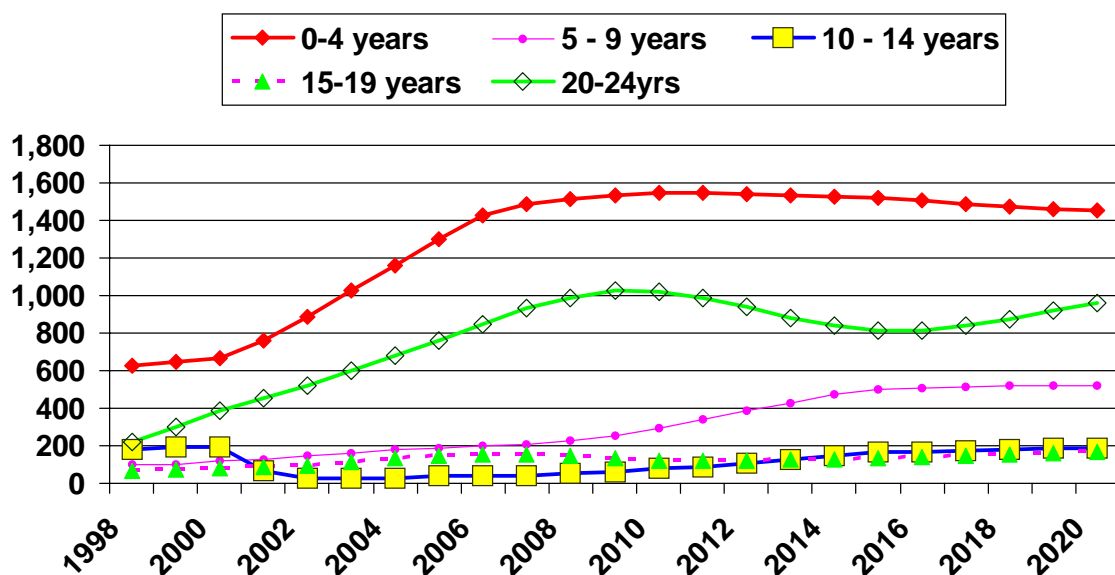
In schools, there are few reports of infected children. About 14% of teachers reported that they knew children in school who they thought might have HIV/AIDS, with more in primary schools. However, it is clear that it is seldom verified that these children actually

have HIV/AIDS. Very often, children of people who are thought to be infected or to have died of AIDS are presumed to be infected with HIV by both teachers and children.

The most common problems of chronically ill children reported by teachers were frequent absence (27%), being avoided, teased or bullied (25%), and drop out (7.5%).

4.8.1 Recommendations - infected students

Systems to support infected and sick children do not warrant major prioritisation by the HIV/AIDS programme. However, the following actions must be considered.

1. *Ensure that rights and needs of infected and sick children are considered* in children's rights, school health and Guidance and Counselling programmes.
2. *Develop guidelines on universal precautions and accidental HIV exposure* as part of HIV/AIDS policy, but also use policy to reduce unnecessary anxiety about risks of infection which can have major potential to reinforce stigma.

5. Planning and management of the education sector

Many aspects of HIV/AIDS implications have been mentioned in previous sections. Compared to more heavily affected countries, the lower-than-expected rates of infection among staff limit the likely impact of HIV/AIDS on management function and tasks. However, there are still important implications of HIV/AIDS for management and planning functions. Several key implications for planning and management are discussed in this section.

5.1   Mainstreaming of HIV/AIDS

HIV/AIDS has implications for many components of the education sector. The HIV/AIDS Unit has neither the capacity nor authority to ensure appropriate action in all these sub-sectors. Mainstreaming of HIV/AIDS in planning and management requires:
a) Consideration of *specific needs for prevention and impact management* among the staff and learners falling under each component, and
b) Closer consideration of *general system weaknesses that are highlighted and worsened* by HIV/AIDS within each area.

Specific issues that need to be considered by each education sub-sector or component are listed in Annexure D.

5.1.1   Implications for decentralisation processes

Decentralisation creates several important opportunities. It can increase flexibility to respond to local needs and priorities in various areas of impact management, and greater opportunities to develop effective networks at provincial and more local levels.

However, decentralisation also has potential to increase vulnerabilities that should be managed.
- Loss of key managers to AIDS in a skills scarce environment can occur and reemphasises the need for effective succession planning and knowledge sharing to limit disruption.
- Decentralisation of responsibilities for certain systems (eg HR management an information systems; EMIS; programme monitoring; budgeting) creates potential for some strategic information not to be available to central level for identifying certain HIV/AIDS-related problems and analysing them efficiently.
- MINEDUC needs to ensure that central level commitment to HIV/AIDS issues and necessary leadership and other skills are transferred to provincial levels.

5.2   Capacity to drive the HIV/AIDS response

Establishing an effective nation-wide HIV/AIDS programme in education requires significantly greater capacity than is available at present, even if the programme's focus is HIV prevention alone for the foreseeable future.

Important aspects of strengthening programme capacity include:
- *Reinforcing definition of roles of national level capacity*, with particular emphasis on prioritising coordination, management and system development roles. Extensive

involvement in implementation and other non-critical activities is likely to overwhelm existing capacity, with loss of focus on strategic priorities.

- *Ensuring access to technical support* on specific issues that are beyond the capacity or expertise of full-time staff. Examples may include: monitoring and evaluation of the programme and components; technical support in specialised HIV/AIDS and life skills curriculum development, evaluation and training; project planning and management support for national and provincial coordinators; and development of OVC support systems and guidelines.
- *Consideration of provision of technical support to Teaching Management and Human Resources* to strengthen basic HR management capacity and systems for the sector and resolving weaknesses highlighted by HIV/AIDS.
- *Prioritising development of capacity at provincial and lower levels.* Training of focal persons needs to move beyond basic HIV/AIDS awareness and knowledge to programme planning, management and networking skills. Selection of focal persons at each level should ensure that they are motivated, have adequate skills and authority and are not over-burdened by other responsibilities. The current emphasis on prioritising training of coordinators at provincial and District/ inspectorate level is appropriate. However it should be followed by capacity development at cluster and district level, and for school heads, who can motivate and support school level responses ahead of training implementation capacity in each school.
- *Coordination of capacity development with Guidance and Counselling and civic education*
- *Co-ordination of donors, projects and non-governmental initiatives related to HIV prevention and impact management.* This is needed to reduce fragmentation, maximize use of available capacity and ensure equitable coverage of capacity across provinces and local areas.

5.3   Budgeting and resource allocation

At present, effective action within Ministry components, institutions and schools is often obstructed by lack of defined budgets and resources. This applies even to smaller budget items such as materials, transport and communications for networking and sharing of experience at local level in particular. In addition, HIV/AIDS highlights the financial and functional vulnerability of schools serving particularly disadvantaged communities, as well as concerns about school fees and other school related costs. Several recommendations are made to improve HIV/AIDS programme function and limit potential negative impacts of HIV/AIDS and related problems.

- *Consider a general requirement that all education components down to provincial and school level should allocate a certain percentage of their budgets to HIV/AIDS,* linked to specific activities and outputs (actual finance could be sourced from AIDS programme funds). This could encourage mainstreaming of HIV/AIDS in activities and budgets and relieve pressure for allocation of extra resources. Encourage pooling of budgets for combined activities across units and institutions where this will help to increase viability of responses, reduce duplication and maximize synergy.
- *Prioritise interventions with multiplier effects* (eg disseminating examples of best practice, and access to phones, photocopiers and transport for networking).
- *Consider innovative approaches such as an incentive fund programme* to support planning and action on HIV/AIDS by Provinces districts, clusters or schools.
- *Closely monitor fee and levy structures and effects.* If necessary review fee strategy and consider supplementation of poorer schools with more OVC if grant systems cannot be relied on to overcome these obstacles
- *Prioritise vulnerable schools, institutions and areas* when limited resources exist.

5.4 Higher education

Higher education accounts for a high proportion of Rwanda's investment in education. A large investment in each student can be lost if they are infected in HIV. Most institutions are in urban areas and there are indications that many students are at high risk of HIV infection, including frequent reports of pregnancies, sugar daddies and low condom use. Most illness and deaths of students will likely to occur mainly after they graduate and are likely to be under-recognised. Impacts of HIV/AIDS on staff and students are reported, and clearly cause significant stress and disruption, but seem infrequent at present.

This study could only investigate higher education HIV/AIDS impacts and responses to a limited extent. However, it is clear that, with some promising exceptions, responses to HIV/AIDS in higher education are weak. There are low levels of involvement of key leadership, staff and students. Many motivated staff and students have limited resources and technical support to implement effective programmes. The effectiveness and coverage of initiatives such as anti-AIDS clubs often seems low, and many institutions' activities are infrequent. There are limited systems and capacity to support staff and students who may be affected by particular HIV/AIDS and similar stresses. Staff and students involved in programmes expressed frustration at the limited impacts their efforts seem to be having, and limited financial and other support to improve programmes.

Recommendations –higher education

1. Mobilise awareness and support of institutional leadership to ensure greater priority of HIV/AIDS responses
2. Develop an active partnership with higher education institutions to ensure prioritisation of HIV/AIDS prevention and to develop well-informed, coordinated, well-supported plans and programmes in all institutions.
3. Place particular emphasis on mainstreaming HIV/AIDS in teacher training programmes. This is critical for success of other aspects of the MINEDUC response.
4. Pay specific attention to structural risk of HIV infection for students eg unsafe accommodation, sexual relations with staff, and incentives for students to have sexual relations with older people in return for status or material benefits
5. Monitor risk behaviour and impacts on staff, students and graduates
6. Strengthening efficiency of higher education and training, to limit unnecessary costs and delays in meeting urgent capacity requirements
7. Assess and monitor impacts on student loan and bursary systems, including ensuring that infected candidates are not unfairly discriminated against, particularly when their productive life can be considerably extended by ARVs.
8. Infuse HIV/AIDS issues into core subject and research agendas to equip graduates to function more effectively in an HIV/AIDS affected society.

6. Conclusions and Recommendations

HIV/AIDS will undermine quality, access and investment in education over the next decade. At current infection rates, around 10% of investment in education could be lost prematurely due to HIV/AIDS. The epidemic is not expected to be the dominant determinant of system viability and performance. However, over time the gradual, cumulative effect will be a significant drain on progress in education development and performance, and HIV/AIDS will severely affect many learners, educators and institutions.

There is a critical opportunity to ensure control of the epidemic, and the education sector has a key strategic role in the national response. The sector is uniquely placed to sustain a successful national response to reduce infections and impacts of orphanhood among children and youth. As the nation's largest employer, MINEDUC has a responsibility, to reduce the impacts on its employees, and action will have spin-off benefits for their dependents and learners as well as system function.

Furthermore, HIV/AIDS highlights existing weaknesses of the education system that undermine other education and development objectives. It therefore provides an opportunity to reinforce responses to many of these weaknesses, and should not be seen just as an extra burden, distraction or threat.

A. Recommendations on general strategy

1. *Prioritise prevention.* The current focus on staff and student prevention in HIV/AIDS strategy is appropriate and will have spin-off benefits for impact management.
2. *Prioritise basic education and management strengthening but mainstream consideration of HIV/AIDS into all planning.* A stronger basic education system is needed as a foundation for other action on HIV/AIDS. However, consideration of HIV/AIDS issues should be mainstreamed into planning and system development in all aspects of the system. Response to HIV/AIDS and related problems cannot be seen as just the responsibility of the HIV/AIDS Unit. The Unit has inadequate influence and capacity, and other divisions will miss opportunities for general system strengthening if they ignore issues highlighted by AIDS.
3. *Ensure strong, informed leadership at all levels.* This is needed to enforce accountability and combat stigma and denial, which undermine HIV prevention and support for infected and affected staff and children.
4. *Ensure decentralised approaches.* Provincial and lower levels should be prioritised as targets for support within the national strategy. Success of responses relies on local and District level action, and central level capacity is always limited and has limited knowledge of local circumstances. Active involvement of teachers, learners and communities will also be critical to mobilise support, define realistic actions and recruit all available resources for HIV/AIDS-related responses.
5. *Enhance system flexibility.* This is needed to accommodate uncertainty about levels of HIV/AIDS and related problems due to limited information. In addition, it is needed to facilitate creative, service orientated responses to unforeseen needs or circumstances of learners and staff at school, District or institutional level.

B. Key recommendations - specific issues

6. *Reinforce central roles of teacher education in managing HIV/AIDS*. Their pivotal role in responding to staff and learner needs cannot be over-emphasised. At present they are producing teachers with no significant skills for self-protection or to transfer in relation to HIV/AIDS or impacts.
7. *Refine HIV/AIDS Strategic and Operational plans*. The current plans lay a sound foundation for action but should be revisited in view of study findings and lessons from a year of implementation. Particular emphasis should be placed on prioritisation, targeting, role clarification, details of implementation strategy and systems, and plans for provincial and lower level implementation.
8. *Strengthen inter- and intra-sectoral partnerships.* At each level, networks of role players should be organised to maximise use of resources for prevention, care and support. Formal partnerships with NGOs and donors should be concluded for each province to define roles and ensure equitable coverage of resources.
9. *Improve information and monitoring* of impacts and responses in relation to staff and learners.
10. *Clearly define roles and accountabilities at each level and develop practical guidelines* for implementation at each level. HIV/AIDS is simply seen as the responsibility of the HIV/AIDS Unit and opportunities for synergy are not taken
11. *Strengthen HIV/AIDS programme capacity and structures.* This is needed at central level but also for each province, district and cluster of schools.
12. *Develop strategy on budgeting and resource mobilisation*.

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ANNEXURES

ANNEXURE A: References

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ANNEXURE B: Acknowledgements

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Kigali-Ngali
- Groupe Scolaire APERWA/ KABUGA
- Bicumbi Teacher Training College
- Ecole Primaire Akanzu
- Ecole Primaire Kabuga

- Nyamata high school

Kigali-ville
- FAWE Girls
- La Colombiere primary and secondary
- Ecole Secondaire de Butamwa
- Ecole Primaire de Gikondo
- Ecole Primaire St Famille
- Caritas diocésaine de Kigali
- KIST (Kigali Institute of Science, Technology and Management)
- AVEGA AGAHOZO (Association des veuves du Genocide) Kigali

Kibungo
- Fukwe Ecole Primaire
- College communal KIGARAMA
- Kankobwa Ecole Primaire
- Ecole Primaire Rubira

Butare
- ENDP Karubanda
- Petit Seminaire Baptiste
- College Imaculee
- Groupe Scolaire Gisagara
- Ecole Primaire Matyazo
- Butare EER Primary School
- National University of Rwanda
- Ecole secondaire de Save
- Service Notre Dame de la Visitation

Cyangugu
- Ecole Secondaire St Joseph de Nyamasheke
- Deputy Director of Education
- The District Inspector
- Gisuma College Communal
- TTC Mururu
- Mururu Primary School
- Marie Jose Kanhara (Rescue Committee Cyangugu)

Byumba
- EPA Byumba Catholic
- Gatuna Ecole Primaire Rukizi
- TTC Byumba
- Buyogo Secondary School
- APEKI Tumba Secondary School
- APAPED Group Scolaire
- Village SOS Byumba
- Groupe scolaire de la Salle,

Umutara
- Kagitumba High School
- Ecole Primaire Rugarama
- Nyagatare Primary School
- Ecole technique de Nyagatare.

ANNEXURE C: Methodology and interpretation of projections

Planners need to be aware of the limitations on accuracy of HIV/AIDS projections produced by this study, particularly for the size of population in school gong age groups. These arise particularly from demographic assumptions used and the limitations of demographic data. Issues in relation to the inputs and approach used are discussed below, followed by some general recommendations for interpretation and use of the projections.

C.1. General approach

Population projections for this project were made using the Spectrum model. This has been widely used in many African countries for projecting HIV/AIDS impacts on population size and structure. Although the model, like an other model, has limitations, it was felt to be most appropriate for Rwanda, particularly given input data limitations and possibility that new 2002 Census results need to be easily compared with assumptions used in modelling.

Projection of Rwanda's population presents major challenges. The most fundamental issue is the unusual population structure due to the deaths, migration and fertility effects of the genocide and war. This age and gender structure can be easily imitated at a certain moment in time. But modelling the reality of deaths and births over time is a complex challenge. This is made more complex by an HIV epidemic which has been in play for over 2 decades, and which was probably also heavily influenced by the war and genocide.

In using Spectrum, HIV has to be introduced into play with many years lead time to begin to approach accuracy in projecting AIDS sickness and mortality. It was thus not possible to start the projection post-genocide and hope to achieve any accuracy. It was imperative that the projection be started no later than 1990 to achieving a reasonably accurate HIV effect by 2000. In the absence of more up to date and reliable information, the 1996 population structure data from the Social and Demographic Survey was used as the main reference point. This was projected backwards to 1990 ignoring the genocide, and then projected forward from that date including an HIV effect. One potential limitation of this method is that HIV was already an influence in 1997 that may not have been fully captured. Introducing HIV in 1990 starts to have some effect by 2000, but its effects are limited before 2000. The credibility of the projected HIV/AIDS impact projections therefore increases beyond 2000, but the numbers for most of the 1990's must be used with caution as, to a significant extent, they represent of an "imaginary" population and epidemic produced to provide realistic projections from around 2000 onwards.

Various modifications to basic Spectrum outputs were made to provide more useful data for planning. For example, further modelling was required to produce projections of children in one year age bands and to estimate orphan numbers in different age bands.

C.2. HIV/AIDS scenarios and assumptions

Four scenarios were used to explore policy implications of the epidemic. A No-AIDS scenario indicated expected trends in the absence of the epidemic. This was compared to three AIDS scenarios each of which had different assumptions for rural and urban populations, which modelled separately and then combined for national projections. The three scenarios are summarised in the following table. They assumed the weighed rural and urban trends in antenatal survey HIV infection rates that are illustrated in Table 1.1

in the main text. However they differ in their assumptions of trends in the epidemic going forward.

Table C.1 Assumptions of Antenatal HIV prevalence trends in different AIDS scenarios used in projections

Best scenario	Rural	- Follows rural trend and stays down at around 3% after 2002
	Urban	- Urban overall trend but plateau at 7% by 2005
Mid/ best estimate	Rural	- Follows rural trend but plateau at around 6%
	Urban	- Urban overall trend but plateau at 10% from 2002
Worst scenario	Rural	- Follows rural trend to 1998/9 then increases to 9% plateau by 2005
	Urban	- Urban overall pattern but plateau at around 12%

The resulting adult HIV prevalence rates used in modelling are shown below. These are somewhat lower than levels in pregnant women, as there is under-representation of lower-risk older and very young women in antenatal surveys, and population-based surveys have also indicated that infection rates among men tend to be significantly than in women. The rates in 2006 are assumed to continue after 2006.

Table C.2: Adult HIV prevalence rates assumed in modelling

Scenario		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Best	Urban	8.8	8.7	8.5	8.3	8.1	8.0	7.8	7.4	7.1	6.7	6.4	6.0	5.6	5.8	5.9	6.0	6.0
	Rural	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.5	2.6	2.6	2.6	2.6	2.6
Middle	Urban	9.0	8.9	8.7	8.5	8.3	8.2	8.0	7.6	7.3	6.9	7.4	8.0	8.5	8.5	8.5	8.5	8.5
	Rural	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.9	3.4	3.8	4.2	4.7	5.1	5.1
Worst	Urban	9.3	9.1	8.9	8.7	8.6	8.4	8.2	7.8	7.4	7.1	8.1	9.2	10.2	10.2	10.2	10.2	10.2
	Rural	2.4	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.7	3.5	4.3	5.2	6.0	6.8	7.7	7.7

C. 3. Demographic data and assumptions

Three main sources of demographic input data were used. These were:
1) The 1996 Social and Demographic survey, including results of previous Censuses and surveys reported in it. It should be noted that although the 1996 SDS is the only source for much important data, there is concern that it suffered from inaccuracies due to factors including the ongoing war and instability of the time.
2) The 2000 Demographic and Health Survey.
3) Preliminary 2002 Census results. These only provide total population by province and urban/ rural location and a limited age split of population under or over 17 years old.

The following were important inputs into the modelling process.

Age and Sex Structure

The 1996 SHS baseline which was used to project back to 1990 and forwards was as shown in the following table.

The 1996 SHS showed markedly lower numbers of children in the 0-5 and 5-9 age groups than would have been expected in most populations. A significant proportion of this loss is likely to have been due to the genocide and war. However, a substantial proportion may have been due to under-enumeration of young children that is usually observed in most Censuses. In the absence of better data, an ad hoc correction to the

number of children in these age groups was made as, without this, projected population size was substantially below that reported in 2002 Census preliminary results. The appropriateness of this adjustment can only be assessed once more detailed Census results are available

	Male	Female
00 - 04	626	649
05 - 09	596	618
10 -14	570	592
15 -19	461	502
20 -24	253	342
25 - 29	182	268
30 - 34	186	242
35 - 39	164	207
40 - 44	128	164
45 - 49	99	131
50 - 54	68	99
55 - 59	54	80
60 - 64	52	68
65 - 69	44	55
70 - 74	34	43
75+	41	51

Fertility

The rates used from 1996 until 2010 were as follows:

TFR	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
given	6.35	6.25	6.16	6.07	5.99	5.9	5.81	5.73	5.64	5.56	5.47	5.38	5.3	5.21	5.13
used	6.5	6.35	6.21	6.1	6	5.95	5.86	5.78	5.69	5.61	5.52	5.43	5.35	5.26	5.18

The rates assumed pre-1996 were as follows:

1990	1991	1992	1993	1994	1995
6.8	6.8	6.8	6.8	6.8	6.65

The age specific rates used were as follows. This was a recalibration of the given 1996 SDS rates, which was required to match the shape of the age rates to the TFR used for 1990, namely a rate of 6.8. The original rates given match to a TFR of 6.5

15-19	48
20-24	239
25-29	321
30-34	313
35-39	239
40-44	130
45-49	69

Mortality

This calibration had the least supporting data. It was decided to calibrate this according to standard tables. The table used was the UN South Asia table as this seemed to fit most accurately the growth trends 1997 onwards, based on the Social and Demographic Survey. In many cases in projections, births, deaths and population profile have to be

reconciled despite conflicting data. The two other sources of data, population profiles and births were fairly well covered in the data given, resulting in a situation where broad mortality could be estimated. In longer-term projections this would not be desirable, as greater inaccuracies would be expected. However, for the purposes of these fairly short term projections, the results are not very sensitive to the exact shape of the mortality curve.

Migration

This was not considered in the modelling as too little data exists. However, the effects of international migration in particular, are expected to be much less important over the coming decade than in the 1990s.

C.4. Methodology used for staff impact projections

In the absence of better data, projections assumed that any education staff member would have the same risk of HIV infection as estimated for any other Rwandan adult in the same age and sex category. However, it needs to be recognised that even if this assumption is adequate overall, secondary and management staff may be at higher than average risk due to greater mobility and exposure to higher education institutions and urban areas. In other countries there are also indications that support staff may be at particularly high risk (see eg HIV/AIDS and Education Study Group 2001). In projections, 25% of staff were assumed to have "rural" risk profiles and 75% "urban" risk, to reflect greater mobility and likelihood of exposure to urban areas than the average adult.

The age and gender profile of education staff, a major determinant of HIV risk, was established using data on active education sector members of Caisse Sociale du Rwanda in October 2002. Unfortunately, these could not be differentiated by level of school, province or other parameters, and there was no alternative source of age and gender-linked data. The profile of employees was assumed to remain constant over the projection period.

Complete records for a total of 25 546 staff were available. The Caisse Social dataset seems not to be complete for all employees, and there were indications that significant numbers of more recent entrants may not have been registered on the database. Based on enrolment ages of new staff in previous years which could be extracted from the data, it seems likely that the current database may under-represent new, younger teachers. However, comparison of estimated age specific AIDS mortality rates suggests that this is unlikely to have very substantially biased expected levels of AIDS impacts.

Non-AIDS death projections were adjusted to allow for a "healthy worker" effect seen in most formal sector workforces. This reflects the fact that people in employment are likely to have better living circumstances, including access to health care, that the average adult and that people with pre-existing health problems are less likely to be recruited into workforces.

Antiretroviral projections

Projections of antiretroviral (ARV) interventions were subject to a number of assumptions. Overall, the projections had to use a number of simplifying assumptions in the absence of more detailed data. Important assumptions included:
- Uptake rates of 75%. As it is likely to be difficult for many teachers to access ARV treatment due to logistical difficulties (particularly for rural teachers), lack of

information and psychological barriers, it is assumed that not all staff in need would present for treatment.

- Survival times of people on ARVs. These were assumed to be similar to those found in developing countries. Recent experience indicates that comparable results can be achieved by well managed programmes in African settings and teachers would be expected to be a group with relatively high chances of successful treatment. However, survival times would be influenced by the efficiency and accessibility of any ARV programme in Rwanda. Another important limitation on projections is that HAART ARV therapy has only been in use since 1997, so understanding of longer term survival rates is limited. Longer term survival and greater compliance with treatment increase costs but also effectiveness and benefits of ARV therapy.
- ARV treatment is, on average, assumed to start a year before staff would otherwise be projected to die of AIDS.

Costing of impacts

Several important assumptions were made in costing of HIV/AIDS impacts. These included: constant 2002 prices; no change in real costs used for comparisons (eg total average salary per staff member and RAMA contributions as a % of salary); and no discounting of future costs.

Other specific assumptions made for various costs included the following.

- *ARV treatment costs.* These were assumed to be FRw 420 000 per year, the current price reported in Rwanda. Actual costs might be lower due to drug price reduction.[1] However, they could be increased by other costs such as staff or laboratory costs, or need for more expensive "second line" drugs in cases of treatment failure. Exchange rate changes could also be an important influence that raises or lowers costs. ARV cost estimates that are presented did not consider savings in other areas such as non-ARV treatment costs or absenteeism.
- *Non-ARV treatment costs.* In the absence of representative costs of treatment for relatively affluent and demanding groups such as teachers, a simple extrapolation was made from cost estimates for public sector services in South Africa, adjusted for different AIDS mortality rates in Rwanda.
- *Absenteeism costs.* These assume that the average teacher who develops AIDS will be absent and require cover for six months of duties in their final year of life, and that relief teachers would be paid the full average remuneration of staff who are lost.
- *Teacher training.* Estimates assume that the extra trainees required to replace staff who die will be the full average unit costs of training a teacher. However, the expected scale of extra training due to AIDS is small and will not necessarily require establishment of new institutions or even classes, rather than just increasing the intake into existing classes. Thus estimates may be higher than would occur in reality.

Despite these simplifying and often crude assumptions, it is likely that estimates are adequate to define the main policy implications for the education sector.

C.5. Validation of projections

There is very limited data to assess the validity of the projections for staff or numbers of children.

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[1] Some countries are accessing basic drug combinations for around $US1 per day, lower than half this price.

In the case of projections of numbers of children, adjustments to the assumed number of children age 0-9 in 1996 or fertility calibrations may have led to over-estimation of the size of numbers of children. The projected population aged 0-17 is around 100 000 or 1% higher than in the 2002 preliminary Census results. Further understanding of this will only be possible from more detailed Census results which provide, for example, better understanding of the number of children in five and one year age bands. EMIS data provides little assistance in assessing trends due to the short time-series of detailed enrolment data and the major effects of out-of-age children through drop-out, repetition and "catch-up" in the post conflict situation.

There is limited information on numbers of AIDS orphans in Rwanda. Results of the school survey suggest that projections do seem broadly consistent with experience. 3% of Secondary 3 students had been orphaned by long illness of their mother, compared to projected 2002 levels of around 2-2.5% for relevant age groups.

All available mortality data for education staff also seems to have major limitations and do not provide a clear picture of whether projections are high or low (Table III.3). MIFOTRA data on deaths of education staff indicates that projections may over-estimate death rates. However, the data excludes data on ill health retirement and comes from a relatively new database that may not be complete and could include some deaths in other categories of attrition. School survey data on the staff deaths, ill health retirements and staff establishments for 2000/1 and 2001/2 was incomplete and there were concerns about the validity of data provided. However, manipulation of data to establish a range of estimates annualised over the two year period suggests a higher rate than either projections or MIFOTRA data. Caisse Sociale computerized records do not routinely provide cause of registration for benefits, and thus deaths and illness. School Survey findings that in the last 3 years the average annual death rate among S3 students' fathers and mothers were 1.5 and 1% respectively, suggest that projection of adult death rates are not clearly out of line with experience.

Table C.3: MINEDUC staff attrition rates due to death and illness – comparison of projections with estimates from other sources

	Projected total I deaths: Mid AIDS Scenario	MIFOTRA deaths (excl. ill health retirement)	School survey – all death and illness high estimate*	School survey: all death and illness low estimate*	Projected AIDS deaths: Mid scenario	School survey deaths from long illness – High estimate	School survey deaths from long illness – low estimate	Projected AIDS deaths – Best scenario	Projected AIDS deaths- worst scenario
1999	0.93%	0.25%			0.25%			0.24%	0.26%
2000	0.98%	0.26%			0.29%			0.28%	0.30%
2001	1.00%	0.23%	1.6%	1.2%	0.32%	1.3%	0.9%	0.30%	0.35%
2002	1.02%	0.29%	1.6%	1.2%	0.35%	1.3%	0.9%	0.32%	0.39%

* Annualised

C.6. Issues in interpreting and using projections.

1. *Projections of learner numbers are subject to a number of uncertainties, more due to limited demographic data than HIV/AIDS issues.* More detailed results of the 2002 census will be critical to validate assumptions, particularly around fertility trends and the age profile of the population. The estimated size of HIV/AIDS influences is however probably adequate for planning purposes, as they are likely to remain smaller than other factors. However, for each planning decision, it will be important to

assess whether different scenarios need to be considered to deal with uncertainty and minimise the risk that incorrect estimates are used.

2. *Projections of staff impacts of HIV/AIDS seem likely to be adequate for most planning purposes*, despite uncertainties. This is because overall magnitude of impacts do not seem likely to change dramatically even if certain assumptions change quite markedly within a plausible range. In addition, within plausible ranges, HIV/AIDS itself seems likely to have relatively small effects compared to other factors affecting educator supply eg. staff morale, qualifications, training needs and attrition.

3. *ARV cost projections should be revised once more detailed investigation of delivery and funding mechanisms has occurred*, and if issues around cost and effectiveness will I be critical determinants of final policy decisions.

4. *In any given year or in certain provinces and schools, impacts may be substantially higher or lower than the average.* Projections represent an average probability of certain events at national level and in various years. Real-life experience is unlikely to produce smooth curves over time or uniform impacts in all areas, even if overall levels and trends are consistent with projection. This should be considered in planning, and in interpreting validation data from any source.

ANNEXURE D: Roles of specific education directorates and components in responding to HIV/AIDS and related challenges

This study has highlighted the need for various education system components to systematically consider HIV/AIDS issues in routine planning and system development, and take opportunities to act on them. This is critical to strengthen specific HIV/AIDS prevention and impact management, which will have limited success if all responsibility falls on the limited capacity in the HIV/AIDS programme. However, it will also help to highlight some key weaknesses of basic systems as greater priorities, and will thus create opportunities to be more effective in traditional "core" functions.

The following issues have been identified for consideration by various MINEDUC and sector components.

D.1 High level management and Ministers

- Leadership to combat stigma and denial
- Enforcing accountability
- Facilitating inter- and intra-sectoral coordination

D.2 Higher education

- Mobilising awareness and support of institutional leadership to ensure greater priority of HIV/AIDS responses
- Developing a more effective, systematic and well informed approaches to planning and implementation of HIV/AIDS programmes in institutions
- Prevention and life skills programmes for students and staff
- Reducing structural risk of HIV infection to students eg unsafe accommodation, sexual relations with staff and incentives for students to have sexual relations with older people in return for status or material benefits
- Monitoring risk behaviour and impacts on staff, students and graduates
- Strengthening efficiency of higher education and training, to limit unnecessary costs invested in each student and delays in meeting urgent capacity requirements
- Assessing and monitoring impacts on student loan and bursary systems, including ensuring that infected candidates are not unfairly discriminated against, particularly when their productive life can be considerably extended by ARVs.
- Infusion of HIV/AIDS issues into core subject and research agendas to equip graduates to function more effectively in an HIV/AIDS affected society.

D.3 Teacher training – in and pre-service

- Ensuring adequate quality and numbers of trainees, including more systematic routine monitoring of training outputs and how many trainees enter and stay in the teaching service.
- Prevention and life skills training targeted at students and staff
- Training in teaching skills for learner centred approaches, large class skills, HIV/AIDS, life skills and counselling.
- Strengthening general and HIV/AIDS related management capabilities

D.4 Adult and distance education

Strengthening distance learning materials and techniques may enhance non-formal programmes and provide additional support for learning in schools where teachers are absent.
- Reinforce HIV/AIDS prevention initiatives aimed at learners and communities.[2]
- Explore programmes and methods to:
  - Increase access to basic education, particularly for younger candidates who have difficulty staying in the formal education system
  - Compensate for staff shortages and absence within schools.

D.5 Research and planning

- Modify and monitor financial and capacity planning where necessary to accommodate projected changes in demand and supply due to HIV/AIDS
- Review EMIS data requirements for more effective monitoring of HIV/AIDS programme implementation, staff impacts and other information on system performance and accessibility, particularly in relation to OVC.
- Consider use of District EMIS or other decentralised or systems and analyses to strengthen basic management and enhance ability to rapidly identify and deal with HIV/AIDS related issues eg absenteeism and attrition.
- Specific monitoring and research to assess success in managing effects of OVC on enrolment and performance including eg grants coverage and feeding scheme effectiveness.
- Consider structural risks of HIV infection (eg poor security and lack of secure hostel accommodation) and OVC needs in planning school hostel and other infrastructure or alternative systems (eg accreditation of community boarding providers).

D. 6 Primary and secondary education

- Enforcing prevention programmes and policies, including enforcement in private and LS sectors and ensuring adequate programmes for primary pupils.
- Liaison with MINALOC and Ministry of Finance to enhance coverage and efficiency of grants systems.
- Liaison with donors and other stakeholders for OVC support.
- Secondary education should consider driving strategy to deal with specific challenges of secondary learners including
  - Specific HIV infection risks (eg lack of hostel accommodation leading to unsafe lodging in communities; low access to condoms for sexually active students)
  - Greater vulnerability to drop out and stress due to higher fees and other costs, and competing responsibilities of older children.

D.7 Vocational education (including MIJESPOC)

- Implement HIV prevention and support systems among trainees and staff to preserve scarce expertise and protect efficiency of relatively costly programmes in particular.
- Explore various types of vocational training as an alternative to formal schooling for students who have difficulty remaining in formal schooling
- Promote reintegration of basic practical and agricultural skills in primary education, including possibilities of "mentor" systems, to equip pupils who will mainly be involved

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[2] Target groups for adult and non-formal education are often at particularly high risk of HIV infection. In addition, adult education groups can be important ways to influence community norms about sexual behaviour and support of OVC.

in subsistence and informal activities. These are particularly needed for youth who have lost parents who would normally have transferred skills or who are increasingly likely to drop out to provide for their families.

D. 8. Inspectorate

- Training of inspectors and development of systems and guidelines to:
  o Enforce, support and monitor prevention programmes;
  o Manage impacts of staff illness and deaths efficiently and humanely ;
  o Facilitate OVC support
  o Monitor HIV/AIDS and related problems in schools and management structures

D.9 Curriculum Development

- Facilitate fast tracking of existing HIV/AIDS curricula and materials distribution to take advantage of opportunities
- Develop strategy for Integration of HIV/AIDS and school health initiatives with proposed Guidance and Counselling and civic curricula and capacity development
- Refinement of HIV/AIDS curricula once capacity and other agenda's allow, and there is greater understanding of

D.10 Human Resources and Support

- Strengthen basic systems and capacity
- Pay greater attention to issues highlighted by AIDS such as:
  o Need for greater HR skills and capacity to manage impacts of illness, stress and deaths from national through to district levels
  o Routine management information on issues such as staff turnover and attrition by cause, and training outputs. Sources to be improved and coordinated include the payroll, EMIS and Caisse Sociale
  o Ill health and absenteeism management systems and guidelines
  o Substitute teacher systems to cover for absent staff
  o Identification of vulnerable posts to prioritise them in planning and administrative processes.
  o Staff development and succession planning systems to reduce impact of losing staff in key positions
  o Efficient transfer, recruitment and redeployment systems to fill vacant posts
  o Refining planning of teacher training outputs with better data and final policy targets
  o Staff allocation and incentive systems to ensure equitable allocation of capacity.
- Liaise with Caisse Sociale, RAMA and MIFOTRA to streamline information availability, review benefits to reduce HIV/AIDS impacts and increase efficiency of administrative systems related to salary payments and pensions.
- Develop strategy on incentives and career paths for HIV/AIDS programme and related staff such as Guidance and Counselling

D. 11 Finance

- Ensure adequate budgets for HIV/AIDS activities, including basic communications and logistics from national to school level.
- Review fee strategy and possible supplementation of poorer schools with more OVC if grant systems cannot be relied on to overcome these obstacles

D.12 Provincial and District Management and inspectorate

- Strengthening general management capacity
- Strengthening HR management capacity and systems to support schools with staffing difficulties.
- Supporting and enforcing implementation of HIV/AIDS prevention programmes
- Networking and coordination with other sectors and resources to enhance prevention, care and support for vulnerable staff and learners.

D.13 Examinations

- Develop ways to assess HIV/AIDS and life skills education and increase incentives to implement programmes effectively.

ANNEXURE E: Further details of School Survey Findings

E.1 Methodology and issues in interpretation

The survey covered school heads, teachers and 872 third year Secondary (S3) students in a nationally representative sample of 150 primary and 50 secondary schools stratified to ensure inclusion of all provinces. One teacher and the school head were selected from each of the 200 sampled schools (50 secondary and 150 primary). Students filled in self-administered questionnaires, while heads and teachers were interviewed using a structured interview schedule. Questionnaires were in French or English depending on the language of instruction in schools.

A total of 872 students from 46 schools were included in the survey. The sample was equally split between males and females.

Table E.1: Gender of Secondary Third Year Student Respondents

	Frequency	**Valid Percent**
Male	420	49.9
Female	422	50.1
Total	**842**	**100**
Missing	30	
Total	**872**	

In interpreting orphan data it is important to recognise that students who have progressed to the third year of secondary schooling are a select sample. A significant number of secondary school orphans are likely to be receiving FARG or MINALOC grants that could substantially reduce their vulnerability. Certain risks and associations may not show up because orphans or other vulnerable children who were at risk have dropped out. The limited sample size in some cases may also mean that the differences that *are* significant cannot be shown to be significant. Nevertheless, certain significant linkages still emerge.

There were also indications that teachers selected by schools to participate in the survey may represent a relatively well-informed and motivated sub-set of teachers. For example, around 2 out of 3 of teachers interviewed said they had received training in HIV/AIDS, when only 45% of schools reported training for teachers.

E.2 Orphans and vulnerable children

In the sample of Secondary 3 students, 153 (18%) were maternal orphans, 315 (37%) had lost their father and 12% were dual orphans. These numbers were higher than corresponding estimates from secondary teachers of 14.5%, 26% and 14% respectively. Primary teachers estimated orphan rates that were lower (i.e. 9%, 12% and 8% respectively).

The main causes of maternal death were war or genocide (44%) and illness (35%), with war/genocide being a more common cause of paternal death (Table E.2). In the last three years, 3.1% of students had lost their mother and 4.6 % had lost their father.

Table E.2: Causes of death of S3 students' parents

Causes of Mother's Death	Frequency	Percent
Accident	9	5.8
War/genocide	68	44.2
Long sickness	27	17.5
Short sickness	27	17.5
Don't know what she died from	23	14.9
Total	**154**	**100**

Causes of Father's Death	Frequency	Percent
Accident	22	6.8
War/genocide	164	50.9
Long sickness	41	12.7
Short sickness	58	18
Don't know what he died from	37	11.5
Total	**322**	**100**

Most children in the sample live in boarding hostels while attending school (68%), while the remainder live at home with parents and/or other caregivers. Biological parents are the main caregivers for the majority of students (72%). Close to one tenth of students are cared for by extended family members such as aunts, uncles and grandparents. About another tenth are cared for by older siblings and almost 3% are in child or student-headed households. Very few reported being looked after by non-relatives such as neighbours or community members (2%).

Table E.3: Who is the main caregiver in your home?

	Frequency	Percent
Birth mother and or father	597	72
Aunt or uncle	42	5.1
Grandmother or grandfather	32	3.9
Older sister or brother	76	9.2
Foster mother or father	35	4.2
Neighbour/community member	15	1.8
Myself/another person younger than 18	22	2.7
Other	10	1.2
Total	**829**	**100**

E.2.1 Vulnerability to disruption of schooling

Students who are maternal orphans are significantly more likely to have poor recent school attendance history in their households ($\chi^2 = 0.01$). Paternal orphans are also more likely to have been absent but the correlation is not statistically significant ($\chi^2 = 0.187$; df = 4). (See Table E.4) Interestingly, the recent personal attendance history was not statistically significantly different for maternal orphans versus non-orphans. About two fifths (37%) of the students reported that there were other school-age children in their homes that were not attending school.

Table E.4: Proportion of sample with household children dropping out of school for 2 weeks or
more by maternal and paternal orphan status

	This or last year, did you or another child in your HH stay away from school 2 weeks or more during term?			
Maternal orphan status	Yes	No	Not sure	Total
Mother alive	36%	48%	16%	100%
Mother dead	43%	44%	13%	100%
Not sure	39%	15%	46%	100%
Total	**37%**	**47%**	**16%**	**100%**

	This or last year, did you or another child in your HH stay away from school 2 weeks or more during term?			
Paternal orphan status	Yes	No	Not sure	Total
Father alive	34%	48%	18%	100%
Father dead	41%	46%	13%	100%
Not sure	50%	39%	11%	100%
Total	37%	47%	16%	100%

The relationship between maternal orphanhood and a history of drop out for a full year
was even stronger with 42% having dropped out (χ^2= 0.000; df= 4). The risk was not
significant for paternal orphans (χ^2 = 0.254; df= 4). (Table E.5)

Table E.5: Proportion of sample dropping out of school for an entire year by orphan status

	Have you ever been out of school for an entire school year?			
Maternal orphan status	Yes	No	Not sure	Total
Mother alive	36%	58%	6%	100%
Mother dead	42%	56%	2%	100%
Not sure	29%	36%	36%	100%
Total	**37%**	**58%**	**6%**	**100%**

Paternal orphan status	Yes	No	Not sure	Total
Father alive	35%	60%	6%	100%
Father dead	39%	55%	6%	100%
Not sure	33%	50%	17%	100%
Total	**36%**	**58%**	**6%**	**100%**

Around 20% of teachers estimated that half or more of the class did not get enough to
eat at home consistently. There is a correlation between households having food and
children staying away from school (χ^2= 0.000). Only 22% of children who always had
enough to eat said that someone in their household had missed school for two weeks or
longer, compared to 54% of children who had gone hungry at least once a month or
more, and 34% of students who had gone hungry on a daily basis (see Table E.6). This
association was not significant for a history of drop out for over a year, but this may be
due to complete drop out of children from chronically poor and hungry households.

Hunger was not strongly correlated with orphan status itself, although these effects may also have been masked by effects of drop out of more vulnerable children (χ^2 =0.381).

Table E.6: Proportion of sample dropping out of school for 2 weeks or more by not getting enough to eat

How often did you not have enough to eat?	During this or last year, did you or another child in your HH stay away from school 2 weeks or more during term?			
	Yes	No	Not sure	Total
Always had enough to eat	**22%**	62%	16%	100%
Daily	34%	43%	23%	100%
Once a month or more	54%	34%	12%	100%
Occasionally	39%	43%	18%	100%
Total	**37%**	**46%**	**17%**	**100%**

Students' attendance in school is also affected if they have to work for money or food (χ^2= 0.000; df= 6). While about two fifths of students (42%) have never had to work for money or food, at least 22% have worked frequently (a few times a month or more) while another 23% have worked occasionally either during school holidays or during planting/harvesting season in the farms. Students who had never done work were also less likely to have missed school for an entire year compared to those who had. Over 60% of students who had never worked had never missed school (χ^2 = 0.007; df= 6)

Table E.7: Proportion of sample dropping out of school for 2 weeks or more by working for money or food

Work frequency	During this or last year, did you or another child in your HH stay away from school 2 weeks or more during the term?			
	Yes	No	Not sure	Total
Never done work	27%	56%	17%	100%
Daily	41%	37%	22%	100%
Once a month or more	48%	37%	15%	100%
Occasionally	46%	41%	13%	100%
Total	**38%**	**46%**	**16%**	**100%**

Table E.8: How often have you done work to get money or food…?

	Frequency	Percent
I have never done work to get money or food	344	42.2
Every day	123	15.1
A few times a week	30	3.7
A few times a month	24	2.9
Once a month or less	109	13.4
Only during planting or harvest	58	7.1
Only during school holidays	128	15.7
Total	**816**	**100**

Among students who have ever worked, close to 20% have done domestic work and child-care, while over 60% have done some farm work. A minority (11%) have transported or sold goods.

Table E.9: What kind of work was this?

	Frequency	Percent
Domestic work	73	16.3
Work in fields	274	61.2
Caring for younger children	15	3.3
Transporting or selling goods	47	10.5
Other	39	8.7
Total	**448**	**100**
Missing	424	
Total	**872**	

There is no significant correlation between maternal orphan status and frequency of work (χ^2=0.557; df=4).

Table E.10: How often have you done work (by maternal orphan status)?

Maternal orphan status	Daily	Once a month or more	Occasionally	N
Mother alive	24%	35%	41%	361
Mother dead	30%	36%	34%	88
Not sure	39%	31%	31%	13
Total	**26%**	**35%**	**40%**	**100%**
N	118	161	183	462

However, there is a significant relationship between maternal orphanhood and type of work done (Table E.11; χ^2=0.008). Orphans or children who were unsure were more likely to have done domestic work and possibly childcare, but childcare was a role for small numbers of orphans and non-orphans.

Table E.11: What kind of work was done by maternal orphan status

Maternal orphan status	Domestic work	Farm work	Child care	Transporting or selling goods	Other	N
Mother alive	15%	63%	3%	10%	9%	341
Mother dead	21%	58%	5%	7%	9%	81
Not sure	33%	17%	0	42%	8%	12
Total	**17%**	**61%**	**3%**	**11%**	**9%**	**100%**
N	73	269	14	47	38	441

More than half the students (53%) who are caring for themselves or are under the care of someone below the age of 18 (n=22) said they had missed school for a whole year (χ^2= 0.01; df= 6). However, there is no correlation between recent attendance and who their main caregiver is (χ^2= 0.281; df= 6).

Table E.12: Proportion of sample dropping out of school by main caregiver at home

Main caregiver	Have you ever been out of school for an entire school year?			
	Yes	No	Not sure	Total
Birth parent/s	35%	60%	5%	100%
Older sibling/s	35%	59%	6%	100%
Myself or other person under-18	**53%**	26%	21%	100%
Other relatives/neighbours	39%	52%	10%	100%
Total	**36%**	**58%**	**6%**	**100%**

Main caregiver	During this or last year, did you or another child in your HH stay away from school 2 weeks or more during the term?			
	Yes	No	Not sure	Total
Birth parent/s	35%	49%	16%	100%
Older sibling/s	42%	45%	13%	100%
Myself or other person under-18	**37%**	37%	26%	100%
Other relatives/neighbours	43%	39%	18%	100%
Total	**37%**	**47%**	**16%**	**100%**

Around 50% of students in households headed by themselves or other people under 18 had to work daily for money or food, over twice the rate of other children, although statistical significance was limited (χ^2=0.140).

Table E.13: Frequency of work for money or food vs. main caregiver at your home

Frequency of work	Birth parent/s	Older sibling/s	Myself or other person under-18	Other relatives/neighbours	Total
Daily	24%	20%	**50%**	27%	25%
Once a month or more	33%	46%	25%	39%	35%
Occasionally	42%	34%	25%	34%	40%
Total	100%	100%	100%	100%	100%

The main factor that learners felt could stop them or other household children from finishing school was unaffordable school fees, mentioned by more than 70% of the students. Lack of books and other school material was also perceived to be a potential stumbling block by about one third of the students. More than a quarter (27%) mentioned death of parents as another obstacle to completion of schooling.

Table E.14: What may stop you or children in your family from completing your education?

	Frequency	Percent
Can't afford school fees	623	71.4
Don't have money for books and other writing materials	294	33.7
Parents have died	233	26.7
Don't have uniforms	188	21.6
Hostel fees or lack of accommodation	124	14.2
Frequent sickness amongst children	118	13.5
Feel too hungry to study	97	11.1
Need to work for money	80	9.2
Parents or other adults do not see schooling as important	79	9.1
School is too far away	75	8.6
Children do not see schooling as important	69	7.9
Pregnancy	59	6.8
Early marriage	58	6.7
Caring for younger children	56	6.4
Need to help sick relatives	42	4.8
Other	45	5.2
Poor quality of teachers	35	4.0

Among teachers, the most commonly given reasons for girls dropping out of school were housework and care of family members. Other reasons that were frequently given were that families do not see school as being important (43%) and that girls were working for money or payment in kind (31%). Pregnancy (22%) and repeated academic failure (25%) were other reasons given by teachers. The level of schooling appeared to influence perceived reasons for girls dropping out. Higher percentages of primary teachers as opposed to secondary teachers cited "labour needed at home" and "working for money or payment in kind", as reasons for girls dropping out. School expenses were reported two to three times more often by secondary level teachers in various questions about reasons for non-attendance. For boys, the main reason for permanent dropout was the need to work for money or payment in kind, a reason given by 64% of teachers.

When students were asked about what kinds of obstacles children face if a parent dies, the following were generally mentioned: viz. excessive housework (51%), students lack encouragement to go to school (50%) and students would have to miss school on many occasions (44%). Around 10% said they did not know any child whose parents had died.

Table E.15: Do children whose parents have died have any of the following problems?

	Frequency	Valid Percent
Have too much work to do in the house	445	51.0
Not encouraged to come to school	435	49.9
Miss many school days	387	44.4
Sad and staying on their own a lot	323	37.0
Feel bad and different from other children	283	32.5
Fail exams	278	31.9
Drop out of school permanently	233	26.7
Sickly	215	24.7
Other children tease or bully him/her	195	22.4
Fighting, stealing and bad behaviour	134	15.4
I don't know of children whose parents have died	89	10.2
Other	53	6.1

E.2.2 Support of OVC

When students were asked to name one person/source of help in times of trouble, two thirds of students (66%) commented that they would consult their parents first. The remaining responses were spread more or less evenly across other options. Teachers were mentioned infrequently.

Table E.16: Who is the first person you turn to for help when you have a problem?

	Frequency	Percent
No one is there to help	56	6.8
Parent/caregiver at home	548	66.2
Male relatives	30	3.6
Female relatives	50	6
Neighbours	14	1.7
School teachers	7	0.8
Other children/young people like myself	29	3.5
Community groups	22	2.7
Local authorities	5	0.6
Local associations	14	1.7
Churches	11	1.3
Other or don't know	42	5.1
Total	**828**	**100**

Students indicated that they mainly receive help of a material kind such as cash, clothes, food, school uniforms and so forth. However, close to 60% receive psychosocial support in the form of counselling, talking and getting advice.

Table E.17: What kind of help does that person provide?

	Frequency	Percent
Talk, counselling or advice	498	57.1
School uniforms and materials	413	47.4
School fees	397	45.5
Food	369	42.3
Clothes	337	38.6
Money	296	33.9
Help with farming	82	9.4
Give a small job for cash	81	9.3
Help with domestic work	77	8.8
No one is there to help	76	8.7
Other	68	7.8
Don't know	31	3.6

Most teachers said that relatives provide most help with a range of needs of needy children. Neighbours and friends also appear to play an important role. A relatively large percentage of teachers felt that teachers play a role in some aspects of children's needs, mainly non-material support such as encouragement to attend school, guidance/counselling and protection from abuse or neglect. Most teachers said that faith based organisations provided support to these children. Local AIDS support groups and NGOs were not reported as having a large role in caring for children. They were reported to provide for material and other needs, but had poor coverage.

Support for children affected by HIV/AIDS poses particular problems. Nearly 1 out of every 3 teachers, and 14.3% of secondary 3 students, felt that children thought to have HIV/AIDS in their families were treated differently from other children; although 20% and 45% of each group were not sure. Teachers and students agreed that the most common source of discrimination against children thought to be affected by HIV/AIDS came from other children (32% and 14% respectively). Foster/step parents were also ranked highly (11%) by both, but teachers placed more emphasis on community members and neighbours (28%) as being people who treated these children differently.

Table E.18: Which people treat these children differently (student responses)?

	Frequency	Percent
Other children	119	13.6
Teachers	58	6.7
The community/neighbours	85	9.7
Foster/step-parents	99	11.4
Foster sisters or brothers	44	5
Other relatives	55	6.3
Other	57	6.5

The main forms of different treatment cited by teachers were neglect, verbal abuse and avoidance.

Table E.19: Ways in which infected/affected children are treated differently (Teacher responses)

	N	Percent
Neglected	**25**	26.9
Verbally abused/teased	**23**	24.7
Avoided	**20**	21.5
Not encouraged to go to school	**10**	10.8
Underfed/deprived	**5**	5.4

Given extra support	**4**	4.3
Physically abused	**2**	2.2
Made to do more chores	**1**	1.1
Sexually abused	**1**	1.1
Other	**2**	2.2
TOTAL	**93**	**100.0**

When asked for reasons why children are not supported, about one half of the respondents felt that poverty accounted for HIV infected children being under-supported, while a further 22% commented that people were genuinely unaware of children's needs. Few (5.6%) believed that stigma or fear of HIV/AIDS was a barrier to support from family, friends or neighbours.

Table E.20: Teachers perceptions of reasons that some children are not supported

Reasons for children not being supported	N	% of reasons
Poverty or lack of food	133	52.8
People are genuinely unaware of children's needs	57	22.6
Stigma or fear for other reasons	22	8.7
Stigma or fear of HIV/AIDS	14	5.6
Other	26	10.3
TOTAL	**252**	**100.0**

An important factor predisposing people to stigmatise children thought to have family members with HIV/AIDS, is fear and lack of knowledge. Over one third of the respondents (35%) incorrectly felt that children with parents who had died of AIDS are very often infected themselves.

Table E.21: Children whose mother and/or father has died of AIDS will very often have AIDS themselves...…Do you agree or disagree?

	Frequency	**Valid Percent**	**Cumulative Percent**
Strongly agree	151	18.3	18.3
Agree	136	16.5	34.8
Neither agree or disagree	120	14.6	49.4
Disagree	232	28.2	77.5
Don't know	185	22.5	100
Total	**824**	**100**	

E.2.3 HIV Prevention Needs

E. 2.3.1 Previous exposure to programmes and sources of information

Close to one third of students indicated that they have never received any HIV/AIDS information. For those who had, radio and television were the most common source, followed by schools (65%). In contrast, nearly all heads of schools (95%) and teachers (97%) said that students receive messages or education about HIV/AIDS largely from schools (91% and 89% respectively) and the media (64% and 72% respectively).

Table E.22: From whom/where have you received information about HIV/AIDS

	Frequency	Percent
I have not had information about HIV/AIDS	276	31.7
Parents	390	44.7
Friends	402	46.1
School	568	65.1
Churches	342	39.2
Radio or television	611	70.1
Film or video	409	46.9
Clinics	236	27.1
Other	103	11.8

While students' access to radio was high, students had relatively low access to other media as a possible routine source of HIV/AIDS information.

Table E.23: Do you have the following at home or close by?

	Frequency	Percent
Radio	741	85
Newspapers	305	35
Television	289	33.1
Videos/films	185	21.2
Magazines	118	13.5

The mass media including radio, TV and videos/films was seen as the best way of obtaining HIV/AIDS information. Information presented in written form does not appear to be very popular with the students. Less than 10% mentioned posters, magazines or pamphlets and just under a quarter mentioned newspapers, as good ways for obtaining HIV/AIDS information. There was limited enthusiasm for discussions with teachers.

Table E.24: Which of the following do you think is the best way for you to get information about HIV/AIDS?

	Frequency	Percent
Radio	521	59.7
Television	353	40.5
Videos/films	254	29.1
Newspapers	209	24
Discussions with informed teachers	175	20.1
Discussions with informed students	155	17.8
Pamphlets	79	9.1
Posters	64	7.3
Magazines	48	5.5
Other	32	3.7

E.2.3.2 Sexual activity and knowledge

The large majority of respondents have never been sexually active (78%). Of those who are sexually active, most began having sex between the ages of 10 and 13 (56%).

Table E.25: How old were you when you first had sexual intercourse?

	Frequency	Percent
Never had sex	637	78
10-13 years	101	12.4
14-17 years	57	7
18 and above	22	2.7
Total	**817**	**100**

About half the students said that people could reduce their chances of getting the AIDS virus by having sex with only one partner (who has no other partners). About a quarter responded that people would not reduce their chances of contracting HIV/AIDS by having sex with only one partner (who has no other partners), while close to two thirds were unsure.

Table E.26: Can people reduce their chances of getting the AIDS virus by having sex with only one partner who has no other partners

	Frequency	Valid Percent
Yes	371	46.2
No	199	24.8
Not sure	233	29
Total	**803**	**100**

A larger number of students knew that mosquitoes do not transmit HIV (78%).

Table E.27: Can a person get the HIV/AIDS virus through mosquitoes?

	Frequency	Valid Percent	Cumulative Percent
Yes	76	9.3	9.3
No	636	77.8	87.1
Not sure	105	12.9	100
Total	**817**	**100**	

Close to 20% of students thought that HIV/AIDS can be transmitted in the sharing of food or were unsure. However, the majority (80%) got the answer correct.

Table E.28: Can a person get the AIDS virus by sharing food with a person who has AIDS?

	Frequency	Valid Percent	Cumulative Percent
Yes	75	9.1	9.1
No	673	81.4	90.4
Not sure	79	9.6	100
Total	**827**	**100**	

Around half of the students knew that a healthy looking person can have HIV positive. A third gave an incorrect answer and another 10% were unsure about the answer.

Table E.29: Is it possible for a healthy looking person to have the AIDS virus?

	Frequency	Valid Percent	Cumulative Percent
Yes	438	53.2	53.2
No	275	33.4	86.5
Not sure	111	13.5	100
Total	**824**	**100**	

The four questions on HIV prevention knowledge were combined into a scale measuring the degree of respondents' knowledge about HIV prevention. A good number of respondents (43%) got between one and two responses (out of four) correct. Approximately 20% got all responses right. For the purposes of computing the scale only the correct answers were considered. "Not sure" was considered to be a wrong answer and combined with "No" responses.

Table E.30: Knowledge of HIV/AIDS prevention

	Frequency	Valid Percent	Cumulative Percent
No correct answer	38	4.4	4.4
1 right answer	139	15.9	20.3
2 right answers	233	26.7	47
3 right answers	290	33.3	80.3
4 right answers	172	19.7	100
Total	**872**	**100**	

E.2.3.3 Abuse, coercion and intergenerational sex

Over 10% of students had experienced some form of physical abuse at the hands of their partners. 17% stated that they were unsure. This may be due to them being uncertain as to whether the harm had been inflicted on purpose or with intent to harm.

Table E.31: During the past twelve months did a boyfriend or girlfriend ever hit, slap or hurt you on purpose?

	Frequency	Percent
Yes	105	13
No	565	70.2
Not sure	135	16.8
Total	805	100

Most students (75%) have never experienced sexual coercion. However, at least 14% indicated that they have been forced or pressured into having sex against their will. Again, more than one tenth said they were not sure whether they had experience sexual coercion or not. Among students who said they had been pressured to have sex, over 30% said that this had resulted in sexual relations with the person who had tried to force them. About 45% of teachers said that violence or forced sex affecting students at school was either a serious problem or sometimes a problem, while 40% said that is was not a problem at all. About 15% were uncertain whether it was a problem at their school.

Table E.32: Have you ever been forced or pressured to have sexual relations when you did not want to?

	Frequency	Percent
Yes	118	13.9
No	636	75
Not sure	94	11.1
Total	**848**	100

Sexual coercion mainly emanates from boyfriends or girlfriends, strangers and other students. Few students mentioned relatives or teaching staff.

Table E.33: Who was the person who forced or pressurised you to have sexual relations?

	Frequency	Percent
Teacher	16	1.8
Headmaster	11	1.3
Parent	12	1.4
Relative	3	1.5
Other student	31	3.6
Stranger	41	4.7
Boyfriend/girlfriend	48	5.5
Other	21	2.4

Sexual relations between teachers and students are not very common according to the respondents. About 41% of students think that such relations do not happen at all, while 12% felt they happen frequently or very frequently. 20% of school heads responded that they were aware of teacher-student sexual relations in schools.

Table E.34: How common are sexual relations between teachers and students in your school or other schools like yours?

	Frequency	Valid Percent	Cumulative Percent
Never	336	41.1	41.1
Seldom/Once in a while	105	12.9	54
Frequent	49	6	60
Very frequent	52	6.4	66.3
Do not know	275	33.7	100
Total	**817**	**100**	

More students (30%) thought that sexual relations occur between students and older men or women in the community (30%), as opposed to those thought (25%) that sexual relations occur between students and teachers. Similar proportions of school heads (16% in primary, 9% in secondary) and teachers (17%) thought learner relationships with older community members were frequent or very frequent.

Table E.35: How common are sexual relationships between students in your school and older men or women in your community?

	Frequency	Percent
Never	296	36.6
Seldom/Once in a while	132	16.3
Frequent	67	8.3
Very frequent	46	5.7
Do not know	267	33
Total	**808**	**100**

Most learners commented that assistance with money, food, shelter and other things are the main reasons why students have sex with older men or women (49%). Over 20% felt that love and affection was the reason why this practice occurred among students. Ranking of reasons was very similar to those mentioned by school heads and teachers.

Table E.36: In your opinion what is the main reason why certain students may have sexual intercourse with older men or women?

	Frequency	Percent
For money or help with food and shelter	296	38
For money or help with other things	82	10.5
Forced or pressurised	44	5.6
Social status or prestige	9	1.2
Love or affection	165	21.2
Other	6	0.8
Unsure	177	22.7
Total	**779**	**100**

E.2.3.4 Condom availability and use

Only half the students (49%) felt that condoms are easily accessible to them, with 21% being unsure. Clinics (mentioned by 23%) and shops (19%) are the main places where condoms can be accessed, but 11% mentioned schools.

Table E.37: Are condoms easily available to you at this school or at a point close by?

	Frequency	Percent
Yes	246	29.9%
No	404	49.1%
Not sure	172	20.9
Total	**822**	**100**

Among sexually active students, condom use appears to be low. Only 24% of sexually active students said they had used a condom the last time they had sex. 62% said that they had not.

Table E.38: The last time you had sexual intercourse did you or your partner use a condom?

	Frequency	Percent
Yes	37	24
No	95	61.7
Not sure	22	14.3
Total	**154**	**100**

Respondents with earlier sexual debut were less likely to have used condoms the last time they had sex compared to students in other age groups, but this has low statistical significance (χ^2=0.40).

Table E.39: Age at first sexual intercourse by did you use a condom the last time you had sex

	10-13 years	14-17 years	18 and above	Total
Used condom the last time	22%	35%	21%	26%
Did not use condom last time	66%	58%	57%	62%
Unsure	13%	8%	21%	12%
Total	100%	100%	100%	100%

Instructions to teachers varied on what to do if they find a student/pupil with a condom. Nearly 40% said that no specific instruction was given, 55% said that they were instructed to question the student, 20% were instructed to inform parents and 17% instructed to inform the head of school. Very few (n=6; 3.4%) said they were instructed to do nothing.

A significant number of school heads (27%) and teachers (37%) felt that condoms should be available to sexually active students at school. In primary schools, 17 % of school heads and 29% of teachers supported condom provision in schools. Most school heads said that condoms should not be available because students should not be involved in sex (72.4%). The type of school appeared to be associated with teachers' views on condom availability, with a higher proportion of teachers from private schools in favour of condoms at schools. The level of school did not appear to significantly influence either teachers or heads of schools views on condoms.