THE IMPACT OF HIV/AIDS ON EDUCATION IN ZIMBABWE

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Preface – a user's guide to this report

This report is intended as a resource to several types of users, from those who require broad overviews of the issues, to planners and programme managers who may need more in depth understanding of specific issues and areas. The scope and detail of the report make it important to access the knowledge required in the most efficient way. The following outline of the report and suggestions may assist in this.

A short **Executive Summary** provides an overview summary of findings and key recommendations and is likely to be useful to all readers.

A second, relatively comprehensive **Extended Summary** is intended as an introduction for readers who need to have a somewhat more detailed understanding of the issues and to identify those they wish to explore further, as well as an easy reference for general use.

The **Main Text** of the report is intended for people involved in specific areas of the HIV/AIDS response who can focus on specific sections of most relevance to their activities, as listed in the table of contents. In each section, key concepts are highlighted in italics at the beginning of bullet points. In addition, key recommendations are included in each of the sub-sections. Further methodological and other technical detail is provided in **Annexes**.

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Acronyms

AIDS	Acquired immuno deficiency virus
ARVs	Antiretroviral drugs
BEAM	Basic Education Assistance Module
BSPZ	The Better Schools Programme
CBO	Community Based Organisation
CEDC	Children in Especially Difficult Circumstances
CRC	The Convention on the Rights of the Child
CSO	Central Statistical Office
DAACs	District AIDS Action Committees
DHS	Demographic and Health Survey
EAP	Employee Assistance Programme
EMIS	Education Management Information Systems
ECEC	Early Childhood Education and Care
ESAP	Economic Structural Adjustment Policy
ESDG	Education Sector Development Group
ESTARP	Education Sector Transition and Reform Programme
GER	Gross Enrolment Ratios
HFW	Health Fee Waivers
HIV	Human Immune Virus
ITPW	Income Transfer and Public Works
LSCFA	Large Scale Commercial Farming Area
MEC	Ministry of Education and Culture
MERP	Millenium Economic Recovery Programme
MOESC	Ministry of Education Sport and Culture
MOH	Ministry of Health
MOHCW	Ministry of Health and Child Welfare
NAC	National AIDS Council
NACP	The National AIDS Coordination Programme
NPA	The National Programme of Action for Children
NERs	Net Enrolment Ratios
NGO	Non-governmental Organisation

OVC	Orphans and Vulnerable Children
PAAP	The Poverty Alleviation Action Plan
PSMAS	Public Service Medical Aid Society
SACMEQ	Southern Africa Consortium for Monitoring Educational Quality
SADC	Southern African Development Community
SDAs	School Development Associations
SDCs	School Development Committees
SDF	Social Development Fund
SPS	Schools Psychological Services
SSCFA	Small Scale Commercial farming Area
STI	Sexually Transmitted Infections
TMS	Teacher Management and Support Programme
UNAIDS	Joint United Nations AIDS Programme
UNICEF	United Nations Children's Fund
VCT	Voluntary Counselling and Testing
VET	Vocational Education and Training
ZIMPREST	Zimbabwe Programme for Economic and Social Transformation
ZIMTA	Zimbabwe Teachers' Association
ZINTEC	Zimbabwe Integrated National Teacher Education Course
ZJC	Zimbabwe Junior Certificate
ZOU	Zimbabwe Open University

Executive summary

The Government of Zimbabwe has achieved great success through investing heavily in education. Maintaining gains in education has been increasingly challenging due to economic pressures on the MOESC as well as on communities and households.

In this context, Zimbabwe is now experiencing one of the world's most severe HIV/AIDS epidemics. The antenatal HIV prevalence survey in 2000 indicated that 35% of pregnant women nation-wide were HIV positive, a marked increase from 1997 levels. Communities and families across the nation have been experiencing increasing levels of AIDS deaths, mainly among relatively young adults. The epidemic is placing additional stresses and demands on other sectors, particularly health and social welfare.

Zimbabwe's national HIV/AIDS response is led by the National AIDS Council and National AIDS Coordination Programme (now known as the AIDS and TB Unit) which was established in 1987. The response has primarily focused on prevention, with a programme of compulsory Life Skills education and training in schools since the early 1990s. There has been increasing recognition of the need for multi-sectoral involvement in the national strategic response to HIV and AIDS, including civil society groups as well as the need for effective workplace programmes.

The MOESC is seen as a key role player in the national response and has recognised that the HIV/AIDS pandemic is a challenge to its ability to achieve its targets for education access and quality. The MOESC commissioned a study to provide it with information on current and future impacts, to assess the current responses and to provide suggestions on a strategy to mitigate impacts. The study involved a survey of schools; visits to schools and other institutions to discuss issues with learners, teachers and other key role players in four regions; review of other data; and use of projections to clarify how the epidemic and its impacts will affect education in future. Projections should be interpreted with due consideration of the limitations on their accuracy, but should give an indication of trends and relative importance of issues to be considered by planners.

The assessment key findings and recommendations are set out below.

How will HIV/AIDS affect demands and needs faced by the education system?

Findings

- HIV/AIDS prevention among pupils and students is a critical determinant of access to, and the quality of education. A third or more of the investment in education will be lost if HIV/AIDS infection rates continue at current levels.
- Levels of knowledge about HIV/AIDS and behaviour change remain too low to produce anything approaching an AIDS-free generation.
- HIV/AIDS impacts on fertility are expected to slow the growth in the number of children requiring education. This may already explain some of the decline in primary school enrolment, as younger age groups will be affected first.

- A relatively small percentage of children will be ill with HIV/AIDS during their schooling years. They have important special needs and rights, but should not be the major focus of the MOESC response.
- The total number of children who will be orphaned by AIDS is projected to rise from the current figure of around 800,000 to 1.2 million in 2010.
- The levels of maternal orphanhood in the 10-14 year age group could exceed 40% within the decade, with levels over 20% among 5-9 year olds.
- The survey and field studies indicated that a sizeable proportion of the school age population who have been affected by the pandemic tend to drop out of school, or attend erratically, concentrate poorly, and suffer from emotional and behavioural disturbances.
- Basic needs of learners (e.g. food and clothing) are seen as the most pressing problems, and underlie many higher level psychological and other problems.
- Orphanhood is exacerbating pre-existing challenges to education posed by poverty and other vulnerabilities of children.
- Unsupported orphans and vulnerable children, particularly girls, are at high risk of HIV infection.
- Schools are not responding adequately to the needs of orphans and other vulnerable children.
- Responses need to be realistic about the role that teachers and schools, that are already under stress, as well as other role players can play in supporting these children.

Recommendations.

- *Strengthen prevention programmes* to ensure that they lead to behaviour change.
- *Strengthen the Basic Education Assistance Module (BEAM)* and improve targeting and the scope of needs that it meets.
- *Strengthen school feeding and nutrition programmes* to keep learners in school and enhance performance.
- *Clearly define expectations of the roles and responsibilities of educators and managers* in responding to vulnerable children in regulations, guidelines, codes of conduct and practice.
- *Streamline the social register system* to identify vulnerable learners earlier and facilitate more effective action.
- *Develop 'Circles of support' for affected learners* to use available support capacity inside and outside schools in the most efficient and feasible way.
- *Involve learners in decision-making and action* wherever possible.
- *Enhance flexibility of the education system to deal with the needs of vulnerable learners* through systems such as distance learning, scheduling, transfer systems and hostel and other accommodation.

How does HIV/AIDS affect ability to deliver education?

Findings

- Zimbabwe's teachers are at substantial risk of HIV infection - around one third of teachers are likely to be infected. This could increase HIV/AIDS as related knowledge and skills of educators are still too limited.
- Teacher losses due to illness and death were around 2% of teachers in 2001. Trends are not clear, but this appears to be a significant addition to historical levels of attrition and could rise to around 4%.

- Absenteeism due to funeral attendance, illness and family responsibility is seen as a major and increasing problem for education quality.
- HIV/AIDS is leading to substantial anxiety and stress among infected and affected staff. This poses an extra challenge to morale and the education process.
- Quality of teaching is reported to be substantially affected in many classes and schools due to teacher illness, absence and deaths.
- Effects on many schools and classes are severe, but a small percentage of schools are directly impacted by staff illness and death in any year.
- HIV/AIDS appears not to have destabilised the education system overall thus far. However, cumulative impacts of skills loss, persistent pressure on quality and morale are major concerns. Many significant impacts will be difficult to pick up timeously from routine national level data.
- HIV/AIDS threatens to worsen pre-existing inequities in education access and quality as schools in disadvantaged areas are likely to be most vulnerable.
- HIV/AIDS threatens to increase costs particularly of medical care and relief teacher systems. However, both are not necessarily unaffordable as parts of the response strategy.
- Loss of staff to HIV/AIDS could lead to a need to increase teacher training output but better data is needed to guide planning of output.

Recommendations

- *Prioritise development of a workplace HIV/AIDS policy and programme* to provide a manageable framework for action on the range of issues to be tackled.
- *Ensure dedicated capacity within MOESC to drive the workplace response* and ensure that key partners become involved.
- *Prioritise improved HIV/AIDS prevention and life skills programmes targeted at staff and particularly teacher trainees* to enhance prevention among learners and staff and build foundations for impact management.
- *Develop care and support for educators* within the framework of a Wellness or Employee Assistance programme that facilitates access to services and enhances positive living.
    - Develop specific strategy to strengthen medical aid cover for staff.
- *Review pre- and in-service training* to ensure that adequate numbers of teachers are produced, and that all graduates have adequate HIV/AIDS-related skills in prevention and impact management.
- *Strengthen management of absenteeism and ill health*. This requires review of ill health and other leave entitlements and practices, strengthening the relief teacher system, and coordinating with the pension fund and Boarding system. Consider approaches such as distance learning to cover for absent teachers.
- *Strengthen basic Human Resource management systems and practices*. These include areas such as succession planning, recruitment and deployment, performance appraisal and mechanisms for skills sharing and transfer.

Conclusions and strategic recommendations

In any single year, HIV/AIDS alone seems unlikely to destabilize the whole education system. However, this should not mask the subtle and insidious effects of the pandemic on education quality and access in many learning institutions, and on many thousands of infected and affected individuals, both employees and learners. The MOESC is strategically placed as the nation's largest employer, through its unrivalled human resources and daily contact with children and communities, to play an indispensable role in the

national response to HIV/AIDS. In addition, the study highlights that all Ministry Divisions and institutions, as well as existing programmes within the sector are affected by HIV/AIDS and have a role to play in reducing its effects. Recognition of HIV/AIDS as "core business" is critical.

Recommendations

- *"Mainstream" HIV/AIDS within all education sub-sectors*. HIV/AIDS should not just be seen as the responsibility of the School Health and Life Skills Secretariat.
- *Strengthen informed and committed leadership* at all levels to inspire staff, provide guidance and monitor action
- *Define roles and responsibilities of education sub-sectors and partners*, and develop guidelines for action.
- *Decentralise approaches.* Success will depend on the degree to which action is facilitated at District and school level.
- *Ensure stronger HIV/AIDS programme capacity and implementation structures* right down to district and school level.
- *Mobilise extra resources from the AIDS Levy and other sources.* The extended role of the education sector in the national HIV/AIDS responses requires extra investment to ensure success.
- *Coordinate and enhance* inter- and intra-sectoral partnerships, including partnerships with NGOS/CBOs. MOESC and other partners' responses will be more difficult and sometimes impossible without this.
- *Improve routine information and monitoring of impacts on staff and learners* to refine the sector's response.

Extended Summary

Education has been identified as one of the principal means of socio-economic development and transformation in Zimbabwe. Since independence, the country has made great progress towards the goals of Education for All. Between independence and 2000, the number of primary schools almost doubled and the number of secondary schools increased over eight-fold, with massive increases in enrolment rates in both sub-sectors. Current standards of education are believed to be considerably higher than in most other SADC countries.

Maintaining equitable, high quality education has been challenging. Difficulties in reaching desired levels of economic growth during the 1980s were exacerbated in the 1990s. Zimbabwe is currently in an economic crisis with negative growth rates in real GDP, high inflation and high levels of government debt. At the same time, wide socio-economic inequities persistent over 70% of households are currently estimated to live in poverty. Broadly defined, unemployment stands at 40-50% and there are increasing numbers of working poor have been exacerbated by recent instability in the agricultural sector. Household and community resources have become increasingly limited.

In this context, Zimbabwe is now experiencing one of the world's worst HIV/AIDS epidemics. The antenatal HIV prevalence survey in 2000 indicated that 35% of pregnant women nation-wide were HIV positive, a marked increase from 1997 levels. Similar high levels and increasing incidence of infection are expected to prevail in the general adult population in future. Communities and families across the nation are now experiencing a striking rise in AIDS deaths, which lag behind the rise in HIV infection levels by 8-10 years. Inevitably, the epidemic is placing additional stresses and demands on other sectors, particularly health and social welfare.

Zimbabwe's national HIV/AIDS response is led by the National AIDS Council and National AIDS Coordination Programme (now known as the AIDS and TB Unit) which was established in 1987. There has been increasing recognition of the need for multi-sectoral involvement in the national strategic response to HIV and AIDS, including civil society groups. The education sector is seen as a key role player.

Terms of reference and methodology

The Ministry of Education, Sport and Culture (MOESC) has recognised that the HIV/AIDS epidemic is likely to have a profound and negative impact on the education sector and the environment in which it operates. The ability of the Ministry to respond to, and plan for, the HIV/AIDS epidemic will be critical in determining the size and type of impacts experienced, and the ability of the sector to continue to deliver equitable services. Informed response planning by the sector requires an informed understanding of current and projected HIV/AIDS impacts at system through to local level, as well as of the context in which the sector operates, including its current capacity, its strengths and the constraints within which any action planning and active intervention will be situated.

The terms of reference of this study defined its objective as supporting the MOESC to assess the impact of HIV/AIDS on its ability to meet its mandate. Specific issues to be examined include impacts of HIV/AIDS on: 1) demand for education and any changes in the scale or type of needs to be met by the sector; 2) supply of education, through its impacts on employees and trainees; 3) costs of education; 4) the process and quality of education; 4) the content and role of education 5) planning and management in the

education sector. The project was to review current responses and make recommendations to assist in refining strategy to address impacts. The study employed the following methodology:

- *Primary data collection,* which included:
  - Qualitative data collection at MOESC headquarters and in four education regions, involving group discussions and key informant interviews with managers, teachers and learners, as well as with stakeholders outside the education sector.
  - A survey of a nationally representative sample of 187 primary and 63 secondary schools in which data were collected from school heads and guidance teachers, and from Form 3 students in a sub-sample of secondary schools, totaling 1009 students.
- *Secondary data collection* including review of EMIS data, policies and legislation, and other documentation.
- *Demographic projections* to assess current and future levels of various HIV/AIDS impacts. These were produced using the most recently calibrated and customized version of Metropolitan Life/ Doyle model that has been used extensively in other SADC countries over the last decade.

While findings from the school survey and district visits are expected to be reasonably indicative of current levels of HIV/AIDS impacts, responses and capacity, there are likely to be certain unavoidable biases. These include for example, the tendency of respondents to give "desirable" answers in order to present their schools in the best possible light, and refusal by some respondents to speak about certain sensitive issues. Thus it has been critically important that the data obtained from all sources are integrated , and used to inform and cross check each interpretation.

Projections produced in this study can be expected to give a reasonable indication of the scale and types of HIV/AIDS impacts that need to be considered in education planning. However, projections involve a substantial number of assumptions. It is important to note that accuracy of projections is limited by many factors, including limitations of the data currently available on population structure and trends , and on the HIV/AIDS epidemic in Zimbabwe. Planning which uses the projections must therefore be cautioned and accommodate a number of possible scenarios, to limit the risk that any particular projection is not accurate.

The Zimbabwe education sector

Zimbabwe's education sector comprised 4741 primary schools and 1555 secondary schools in 2000. Government is the nation's largest single employer, and the MOESC has largest number of employees - over 104 000, including 66440 primary and 34160 secondary school teachers. *In addition the Ministry of Higher Education and Technology (MHET) is an important component of the overall sector and deals with teacher training*. However the terms of reference of this study did not extend to cover the examination of the implications of HIV/AIDS for that Ministry.

MOESC's budget remains the largest single Ministry budget, at 29.3% of total government appropriations in 2001. Higher education and technology accounts for a further 7.1%. However real budget constraints on MOESC have become increasingly severe, with declining real budgets since 1990. Staff costs account for 90.5% of the budget, imposing further limitations on budgetary flexibility and development in the sector. In addition to this massive investment of national resources, education also accounts for a substantial investment by a variety of other players (households, communities, development agencies, NGOs, local authorities, churches and other responsible authorities).

The initial focus of the education sector after independence was on improving access and participation in education. Since 1988, the emphasis has shifted to consolidating the quality, equity and relevance of education. This is reflected in the current Mission of the Ministry of Education, Sport and Culture

(MOESC): ***To provide high quality and relevant primary, secondary and non-formal education …in order to enrich the lives of the people of Zimbabwe***. Successes have been marked in many areas, including enrollment at primary and secondary levels, greater parity between males and females, and improved proportions of trained teachers.

However, many challenges to the education sector remain, including:

- Maintaining and enhancing system performance and accessibility in the context of declining real education expenditure.
- Ensuring universal, unrestricted access to education, and free-tuition primary education: about 25% of children still failed to complete primary school in the 1990s.
- Expanding access to secondary education: about 25% of Grade 7 learners do not make the transition to Form 1.
- Addressing remaining urban-rural and inter- and intra-regional inequities in quality and access.
- Expanding female participation in education and reducing gender disparities in performance.
- Consolidating management efficiency and capacity at all levels of the education sector.
- Sustaining employee motivation and morale, and managing reported tendencies of employees to leave the sector for alternative employment locally or internationally.
- Meeting the needs of affected learners with new and more random learning needs.

How will HIV/AIDS affect demand for schooling?

(1) Numbers of children requiring education

The HIV/AIDS epidemic is expected to reduce the number of children requiring education in Zimbabwe for a variety of reasons. These include death of women in childbearing ages, suppressed fertility among HIV-infected women and death, usually before the age of six, of children who are infected with HIV around the time of birth or through breastfeeding.

Projections of HIV/AIDS impacts on the number of young Zimbabweans indicate several important issues for planning:

- *Decline in the number of people of school-going age*. In the absence of the epidemic the number of people in the 0-19 age group would have grown from 6,9 million in 1995 to 9,7 million by 2010. However, HIV/AIDS is projected to reduce population growth rate resulting in a population of about 6,4 million by 2010.
- *Earlier impacts on the size of the population in younger age groups*. Projections suggest that HIV/AIDS may already have resulted in a decline in the absolute number of children in the 0-4 year old age band. The 5-9 year age group, which includes most children entering school, is likely to start declining this year, and will be approximately 38% smaller than expected in the absence of AIDS by 2010. A plateau in the number of children aged 10-14 and 15-19 year ages groups is expected to occur around 2007 and 2012 respectively, followed by declines.
- *Robustness of projections to changes in many key assumptions*. The general trends that are projected seem relatively insensitive to changing key assumptions such as fertility of HIV infected women and rates of transmission of HIV from mother to child.

Data on primary school enrollment in Zimbabwe seems consistent with projections of declining numbers of children in primary school ages. Enrollment peaked at 2.49 million 1996 and has been static since then with indications of a decline since 1998. However, other factors complicate interpretation of enrollment trends. These include low expansion of classroom provision, de facto achievement of universal primary

education, and pressures on households resulting from drought, other economic and political factors, and possibly HIV/AIDS. The likely importance of these factors is illustrated by the slowing of secondary school enrolment since 1998, which seems unlikely to be explained by HIV/AIDS impacts on the number of youth *per se.*

The projected impacts have important implications for planners. Education sector infrastructure and human resource planning has to anticipate substantial changes in the expected number and age profile of learners. Calculation of new classroom provision in future will need to take account of and anticipate changes in the size and character of the learner cohort. . Analysis of the 2001 census and close monitoring will be required to assess the accuracy of projections. Importantly, changes in student numbers, particularly at local level, will be difficult to predict and planning will inherently have to aim for flexibility to deal with uncertainty. In addition, planning will have to consider changes in the needs and characteristics of the learner cohort discussed in sections that follow.

How does HIV/AIDS influence the needs of learners and the response of educators to them?

(1) Needs for HIV prevention

This impact assessment was not concerned primarily with how educators can help in the fight to prevent the spread of HIV and AIDS in Zimbabwe. However, HIV prevention must be a central focus of the education sector Further, learner prevention programmes can create a foundation for other aspects of HIV/AIDS impact management. Insights gained during the assessment from investigating dynamics of the epidemic, and from interactions at school and district level, warrant some comment.

The challenge

Antenatal survey data indicate that rates of new HIV infection among young people in Zimbabwe remain high. HIV prevalence is close to zero in the early teens, and then rises rapidly from the mid-teens to over 30% in women aged 20, and then over 40% among those aged 25-34. Higher levels of infection are experienced in many communities. In young men the rise in infection occurs later, but is thought to rise to a peak similar to that of women, though somewhat lower, by the time men are in their 30s. For all males and females combined, adolescent rates are estimated to be below one in ten in the 15-19 age group before leaping to around one in four in the early 20s.Antenatal survey data and various surveys of knowledge, attitudes and practices indicate that, despite quite high levels of awareness and basic HIV/AIDS knowledge, changes in risk exposure of young people fall far below that required to create an AIDS- free generation.

Nevertheless, and significantly, the proportion of teenagers who are *not* infected is likely to be higher than assumed by many and this is great cause for hope.

High levels of HIV infection fundamentally challenge the mandate of the education sector. Unless prevention is more effective, over one third of learners will become infected during or soon after their education. Most of these will die of AIDS before they reach the age of 40. This is not only a social and human disaster, but is a waste of investment in education that far exceeds other system inefficiencies. More than any other sector, education has opportunities to influence levels of HIV infection among young people, through its direct contact with them in schools and non-formal education.

Current responses

MOESC introduced Life Skills training in schools as of 1992. Life Skills curriculum including HIV/AIDS became compulsory for Grade 4 to Form 6 in 1993 and is formally timetabled. The Ministry established a Secretariat to drive the HIV/AIDS and Life Skills programme, and its capacity has recently been strengthened. In-service training programmes for teachers, supplemented by workshops for school managers, are ongoing. Ministry initiatives have been complemented by initiatives of development partners, NGOs and communities, as well as pre-service programmes in teacher training colleges.

While coverage of the Life Skills programme appears to be good, there are still significant gaps in basic learner knowledge. While almost 90% of Form 3 students surveyed had been taught about HIV/AIDS at school, around 60% felt they needed more information. Almost 50% incorrectly answered at least one question on basic facts about HIV/AIDS.

Other factors which put learners at risk of HIV infection include complex socio-economic issues that cannot be adequately addressed by the Life Skills programme alone for they require holistic and long-term interventions. These factors include high levels of rape and forced sex (among surveyed Form 3 students 17% of girls and 10% of boys reported having been the victim of forced sex); widespread inter-generational sex (38% of pupil respondents said such relationships were frequent or very frequent); and extreme poverty that may push children into situations where they exchange sex to meet basic needs for food and shelter. Children living in child-headed households or without adequate adult supervision may be at particular risk, and generally lack adequate socialisation.

Recommendations – HIV prevention

It is clear that the education sector's current HIV/AIDS prevention initiatives need to be strengthened considerably. Prevention initiatives have to be seen as "core business" and an urgent priority across all education sub sectors. The sector also needs to adopt a much more holistic approach to the risks facing young people if the skepticism expressed by many staff and learners about the effectiveness of current prevention programmes is not to become a self-fulfilling prophecy. The following recommendations are made.

1) Mainstream HIV/AIDS prevention in education.

- *Develop strategies to integrate HIV/AIDS effectively in school curriculum and planning, teacher and learner assessments, and school timetabling*. Because HIV/AIDS is non-examinable, it is not prioritised in practice.
- *Reinforce training of school and district managers* to ensure they see HIV/AIDS as a core issue, understand the requirements for effective prevention, and can provide adequate leadership.

2) Strengthen Life Skills teaching capacity and capabilities.

- *Improve selection of Life Skills teachers.* This tends to be based on who is "left over" after other roles are allocated, rather than aptitude, and need for continuity, coherent career pathing and programme development. Teachers should be selected who are trusted and respected by learners.
- *Improve ability to use participatory approaches and materials*. This is now often very limited.
- *Develop peer education approaches.* These seem to be potentially powerful but particular models require evaluation to ensure effectiveness.
- *Strengthen training approaches and capacity.* Cascade approaches to training have been disappointing, and are less and less used elsewhere. Strengthening in- and pre-service training, upgrading the skills and knowledge of teacher educators, and using the services of non-government training partners in the sector is now critical.

3) ***Exploit synergy between student prevention and complementary staff life skills programmes.*** Raising HIV/AIDS issues with learners raises unresolved personal issues and anxieties for many staff, who are thus less effective life skills teachers and role models. There needs to be closer integration between programmes aimed at learners and at educators.

4) ***Strengthen curriculum and content.*** Key issues that need greater emphasis include:
   - *Positive messages.* Despair and hopelessness about the inevitability of HIV infection are widely cited by staff and learners. Many learners who are unlikely to already be infected seem to assume that they are. Uninfected, affected and infected learners alike feel disempowered and get little encouragement towards positive living.
   - *Life and behaviour change skills in addition to factual knowledge,* in order to confront difficulties with socio-economic and peer pressure, gender relations and desire for status. These are thus inadequately developed.
   - *Involvement in care and support, and development of coping skills*. Active student involvement in care and support can be very empowering. Many learners face these issues in their own families and communities already.
   - *More creative variety, range and depth of materials*. Materials are widely considered to be repetitive, unchallenging for learners and unable to respond to their needs for more detailed, explicit information and skills.
   - *Elimination of unnecessary conflict and confusion between abstinence and safe-sex messages.*
   - *Infusion of HIV/AIDS into other subjects.* This can reinforce but not replace Life Skills programmes.

5) ***Actively address sensitive issues.*** Cultural, parental and staff sensitivities tend to be avoided rather than addressed, and are used as an excuse for inaction.
   - *Create empowering policy and staff education on condom distribution.* Current policy not to provide reasonable access to condoms in schools ignores widespread sexual activity of learners and inaccessibility of condoms from other sources. There is no substantial evidence that condom access promotes sexual activity rather than protecting those who are sexually active anyway. However, teacher attitudes may need to be directly addressed. 75% of secondary and 84 % of primary school teachers surveyed did not believe that condoms should be easily available for sexually active learners.
   - *Ensure that district and school leadership has relevant knowledge, skills and policy support* to dispel myths related to HIV and AIDS, and to negotiate ways to work with the community to protect children.

6) ***Ensure safe and supportive school environments.*** There are strong indications that many schools are sites of harassment and abuse by teachers and peers, and that teachers are often poor role models with reference to safe sex. Hostels, community boarding and school events expose many learners to HIV risk.
   - *Streamline reporting, management and discipline systems* to address harassment and abuse.
   - *Assess safety of hostels, community boarding, travel to and from school, and school events* and develop feasible responses to reduce risk.
   - Create a regulatory environment which ensures zero tolerance for abuse in any learning institution. Rely on legal rather than administrative procedures to prosecute offending educators.

7) ***Address external environments more effectively***. Huge numbers of learners are exposed to community and family environments and norms that do not reinforce but instead undermine, HIV/AIDS messages

promoted at schools. Particular challenges include intergenerational sex with older partners. Key issues include:

- *Reinforcing engagement of parents and communities*, and *enhancing skills and mandates of educators* to deal with issues such as cultural or other obstacles to HIV/AIDS prevention.
- *Increasing use of "tete and sekuru"* ("uncles and aunts") in schools for extra resources and improved community acceptance.
- *Ensuring that schools recognise and confront the challenges of high-risk environments near the school,* e.g. trucking areas, growth points, bars and local construction projects and barracks.
- *Actively reducing the vulnerability of learners with absent parents, especially those in hostels,* boarding in the community and living in child-headed households.

8) Enhance programmes in primary schools and ECEC.

9) Develop effective monitoring and evaluation of implementation.

10) Strengthen coordination and inputs of other sectors and programmes

- *Improve coordination between prevention initiatives*. Even at national level, major programmes *have* coordinated poorly with the School Health and Life Skills Secretariat. The main intention should be to facilitate cooperation and efficiency, rather than control access to schools which can delay or obstruct action in a situation of enormous need
- *Engage health services* more effectively to ensure youth-friendly Reproductive Health Services, condom access and technical support.
- *Investigate potential partnerships with local voluntary counseling and testing programmes*
- *Strengthen NGO inputs* by defining more formal, perhaps contractual, relationships with them, and building their capacity to carry out work with and for government.

(2) Special needs of infected students

Schools will contain substantial numbers of learners who are infected with HIV, through maternal transmission, sexual abuse or relationships in their teens. Schools are likely to have many more learners who fear that they are, or will be, infected.

The proportion of school-age children who are infected with HIV infected will vary at different levels. In the age group 5-9, an estimated 1% of students are infected. This proportion is expected to rise to approximately 1.6 % by 2010. Under one in one hundred those 10-14 years old and less than 10% of those 15-19 are estimated to be infected, with levels likely to remain quite constant over the decade in the absence of behaviour change.

The proportion of children ill with AIDS, even by 2010, is expected to be below 0.5% of children aged 5-9, falling lower in the 10-14 age group and remaining below 0.5% in 15-19 year olds. Deaths from AIDS are likely to be substantially lower than deaths from other causes among children aged 10-19.

Experience of schools seems to confirm that relatively small numbers of learners are known or thought to be ill with AIDS, and that student illness is generally not considered to be a priority concern.

Recommendations - infected students

Significant numbers of students will need support to deal with psychological stress and stigmatization related to HIV infection or fear of infection. Universal precautions against accidental infection and medical or other support for students with AIDS will remain important issues for individuals and school

communities. However, risk of accidental exposure to HIV infection in most schools is likely to be quite limited and relatively few learners will need medical support. Issues such as teaching safe sex, limiting sexual transmission and management of other impacts of HIV/AIDS on students are thus likely to be higher priorities.

1) ***Develop psychosocial support and counselling strategies for learners who are HIV infected or fear that they are infected***. The potential of School Psychological Services, voluntary counselling and testing programmes and other counselling services outside schools need to be quantified, and adjusted to take account of the learners in need.

2) ***Develop and disseminate policies, regulations and guidelines on the following:***
   - *Accidental exposure to HIV and opportunistic infections in schools* to combat unnecessary anxiety about accidental exposure and help educators to deal with issues such as TB and other opportunistic infections.
   - *Infected learners' rights to education and well-being* including the need to combat stigmatisation, codes of conduct and systems to ensure appropriate confidentiality, and reasonable ways to reduce practical obstacles to continued education of infected or ill children.
   - *Systematic, feasible approaches to ensure medical and other support for children who are ill with HIV/AIDS in each school.*

3) ***Develop training and communication strategies to build staff confidence*** in managing the concerns of infected and ill students, and the teachers who work with them.

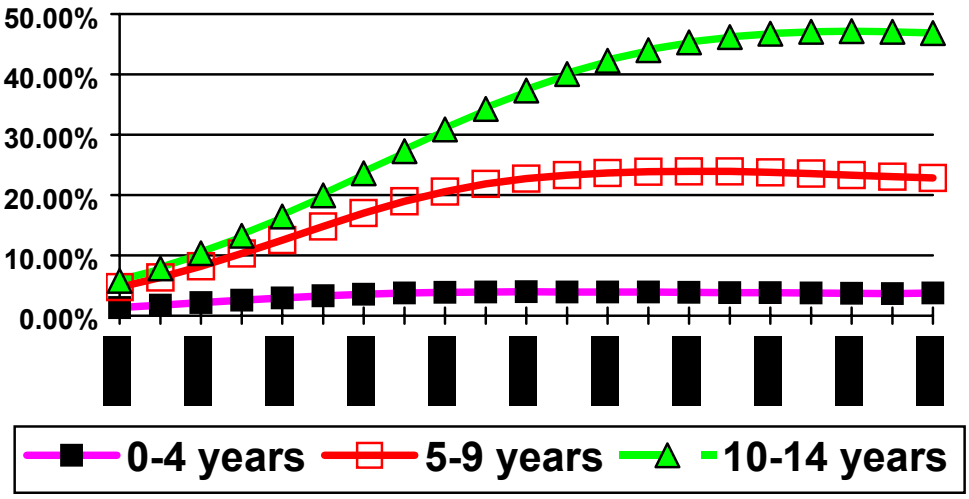
(3) Orphans and other affected children

Projections indicate that the total number of children under the age of 15 in Zimbabwe, who have lost at least their mother to AIDS, will rise from around 800000 in 2001 to approximately 1.2 million in 2010. Orphans will be concentrated in school-going ages (Fig. 1). In 2001, around 4% of children aged 0-4 were thought to have lost their mothers to AIDS. Almost 16% of children aged 5-9and 23% aged 10-14 are estimated to be maternal orphans. Rates among 5-9 and 10-14 year olds are expected to rise to one-in-four and one-in-two respectively before the end of the decade. In some districts, schools and classrooms, rates of orphanhood can be expected to be higher than these average levels.

Empirical data on the number of orphans in Zimbabwe are very limited. No systematic orphan enumeration has been conducted, and definitions and methods used to estimate orphan numbers in schools vary widely. Among Form 3 students in the school survey, 10% (range 3-17% between classes) reported that they were maternal orphans, and 5% were double orphans. In group discussions, estimates of orphanhood provided by teachers often ranged from 20-60%.

An important additional finding is that there is substantial variation in average levels of orphaning, with many individual schools and classes having very high numbers of orphans.

Figure 1: Projected percentage of children orphaned by AIDS by age group



Impacts of orphanhood on schooling

Orphans' schooling is affected by economic stresses on households, psychological trauma related to illness and death, and changes in family structure and function that involve new responsibilities to care for the sick, the elderly or siblings, as well as loss of parental guidance and interest in the child's education.

Studies elsewhere in Africa, and some limited Zimbabwean data, suggest that orphans have substantially higher risk of delayed enrollment, poorer school performance and drop-out rates in excess of 30% above non-orphans (UNAIDS, 2000). However, not all studies have been able to show substantially higher drop-out rates among orphans, and several indicate that orphans do not always seem to be at higher risk than non-orphaned children living in poor households. Other findings suggest that:

- Lack of material resources to meet basic needs is a common reason that children drop out of school, or perform poorly. Zimbabwean school enrollment data complement this finding as they indicate that school attendance falls substantially due to household shocks such as drought.
- Girls tend to be at higher risk of dropping out.
- Impacts often occur before children are orphaned because illness invades their homes.

This study was not able to quantify in any rigorous way the impacts of orphanhood on education outcomes performance.[1] However, there were strong indications that a significant number of orphans

[1] This would probably require a large study of cohorts of orphans to avoid risk of major biases. Potential biases of particular concern are that school-based samples of children may under-represent children who are disadvantaged by parental death and therefore don't attend school, and that there may be systematic under-estimation of impacts because school staff and students may simply not be adequately sensitized to the problems of orphans and vulnerable children. They may not be aware of them because of non-disclosure of the child's family circumstances. Further, at secondary level, an individual drop-out may be quickly replaced by another student in a subsector which offers too few places to meet demand. It may not be known at school level why the student dropped out; and at provincial and national level the data look as if they confirm that numbers remain constant although the individuals have changed.

drop-out, attend erratically, concentrate and performance less well and manifest emotional/behavioural disturbances. An overwhelming 98% of guidance teachers interviewed strongly agreed with the statement that being orphaned has a major negative impact on school performance. Some 58% of students participating in the school survey knew of fellow students who had dropped out because of family death. Several key informants noted that they knew of good students who had stopped performing adequately or dropped out.

Important underlying problems predispose orphans and other vulnerable children to educational disadvantage:

- *Material needs*, including hunger and temporary or longer-term inability to pay for uniforms, levies, fees and other basics.[2] In a number of areas, tendencies for affected children to prioritise finding work was noted, particularly among children in child-headed households or those who live with grandparents.
- *Psychosocial problems* due to stress, grief, stigmatisation, neglect and abuse.
- *Loss of parental guidance and socialization* to reinforce learning and school-going, and the development of appropriate value systems.
- *Greater household responsibilities.* Among Form 3 students, 19% reported that one or more care-giving or other household activities had caused them to be absent from school. This appeared to be somewhat more frequent among maternal orphans (24%) and children who lived with grandparents (32%).
- *Loss of longer term vision in favour of short term needs and desires.* HIV/AIDS, combined with poverty and unemployment, makes children more likely to neglect longer-term goals that require education. This predisposes them to poorer performance, drop out and high risk sex. Orphans and other affected children also seem to be exposed to higher risk of HIV infection themselves due to their economic and social circumstances.
- *Lack of responsiveness of schools to the needs of affected children.* Many educators seem to recognise stress or trauma in learners only when this erupts in discipline problems or other late stage manifestations. Many orphaned learners, particularly those in boarding schools with higher levies, face disruption through abrupt and/or unmanaged transfers between schools after parental deaths when they could no longer afford levies.

The assessment and supplementary evidence suggests that:

- *Material needs of orphans and other affected children are perceived as a pressing issue* by most teachers and schools Psychosocial needs are given less attention for a variety of reasons.
- *Orphans' vulnerabilities cannot, for practical purposes, be separated from those of other children in poverty.* For example, 37% of student respondents reported that they or other children in the household have gone hungry; the proportion was only slightly higher among double orphans. Over half of Form 3 students interviewed believed that financial obstacles (financial problems, economic hardship, inability to pay fees) would be the single most important reason for them not completing their schooling. Children in more affluent schools and areas appear generally to have better material and other support.
- *Adult deaths are increasing general stress and tendencies towards hopelessness* among learners who experience, or fear, the loss of parents or other loved ones.
- *Pressures on orphans and other vulnerable children are putting them at high risk of HIV infection.* They may be more likely resort to unsafe sex for material or psychological reasons and are at high risk of abuse and exploitation.

[2]The SACMEQ study suggests that lack of a morning meal has significant adverse effect on education performance.

- *There is mixed evidence around whether girl orphans are more vulnerable to educational problems than boy orphans*.

There is considerable concern that the needs of orphans and other vulnerable children may constitute a more substantial threat to education performance in Zimbabwe than reflected by current data for several reasons. The limited sensitisation of educators, and generally low levels of awareness about HIV and AIDS may have led to under-reporting of the classroom situation. School-based surveys probably underestimate the numbers of orphans in the general population as many orphans – and other vulnerable children – are already out of school, or attend erratically. Zimbabwe is at a relatively early stage of its orphan epidemic. At current rates of orphanhood, effects may still be difficult to identify in many classrooms. Extended families and other support systems may still be "coping" but are likely to become increasingly strained in future with ramifications for child schooling. Re-orphaning is likely to become more common.

The vulnerability of girls who are orphans may be underestimated. Most informants agreed after prompting that orphaned girls are at higher risk of HIV infection than boys, and are expected more often to assume chores at home, including care of the sick, and help with family income generation. Successful participation of girls in both primary and secondary schooling remains systematically lower than for boys, with girls being particularly likely to drop out during the post-primary level.

More subtle effects, significant for a school system that is striving to improve quality and extend access, may be difficult to identify at this stage. Examples of such effects are group psychological effects of HIV and AIDS on learners and communities which may change current norms around schooling in unpredictable ways.

Current responses to needs of orphans and other vulnerable children (OVCs).

MOESC launched the Basic Education Assistance Module (BEAM) in 2001 to respond to the needs of pupils and students. The programme aims principally to pay levies and other explicitly school-related expenses of orphans and other vulnerable children. Schools have been instructed not to exclude children who cannot pay various levies. In general, BEAM seems to be an appropriate program that is effective in meeting key needs of affected learners in many schools, despite some "teething problems". Challenges to the greater success of BEAM were identified:

- *Varying levels of implementation between districts and regions*
- *Inefficient procedures for selecting candidates, and disbursing assistance,* for the purchase of uniforms for example. This is particularly problematic in view of current high inflation.
- *Current budget allocation systems*. Per capita-based budgets may not be sensitive to varying levels of need in different districts and schools. Identification of disadvantaged children only once each year cannot allow the programme to respond adequately to learners who confront crises in the intervening period.
- *Selection systems.* Perceived problems include inadequate definition of selection criteria, and lack of transparency and review mechanisms to ensure the most needy are targeted and to avoid inappropriate biases in allocation in some areas.
- *Limited benefits for secondary and special needs learners.* Logistical problems persist for affected learners schooling outside their home community, and there is a tendency by programme administrators to support larger numbers of lower cost applicants rather than fewer higher-cost learners. Secondary school boarders in particular appear vulnerable to exclusion from school due to inability to pay boarding and other fees and this is not being picked up by the programme.

- *Limited or no coverage of many priority needs of orphans and other vulnerable children.* Problems these children encounter in getting food, clothing and accommodation are not being adequately addressed by the programme. The capacity and resources of social welfare, which were substantial while the Social Dimensions Fund was in operation, are no longer sufficient to cover basic material requirements.
- *Uncertainty around whether BEAM addresses girls' needs adequately and equitably.* However, they are required to receive at least half of all budgets.

Other forms of support to orphans and other vulnerable children

At *school and district level* there has been little official guidance from the Ministry or others (including the National HIV/AIDS Strategic Framework, or National Orphan Care Policy) on the role schools should be playing in response to new learner need. In most schools there seems to be very limited systematic concern or action on the needs of orphaned and otherwise disadvantaged learners apart from BEAM. However, spontaneous actions have been initiated by some schools and teachers including:

- *Assistance with material needs,* through sourcing bursaries, referral of indigent children to social welfare and/or NGOs, feeding schemes, nutrition gardens and income generating activities (mainly in primary schools). Some teachers and others have given clothes, food, materials and uniforms to vulnerable children.
- *Addressing higher level/ comprehensive needs* through in-school counseling or simply by providing children with an opportunity to talk. Referral to SPS and social workers in cases of abuse or other more gross problems occurred but seemed surprisingly infrequent in many areas. Some anti-AIDS clubs provide elements of peer support.
- *Flexibility to maintain access of affected learners to schooling,* including non-exclusion for children who cannot pay fees even when BEAM funds are not yet available or are too limited, and accommodating absence of more than two weeks for children in difficulty. Some schools have given them holiday work in schools to compensate for not paying levies.

Several key themes emerge of relevance to improving OVC support:

- *There is no standard approach to identifying orphans and other vulnerable children* that allows for rigorous, pro-active management of their needs. The social register system is in place in many schools but is not used efficiently to address learners personal problems.
- *A wide range of support functions are required and feasible*.
- *A number of internal and external role players and resources are usually available* to most schools.
- *The capacity of schools and any other role players has to be assumed to be very variable*.
    - In general, the capacity of other key role players, particularly social welfare, CWFs and communities is far too limited to meet the scale of needs reported by schools.
    - Motivation, skills and capacity within schools to deal with learners in need appears limited and it cannot be assumed that any particular cadre of staff (e.g. guidance teachers) will consistently be able to deal with their problems alone.
- *Lack of systematic role definition and co-ordination between role players* within and outside schools is a major obstacle to effective action.

Recommendations – orphans and vulnerable children

Worsening poverty is threatening education performance, and increasing numbers of learners are at risk of losing their chance for schooling. This poses a substantial threat to the MOESC's ability to serve

national development objectives. Appropriate responses to orphans' needs will have contingent benefits for many other vulnerable children.

There is clearly need for a more systematic education sector response to needs of learners in difficulty. Social and health workers, and other role players have inadequate capacity to respond the scale and diversity of needs thrown up by the pandemic, and are not as strategically placed as educators to interact with such children. The education service is the largest body of professionals and extends throughout the county. As such, it represents a major resource to the nation in reducing the repercussions of HIV and AIDS for the next generation. Effective responses will have ramifications well beyond the end of the decade.

1) A realistic strategy for managing the needs of learners in difficulty.

The needs of orphans and other disadvantaged children have led some educators to call for reconceptualisation of *the school as "a multi-purpose development and welfare institution"*. This challenge is daunting to education ministries and teachers. What might be a realistic response to this challenge in Zimbabwe?

Guiding strategic and planning principles derived from this study include the following.

- *Focus on efficient use of existing resources* rather than solutions requiring substantial extra resources wherever possible.
- *Focus on system development* to allow more efficient use of resources *rather than relying on "capacity development"* which may be required on a huge scale.
- *Build on what has proved possible and feasible* in Zimbabwe and other similar social and economic settings.
- *Maintain a high degree of flexibility and decentralisation of decision-making and resources to* overcome local or individual limitations, and in order to respond to the scale and diversity of needs.

Setting priorities which will help preserve education of quality and maintain equitable access to it by all is required to make the challenge more manageable. The following priorities have been identified in view of their likely effectiveness, taking account of strategic advantages and various constraints in the sector.

- *Aim to keep learners in school.* This is critical as bringing children and young people back to education involves significant obstacles. Learner needs are much easier to address while they are still engaged in schooling. Early stabilisation of the population of learners at risk by pre-empting (or managing) the crises is a key objective. To do this it is essential to
    - Recognise vulnerability early.
    - Respond timeously to prevent drop-out / performance problems
      Refer learners in need to appropriate social and health services where necessary.
      Constantly monitor the well-being of each learner in the classroom.

- *Basic needs and assistance before complex services*. Meeting basic needs of children in difficulty was consistently identified as a priority by educators and others. Children and young people who do not have basics like food, clothing and money for school are unlikely to achieve at or stay in school, regardless of other support services. More subtle aspects of psychosocial support and counselling must ultimately be strengthened but, being more complex to develop, should not be the immediate priority in responses.

- *Enabling dropouts to re-access education.* This is likely to be less effective than helping children to stay in school. However, school attrition is already a significant challenge in Zimbabwe. The education sector should consider ways to make schools more receptive to re-entry and explore how non-formal, distance and vocational training can be used to ensure that those who leave school early can later acquire key life skills.

2) Key interventions to improve learner care.

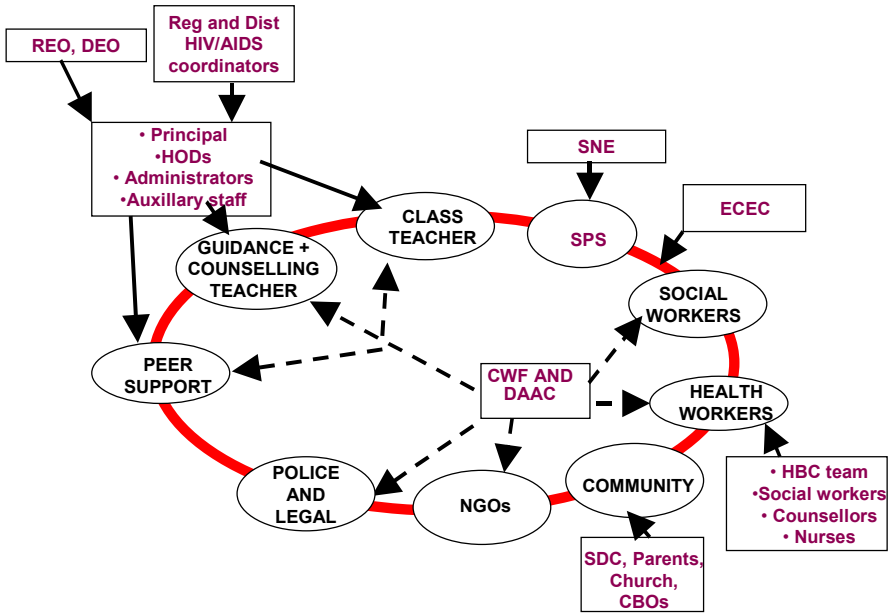
A process must be initiated to clearly define the MOESC's policy and strategy on OVC. This should include prioritisation and sequencing of strategy components and input of other sectors to agree on roles. It will provide an opportunity to allocate resources and responsibility to take forward actions across Ministry components to make the response more manageable.

1. *Strengthen BEAM*

   Improve its efficiency and refine its targets. Review selection and budget allocation criteria, and the need for checks and balances on both. Consider increasing the scale and kinds of support to ensure learners' basic needs are met adequately, equitably and comprehensively. Review the current programme to identify cadres of learners which have fallen into a support vacuum – especially secondary boarders and special needs learners, and rectify the situation. Consider using BEAM systems as a conduit to streamline assessment, screening, referral and disbursement for other kinds of support to learners in need.
2. *School feeding and nutrition programmes.*
   - School feeding schemes have proved effective in maintaining and boosting enrollment and the need for child feeding programmes is mounting independent of HIV/AIDS. School feeding is a good way of keeping learners in school. Further, morning meals have also been shown to have a strong association with school performance.
   - Income-generating activities and nutrition gardens may be an important supplement to feeding schemes and can also be used to build solidarity and empower disadvantaged learners.
3. *Identifying learners in need.*
   - Revise the social register system to make it more action oriented and effective in identifying disadvantaged learners for specific responses and planning purposes.
   - Develop guidelines to assist teachers to assess learners' vulnerability and to prioritise responses. Educators throughout the system require substantial upgrading of their knowledge and awareness of HIV-related problems, and their capacity to deal sensitively with learners in difficulty.
4. *Develop "Circles of Support" and inter-sectoral cooperation around each school in order to deal with learner difficulties.* The Circle of Support model involves developing networks of available resources inside and outside schools and other learning institutions. This social support network is intended to maximize use of existing capacity to respond to the wide range of needs among both learners and educators, and to ensure functions are allocated in the most manageable and efficient way. Potential resources are shown in Figure 2. The precise resources that are incorporated into the Circle of Support from in and outside of a school may differ according to the capacities and logistical support in each school and district. To create viable circles of support it is necessary to
   - *Define the roles, responsibilities and accountabilities of schools and key education stakeholders* such as the district education officers, heads and SPS in responding to needs thrown up by socio-economic hardship compounded by HIV and AIDS.
   - *Negotiate effective buy-in and commitment of potential partners at all levels* to support the Circle of Support and establish procedures for systematic and effective collaboration. Important stakeholders include social welfare staff, local authorities, NACP, DAACs, Child Welfare Fora, and parents/ SDC's/SDAs.

- *Review legislation and regulations* to ensure that these define roles and ensure efficient allocation of resources and functions can be made within Circles.
- *Develop and publicise roles and guidelines* on Circle formation, accessing financial and technical support, and approaches to specific and significant issues like abuse and violence, harassment, condom use, the particular needs of the girl child, among others. .

Figure 2. Circle of Support for Learners in Difficulty



5. *Mobilise more resources for learner support.*
   - Advocate allocation of more AIDS levy funds to education sector initiatives, including the proposed extension and improvement of BEAM.
6. *Enhance capacity within schools to manage Circles of Support and provide useful support to learners in difficulty. .*
   - Strengthen the number and skills of *guidance and counselling teachers* around these issues but avoid over-reliance on guidance and counseling teachers alone.
   - *Increase sensitisation, skills and confidence* of educators – both teachers and officials – in recognising and dealing with OVC issues. Reduce the tendency to respond only when stress manifests in "discipline problems", or to abdicate responsibility entirely.
   - *Refine the role of SPS* [spell out] to maximize the benefits of their expertise in programme development.
   - *Consider more formal integration of social workers into the education system* in order to maximise use of their skills in OVC support.

7. Enhance the flexibility and responsiveness of education institutions and systems to constraints arising from increasing levels of learner dysfunction.

- *Ensure effective inter-school referral systems* to minimize disruption and support for transferred learners.
- *Ensure adequate flexibility in scheduling and rules,* including for example timetabling, school hours, response to being late or erratic attendance, age norms, and facilitating homework.

Consider possible roles for distance learning and other methods to maintain learning of children who cannot attend school.

- *Review hostel and accommodation policy and management* to reduce the risks encountered by the most vulnerable.

8. Involve learners in decision-making, planning and responses wherever possible.

- Reinforce peer solidarity and develop means to communicate information on rights, responsibilities and support systems

9. Other issues

- Develop and disseminate a code of conduct for all learning institutions on confidentiality and other issues in dealing with sensitive social, economic and HIV-related matters.

How will HIV/AIDS affect capacity to deliver education?

MOESC already faces substantial challenges to maintaining acceptable levels of education quality and provision. Financial constraints are already significantly influencing education delivery, and teachers' salaries and benefits have been in decline in real terms. Non-staff budgets are dwindling further as more and more of the budget is spent on personnel. A significant number of teachers are still underqualified, and management and systems capacity is fragile in many areas.

(1) Susceptibility of staff to infection

While it is clear that Zimbabwe's education sector employees are at substantial risk of HIV infection, like any other workforce in the country, their relative vulnerability to infection is uncertain. The 2000 antenatal survey and Manicaland studies indicates that teachers have similar infection levels to other women suggests that pregnant women in formal sector employment are at the same level of risk as other women, although there are potential biases in this data. There is mixed evidence on teacher risk from other countries. Teachers are often cited as having higher risk of HIV infection than other adults because they are physically separated from their partners, they are more mobile, and have relatively high incomes and social status, all of which make them more susceptible to infection. Studies in the region have indicated too that following an initially higher rate of infection, educators learn to understand the risks so that rates start to decline to below-average for their age groups.

In general, HIV risk is strongly determined by the age and gender profile of employees, which may account for differences in HIV infection or death rates that have been found in some comparisons of teachers with other groups. It is possible too that other factors put teachers at lower risk in Zimbabwe. They are likely to be better equipped to reduce their risk as they are relatively well informed and may be better able to reduce their vulnerability once they recognise their own susceptibility to HIV infection.

Discussions with teachers and managers in Zimbabwe demonstrated that that many education managers and staff are generally ignorant about HIV/AIDS, its aetiology and its implications. Less accessible rural areas seemed to be particularly problematic because of limited penetration of HIV/AIDS programmes. Denial, fatalism and feelings of inability to manage risk were found to be widespread. In addition, teachers still seem to be at greater risk of infection because of their relative wealth and status in the community, the limited availability of entertainment other than sexual activity, and the lack of condoms. Separation from spouses or other partners was also identified as a major concern.

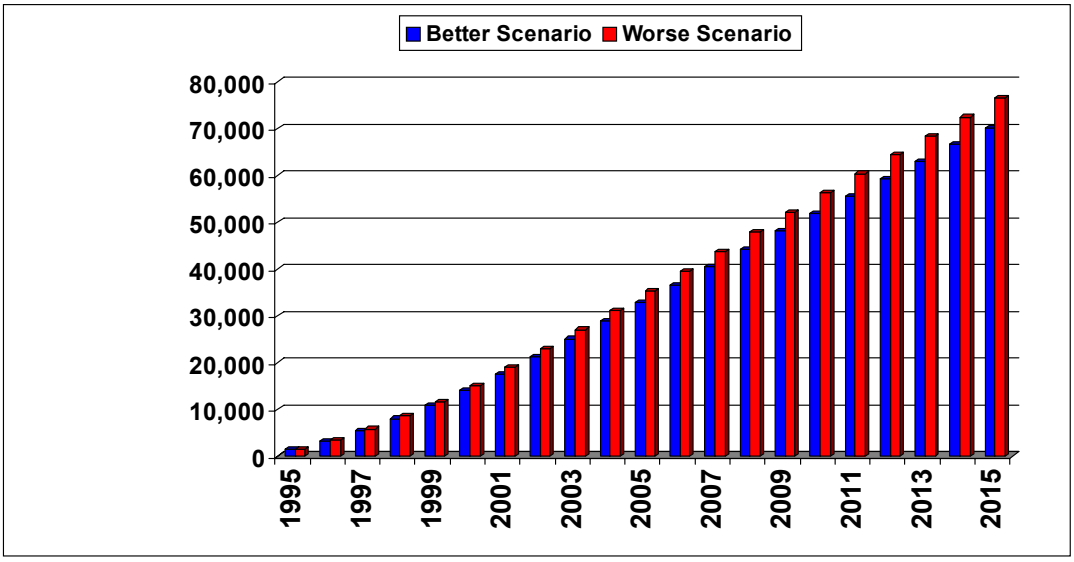
Estimations of possible levels of infection, illness and death

No representative data were yet available on the age, gender and geographic distribution of education employees. These all have a strong bearing on risk of infection, morbidity and morality levels in the teaching service. In their absence, illustrative projections have been calculated which assume that teachers have age, geographical and other risk factors similar to those of the general population aged 25-60, although a simple adjustment for gender was made.

Given these assumptions, analysis of data suggests that one third of all teachers were HIV-infected in 2001 with potential to arise to around 40%. Further projections indicate that HIV/AIDS deaths currently account for 80-90% of all deaths among educators. Death rates were estimated to be equivalent to approximately 4% of teachers in 2001, and this rate is likely to stabilise between 4.0-4.5% per annum for most of the rest of the decade. Projections indicate that if the projected rates of attrition apply among education sector employees the cumulative loss of staff between 2001 and 2010 could be equivalent to around 30% of the current workforce of 104 000 teachers (Figure 3).

The projected cumulative death toll among teachers as a result of the epidemic is shown in figure 3 below. The projections suggest that the MOESC could have lose around 30 000 teachers to AIDS between 2001 and 2010 and 50 000 teachers between 2002 and 2015, equivalent to almost 30% and 50% of the current teaching workforce respectively.

Figure 3: Projected cumulative number of teachers lost to HIV/AIDS (assuming the risk profile of the general population aged 25-60 – illustrative).



However it is important to restate the limitations on the projections due to a lack of data.
Key conclusions can be made even given the limitations of data:

- *There are likely to be substantial numbers of new infections* if prevention among teachers and trainees is not effective. Even though the epidemic is probably close to a plateau in infection rates, new infections replace those infected people who die.
- *Although death rates in any given year seem unlikely to rise very substantially, current levels are likely to continue* for the rest of the decade.

- *The cumulative loss of skilled employees over the decade will be very large.* This may well be exacerbated by loss of teachers to other sectors as the skills base contracts due to HIV/AIDS and other factors. Loss of specialist skills and experienced educators and managers are particularly significant for education quality.
- *Considerably higher (or lower) than average rates may occur in many schools* and districts, either in a given year or over time.

Impacts related to infected and affected staff

HIV/AIDS impacts on staff are clearly having a marked impact on many Districts and schools, although there is considerable variation among them. At all levels, a significant number of known or suspected AIDS cases and AIDS deaths are reported, along with greater use of indefinite sick leave amongst employees. However, there is no shared perception of the magnitude of the problem. Some managers and teachers seem to deny there are significant ramifications from HIV and AIDS, while others are deeply concerned by the levels of morbidity, mortality and stress they are seeing.

The survey highlighted concerns about

- *Significant levels of anxiety and stress* among infected and affected staff due to grief, extra workloads, stigmatization, fear of personal infection or illness, and care of family members. Female teachers were felt by many to bear a disproportionate burden due to traditional caring responsibilities.
- *Higher levels of absenteeism*. Preliminary survey results for a sub-sample of school heads suggest that approximately 2% of staff were on long-term sick leave in mid-2001, with a range from 0-50% of staff absent. The main reason cited for staff absenteeism appears to be funeral attendance (47% of school heads), followed by sickness of employees (30%) and family issues (22%). Heads indicated rising trends in absenteeism for all of the above causes.
- *Poorer quality of teaching by teachers who were more severely ill but continue to teach.*
- *Loss of skilled staff* who were difficult to replace temporarily or in the longer term, particularly in remote areas.
- *Complications in staff allocation and distribution.* Apart from difficulties in finding replacement teachers, HIV/AIDS is reported to lead to increased movement of teachers as many sick teachers in rural schools move to urban areas with medical services, while other, often more terminally ill teachers, transfer to teach near their rural homes.

Many informants suggested that these factors have significant implications for on system function and quality of education. 17% of school heads for whom data is available believed that staff absenteeism was a serious problem and 40% thought it was sometimes a problem to quality of education in their school. Many informants among students, teachers and managers indicated that continuity of learning was disrupted, learning time was lost, quality of relief teachers was often limited, and children were traumatized by illness and loss of teachers. In several instances, complaints from parents or children had been received due to prolonged absence or under-performance of a teacher or school head.

It is possible to conclude that, across the system,

- *The effects of HIV/AIDS on staff in many schools and classes is severe.* Schools that tend to be most vulnerable to the epidemic include small or remote schools, schools in poor and marginalised communities, and those with multiple sick members of staff.
- *Management above school level does not seem to have been markedly affected*. However, there is concern that loss or absence of staff with key skills or in key positions could be severely disruptive, with "multiplier effects" on quality, performance and provision.
- *HIV/AIDS per se is probably not destabilizing the whole education delivery system thus far*.

- *The cumulative effects of the pandemics in terms of loss of personnel, skills, institutional memory and possibly morale pose serious threats for the future*, although impacts in any one year seem unlikely to be disastrous for the system. HIV/AIDS can at very least be considered to contribute significantly to stress and declining morale.
- *Many significant impacts may be difficult to pick up timeously from macro-level and quantitative analyses and data*. Some of the ramifications of HIV/AIDS may be apparent in terms of actual financial costs to the sector (e.g. temporary or relief teachers). However, other costs are more likely to manifest as a gradual decline in accessibility to and quality of education.
- *The highest potential costs* to MOESC are likely to be those related to medical care of sick staff (but this depends on the nature of funding and benefits). Costs of absenteeism if management through an efficient relief teacher and ill health management system are unlikely to add more than 2.5% to staff budgets. Other costs seem likely to be less significant although there is uncertainty about impacts on pension costs to Government and possible teacher training costs to MHET.

Recommendations – internal impacts

HIV/AIDS is an issue of central importance to the ability of the nation and its education sector to provide education to all potential learners and to respond the needs of employees as the nation's largest employer. There are a number of possibilities for improving the management of the teaching service under attack by HIV and AIDS.

1) ***Developing a workplace HIV/AIDS policy and programme*** is a key priority to guide action and allocation of responsibility across role players. These should consider HIV/AIDS prevention and impact management in an integrated and holistic way. Impact management should focus in the first instance on providing information and advice, care and support to staff as individuals, but should not exclude consideration of how to manage changes in the service (attrition, performance, conduct and responsibilities, pensions and other direct and indirect costs) associated with the presence of HIV.

2) ***A second priority is to Establish HIV prevention programmes for educators, trainees, and other staff.*** Because they are a primary national resource, education sector employees should be targeted specifically. The goal should be 100% coverage as soon as possible. Teachers should be better able than most Zimbabweans to protect themselves from HIV once they have been informed by prevention and counselling programmes.
   - Major benefits in terms of their ability to guide learners and provide support to them are likely, including a greater willingness to act as appropriate role models.
   - *Educator-focused programmes should build on a clear understanding of critical success factors for workplace prevention programmes.* They should reinforce basic knowledge about HIV/AIDS risk and its impacts, and address life skills and empowerment to enable staff to protect themselves from infection in their own relationships, and deal with stigmatisation and discrimination, living positively with HIV/AIDS, and providing care and support for others.
   - *System risk factors related to employment should be addressed as far as possible*. These include quality of accommodation and work away from spouse or other regular partners.[3]

[3] The Ministry has already taken steps to assist married teachers to avoid separation from their spouses.

3) ***Provide basic care and support for educators.*** Care and support systems for education staff have clear benefits for them as individuals, but also assist in creating an environment which facilitates management of impacts on education delivery.
   - *Establish a 'Wellness' or Employee Assistance Programme (EAP).* Such programmes can assist infected and affected staff to deal with stresses created by HIV/AIDS by providing access to counseling, advice and services for issues such as life planning, disease management, nutrition and positive living, coping with stigma, and testing and counseling. Wellness and EAP's can also provide a mechanism by which managers and planners can be made aware of the scale and types of HIV/AIDS-related problems without compromising the confidentiality of individual employees. Partnerships with other sectors and educators' professional associations may considerably strengthen such programmes and make them more affordable and feasible.
   - *Strengthen medical aid cover.* Systematic attention should be paid to improving the adequacy and efficiency of medical aid cover, which extends to a large proportion of teachers and managers. Medical aid limits are not adequate to cover effective antiretroviral therapy for infected staff and exhaustion of benefits is widely reported among PSMAS members. The scheme has no programme to manage care for people with HIV/AIDS to ensure appropriateness, affordability and efficiency of care.

4) ***Review of pre- and in-service training is a major priority.*** The MOESC will have to work with the MHET. In-service and pre-service training programmes must reflect prevention and impact management strategies. In-service training is likely to have an increasingly important role to supplement the skills of new and serving educators.
   - *Aggressively promote effective prevention programmes for teacher trainees.* Current prevention programmes must be reinforced to ensure that they are actually leading to behaviour change. This is likely to be one of the most cost-effective approaches to HIV/AIDS over the longer term, particularly as an unacceptably high proportion of trainees are likely to become infected before they join the teaching service. Teacher education programmes need to include aspects of prevention, care and counselling, and planning concerns, and provide a basic understanding of what is required to manage the impact of the pandemic in institutions and classrooms.
   - *Review the number and kind of teachers to be trained.* Data were not available to estimate whether current teacher training capacity will be adequate to provide the necessary number of teachers, given expectations of slowing growth in learner numbers combined with higher teacher attrition. However, this issue is clearly critical to ensure ongoing delivery.
   - *Review the structure and content of in and pre-service training.* The nation's substantial investment in teacher training will be lost due to HIV/AIDS. There is an argument for considering rapid training of additional or specialist teachers and therefore adjusting teacher education course duration, structure and content to ensure that they are cost-effective, appropriate and flexible enough to respond to new training needs without compromising quality of teaching. Curricula will need to consider new competencies that may be required of educators like knowledge about HIV prevention, caring and supporting vulnerable children including orphans, and multi-grade and large-class skills. Greater emphasis on management skills will be required to equip more staff to assume management and planning roles. Other issues for consideration include how to accommodate loss of specialist subject teachers, and training to address needs of out-of-school youth and adults who have had interrupted education. Ensure that teacher trainers are also targeted to enhance their skills and commitment to HIV/AIDS issues.

5) ***Strengthen management of absenteeism and ill health.*** To a large extent, absenteeism and ill health are simply not managed at present. This has negative implications for infected staff, who often face great uncertainty and work well beyond the time when they become severely ill. Teaching service managers need to address a series of urgent administrative and procedural matters to protect the viability and quality of education provision.
   - *Review sick leave entitlements.* Strongly consider reducing sick leave entitlements and ensure that active management of absenteeism due to ill health begins *before* classroom performance declines. Employees who are ill should not be discouraged from continuing to teach if they are not permanently incapacitated, and granting further special sick leave should be possible after assessment, with further structured review. Leave entitlements and systems around compassionate leave for funerals or family matters also need to be reviewed and monitored.
   - *Strengthen relief teacher and other systems to cover for absent staff.* Relief teachers already represent a significant proportion of the teaching workforce. For example, most untrained secondary school teachers (7.4% of teachers) are relief teachers. Relief teacher systems should be adapted to be more responsive to shorter-term, unpredictable and intermittent absenteeism and to boost skills of relief teachers. Development of pools of relief teachers, career development planning and new budgetary mechanisms may be appropriate.
   - *Streamline medical boarding and disability management processes* to ensure fair, timeous assessment and review.
   - *Coordinate with the pension fund to ensure ill health retirement processes are efficient and that pension entitlements do not obstruct timely application for ill-health retirement.* Currently, staff have an incentive to stay in employment as long as possible to avoid loss of full benefits, and affordable mechanisms to overcome this tendency may be available.

6) ***Strengthen other HR management systems and capacity.***
   - Training to build confidence and competence of line and HR managers in basic human resource management, planning and development will help them to deal with many of the impacts of HIV/AIDS in addition to improving general system performance.

Specific systems that need to be strengthened and modified include
   - *Performance appraisal systems* which can be an important mechanism to ensure fair assessment and management of incapacity among infected staff. Modification of current systems to deal with the possibility of fairly rapid decline or fluctuations in performance may be warranted.
   - *Effective succession planning* to facilitate skills transfer and avoid unnecessary delays in appointments to reduce service disruption due to absence or death of staff.
   - *Efficient recruitment, appointment, redeployment and transfer systems and practice,* including incentives and other benefits to fill key managerial and technical posts as well as vacancies in remote or "unattractive" schools. Problems will be experienced where certain schools or workplaces have disproportionately large numbers of ill staff.
   - *Other innovative means of skills sharing and transfer* including teamwork approaches, improved communication and improved communication and study circle and cluster initiatives.

7) ***Review employee benefits.*** The education system should actively engage with the Public Services Commission, other departments, employee representatives and funds to review the package of medical and pension benefits for educators. These should be restructured appropriately to meet anticipated new HIV/AIDS-related needs of employees and their dependents, as well as education delivery requirements, in an affordable and cost-effective way. Current procedures to inform employees about their benefits and to streamline access to them should be reinforced. Key issues

related to the pension fund's role in ill health management are highlighted above. Adequate care for employees not on medical aid should not be neglected.

8) ***Identify vulnerable workplaces and work processes for targeted intervention.*** The MOESC should, at all levels, undertake a systematic review of which workplaces and work processes in education are most vulnerable to absence or loss of staff due to HIV/AIDS and develop plans to ensure that these vulnerabilities are addressed.

9) ***Improve information.*** Many aspects of HIV/AIDS impacts on the education system capacity remain unclear and better information is required.
   - *Track illness, death, and absenteeism* among staff.
   - *Get qualitative information to supplement quantitative information systems* to obtain clearer understanding of functional implications of HIV/AIDS.
   - *Encourage district, circuit and institutional level analyses of data.*

10) ***Improve capacity and coordination of employee impact management.***
   - *The Human Resource Division should take a lead role in developing the sector's HIV/AIDS policy, programme and review of conditions of service.* The process will require dedicated capacity of a high technical level and needs to involve a number of stakeholders in other ministries, as well as Staff Advisory Committees.
   - *Coordination with other stakeholders* such as the PSC, Health, Employee Associations and Finance will be important. Other key partners are likely to be professional associates and civil society groups.

HIV/AIDS implications for the role of Ministry divisions and units

School Psychological Support Services (SPS)

SPSS has key expertise in programme planning and responding to the special needs of learners including providing guidance and counselling services. The MOESC should consider ways to use the skills and experience of SPS more effectively at all levels. SPS could provide input into HIV/AIDS programme planning and management, training teachers on learner support and assisting schools to identify and manage the needs of vulnerable children, rather than waiting until the learner is severely stressed and manifests "discipline problems".

Early Childhood Education and Care

The Early Childhood Education and Care Section (ECEC) can help establish the foundations of HIV prevention from early childhood through its programmes. ECEC also has an important role in providing nurturing, caring and socialising young orphans and those with inadequate parenting at home, and relieving older children of sibling support roles so that they can attend school. ECEC should be aware that increasing numbers of their target age group will be HIV-infected, and respond appropriately in terms of support and precautions to avoid infection and stigmatization of infected children. Due to their community-based nature, ECEC could have a strong role in mobilizing awareness of HIV/AIDS in the community. Reliance on community funding for aspects of ECEC may become more difficult due to economic impacts of HIV on households.

Adult and non-formal education

In 2000, about 60% of youth of secondary school-going age and 10% of youth in primary school ages were out of school, with girls more adversely affected. The target clients of adult and non formal basic education are likely to be at particularly high risk of HIV infection. Women have traditionally been at higher risk of infection. Non-formal education programmes need to mainstream HIV prevention and care in their activities. Non-formal education programmes can penetrate communities directly or through their students, and should use this opportunity to mobilize community responses in prevention and impact mitigation.

The target group of non-formal education is likely to become larger due to HIV/AIDS as affected children find it difficult to stay in school, and their education thus becomes more random. In addition, the age profile of the target group may change, with increasing representation of younger candidates. Both these factors require monitoring and appropriate responses.

Strengthening distance learning materials and techniques may enhance non-formal programmes and provide additional support for learning in schools where teachers are absent. Cooperation with the adult literacy programme in Zimbabwe could encourage private sector adult education provision to improve national skills base development and get HIV messages to young people outside the formal system.

Planning, Research and Development

The Planning Research and Development Division faces challenges that have been highlighted throughout this report. EMIS must track potential effects of the pandemic that may not be immediately apparent, obtaining more non-routine and qualitative information to inform planning and monitoring, and ensuring timeous analysis and feedback. District and school level management information systems to inform management decision-making are required. Other issues for the Division include developing procedures to adapt curricula, investigating appropriate staffing norms in view of HIV/AIDS, and improving infrastructure in view of lower learner growth rates and new needs of learners for e.g. counselling and accommodation. The Division is likely to play a key role in inter- and intra-sectoral coordination, including coordination of partner initiatives.

Sport and Culture

Ministerial policy encourages a nurturing school environment that promotes sports and culture. Sport and Culture has several potential roles in the HIV/AIDS response: reducing infection rates and promoting prevention by providing alternative entertainment to reduce HIV risk, and actively promoting of HIV/AIDS messages through events and role models. Sport and cultural activities can help with stress management, socialisation, and positive peer interaction for learners in difficulty.

Conclusions and Recommendations

HIV/AIDS represents a potentially disastrous threat to social, economic and human resource development in Zimbabwe. With its effects accumulating and stressing the nation's well-being far beyond the end of this decade. Education represents Zimbabwe's largest investment in development and one of the nation's greatest successes. The adequacy of Zimbabwe's response to the epidemic will be measured in future by the extent to which it has preserved the lives, development potential and rights of the current generation of children and youth. The education sector is uniquely placed to sustain a successful national response to the challenges of the HIV and AIDS pandemics.

HIV/AIDS has fundamentally changed forever the internal and external environment of the education sector. The epidemic is already affecting the sector and compounds the negative effects of other social, economic and organizational constraints on the system's ability to deliver quality education to all. At current infection rates, approximately one-third or more of the investment in education is being lost through infection and premature death of learners during or after schooling. Many thousands of learners are having their potential undermined by the burdens HIV and AIDS impose on their households. As the nation's largest employer, MOESC has a major societal responsibility, for which it will be held accountable, to reduce and alleviate the misery and dislocation associated with HIV among its employees, with concomitant benefits for their many dependents and learners.

In any single year, HIV/AIDS alone seems unlikely to destabilize the whole system. However, this should not mask the subtle and insidious effects of the pandemics on education quality and access in many learning institutions, and on many thousands of infected and affected individuals, both employees and learners. The cumulative effect of the epidemic over time threatens to obstruct further progress in education development and performance, and undermine gains made by the sector and society so far.

In this context, recognition of HIV/AIDS as "core business" for the whole education sector is critical. All facets of education are affected and have roles to play in protecting the system from HIV/AIDS impacts.

- "Mainstreaming" HIV/AIDS within all education sub sectors is required if Zimbabwe is to constrain and manage the epidemic effectively. HIV/AIDS can no longer be seen simply as the responsibility of the School Health and Life Skills Secretariat.
- There has to be a sense of urgency and commitment at all levels to lay solid foundations for effective action over the next decade. Focus must shift from short-term ad hoc "fire-fighting" to longer-term views systematic plans, strategies and interventions. Plans must be rooted in an adequate management foundation for action and have access to the attention and energy of senior personnel and other resources appropriate to the challenge.

Fortunately, *HIV/AIDS presents opportunities not just a threat.* Many aspects of HIV/AIDS responses are consistent with existing priorities, programmes and initiatives to strengthen the education service independent of HIV/AIDS. While HIV/AIDS is a threat to success of such programmes, at the same time expanding development initiatives in critical areas of the sector, and can help to unblock obstacles to efficient operation of the system by virtue of its urgency in terms of lives and political and social security.

The following recommendations focus on what is required to develop and sustain an effective sector strategy to combat HIV and AIDS.

1. ***Create informed leadership.*** Sustained, high profile political, managerial and professional leadership across all sub sectors and levels of the education system is critical to inspire staff, provide guidance, and monitor action. Some senior managers are aware of the extent of the HIV/AIDS challenges, but HIV/AIDS is not prioritised in MOESC's planning and work and levels of understanding and individual official commitment vary from denial to enthusiasm among management.

2. ***Combat stigmatization, secrecy and denial around HIV/AIDS.*** These factors are widespread and undermine any effective response to HIV and AIDS.

3. ***Define roles and accountabilities of education sub sectors and partners, and develop guidelines for action.*** Many HIV/AIDS challenges are relatively new.
   - Define roles and expectations clearly and formally through legislation, regulations, guidelines and codes to ensure that HIV/AIDS is considered "core business" in all relevant areas.

- Practical guidelines must be disseminated through the system to help educators as an urgent priority to promote informed decentralized action. Review of regulations, legislation and codes is required to determine where they – and their application in practice – are antithetical to making headway against HIV and AIDS.

4. ***Disseminate knowledge across the sector and include positive messages.*** Basic knowledge of educators is often deficient and many have little idea of what can be done even if they are motivated. Effective communication of information on key aspects of HIV/AIDS prevention, impacts, planning, strategy and best practice is needed to mobilize and sustain responses.
   - Fatalism around HIV/AIDS and other stresses on education stakeholders make it critical to communicate positive messages of commitment, hope and practical steps that can be taken.
   - Mechanisms should be established for networking and sharing of experience and best practices between schools, districts and MOESC planners.

5. ***Decentralise approaches.*** Action on HIV/AIDS requires a centrally planned strategic framework for coordinating the activities of all partners and their activities. However, experience suggests that saving lives and protecting the service depends on effective, intensive action at school and district level. Centralised authority, capabilities and models are unlikely to cope with the diversity of circumstances in schools and the scale of the challenge at local level. A major strategic principle must be to facilitate and support flexible, district-led effective cluster, school and community level capacity-building and action building for example on initiatives such as the Better Schools Programme.

6. ***Retain flexibility to deal with uncertainty.*** Many aspects of HIV/AIDS impacts and appropriate responses remain uncertain, particularly at school or institutional level. "Least risk" scenario planning approaches should be used in planning in areas where important uncertainties exist, for example, around levels of impacts on teacher and student numbers. In addition, a key consideration in planning and practice should be how to ensure flexibility in many aspects of education system management to facilitate creative, and service orientated responses to unforeseen needs or circumstances.

7. ***Coordinate and enhance inter- and intra-sectoral partnerships.*** Education's HIV/AIDS response requires collaboration, cooperation and coordination of intent with partners in and out of government.
   - *Coordination with other sectors, particularly the NACP, health, local government and social welfare* should be boldly pursued at all levels to overcome traditional divides that undermine HIV/AIDS responses.
   - *Co-ordinate with Ministry of Higher Education Employment Creation,* particularly around training of teachers to respond to capacity needs and needs for prevention and new skills of teachers. This study had limited ability to cover higher education issues but these are clearly critical to an effective education response.
   - *NGOs and community organisations* as potential – and probably essential – partners are currently not adequately supported by government. Ways to streamline relationships with them , to formalise them where necessary and build their capacity to deliver at local level services which complement and supplement government services is essential. Government cannot "go it alone". NGO partners should be formally involved in all aspects of planning and delivery of HIV/AIDS programmes.
   - *Better co-ordination across directorates and units within the MOESC* is needed in designing and delivering effective interventions.
   - *Co-ordination with professional associations of educators.* Zimbabwe's teacher and other public service unions are increasingly aware of the impact of HIV/AIDS on their members and society. However, their members may resist important aspects of change and new responsibilities required

of them. Aspects of workplace policy, procedures and practice need to be negotiated. Liaison with education associations to develop a consensual and united strategy is now required. Teachers are not just part of the problem: they are key to the solution. But it is important they are involved as early as possible in determining and negotiating effective strategies, and that their concerns as professionals are consistently reflected in planning and delivering the sector's response.

8. ***Improve strategic and operational plans.*** The current HIV/AIDS and Life Skills strategic plan lays an important foundation of the education sector's response. However, knowledge of gaps and difficulties in implementation have increased since it was developed. In addition to reviewing the national plan,
   - *All MOESC divisions and units* should develop HIV/AIDS plans.
   - *School, district and regional HIV/AIDS plans* should be prepared with adequate guidance and support.

9. ***Reinforce and adapt existing programmes as required.*** Some current initiatives can support action on HIV/AIDS. For example, with some adaptation, sector activities like the Better Schools Programme, learner centered teaching, curriculum development, human resource management, poverty alleviation among learners, and community participation all have capacity to mainstream HIV/AIDS concerns and carry messages and skills into the system.

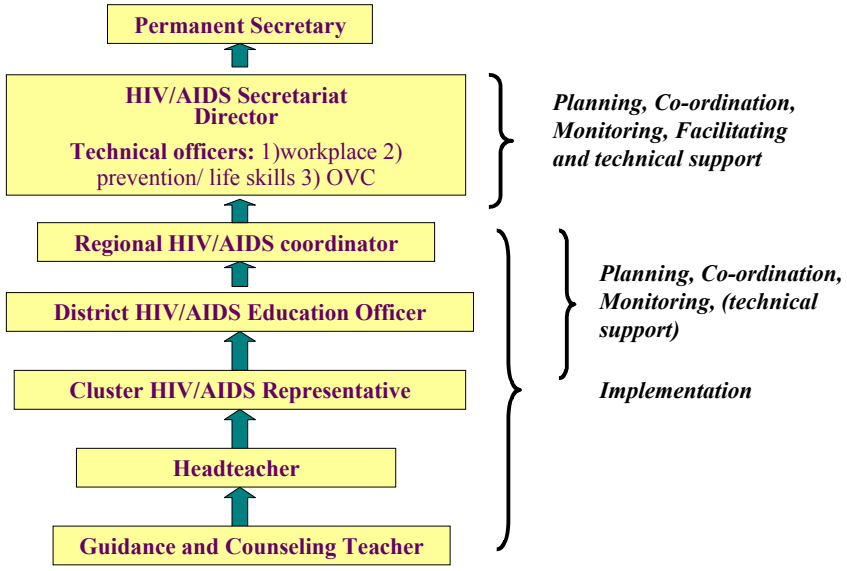
10. ***Improve information collection and analysis, and monitoring capacity.***
    HIV/AIDS prevention and impact management is hampered by lack of good information.
    - EMIS and other routine information and reporting systems need review and adjustment
    - Qualitative information-gathering is required, along with research, and local data collection and analysis, perhaps via a District Management Information System.

11. ***Mobilise and allocated resources to those who can use them.*** Ring-fenced resources are required at schools, district, regional and Ministry levels. HIV/AIDS-related activities must be incorporated into core budgets and functions. Extra investment is necessary to drive an intensive and extensive HIV/AIDS campaign in the sector.
    - Higher AIDS Levy funding is required to support the sector strategy particularly with regard to OVCs and workplace impacts.
    - Targeting resources at the most vulnerable is required: the girl child and female educators, rural, marginalised and other disadvantaged communities, and at-risk institutions.
    - Interventions with multiplier effects (disseminating examples of best practice, access to phones, photocopiers and transport) should be prioritised.
    - An incentive fund programme could be used to support planning and action on HIV/AIDS by districts, clusters or schools.

12. ***Create strategic capacity and implementation structures.*** Development and coordination of an effective nation-wide strategic programme requires significant greater capacity than is available at present. Taking account of existing resource constraints in the sector, it should be possible to consider
    - *Prioritising and reallocating existing capacity away from less urgent matters* within various MOESC's directorates and other sub sectors in order to mandate focal persons and HIV/AIDS committees in every Ministry unit/directorate, and to use key capacity such as SPS and inspectors to better effect.
    - *Transforming organisational culture*. by nurturing a culture of care and a willingness on the part of individuals and groups to embrace the needs of colleagues and learners. The tendency to avoid personal initiative must be challenged by strong exemplary leadership.

- *Reinforcing capacity to deliver.* The structure of the HIV/AIDS programme should be adapted not only to increase capacity but also to reflect the need for decentralized action. Currently, staff given HIV/AIDS responsibilities are in many cases those who are "left over" when other appointments have been made. This is no way to fight a life and death threat to the education service. The national education sector plan must be driven by senior executive who are well-motivated, skilled and committed leaders. Their mandate and establishment must reflect the need to work not just centrally but locally too.

Figure 4. Proposed HIV/AIDS structure for strategic action



A proposed structure for deliver a national HIV/AIDS programme is shown in Figure 4. At a minimum the following basic components are required.

At *school level,* the school head should be held accountable for implementing HIV/AIDS responses. A dedicated post should be created for a guidance and counseling co-coordinator who will be responsible for technical support for co-ordination, referral activities and aspects of service delivery and technical support within the school. The head should have discretion in allocating responsibilities provided that outcomes are achieved, and ensure that all functions are not left to the guidance teacher. In smaller schools, consideration should be given to part-time post allocation and possibilities of sharing a guidance and counseling post with other schools in the cluster.

At the *cluster level*, a skilled HIV/AIDS Coordination and technical support person should be identified from participating schools. Both *district and regional offices* require full time HIV/AIDS coordinators responsible for inter- and intra-agency coordination of planning and action, and to provide technical support when necessary.

At *national level*, the HIV/AIDS Programme Director should report directly to the Permanent Secretary and be a member of the senior management team to ensure advocacy and sensitisation,

collaborative inter-departmental planning, reporting and accounting take place. At a minimum, full time positions need to be created for three Technical Programme Leaders responsible for each of the workplace , prevention and life skills, and social support programmes. Current support staff capacity should be increased in line with the increasing functions of the HIV and Education Secretariat.

1. Introduction

Education has been identified as one of the principal means of socio-economic development and transformation in Zimbabwe. Since independence, the country has made great progress towards the goals of Education for All. Current education standards are considered to be higher than in most other SADC countries.

The Ministry of Education, Sport and Culture (MOESC) in Zimbabwe has recognised that the HIV/AIDS epidemic is likely to have a profound and serious impact on the education sector and the environment in which it operates. The sector is also strategically placed to influence the future HIV/AIDS epidemic in view of its access to cohorts of children and adolescents passing through the system. The ability of the Ministry to respond to and plan for the HIV/AIDS epidemic will be critical in determining the size and type of impacts experienced, and the ability of the sector to preserve and extend gains in delivery of equitable services. Informed response planning by the sector requires an in-depth understanding of current and projected HIV/AIDS impacts at system through to local level, as well as the current context within which any responses will be situated.

1.1 Scope and Methodology

The terms of reference of this study defined its overall objective as supporting the MOESC to assess the impact of HIV/AIDS on its ability to meet its mandate. Specific issues to be examined were impacts on:

1. Demand for education and any changes in the scale or type of needs to be met by the sector
2. Supply of education, through its impacts on employees and trainees;
3. Costs of education; The process and quality of education; The content and role of education;
6. Planning and management in the education sector. The project was to review current responses and make recommendations to assist in refining strategy to address impacts.

The study employed the following methodology:

- *Primary data collection,* which included:
  - Qualitative data collection through visits to four education regions, as well as the MOESC, involving group discussions and key informant interviews with managers, teachers, learners and stakeholders outside the education sector.
  - A survey of a nationally representative sample of 187 primary and 63 secondary schools. Data were collected from school heads and guidance teachers in each school, and from Form 3 students in a sub-sample of secondary schools, totaling 1009 students.
- *Secondary data collection.* This included review of EMIS data, policies, legislation, and other documents.
- *Demographic projections* to assess current and future levels of various HIV/AIDS impacts. These were produced using the most recently calibrated and customized version of Metropolitan Life/ Doyle model that has been used extensively in other SADC countries over the last decade.

Further details of methodology are given in various Annexes to this report. However, several important general perspectives should be considered in reading this report.

School survey and district visit findings are expected to be reasonably indicative of current levels of HIV/AIDS impacts, responses and capacity, there are likely to be certain unavoidable biases. These include for example, the tendency of respondents to give "desirable" answers in order to present their schools in the best possible light and refusal by some respondents to speak about certain sensitive issues. Thus it has been critically important that the data obtained from all sources are integrated with one another, and used to inform and cross check interpretation.

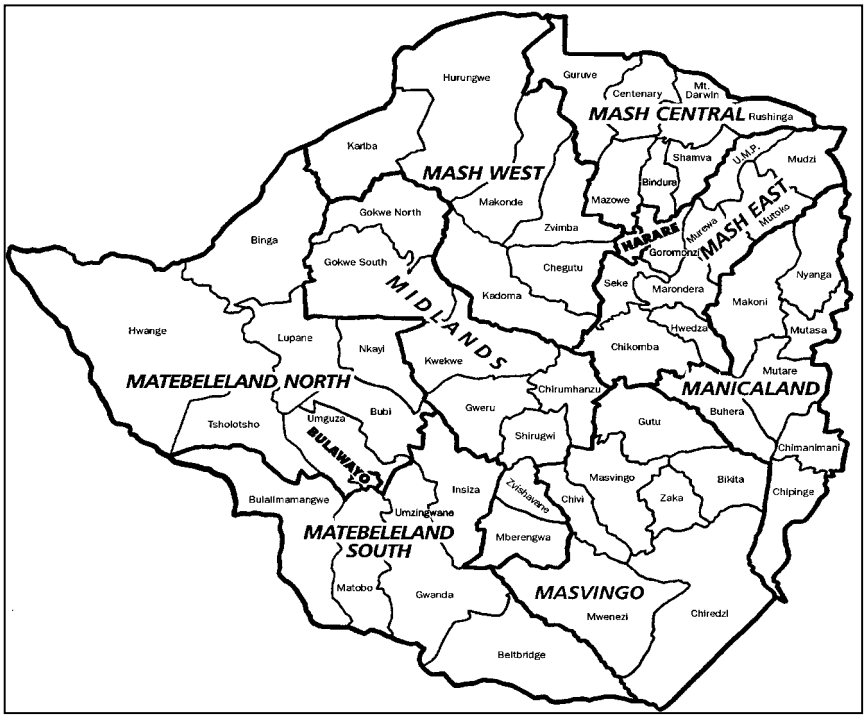
*Projection*s produced in this study can be expected to give a reasonable indication of the scale, types and major trends of HIV/AIDS impacts that need to be considered in education planning. However, projections involve many assumptions. It is important to note that many factors limit the accuracy of projections, including limitations of the available data on the structure and trends in the underlying population, and the HIV/AIDS epidemic in Zimbabwe. Planners who use the projections must thus accommodate several possible scenarios, to limit the risk that any particular projection is not accurate.

Projections of impacts on education staff should be used with particular caution. Data on the full age and gender profile of education staff was not available. As these are powerful determinants of the susceptibility of any workforce to HIV/AIDS additional uncertainties are introduced into projections.

1.2 Zimbabwe – profile and development context

Zimbabwe is divided into 10 administrative units or 'provinces' (including the urban centres of Bulawayo and Harare), which are subdivided into 57 administrative districts. Road and other communications infrastructure is relatively good although communication is hampered by economic constraints.

Figure 1.1: Administrative Map of Zimbabwe



Agriculture is the mainstay of Zimbabwe's economy. Diverse climatic conditions in different parts of the country support varied farming activities on commercial farms and communal lands. As most farming in Zimbabwe is very rain-dependent, rainfall patterns and trends tend to influence well-being and education prospects in many communities strongly. However, Zimbabwe also has a variety of minerals and mining supports a significant proportion of the population. Raw materials, infrastructure and a skilled labour force have built a strong manufacturing sector. The tourist industry is also a key economic contributor.

Legal and Policy Context

Zimbabwe government and education sector policy are strongly influenced by the country's constitution. The current Constitution provides *specific safeguards for children*, and these include obligations of the State to (a) support family and parental care, or appropriate alternative care when removed from the family environment; (b) ensure shelter and basic nutrition, health care and social services; (c) protect them from maltreatment, neglect, abuse, exploitation, corruption or fraud; and (d) take legislative and other measures to protect children from exploitative labour practices. It expressly states that children's well being, education, physical or mental health or spiritual, moral or social development should not be placed at risk and that "a child's best interest is of paramount importance in every matter concerning the child".

Parliament has enacted laws to give additional protection to children, and among these are the Child Protection and Adoption Act, the Sexual Offences Act and the Legal Age of Majority Act, among others. Zimbabwe is a signatory to key international conventions, among them the Convention on the Rights of the Child (CRC) as well as the African Charter on the Rights and Welfare of the Child (ACRWC). Over and above these Acts and Conventions, other national policies promote the full realization of children's potential and ensure that they feature prominently on the development agenda by prioritizing children in the allocation of national resources and involving them in development issues. The National Youth Policy, the policies on Education for All, Health for All, Housing for All and the National AIDS Policy, for example, all seek to ensure the welfare of all citizens and the provision of essential services on an equitable basis, and each has a section that specifically focuses on children. Following the World Summit for Children in 1990, Zimbabwe also developed a National Plan of Action for Children that set targets covering all children, including those with disabilities, in health, education and the living environment for the decade to 2000, but which have ongoing relevance (Government of Zimbabwe, 1992).

Other important elements of the Constitution are its commitment to *gender equity and protection of marginalised groups.* It states, for example, that "the state must ensure gender balance and a fair representation of marginalized groups …[and] must promote full participation of women in all spheres of Zimbabwean society on the basis of equality." Government has prioritized gender equity and equality in all facets of national life. Initiatives have included integration of gender in the Growth with Equity policy (1981), the National Gender Policy and formation of Ministries to mainstream women in development. The Ministry of Youth Development, Gender and Employment Creation currently handles concerns of women and young people.

Zimbabwe's legal and policy framework therefore provides a strong basis for protection of vulnerable members of society, particularly women and children.

General demographic profile

Zimbabwe's population is estimated to have grown from 10,412,548 in the 1992 Census to 13,875,574 in 2001 (Central Statistical Office, 1994; Central Statistical Office, 2000). Females contribute 51- 52% of the population.

The *population growth rate* appears to have dropped markedly. The 3.14% rate of the 1992 Census had dropped to 2.25% in the 1997 Inter-Censal Survey. Crude birth rates and total fertility rates show similar, downward trends that started in the 1980s (Central Statistical Office, 1998; Central Statistical Office/Macro International, Inc. 2000). Of the total 1997 population, 44% was under 15 years old and 56.5% was under 20 (Central Statistical Office, 1998). However, the decline in fertility and other factors have led to a decline in dependency ratios from 100 in 1994 to 87 in 1999 (CSO, 2000).

The *Infant Mortality Rate* fell from 83 per 1 000 in 1978 to 61 per 1 000 in 1988, but has subsequently shown an upward trend to 66 per 1 000 (1990) and to 80 per 1 000 in 1995. *Child Mortality Rates* declined by a third to 23 per 1 000 between 1978 and 1988, but rose to 36 per 1 000 in 1995. Life expectancy rose from 55 in 1982 to a peak of 62 in 1990, but fell to 43 in 1999. (Central Statistical Office, 1998a; Central Statistical Office/Macro, 2000). HIV/AIDS is expected to be a large contributing factor

More than two-thirds of Zimbabweans live in rural areas. The proportion of the population living in urban areas has increased, but only 31% was in urban areas in 1992. Rural areas can be classified into communal lands and resettlement areas on one hand, and on the other, private small scale commercial farming areas (SSCFAs) and large scale commercial farming areas (LSCFAs). Many workers on private farms have no security of tenure. Urban areas include peri-urban settlements, growth points and areas falling under urban councils. Here many people own or rent houses, but some are 'squatters'.

The Socio-cultural environment

Zimbabwe's society is multiracial, multi-cultural and multi-ethnic. The Shona and Ndebele are the two main tribal groups. Minorities include the Ndau, Tonga, Venda, Kalanga, Nambya and those of foreign origin.

Traditionally, the indigenous population has a very strong *sense of community and extended family* structures that help to maintain very strong links among community members. In rural areas demands of the modern economy have had a limited disruptive effect on the extended family system. In urban areas, the extended family has largely been replaced by nuclear families, although many urban dwellers maintain rural and extended family links. The strong sense of the community in communal areas has facilitated organization and mobilization of members for broad participation in development activities, including establishment of many schools with minimal government assistance. Community support networks are, however, under enormous pressure, particularly in view of the dwindling capacity due to HIV/AIDS epidemic and economic pressures.

While generalizations can be misleading, the rural population in particular has also tended to maintain other traditional values and norms. These include a system of *patriarchy*. Men are traditionally expected to play a leadership role and make the major household decisions while females are expected to show deference to males. This has tended to limit the power of women in areas such as participation in development activities, access to services, ownership and control of assets (including inheritance), and participation in decision making at all levels. Women also lack power around issues of sexual activity and reproductive health in relation to themselves and their partners. Another traditional value is *gerontocracy*. Traditional communities have prioritised the well-being of children and youth, but tend to have limited participation by children in decision making. *Marriage* is also a strong institution in Zimbabwe when compared to neighbours such as South Africa and Botswana: men marry at older ages than women but only 9.8% of women aged 25-29 and 7.5% of men aged 30-34 have never been married (see Mhloyi et al., 2001 and CSO/Macro, 2000 for more detailed information on various attitudes and practices).

Factors such as urbanisation, mobility of the population, multi-culturalism, changing socio-economic demands, technology, education, the media, and globalisation have also had a destabilising effect on

existing values, systems, beliefs and practices. Zimbabwe therefore confronts the HIV/AIDS epidemic with many potentially protective traditions weakened, new protective systems established to a limited extent, and a mix of potentially damaging new and old norms in place.

Development Challenges and Achievements

At independence Zimbabwe faced two major challenges. The first was social transformation to create a non-discriminatory, non-racial society based on principles of equality, and free of material and psychological vestiges of colonial rule. The second was pursuing economic growth while at the same time ensuring re-distribution of resources and opportunities to redress the discrimination and inequality of the colonial order.

Government has addressed these issues through a series of development policies, plans and programmes.[4] Their focus and strategies have often altered quite dramatically to deal with emerging circumstances. However, since independence development priorities have quite consistently been guided by the desire to ensure full, democratic participation of every citizen in decisions processes related to all aspects of national life. They have also prioritised basic needs of the majority of the population, with focus on providing basic social services such as health, education, and access to water, sanitation and housing. Priority has also tended to be given to rural areas where most of the population lives and agriculture, including land reform. Other priorities have included expanding the scientific and technological base to modernize the economy and investment in human capital through education and health.

Zimbabwe achieved remarkable successes in most sectors, particularly in the earlier years after independence. Social sector spending (as a share of total Government expenditure) increased from 25.7% in the 1980/81 fiscal year to 34.9% in 1990/91. Improved access to services and other development resulted in major improvements in various indicators such as immunisation, infant and child mortality, life expectancy (see above), child nutrition, family planning and water and sanitation.[5] Achievements in the education sector were even more impressive (see below). Overall, Zimbabwe's development programmes have created a generally well-developed economic, government and social infrastructure.

Unfortunately, existing national resources have had difficulty in sustaining the high investment in social service sectors and maintaining consistent economic development. Economic development has been vulnerable to domestic factors, including policy and serious droughts in 1982/3, 1992, 1995 and 2001/2, as well as the regional and global economic environment. Economic and employment growth rates have been difficult to sustain at levels that keep up with population growth (Table 1.2 below). Average GDP growth rates started declining from the mid-1980s, and the downward trend continued well into the 1990s, with recent severe exacerbation and negative real growth. Growth in formal sector employment shows a similar pattern. Zimbabwe is now classified as a lower, and no longer middle, income country.

[4] Key guiding policies and programmes have included Growth with Equity (Zimbabwe Government, 1981); the Transitional National Development Plan for 1982/83 - 1984/85 (Zimbabwe Government, 1982a and 1982b); the First Five Year National Development Plan for 1985/86 - 1989/90 (Government of Zimbabwe, 1986a and 1986b); the Second Five-Year National Development Plan (Government of Zimbabwe, 1991a and 1991b); Zimbabwe Programme for Economic and Social Transformation for 1996-2000 (ZIMPREST) and, more recently, the Millenium Economic Recovery Plan (MERP).

[5] Over 80% of households now have access to clean water, and 32% have access to sanitation facilities for the safe disposal of waste. Programmes included hygiene education and community-based development processes.

TABLE 1.2: Growth of GDP and Formal Employment

Years	GDP Growth % p.a.	Employment Growth % p.a.
1970 – 1975	4.7	4.4
1975 – 1980	0.8	-0.5
1980 – 1985	4.1	2.3
1985 – 1990	4.6	1.9
1990 – 1996	1.8	1.4
1965 – 1996	4.1	2.2

Source: Human Development Report 1998, Zimbabwe. p.20.

Budget deficits, national debt and price inflation have been recurring problems despite major programmes to address them such as the Economic Structural Adjustment Policy (ESAP) of the early 1990s. By 2000 the economic situation had already deteriorated into a "national crisis" (Makoni, 2000:2). This is illustrated by the deterioration in various indicators in the following table.

Table 1.3: Selected Economic Indicators: 1995 – 2000.

Indicator	1995	2000
Investment	23.4% of GDP	13.0% of GDP
Inflation	22.6%	60%
Commercial bank lending rates	13.6%	65%
Balance of payments	+US $210 million	-US$596 million
Capital account	+US$437 million	-US$401 million
Recurrent expenditures	120% of total revenue	164% of total revenue
Government debt	$37 billion	$207 billion

Source: Makoni (2000): Budget Statement 2001.

Despite these challenges, policy has remained committed to the ideal of providing basic social services. It has also attempted to protect vulnerable members of society, particularly children, through programmes such as the Social Development Fund (SDF), food-for-work programmes and, more recently, the BEAM programme. These mechanisms have however often been only partially successful in protecting the poor.

Certain developments in the economic and development environment have particular ongoing relevance to the education sector.

- Major emphasis has continued to be placed on *limiting government expenditure*, with implications in terms of declining real budgets for social services sectors such as education.
- *Reduction in size of the civil service* has been a major feature of policies to reduce the budget deficit. This creates limitations on capacity to extend or maintain services. Civil service reform resulted in Government's wage bill declining from 16.5% of GDP in 1991 to 10.4% in 1995.
- *Cost recovery measures* introduced under ESAP for education and other services remain in place.

While many development gains and indicators have been sustained despite economic adversity, many important development challenges remain and impose increasing pressure on these gains.

- *Increasing levels of poverty* since 1990. The 1995 Poverty Assessment Survey found that 61% of households lived under the Total Consumption Poverty Line. The Survey established that 41% lived below the food consumption poverty line. Contributing factors included unemployment, retrenchment, low incomes and consumer goods price inflation. While drought also contributed to

poverty in that period, this demonstrates the vulnerability of many households despite measures such as the Poverty Alleviation Action Plan (PAAP). *Certain types of households are particularly susceptible* to poverty. Poverty is generally greater in rural areas, particularly the communal farming areas, certain agro-economic regions, female-headed households (which predominate in communal areas) and households with single or unemployed breadwinners, or no remittance income. Poverty also tends to be associated with lower ability to access basic social services (Central Statistical Office, 1995; Central Statistical Office, 1998b). However, higher average urban incomes hide many urban communities which are extremely poor.

- *Inequality.* Zimbabwe faces ongoing challenges to reduce income inequalities, reflected in a Gini coefficient of 0.59 around 1990, one of the highest in the world (UNDP, 2001). CSO studies have indicated that the inequality was largest among urban households and least in resettlement areas.[6]
- *Unemployment.* Particularly in the later 1990s policy has emphasised employment creation. But, as illustrated above, employment growth has not matched population growth. In most of the 1990s, the economy created nearly 20 000 jobs each year, but school leavers numbered about ten times this figure. Unemployment levels are estimated to have exceeded the 50% mark by early 2000. This has implications for households as well as motivation of students.

These challenges have increased dramatically in the context of increasing economic crisis since 2000. An estimated 74% of all households are now poor, and year-on-year inflation for 2001 reached 112% by December 2001 (CSO, 2002). Foreign currency shortages resulted in temporary shortages of fuel and electricity in 2001. Maintaining development gains and responding to challenges such as HIV/AIDS will remain complex until greater economic stability is established.

1.3 The Zimbabwe education sector

Since independence in 1980, Zimbabwe has remained committed to the provision of education as one of the basic rights of every child. Education – formal, informal and non-formal – has also been viewed as a pillar of national development. Education has been regarded as an investment in human capital for economic development, as well as a major investment in broader social development and change through reducing inequalities of opportunity, and acting as a "social vaccine" to disease, hunger and poverty. The current Mission of the Ministry of Education, Sport and Culture (MOESC) is: ***To provide high quality and relevant primary, secondary and non-formal education…. to enrich the lives of the people of Zimbabwe.***

Post-Independence Achievements in Education

Government's most urgent priorities after independence were policies and programmes to promote access to, and participation in, education. Key thrusts were construction of schools, suspending age restrictions on entry into various programmes, abolition of primary school tuition fees and strategies to enhance access by previously disadvantaged groups (e.g. girls, Blacks, remote, rural communities, minority ethnic groups). To meet short term personnel requirements, untrained and retired teachers were recruited, but large numbers of teachers were trained to meet future demand. Successes were sustained by (a) Government leadership; (b) commitment of many other players (e.g. rural district and urban councils, churches, private individuals, trusts, and private companies) to provide infrastructure; (c) communities'

[6] Very high inequalities in commercial farming areas were limited if commercial farm owner or manager households were excluded.

investment in school construction and other costs of children in school; and (d) dedication of personnel, including management, teachers and support staff.

Impressive achievements in expanding access to education made Zimbabwe an internationally acclaimed "flagship" country. Between independence and 2000, the number of primary schools almost doubled and the number of secondary schools increased over eight-fold, with massive increases in enrolment rates in both sub-sectors. Access rates to early childhood education and care centres increased from close to zero at Independence to 20% in 1990, and to 35% in 1999. Gross Enrolment Ratios (GERs) at primary school level shot from around 55% in 1980 to an estimated at 110% for 2000, and from 12% and just over 58% for the secondary schooling (Ministry of Education, Sport and Culture, 2001). By 2000, Net Enrolment Ratios (NERs) stood at around 92% for primary and 40% for secondary schooling.

Zimbabwe's adult literacy programme was very successful in the early '80s largely due to vigorous literacy campaigns and the public support from political leadership. Literacy levels have improved dramatically to around 86% at present, one of the highest in Africa. Access to Early Childhood Education and Care (ECEC) has also risen to just over 35%, up from 20% in 1990.

The education system also proved its ability to address other major challenges to expand its capacity as an agent of social change and transformation. The *school curriculum* was overhauled to reflect a new epistemological base, socio-cultural values and socio-economic order. This major undertaking required re-drafting of educational goals and objectives, revision of materials, re-orientation of teachers, new pedagogical practices, and re-design of assessment systems. Many *other innovations* enhanced transformation. These included localizing teaching materials and examinations, introducing vocational/technical subjects, introduction of HIV/AIDS and Life Skills education in the 1990s, and new pre- and in-service teacher training and support programmes (e.g. Zimbabwe Integrated National Teacher Education Course (ZINTEC), Teacher Management and Support (TMS) programme, Managerial Skills Training Programme for Head Teachers and in-service and Distance Education Programmes designed to upgrade teachers and school heads).

Systemic innovations were also introduced to meet emerging challenges of a transforming and vastly expanded system. There was *systematic re-structuring* of the system from Head Office to school level. Elements targeted for change were the creation of a unitary education system, classification of schools, personnel management (e.g. the creation of a unified teaching service), and the re-definition of the roles of the different players (Government, other responsible authorities, parents, and School Development Committees and School Development Associations).

Quality of education has also improved in many respects, although assessment of quality has been a relatively controversial area, mainly because different stakeholders adopt different perspectives of quality. A major emphasis was on improving outputs, in the hope that level and relevance of learning outcomes would then be enhanced. Some hold that, from the *input perspective*, quality has suffered due to declining capacity of government, households and some responsible authorities which have led to fewer resources in schools. But studies have show that, in primary schools, the levels of resource provision actually improved between 1991 and 1995 and the system has performed well in terms of input indicators such as quality and relevance of learning materials (Murimba et al., 1995 and Machingaidze et al., 1998). In addition, the proportion of qualified teachers has risen markedly. *Process variables* that affect quality in education are not well understood in Zimbabwe but there has been improvement in indicators such as teachers' pedagogical practices and the system's internal efficiency.[7] *Output* indicators (e.g. the number of graduates the system has produced) have also showed progress. *Trends in outcomes* in the form of

[7] Current SACMEQ II research seeks to generate more information on education process to guide policy.

pupil achievement have been difficult to interpret, partly because the nature, form and scope of examinations, which also respond to changing syllabi, have changed over the years.[8]

Overall, there is acknowledgement that Zimbabwe's education system remains one of the best in the region and in Africa as a whole.

Current Structure of Zimbabwe's Education System

Zimbabwe's education sector comprised 4741 primary schools and 1555 secondary schools in 2000. Government is the nation's largest single employer, and the MOESC has largest number of government employees with over 104 000 employees, including 66440 primary and 34160 secondary school teachers.

The education system involves 13 years of schooling. Seven years of basic education lead to the Grade 7 Examination. Secondary schooling has two years leading to the Zimbabwe Junior Certificate (ZJC) and then two years to 'O' Level examinations. Most youth leave formal education after 'O' Levels, and enter the job market, apprenticeships or training colleges of various types. High school is essentially preparation for university or college.

Management of the MOESC involves four divisions. The *Schools Division's* responsibilities cover the core of the Ministry's mission. It is responsible for day-to-day operation of schools through structures from Head Office, through Regional Offices and District Offices, to school level. The Division monitors implementation of the school curriculum, supervises teaching staff, ensures quality of learning inputs, processes and outcomes, and addresses problems of pupils at school level. It handles issues related to formal and non-formal education from pre-school to adult learner levels. The *Human Resources Division* handles all personnel issues, including administration, monitoring and recommending conditions of service, concerns of teachers, and professional conduct. The division is also responsible for HR planning.

The *Research, Policy and Development Division* is responsible for collection, processing and dissemination of information to feed into policy development. The data is collected routinely or through research, and relayed to responsible divisions and sections for action. The Division monitors overall performance of the system and has a coordinating role in cross-sectional issues, and issues involving players outside the education system, such as donors. The *Finance Division* manages the system's financial resources, budgets and expenditure. It monitors and provides guidance on financial issues.

Key Education Policies and Programmes

When enrolments began to stabilise around 1987, Government shifted from quantitative expansion to consolidating quality, equity and relevance of education.

A key policy thrust has been *improving quality of education*. Efforts to enhance quality have taken several forms, among them adding to school infrastructure, increasing teaching and learning resources, ensuring the supply of qualified teachers, improving qualifications of teachers already in service, and ensuring that the curriculum address the needs of the learners as well as the challenges of the contemporary world.

[8] The system has succeeded in turning out large and increasing numbers of qualified graduates at all levels but pass *rates*, particularly at 'O' level, dropped dramatically below the levels of the colonial system which imposed severe bottlenecks at every stage of the school cycle (MOESC/UNICEF (1994, 1995, 1996).

Increasing system *efficiency and management* has been a major focus, particularly since 1990 when the real education budget declined for the first time. An important component has been decentralization of many managerial and planning functions to Region and District level, and enhancement of cluster and school level management. The Better Schools Programme (BSPZ) which aims to enhance managerial and other capacity particularly through cluster systems to share resources and expertise.

Evidence-based decision making and an information culture have been seen as an important way to maximize efficiency and effectiveness. The education management information system (EMIS) was strengthened in the 1990s. Studies such as the 1991 and 1995 national studies in conjunction with IIEP have given important guidance to policies to enhance effectiveness, efficiency and learning achievement.

Responding to *children with special needs* remains an important thrust of the sector. The National Programme of Action for Children (NPA) was developed to provide, among others, support services for children with all kinds of special learning needs through Schools Psychological Services (SPS).

Community participation in school affairs is seen as an important way to maintain and add to education gains.[9] Policy has encouraged formation, and direct participation in school management, of School Development Committees (SDCs) and School Development Associations (SDAs) - for non-Government and Government schools respectively. Policy aims to strengthen mutual support between communities and schools, to enhance schools' accountability to communities and community ownership, and thus to increase sustainability of school development processes.

Coordination of stakeholder inputs and synergies has been another key issue, particularly in view of declining real education budgets and erosion of communities' economic capacity to support school development. To achieve greater efficiency and synergies, and avoid duplication, between stakeholders, the MOESC has, for example, formed the Education Sector Development Group (ESDG) to co-ordinate donor inputs. One ESDG assignment was to enhance the Ministry's capacity for sector reform by facilitating the preparation of a joint Education Sector Transition and Reform Programme (ESTARP).

Support of vulnerable children has been another major focus in partnership with other Ministries. The Social Development Fund (SDF) was set up during the 1991-1995 economic reforms to assist poor families to access basic social services including education. The SDF has been succeeded by the Basic Education Assistance Module (BEAM), that builds on lessons from SDF.[10]

Financing of education

To support the massive expansion of access to primary, secondary and tertiary education, Government has prioritised budgets for the education sector since independence. The 2001 budgetary estimates for the two ministries of education totalled just over ZWD 33 billion or 12.84% of the national budget. The MOESC budget remains the largest single Ministry budget, at 29.3% of total government vote appropriations in 2001 with Higher Education and Technology accounting for a further 7.1% (Government of Zimbabwe, 2001). In addition to this massive investment of national resources, education also accounts for a substantial investment by a variety of other players (households, communities, development agencies, NGOs, local authorities, churches, other responsible authorities).

[9] Legislative and statutory measures to facilitate this include 1991 amendments to the Education Act (1987) , Statutory Instrument 87 of 1992 and Statutory Instrument 70 of 1993.

[10] The SDF was limited *inter alia* by targeting problems, limited Government capacity and logistical problems of communities in accessing the SDF services.

At the primary school level, primary education was free from 1980 till the introduction of *user fees* as part of the 1990 economic reform programme. Secondary education was never free; the level of fees was regulated and monitored to ensure that they were affordable to most parents. Parents with genuine hardships have had access to financial support from the SDF and BEAM programmes.

Real budget constraints on the MOESC have become increasingly severe, with declining real budgets since 1990. One of the pillars of ZIMPREST (1996-2000) was commitment to investing in people, particularly against the backdrop of a growing awareness that AIDS would impact on the nation's development capacity. Investment in education, health, housing, sport and culture as well as in youth and gender issues was therefore prioritized (Government of Zimbabwe, 1998:25-26). However, overall budget constraints and increasing inflation have been dominant. The percentage of the national budget set aside for education fell sharply from 18.45% in 2000 to 12.84% in 2001 (Government of Zimbabwe, 2001).

Staff costs account for 90.5% of the 2001 MOESC budget, imposing further limits on budgetary flexibility to meet new needs. Inputs such as transport and books have thus become increasingly restricted, particularly an inflationary climate. The cost of educational books rose by 378.6% in 2001 (CSO, 2002).

Challenges

Zimbabwe's post-independence education sector is regarded as a success story that has many lessons for Africa and the rest of the world, but it still faces a number of key challenges which include the following:

- *Increasing and sustaining access.* Zimbabwe had removed most barriers to UPE by the mid-80s, but NER had not risen above 86%, implying that 14% of children do not get access to education. About 24% of children still failed to complete primary school in the 1990s. *Primary school dropout* rates for both primary school boys and girls have been on the increase since 1996. At Grade 6 level, dropout rates of 5.5% and 8.3% for boys and girls respectively have reached the highest levels recorded since 1980. Particular issues in improving access include:
  - *Remaining urban-rural and inter- and intra-regional inequities* in quality and access. Particular challenges remain to create and enforce access for children in specific geographical locations and social groups such as those on commercial farms, in remote rural areas, and in newly resettled areas.
  - *Addressing the influence of poverty and economic circumstances*. The NER has tended to reflect the trends of poverty, with the lowest enrollment rates recorded during years of stresses such as severe drought. User fees present a specific challenge to universal and compulsory education.
  - *Expansion of effective access to secondary education and reducing dropout.* Around 25% of Grade 7 learners do not make the transition to Form 1. Dropout rates for boys and girls at Form 4 ('O' level) are 95.3% and 95% respectively, leaving a small minority to progress to 'A' Level.
- *Gender equity*. Steady progress towards achievement of gender parity in access and participation has been achieved. However, there are still challenges to equitable female participation, particularly in secondary schooling. The primary school gender parity index rose from 0.91 in 1980 to 0.97 in 1999, and from 0.76 to 0.88 for secondary schools. Achievement by girls tends to be better than boys in primary school, but worse in secondary school.
- *Relevance.* One of the far-reaching innovations in Zimbabwe's education sector has been curriculum reform to make it more responsive to the needs of learners and society. However, there are still challenges to improve the relevance of education so that school leavers and graduates are well equipped to participate fully in society and the world of work.

- *Enhancing quality of education.* This remains a Ministry priority and is even more challenging due to rising poverty that is likely to inevitably affect schooling, through e.g. impacts on pupils' socio-economic background, regularity of meals, availability of books at school and at home, and the availability of classroom furniture.
- *Consolidating management efficiency and capacity* at all levels of the education sector. All role players acknowledge that factors such as bureaucratic systems and practice and skills leave room for improvement.
- *Sustaining employee motivation and morale.* Morale is generally reported to be low and the ministry has to manage this and reported tendencies of employees to leave the sector for alternative employment locally or internationally.

These challenges of maintaining and enhancing system performance and accessibility are particularly daunting in the context of declining real education expenditure and general economic decline.

School level perceptions of strengths and vulnerabilities in achieving good education

The school survey conducted during this study asked school stakeholders about the *key challenges to good education outcomes*. School heads indicated that poverty and lack of resources were the most serious problems, but HIV/AIDS also featured as a prominent problem for almost half of school heads (Table 1.4).[11] School heads who cited the lack of resources as an obstacle, most commonly saw shortage of textbooks as the major problem, followed by furniture and classrooms and then other needs. Guidance teachers also ranked poverty highest, but ranked HIV/AIDS ahead of lack of resources and also mentioned discipline, alcohol and drugs as concerns.

Table 1.4: Obstacles to good education outcomes (School Head respondents)

Obstacle	Degree of Seriousness					Total mentioning it as obstacle (n=250)
	1 (serious obstacle)	2	3	4	5 (minor obstacle)	
Poverty	32%	20%	31%	6%	5%	94%
Breakdown of family	17%	16%	22%	15%	8%	78%
Political unrest	10%	6%	10%	11%	31%	68%
AIDS death/illness	25%	19%	19%	10%	6%	79%
Lack of resources	38%	19%	17%	7%	10%	92%

School Heads assessments of *school strengths* in the delivery of good quality education indicated that over 80% felt that staff commitment was the major strength. Parental commitment was felt to be a key asset in just over 50% of schools (Table 1.5).[12] Guidance teachers gave similar rankings of strengths.

[11] Other obstacles that were cited included: Negative attitudes of students or parents; lack of interest or motivation; absenteeism; unfavourable religious beliefs about schooling; relocation of parents; retrenchments of parents; high pupil-teacher ratios; and poor remuneration, accommodation and conditions of service.

[12] Other strengths noted by Heads included: good infrastructure, high pass rates, team spirit, rich environment, Christian environment, income generating projects, qualified teachers, a staff development policy and state

Table 1.5: Perceived strengths of schools (School Head respondents)

Strength of School	Degree of Seriousness					Total mention it strength (n out of possible 250)
	1 (exceptional strength)	2	3	4	5 (fair strength)	
Committed/ hardworking staff	62%	17%	10%	6%	2%	243
Committed parents	24%	28%	18%	9%	8%	220
Money, resources	16%	12%	16%	12%	19%	187

Zimbabwe's education sector has shown that with determination, political support and partnerships with communities and other stakeholders, it is capable of achieving ambitious goals. The sector is a major national resource and has created a strong base of educated citizens to sustain its efforts to preserve education in the face of HIV/AIDS.

1.4 The HIV/AIDS epidemic in Zimbabwe

In the context of the general challenges to social development and education, Zimbabwe is now experiencing one of the world's worst HIV/AIDS epidemics. The National Survey of HIV and syphilis prevalence among and antenatal clinic attenders provides the most comprehensive data on the epidemic that is available. The 2000 Survey indicated that 35% of pregnant women nation-wide were HIV positive, a marked increase from 1997 levels. While there are methodological limitations on use of antenatal survey data, the Survey provided strong evidence of several important features of the epidemic.

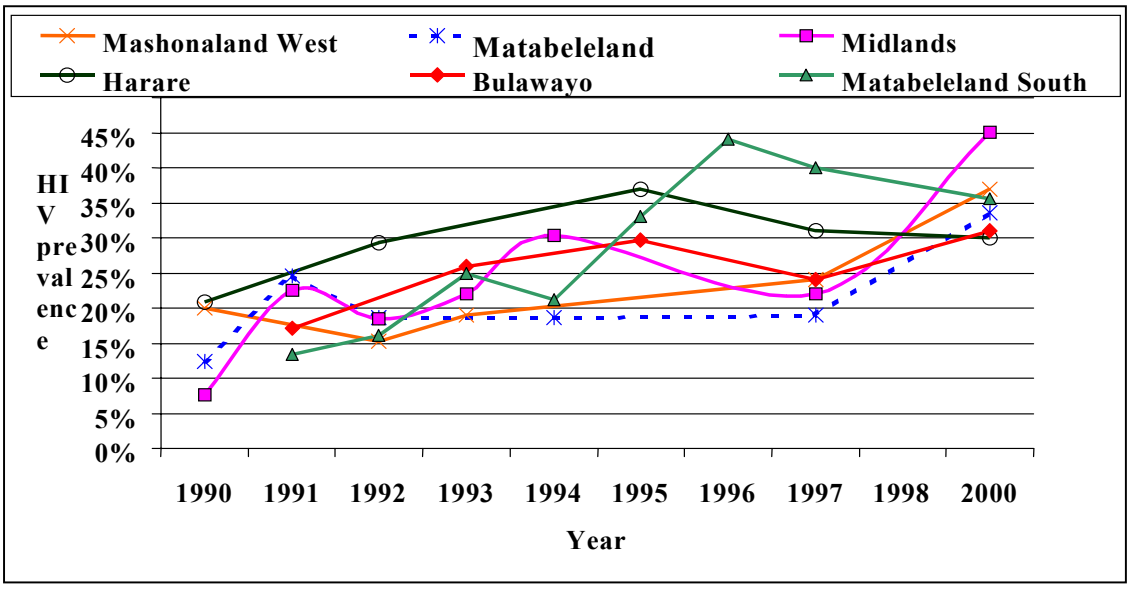
- *There is a persistent increase in infection rates*. Although there was hope in 1997 that the epidemic had reached a plateau in many areas and perhaps nationally (Figure 1.6) HIV infection rates have risen since then.[13] It is also important to realize that even a stable plateau does not mean that new HIV infections have stopped – newly infected people maintain levels when previously infected women die or become less fertile and are thus not captured in the Survey.

funding.

[13] Of 15 sites tested in both 1997 and 2000, prevalence increased in nine, was stable in two and declined in four. Overall prevalence in these sites increased from 27.4% to 36.1%.

Figure 1.6: HIV infection levels among pregnant women attending antenatal clinics by province

Source: National Surveys of HIV prevalence among women attending antenatal clinics in Zimbabwe.



- *New infection rates among women in their teens are a persistent problem.* HIV infection levels were 27.8% among women aged 15-19 in 2000. This indicates that young women remain at high risk and that levels of infection among them are too high to produce an HIV/AIDS-free generation.[14]
- *All provinces have severe epidemics.* Only two of the 19 sites surveyed in 2000 had infection levels below 25%.
- *Populations in certain locations are at particularly high risk* of HIV/AIDS. Women in commercial farming, mining, resettlement and border post areas appear to be at highest risk (over 40% prevalence), followed by growth points (around 40%). In towns/cities and communal farming areas, levels are somewhat lower, but remain between one-in-four and one-in-three.
- *Rural rates are lower overall than in urban areas, but this cannot be assumed to reflect lower risk in the longer term*. Rates in rural areas overall (33.4%) were lower than in urban areas (36.9%) and data suggest that risk may be 10 - 20% lower in the rural population overall. However, rates among rural women aged 15-24 were higher than among urban women. This and other data suggest that overall, as in other countries, rural rates are catching up with levels in urban areas.[15] This would be expected with Zimbabwe's good infrastructure and high levels of population mobility, particularly of migrant labour, combined with difficulties of HIV/AIDS

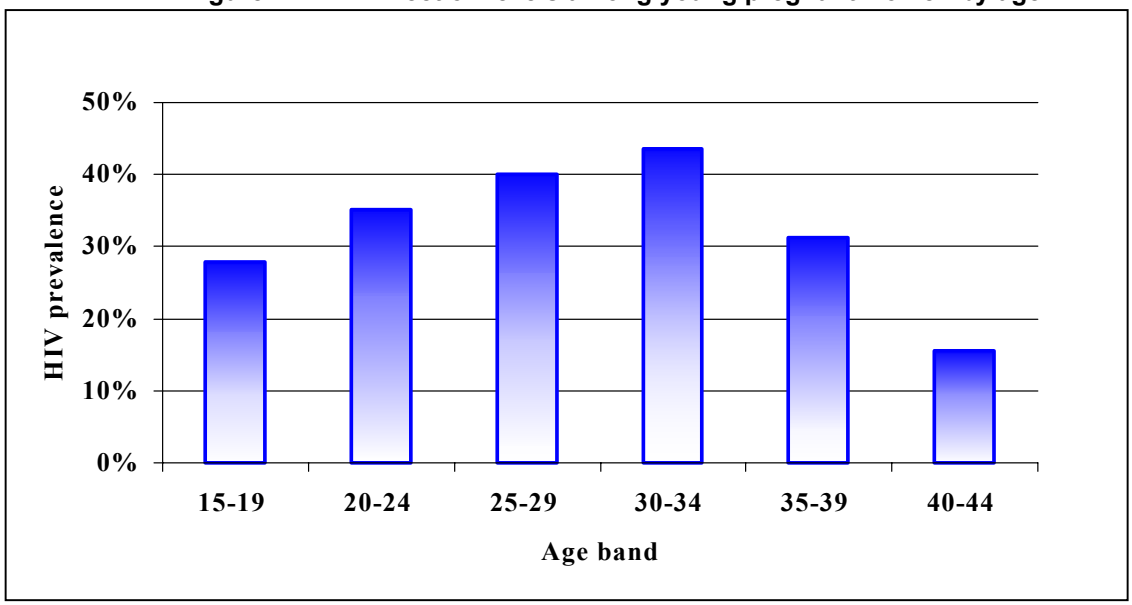
[14] Interpreting trends in infection levels among 15-19 year pregnant women is not straightforward. For example, the Survey may not reflect increasing numbers of young women who avoid sex that puts them at risk of pregnancy and HIV infection. However, the overall levels of infection, and the infection levels of over 32% among women aged 20, 21 and 22, who are more likely to be more representative of their peers, clearly indicate a large problem in that age group.

[15] S Gregson pers comm.

education and changing behaviour in more remote and conservative communities. Many "rural" sites are also quite urbanized by the standards of other countries.

- *Certain communities within any category are at much higher than average risk and greater impacts should be anticipated in them*. Marked variation occurs between sites even in similar environments, and three sites had infection levels of over 55%.

Figure 1.7. HIV infection levels among young pregnant women by age



AIDS cases and deaths

The rise in AIDS deaths, which lags behind the rise in HIV infection levels by 8-10 years, is being felt increasingly severely by communities and families across the nation. Notification of new AIDS cases climbed rapidly through the early 1990s. Although notified cases stabilized in the later 1990s, this is thought to be due in large part to decreased testing and reporting rather than real declines in the number of cases. Demographic and Health Surveys found that between 1994 and 1999 the percentage of people who knew someone who had died of AIDS rose from 50% to 60% in women and 49% to 64% among men.

Data from the 1994 and 1999 DHS indicates rising mortality among young adults in Zimbabwe (Figures 1.8 and 1.9). The rise has an age pattern consistent with AIDS being a major cause. There is a marked increase in death rates among adults in age groups that otherwise would be expected to have quite low mortality rates. The main burden of increasing rates among women also seems to occur in younger age groups than for men, consistent with age differentials in sexual relationships and thus sexual transmission of the cause of the excess deaths.

TB notifications, a strong indicator of underlying HIV/AIDS related illness, have climbed continuously from a rate of around 90/100 000 in 1990 to almost 400/100 000 in 1998 (MOH, 2000).

Figure 1.8 Trends in Age-specific Mortality among Men 15-49, Zimbabwe (deaths/1000)

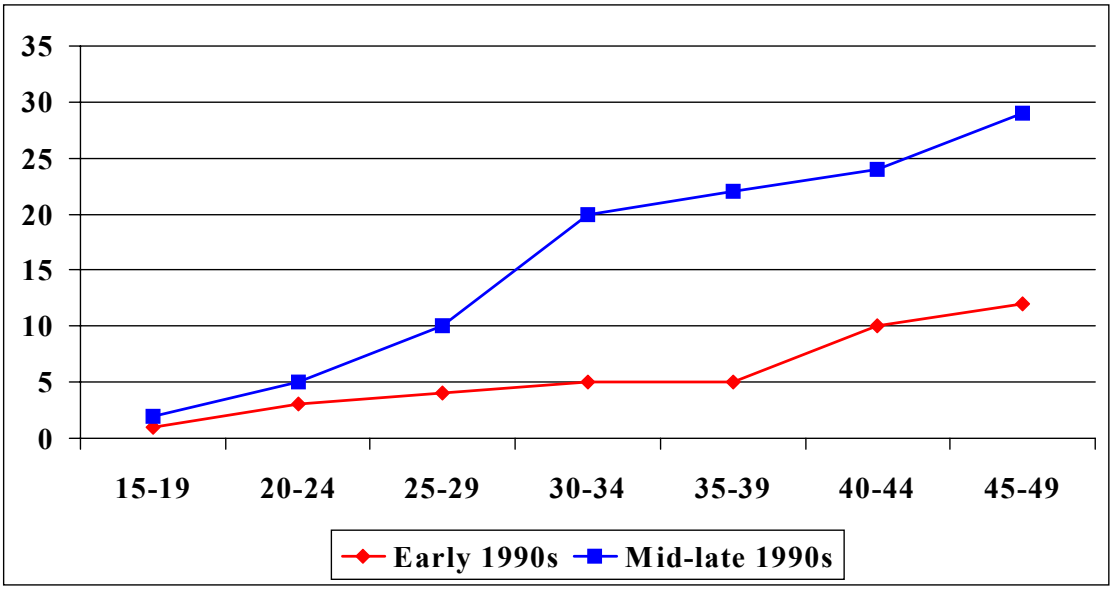
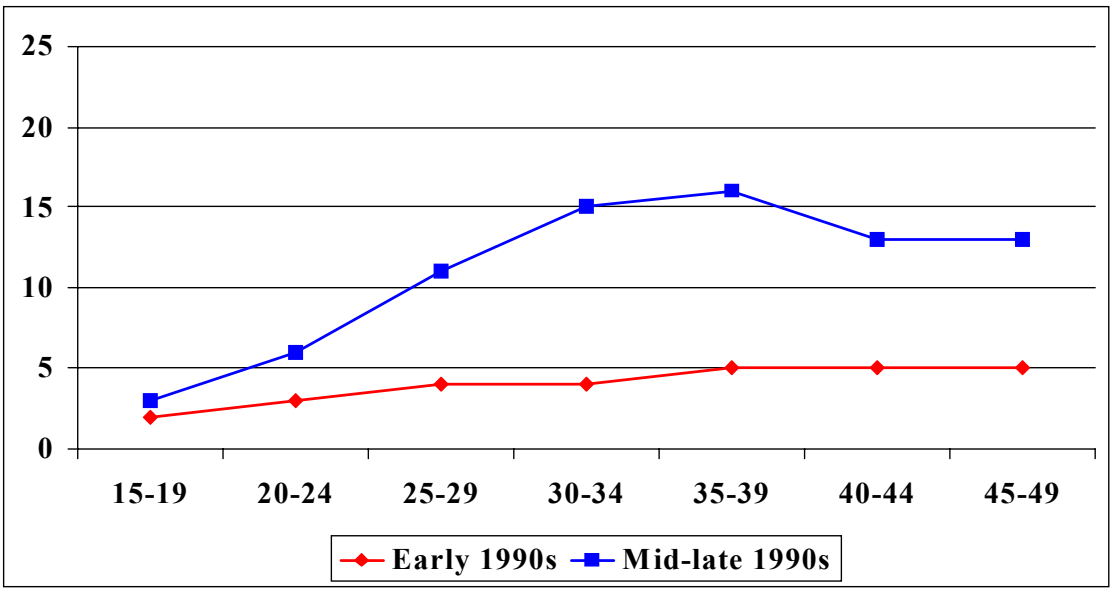


Figure 1.9 Trends in Age-specific Mortality among Women 15-49, Zimbabwe (deaths/1000)



Source: 1999 DHS

Other indicators of risk behaviour and behaviour change

There are some encouraging signs of increasing knowledge about HIV/AIDS which creates a foundation for effective prevention. The 1999 DHS found that practically all Zimbabwean men and women over the age of 15 have heard of AIDS. 47% of women and 41% of men aged 15-19 also stated that they knew someone personally who had died of AIDS. However, despite this, the 1999 DHS indicates that *levels and quality of knowledge still seem to be inadequate*. Among people aged 15-19:

- 21% of women and 12% of men aged 15-19 did not know of a way to avoid HIV/AIDS
- Between one-quarter and one-third did not know of key ways such as condom use and limiting the number of partners even after prompting.
- 21% of women and 11% of men believe that a healthy looking person cannot have HIV

There is even more serious concern that *people with knowledge are not changing behaviour sufficiently*. Rural levels of knowledge and safer sexual behaviour are also consistently lower than urban areas.

Nevertheless, there are some encouraging, though still limited, signs of safer behaviour.

- *The median age of first intercourse has risen slowly for women* in Zimbabwe but remained stable for men over the last decade. Nevertheless, among young adults aged 20-24, around fifty percent of young Zimbabweans have had sex by the age of 19, and around 35% of women and 31% of men have had sex by the age of 18 (CSO, 2000).
- *Rates of other sexually transmitted infections* show some signs of falling in a number of provinces since 1998, after remaining quite constantly above 800 000 over the 1990s (MOHCW, 2000).
- *It is clear from reported condom use patterns that condom use has increased and that people know that risk outside of stable relationships is higher.*

Importantly, *educational attainment seems to be protective,* with higher levels of knowledge and reported safer behaviour among those with more education.

Key issues – features of Zimbabwe's HIV/AIDS epidemic

- HIV infection rates continue to rise in many areas.
- HIV infection levels of 27% among pregnant women aged 15-19 indicate that new infection rates remain too high to produce anything near an HIV/AIDS free generation.
- All communities and schools can expect to be affected by HIV/AIDS and need to consider responses.
- Certain types of communities (commercial farm, resettlement and growth points) are at particularly high risk of HIV/AIDS, and may warrant particular prioritisation in response planning.
- Rural infection levels overall appear to be lower, but there are strong indications that they may catch up with urban ones.
- Levels of basic knowledge about HIV/AIDS are still inadequate.
- Ensuring adequate levels of behaviour change in response to knowledge about HIV/AIDS remains a major challenge.

1.4.1 Implications for other sectors and society

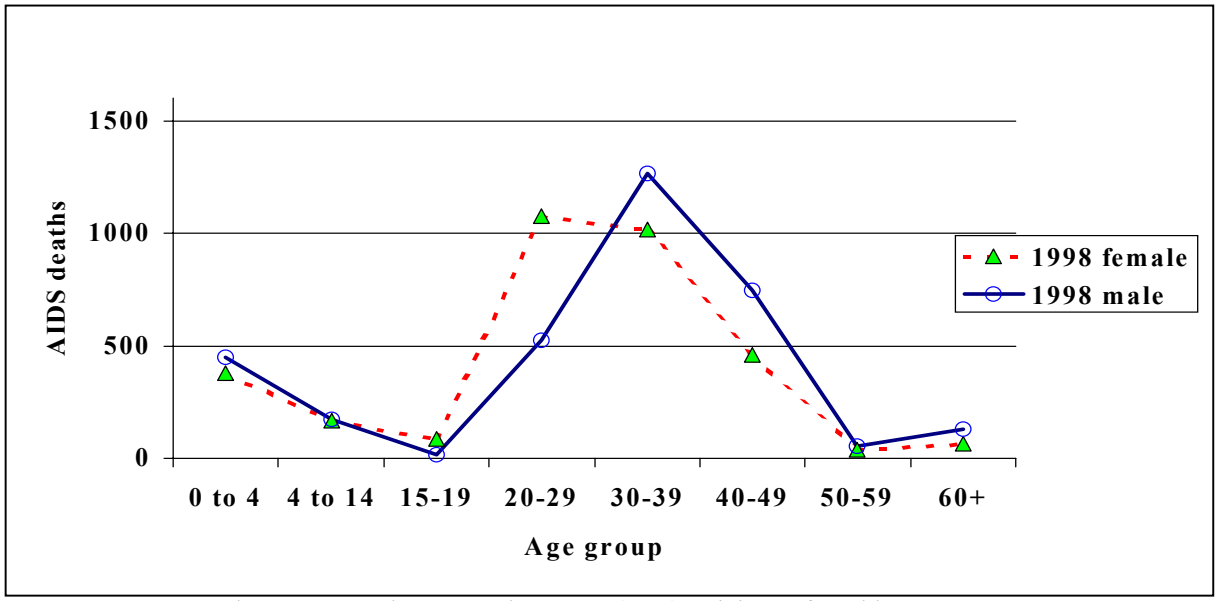
Impact on population size and profile

[Lack of comprehensive, reliable data on levels of infection and deaths, as well as the longer term implications of current infection rates makes it necessary to rely on projections to identify the impacts of HIV/AIDS on the size and profile of the Zimbabwe population.]

HIV infection results in AIDS illness an estimated average of around 8.5 years after initial infection with the virus, followed by death an average of around a year after development of AIDS.

Although current data under-reports HIV/AIDS cases, it illustrates how HIV/AIDS deaths are concentrated mainly among children under 5 years old, and among young adults in their late 20's, 30s and early 40s, important years as income generators and parents (Figure 1.10).

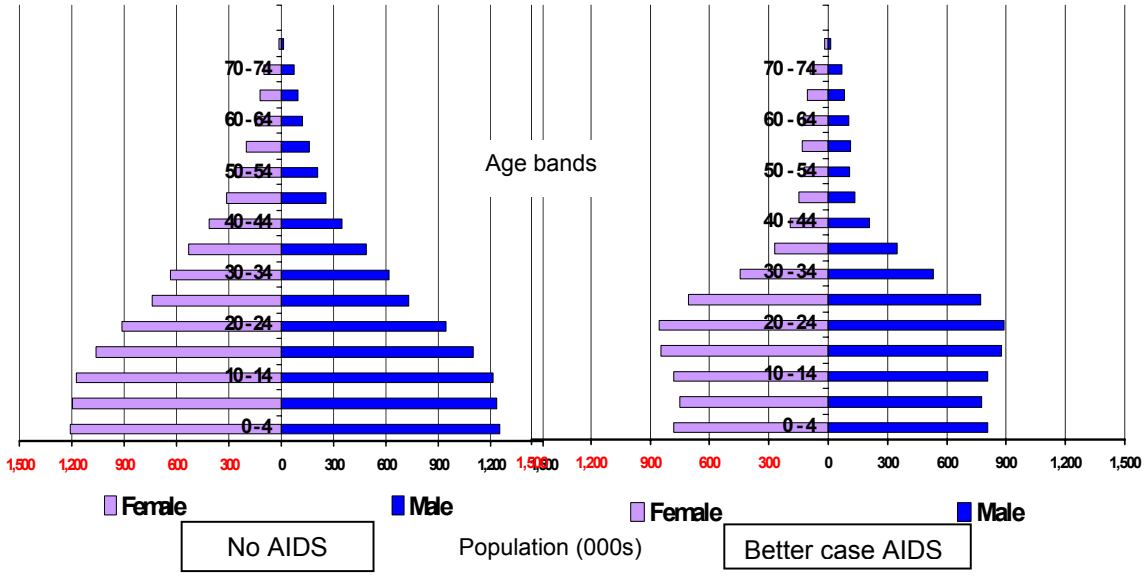
Figure 1.10: Reported AIDS deaths by age 1998.



Source: HIV/AIDS, STI and TB Fact Sheet 2000 (June): Ministry of Health.

The net effect is that less children will be born, due to lower numbers of adults in reproductive ages and effects of HIV infection itself on women's fertility, and significant number of those that are born will die of AIDS before the age of five. In addition, the number of people in economically active age groups will be reduced in size by the epidemic, and that family and community cohesion will be affected. Figure 1.11 illustrates the population pyramid projected for Zimbabwe in 2010, under "no-AIDS" and "AIDS" scenarios. Loss of adults is also resulting in increasing numbers of orphans (see Chapter 2).

Figure 1.11: Population pyramid for Zimbabwe in 2010 under AIDS and no-AIDS scenarios



Impacts at household and community level

Impacts at household and family level are the most severe, and these can add up to substantial impacts at the level of communities. Illness and loss of breadwinners leads to permanent or temporary economic hardship. Several studies have suggested that because of its chronic nature, HIV/AIDS illness and deaths tend to have larger economic impacts on households than other causes of death.

Family structure changes with loss of young adults. This increases household and family maintenance demands on surviving young adults, the elderly and children. Significant number of child headed households tend to emerge in many communities. Overall, parenting and nurturing available to many children who are orphaned or in receiving households is diluted. In addition, children and other survivors face substantial psychological stresses due to illness and death of parents and other loved ones (see Chapter 2 for more discussion of impacts on children).

Experience throughout Africa suggests that HIV/AIDS can strain even strong traditional family and community coping mechanisms beyond breaking point. Poorer households and communities tend to be more vulnerable to consequence of AIDS illness and deaths as they have fewer reserve resources. There is also concern that short term coping often hides longer term negative impacts on children in particular, and social cohesion more generally.

Children still look up to adults for guidance, but also feel they have a role in the future of society.

> *"As children, we feel that we have lost experienced community leaders who have good public relations to HIV. Communities are left to be led by inexperienced people who do not give us good guidance. On the other hand, young people on whom communities rely for a future are also dying, and there is nothing but despair."* (Pupil, Sabiwa Secondary School)

Impacts on women and the girl child

Women are particularly susceptible to HIV infection due to factors such as cultural norms in some communities, as well as their disadvantaged economic position. These make it difficult for them to limit their risk of infection by influencing behaviour of men or receiving reproductive health care. Biological factors also make it more likely that women, and particularly adolescent women will be infected during sexual contact.

Women are also more vulnerable to consequences of HIV/AIDS. Female headed households tend to be poorer than others. Women tend to have to take on the main roles in caring for the sick and affected, and ill women often cannot rely on support of male partners and may have less control over resources to access health care and other support. Once widowed, women tend to be vulnerable than men to disinheritance and unstable and lower incomes.

Impacts on other sectors

The epidemic is placing additional stresses and demands on other sectors. Health and social welfare services are likely to be hardest hit.

Health services are facing an enormous new burden of care for people with HIV/AIDS, and particular opportunistic diseases such as TB. The Ministry of Health has already reported a rise in the total number of TB cases of around 400% between 1990 and 1999 (NACP 2000). In 1998, it was estimated that the

costs of conventional care for people with HIV/AIDS would add around 60% to the MOHCW budget by 2005.

Antiretroviral drugs (ARVs) are the only proven way to avoid death and severe illness among people with AIDS. Details of recent initiatives to access cheaper ARVs for Zimbabwe are not available. However, even if ARVs become available to Zimbabwe at substantially reduced prices, cost and logistical difficulties of providing ARVs to substantial numbers of Zimbabweans are likely to be a huge challenge.[16] These difficulties are exacerbated by successful antiretroviral treatment itself, as it results in an accumulating number of people each year who would otherwise have died but who are now on long-term treatment. Thus, even if ARVs become available, they will result in increasing needs for financial and human resources in the health sector over time.

Social work and other welfare services are confronting substantial new needs of people infected or affected by HIV/AIDS. Thus welfare services and resources that are already under strain in Zimbabwe can be expected to have increasing demands placed on them.

Health and welfare services can thus be expected to compete more fiercely for resources with the education system. At the same time, capacity of these sectors to provide services will be weakened by HIV/AIDS impacts among their own staff, reducing ability of education to rely in them to meet needs of staff, their families and

Economic impacts

Impacts on the economy are expected to be significant. Loss of skilled adults will combine with costs of care and support, and other costs to employers to affect savings and investment. Production and growth at all levels in the economy from corporate to subsistence level are likely to be affected (see e.g. NACP 1997). Forecasting economic growth is difficult at the best of times, and many aspects of HIV/AIDS impacts on the economy are not yet well understood. However, projections suggest that HIV/AIDS is already likely to be a substantial drag on economic growth rates, even if it is not the dominant factor affecting growth (Forgy, 1993).

Importantly, HIV/AIDS impacts are expected to exacerbate poverty and inequality in most African societies (see e.g. Over et al., 1992; BIDPA, 2000), increasing the challenge of improving equity in society.

HIV/AIDS impacts – key perspectives for education planning

- HIV/AIDS will drastically change the demographic profile and size of Zimbabwean society over time.
- Impacts on the households and families will profoundly affect many learners and teachers.
- The sector has a key role to ensure that young people are adequately educated and skilled to take the place of older adults in the economy and communities.
- Other sectors, particularly health and welfare, will increasingly compete with education for resources. Their capacity to meet the needs of vulnerable staff and learners is likely to be further compromised by loss of staff to HIV/AIDS.
- HIV/AIDS will exacerbate negative influences of poverty on education outcomes.

[16] Current rough estimates suggest an annual cost of around Z$ 58 000 per person for drugs and laboratory tests, at the official exchange rate.

1.4.2 Responses to HIV/AIDS

Zimbabwe's national HIV/AIDS response is led by the National AIDS Council (NAC) and implementation is spearheaded by the National AIDS Coordination Programme (NACP). Current interventions build on foundations laid by the Short Term Plan (1987-1998), the first medium Term Plan (1988-1993) and the second Medium Term Plan (1994-1998).

Apart from government, civil society groupings and development partners have played a critical role in developing the National and community level responses to overcome limitations on government capacity to respond. NGO capacity in Zimbabwe has traditionally been strong and has been reinforced by formation of networks such as Zimbabwe AIDS Network.

The national response is guided by the National HIV/AIDS Policy (1999) and the National HIV/AIDS Strategic Framework: 2000-2004 (1999). Both were developed in a highly consultative manner. The Policy defines the human rights of people living with HIV/AIDS and deals comprehensively with various aspects of prevention, care and support. The Strategic Framework sets out frameworks for action in the areas of Prevention, Mitigation through Care and Support, Reducing Negative Economic Impacts from household through to societal level, as well as ways to strengthen actual implementation.

Key themes and components of policy and strategy of relevance to education include the following.

- *Stress on the need for multi-sectoral involvement and collaboration* in the national HIV/AIDS response. The education sector is seen as a key role player, although its role is not fully described.
- *The need to mainstream HIV/AIDS as a core mandate of all Ministries and their plans and programmes* as service providers and employers.
- *Sectoral plans and budgets* for prevention, care and support activities. Over-reliance on donor funding seen as a specific obstacle to sustainability.
- *The need to ensure that capacity, authority and resources of programme structures is adequate.* Deficiencies in this area were seen as a major reason that the NACP had previously had limited effectiveness. Reliance on voluntarism and part-time capacity for key roles is noted to be risky.
- *The importance of decentralizing planning, programming and implementation of action plans.* A major focus is the role of district level players and ensuring more effective responses and partnerships with local government. District AIDS Action Committees (DAACs) are becoming a key coordination mechanism in strategy.
- *The indispensable role of involving and strengthening communities, grassroot support systems and civil society groups* such as NGOs in a successful response. The need for flexible approaches in different communities is also noted.
- *The urgent need for more effective workplace responses* by all employers.
- *The central role of poverty and addressing vulnerabilities caused by poverty* in all components.

A major innovation since 1999 has been the *AIDS Levy* on all taxpayers to fund HIV/AIDS programme components. The amounts raised for the AIDS Trust Fund have been substantial and, despite delays, the Fund is an important potential source of funding for expanded education sector responses.

As in many other countries, implementation of the national response has often been disappointing due to factors such as deficiencies in coordination of responses, commitment of leadership at all necessary levels, and resources. However, many of these obstacles have been identified and are expected to be addressed as part of the National Strategic Framework and through other initiatives such as setting up the NAC and revitalized NACP, and use of the AIDS Levy. Political and other leadership at all levels have also shown signs of greater support of HIV/AIDS initiatives. Thus the education sector action is likely in future to occur in an environment that is in many ways more conducive to success than in the past.

2. How does HIV/AIDS affect needs of learners and their education outcomes?

2.1 Needs for prevention

The focus of this impact assessment was not on prevention issues. However, HIV prevention is of central importance to education outcomes. The Education sector is well positioned to influence levels of HIV infection amongst young people, through its direct access to and influence on cohorts of children as they move through the system. Without effective prevention, education gains and investment will be severely undermined by the illness and death of young people during or shortly after their studies. Learner prevention programmes create a key foundation and potential for synergy with other aspects of HIV/AIDS impact management.

2.1.1 The Challenge

Antenatal survey data indicates that rates of new HIV infection among young people in Zimbabwe remain high. HIV prevalence is close to zero in the early teens, and then rises rapidly from the mid-teens to over 30% in women aged 20, and then over 40% among those aged 25-34. Higher levels of infection are experienced in many communities. In young men the rise in infection occurs later, but is thought to rise to a peak at similar, though lower, levels to the peak among women by the time men are in their 30s. For young men and women combined, rates are estimated to be below one in ten in the 15-19 age group and increasing to around one in four in the early 20s. Overall, antenatal survey data and various surveys of knowledge, attitudes and practices indicate that, despite quite high levels of awareness and basic HIV/AIDS knowledge, change in risk exposure of young people comes nowhere near what is required to create an AIDS free generation.

Importantly, the proportion of teenagers who are *not* infected is likely to be higher than assumed by many and this is great cause for hope.

These levels of HIV infection fundamentally challenge the mission of the Education sector. Unless prevention is more effective, a high percentage of students will become infected during or soon after their education. Most of these will die of AIDS before they reach the age of 40. This is not only a social and human disaster, but is a waste of investment in education that far exceeds other system inefficiencies. More than any other sector, education has opportunities to influence levels of HIV infection among young people, through its direct contact with them in schools and non-formal education.

2.1.2 Current Responses

In response to the need for prevention, the MOESC introduced life skills training in schools from 1992. Life Skills teaching on HIV/AIDS became compulsory for Grade 4 to Form 6 in 1993 and has to be formally timetabled. Materials have been developed to provide support to teachers and pupils in the teaching and learning of HIV/AIDS. The Ministry established a Secretariat to drive the HIV/AIDS and

life-skills programme, and its capacity has recently been strengthened. In-service training programmes in HIV/AIDS and Life Skills Education for teachers, supplemented by workshops for school managers, are on-going and have reached a large number of teachers. The programme design for lifeskills education places emphasis on participatory and learner-centred approaches to teaching. Ministry initiatives have been complemented by initiatives of development partners, NGOs and communities, as well as pre-service programmes in teacher training colleges.

> *"We have heard so many stories about experiments and possible cures for HIV/AIDS on the radio. Does the African potato really exist and if so, where can it be found? Our teachers don't have answers for us."*
> Student, Mawabeni Secondary school

Key issues

There certainly has been a deliberate response to the problem of HIV/AIDS, and coverage of the Life Skills programme appears to be good: almost 90% of surveyed Form 3 students had been taught about HIV/AIDS at school. However, serious concerns about the need to strengthen HIV prevention among students and pupils were identified. Apart from strengthening the Life-skills programme itself, certain other risk factors for HIV among pupils are likely to include complex issues that are unlikely to be adequately addressed by the Life Skills programme alone, and require holistic and long-term interventions. Factors that undermine effective prevention include the following.

A. Factors under the direct influence of schools or the HIV/AIDS programme

- Significant gaps in basic learner knowledge. The survey of Form 3 students found that around 60% of students felt they needed more information and 47% incorrectly answered at least one question on basic facts about HIV/AIDS. Knowledge of STIs other than HIV/AIDS, was found to be very low among 15-19 year olds in the 1999 DHS. Infection with another STI increases the risk that HIV will be transmitted in a sexual encounter, and the presence of STIs are a critical signal of increased risk in sub-populations. It is essential that sexually active people know how to recognise symptoms of STIs and seek prompt treatment in order to prevent this increased risk. Over 45% of males and 60% of females had no knowledge of STIs or could not name a single STI symptom. A Knowledge, Attitude, Behavior, and Practice (KABP) study conducted by UNICEF in 2001 revealed that in general, adults are more knowledgeable than the youth with respect to knowledge of STIs. The UNICEF study revealed that both in and out of school youth have low knowledge levels regarding symptoms of infections.[17] Materials developed for HIV prevention have not been updated over time, and some pupils feel that the content is "static" and therefore uninspiring. Students described the materials as focusing on the 'ABC' of HIV/AIDS, namely, modes of transmission and methods of preventing infection. They expressed the view that the books fail to capture new insights on HIV/AIDS, and are not supported by additional materials. Overall, students frequently said that they do not have enough information on HIV/AIDS.
- *Awareness is not translating into behaviour change.* While some gaps in pupils' knowledge of HIV/AIDS were evident, what was even more lacking is commitment to behaviour change. There was unanimity among secondary school pupils that proportions of sexually active learners were high in most schools whereas abstinence was the key message, and that access to condoms was not a

[17] Knowledge of signs of symptoms as reflected by the district averages ranged between 4% and 14% for in school youth. The range for out of school youth was 3% and 19%.. Questionnaires were administered to 931 in school children and 430 out of school youth.

promoted but was, instead, discouraged. Teachers are aware that many pupils, especially high school pupils, are sexually active.

Factors cited in Key informant interviews as influencing decision making on sexual behaviour among youth include:

- poverty and unemployment
- peer pressure, foreign cultures and promiscuous communities
- cultural beliefs and activities which included forced marriages and polygamy
- church beliefs which forbade talking about AIDS
- ignorance and lack of AIDS education in the home
- no parental or guardian control or guidance
- abuse of drugs and alcohol
- poor home based care facilities which would expose pupils to risk
- media exposure to sexual messages
- conflicting messages about prevention from various support groups, i.e. on the use of condoms

- *The effectiveness of teacher training* for Lifeskills has been called into question. The cascade model used might not have equipped teachers with the requisite skills. There was also skepticism about the effectiveness of the programmes in terms of the staff who were selected to participate and whether financial resources were used for maximum impact. One teacher revealed these perceptions when he noted that ***"Large amounts of resources have been spent on administrative activities and workshops in expensive hotels. This is a consolidation of the problem."***
- *Participatory methods*, intended to enhance the quality of teaching overall, have met with limited success as they are applied only to HIV/AIDS lessons when they should actually underpin all curriculum implementation.
- *Confidence and accessibility of teachers to discuss HIV/AIDS issues*. Encouragingly, the vast majority of Form 3 pupils expressed that they felt comfortable discussing HIV/AIDS issues with teachers. However, in district visits, many students expressed concern that teachers did not handle the more sensitive issues about HIV/AIDS well, choosing avoidance rather that engagement of pupils. On the other hand, some, teachers felt parents might not approve of them handling these more sensitive issues. A further barrier identified by teachers as preventing them from engaging with students in sensitive discussions was that of their overwhelming workloads. A significant number (18%) of surveyed school heads indicated that they were not comfortable discussing HIV/AIDS issues with students or did not know.
- *Teacher – student sexual relationships and role modeling*. Informants in both schools and Teacher Training Colleges reported that cases of negative role modeling were not uncommon. Students participating in Key informant interviews cited a number of factors that made it difficult for them to view teachers as role models. The most frequently cited were sexual and alcohol abuse, and lack of trust. School survey findings revealed that sexual relationships are a significant occurrence in schools with 21% of Heads saying that they were aware of teacher-pupil sexual relationships in their school or surrounding schools. Of the 21%, 16% reported that they were infrequent and 12% reported that they either occurred fairly or frequently. Importantly, 73% of all school heads said that the problem needed to be addressed by the education system. Students were also aware of such relationships, with around 16% of Form 3 pupils believing that sexual relationships between teachers and students were frequent or very frequent.

Accessibility of condoms for those youth who are sexually active remains a major concern. Between 1994 and 1999, the percentage of DHS respondents aged 15-19 not knowing a source of condoms increased from 40 to 50% (women) and 24 to 32% (men). (CSO, 2000). Access to sources of condoms also appears to consistently be lower in rural areas. Official Ministry policy has been to not distribute condoms in schools. Thus, most schools do not provide condoms although some teachers have responded to student needs by providing condoms to them. Reliance on health services or other sources of condoms is however, clearly problematic. In a number of instances, students noted "bad" attitudes of health workers as an obstacle to information or condom access. Views such as the following were expressed in a number of focus groups: **"*Nurses are rude and shout at us. We… suggest that there be boxes in the streets where anyone can obtain condoms because some (people) are shy to go to clinics to collect them, that's why they end up having unprotected sex.*"**

- *Schools frequently do not teach HIV/AIDS and Life Skills seriously* and it is not examinable. Some schools do not actually teach it at all even if they put it on the timetable. In a few cases, the subject does not even appear on the timetable because it is felt the timetable is already overcrowded. HIV/AIDS and Life Skills Education thus received low priority. This response is understandable against the background that Zimbabwean education system is examinations-driven, and that quality assessments are largely measured using outcome indicators (pass rates). The opportunity this provides to the improvement of HIV/AIDS teaching has not been seized.
- *HIV/AIDS and Life Skills has not been mainstreamed* or related to other subjects and is often regarded as optional to teachers and pupils. This perception is re-inforced by the stand-alone AIDS clubs which are usually extra-mural, voluntary activities.
- *Selection criteria for HIV/AIDS coordinators, including limited attention to gender issues*. In many cases, HIV/AIDS coordinators were considered to be the staff who were "left over" when responsibilities for other subjects and roles had been allocated, including recent graduates with limited experience, rather than staff most trusted by students and suited to the task. Coordinators were also noted to often be male, and generally there was only one coordinator per school. In the context of Zimbabwean culture, particularly where people grow up relating better to older people of the same sex with them (uncles or aunts) this is likely to limit accessibility, particularly for female students. In addition, some students reported sexual abuse by male coordinators.

"Teachers don't have time for one on one discussions. They say 'we have no time, we are marking'"
Manama pupils

"We enjoyed the HIV/AIDS lessons a lot but the problem is that the teachers only attended the lessons for the first two terms and not the whole year"
Matebeleland South, Secondary learners

B. Factors at least partially under the direct influence of schools and amenable to solution through involvement of communities and other partners.

Even if life-skills training is formally effective and efficient, students confront attitudes and social and economic circumstances once they leave the school grounds that undermine prevention and behaviour change. Factors that prevention programmes can address more effectively, through direct roles and involving partners, include the following.

Community and parental attitudes and norms. Limited communication between schools and communities to address norms and attitudes that increase HIV risk, particularly around condom education and provision. The 1999 DHS indicated that 38% of women and 50% of men in Zimbabwe support teaching children aged 12-14 how to use a condom, suggesting both a significant obstacle but also potential to change community norms to be more supportive of HIV prevention. However key informant interviews with pupils and teachers revealed that cases where parents were reluctant to work with teachers to address sensitive issues around HIV/AIDS were very common. In boarding schools attempts to address parental norms were practically non-existent. Teachers expressed tension between parents and the school system, which has knock-on effects for the schools' ability to provide support to children, as indicated by this comment from a teacher in Stanmore: ***"Parents still regard us as strangers, and they do not want to open up to us. Pupils have been beaten up by their parents for having divulged to the teacher information considered to be confidential to their families."***

- *High levels of rape and forced sex*. Among surveyed Form 3 students 17% of girls and 10% of boys reported having been the victim of forced sex. The most frequently mentioned perpetrators of forced sex were fellow students, followed by relatives and then teachers. Mhloyi et al (2001) found that only 47% of first sexual acts among sexually active adolescents had been voluntary.
- *Widespread inter-generational sex*. 38% of pupil respondents said such relationships were frequent or very frequent. This appears to occur because of lack of social sanction on these relationships combined with desire or need for material benefits.
- *Absolute or relative poverty*, leading youth to exchange sex to meet basic needs of food and shelter, or to obtain goods such as clothes or other items that enhance their status. Programmes seem to have had limited effectiveness around changing the norms around what is "desirable" for young people to reduce peer pressure to pursue material goods and status in ways that increase HIV risk.
- *Particular risks of children living without adequate adult supervision*. Major risk situations identified in included students boarding in the community due to lack of hostel accommodation, as well as in child-headed household.
- *Substance abuse and lack of alternative recreation*. It was generally felt that, in the absence of opportunities for participation in activities of a recreative nature, students were predisposed to substance abuse. This, in turn, increased the likelihood of participation in other high risk behaviour.
- *Limited integration with VCT programmes*. Voluntary testing creates possibilities for the majority of youth who are uninfected to establish their status and reinforce resolve to protect their status and be less fatalistic. It also creates opportunities for greater openness and positive living among infected youth. Among 15-19 year olds in the 1999 DHS only 3% of men and 6% of women had been tested for HIV but around 60% of those who had not been tested indicated that they would like to be tested. However, over two thirds of them did not know where they could access testing.

- *Particular high risk environments confronting pupils and students.* Children and youth in certain circumstances were noted to face particularly high risk, including children on certain commercial farms.

> *"Some parents take their children to beerhalls and girls learn from the community that they can have boyfriends in Grade 6 and that they can have sex in Grade 7. Early marriages are encouraged, and unprotected sex leads to a lot of single mothers who then work on the farms. Many of the men come to the farms from surrounding communal areas. They leave their wives at home and they engage in extramarital relations with the girls from school. These types of relations happen despite many deaths… some of the estates keep coffins in stock to make it easy to bury their workers."* – Plantation school teacher.

2.1.3 Recommendations – HIV Prevention

Overall, it is clear that the current HIV/AIDS prevention initiatives need to be strengthened considerably if they are to achieve anything near the goal of an AIDS-free generation. Prevention initiatives have to be seen as "core business" and an urgent priority across all components of the sector. The sector also needs to adopt a much more holistic approach to the risks facing young people. The following recommendations are made.

3) Mainstream HIV/AIDS prevention in education.

- *Develop strategy to integrate HIV/AIDS more effectively in school, teacher and learner assessments and timetables*. Particularly because HIV/AIDS is non-examinable, it is not prioritised in practice.
- *Reinforce training of school and district managers* to ensure that they see HIV/AIDS as a core issue, understand requirements for effective prevention and can provide leadership.

4) Strengthen life-skills teaching capacity and capabilities

- *Improve selection of Life skills teachers*, to ensure that staff are allocated on the basis of aptitude, and needs for continuity, coherent career pathing and programme development. *Gender of coordinators* should also be considered, including the possibility of having male and a female coordinator to guard against possible abuse of pupils and also to provide adults that the pupils can approach with almost any challenge concerning HIV/AIDS.
- *Improve ability to use participatory approaches and materials*. This is often very limited. Integrating parents into School AIDS programmes.
- *Peer education approaches.* These seem to be powerful and successful but particular models require monitoring and evaluation to heighten effectiveness.
- *Strengthen training approaches and capacity.* Cascade approaches to training have been disappointing, and strengthened in- and pre-service training is critical.
- *Define the roles and responsibilities of teachers and school resources (human and material) available to support them*. The teacher is the individual who is closest to the child, Ministry's number 1 client, and everyone else operating at levels above the teacher is there principally to support teaching. Because their activities are not directly involved with teaching, personnel at these other levels distance themselves from responsibility for HIV prevention. A re-conceptualisation of the roles of non-teaching staff at Head Office, Regional Office, District Office and school levels is needed to ensure HIV prevention is supported.

5) Exploit synergy between student prevention and staff life skills programmes. Raising HIV/AIDS issues with students and pupils raises unresolved personal issues and anxieties for many staff, who are thus less effective life skills teachers and role models.

6) ***Strengthen curriculum and content. Key issues that need greater emphasis include:***
   - *Positive messages.* Despair and hopelessness about the inevitability of HIV infection is widely cited by staff and learners. Many students who are unlikely to already be infected seem to assume that they are. Uninfected, affected and infected students feel disempowered and get minimal input on positive living.
   - *Life skills and behaviour change rather than factual knowledge*. Skills to address issues such as socio-economic and peer pressure, gender relations and desire for status are inadequately developed.
   - *Involvement in care and support, and development of coping skills*. Active student involvement in care and support can be very empowering. Many students face these issues in their own families already.
   - *Variety and depth of materials*. Materials are widely considered to be repetitive, unchallenging for students and inflexible to respond to their needs for more detailed, explicit information and skills.
   - *Resolving unnecessary conflict and confusion between abstinence and safe-sex messages.*
   - *Integration of HIV/AIDS into other subjects.* This can reinforce but not replace life skills programmes.

7) ***Actively address sensitive issues.*** Cultural, parental and staff sensitivities tend to be avoided rather than addressed, and are used as an excuse for inaction in many cases where they need not apply.
   - *Create empowering policy and staff education on condom distribution.* Current policy not to provide reasonable access to condoms in schools ignores widespread sexual activity of learners and inaccessibility of condoms from other sources. There is no substantial evidence that condom access promotes sexual activity rather than protecting those who are sexually active anyway. However, teacher attitudes may need to be directly addressed. 75% of secondary and 84 % of primary school teachers surveyed did not believe that condoms should be easily available for sexually active learners.
   - *Ensure that District and school leadership has the relevant knowledge, skills and policy support* to dispel myths and negotiate progress to protect children.
   - *Ensure safe and supportive school environments.* There are strong indications that many schools are sites of harassment and abuse by teachers and peers, and that teachers are often poor role models for safe sex. Hostels, community boarding and school events expose many learners to HIV risk.

8) ***Streamline reporting, management and discipline systems*** **to address harassment and abuse**.
   16% of surveyed Heads pointed out that there was need for tough disciplinary action to be taken against such teachers and also that there was need of instilling fear in teachers over such type of undesirable relationships. School heads voiced their concern about the possibility of such relationships contributing to the spread of HIV.
   - *Assess safety of hostels, community boarding and school events* and develop feasible responses to reduce risk.

9) ***Address external environments more effectively***. Huge numbers of students are exposed to community and family environments and norms that do not reinforce but instead undermine, HIV/AIDS messages that are promoted at schools. Particular challenges include intergenerational sex with older partners. Key issues include:

- *Reinforcing engagement of parents and communities*, and enhance skills and mandates of educators to deal with issues such as cultural or other obstacles to HIV/AIDS prevention. 36% of surveyed Head teachers cited community dynamics as a major factor that places students at high risk and undermines prevention efforts.
- *Increasing use of "tete and sekuru"* ("uncles and aunts") in schools for extra resources and improved community acceptance.
- *Ensuring that schools address high-risk environments,* e.g. trucking areas, growth points, bars and local construction projects and barracks.
- *Actively addressing risk of students and pupils with absent parents.* These include those boarding in the community and living in child-headed households.

10) Enhance programmes in primary schools and ECEC.

Effective HIV prevention programmes need to engage children when they are still young. Helping young children to develop healthy and respectful attitudes towards themselves and others is critical for their later ability to protect themselves from infection. ECEC teachers and infant school teachers should be equipped with basic skills which can help build a strong base for positive sexual behaviour healthy relationships and self esteem.

11) Develop effective monitoring and evaluation of HIV prevention

Effective monitoring and evaluation requires the definition and use of clear objectives and indicators It is critical that monitoring and evaluation encompass not only narrow programme implementation and performance, but take cognisance of the overall school climate and the extent to which it is supportive of HIV prevention. For example, a school may 'successfully' implement a certain HIV/AIDS activities, yet still be exposing students to situations such as sexual harassment or abuse that undermine the activities or programme effectiveness.

The situation described during key informant interviews indicated that monitoring and evaluation of an HIV prevention response is hampered by lack of clear lines of accountability for evaluation and lack of co-ordination between different parties who could potentially play a role. In District Visits, Managers noted that for example, when the Education Officer (Buildings) visits schools, he/she is concerned only with the physical infrastructure of the school, the auditor is concerned only with financial records and school assets, but HIV/AIDS is not integrated into their functions.

12) Strengthen coordination and inputs of other sectors and programmes

- *Improve coordination between prevention initiatives*. Even at national level, major programmes have coordinated poorly with the School Health and Life Skills Secretariat. The main intention should be to facilitate synergy and efficiency, rather than control access to schools which can delay or obstruct action in a situation of enormous need -
- *Engage health services* more effectively to encourage youth friendly Reproductive Health Services, condom access and technical support.
- *Investigate potential synergies with voluntary counseling and testing programmes.*
- *Strengthen NGO inputs* through more systematic cooperation and ensuring sustainability of NGOs with developed capacity and skills.

"Develop the will to win, expect victory-don't attract defeat. Recognise your strengths and cultivate them fully. Create opportunities, build up initiative and generate enthusiasm using the do-it-now attitude."
Director, FACT Mutare

2.2 Numbers of children requiring education

The HIV/AIDS epidemic is expected to reduce the number of children requiring education in Zimbabwe due to a number of factors. These include the death of many women of childbearing age due to AIDS, suppressed fertility among HIV-infected women and the death, usually before the age of six, of children who are infected with HIV around the time of birth or through breastfeeding.

Projections of HIV/AIDS impacts on the number of young Zimbabweans indicate several important issues for planning:

- *Decline in the number of people in school-going ages*. As can be seen in Figures 2.1and 2.2 below, in the absence of the epidemic the number of people in the 0-19 age group would have grown from 6.9 million in 1995 to 9.7 million by 2010. However, effects of HIV/AIDS are projected to lead to a population aged 0-19 of only 6.4 million by 2010.

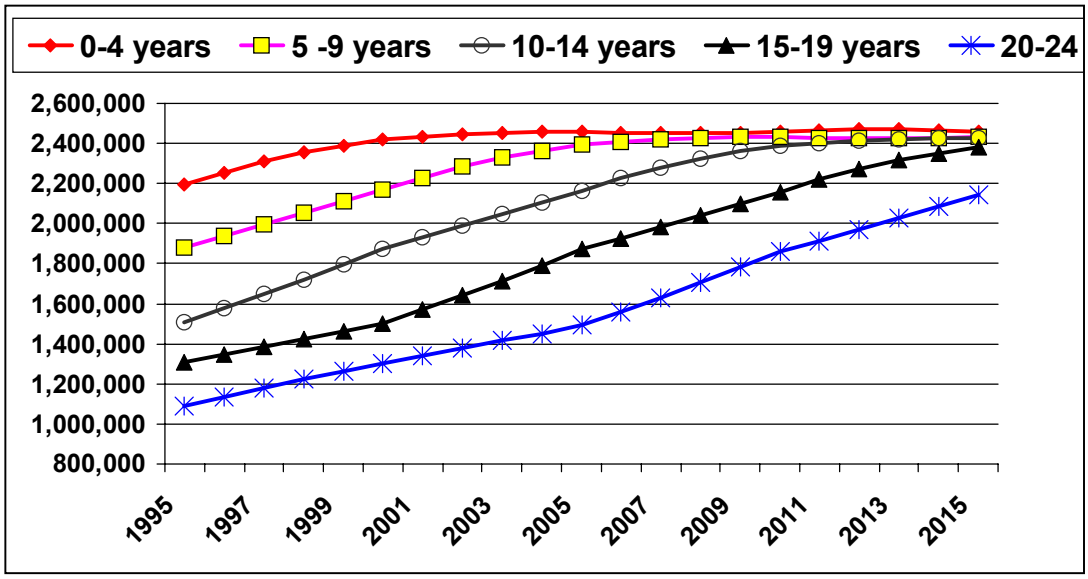


Figure 2.1. Numbers of children over time in a No AIDS scenario

- *Earlier impacts on the size of the population in younger age groups*. Projections suggest that HIV/AIDS has already likely to have resulted in a decline in the absolute numbers of children in the 0-4 year old age band. The 5-9 year age group, which includes most children entering school, is likely to have started to decline for the last few years, and will be around 38% smaller than expected in the absence of AIDS by 2010. A plateau in the numbers of children aged 10-14 and 15-19 year ages groups is expected to occur around 2007 and 2012 respectively, followed by declines.

Data on primary school enrollment in Zimbabwe seems consistent with projections of declining numbers of children in primary school ages. Enrollment peaked at 2.49 million 1996 and has been static since then with indications of a decline since 1998. However, other factors complicate interpretation of enrollment trends. These include low expansion of schools provision, near achievement of universal primary education, and household pressures due to drought, other economic factors and possibly HIV/AIDS. The likely importance of these factors is illustrated by the slowing of secondary school enrolment since 1998, which seems unlikely to be explained by HIV/AIDS impacts on the number of youth *per se*.

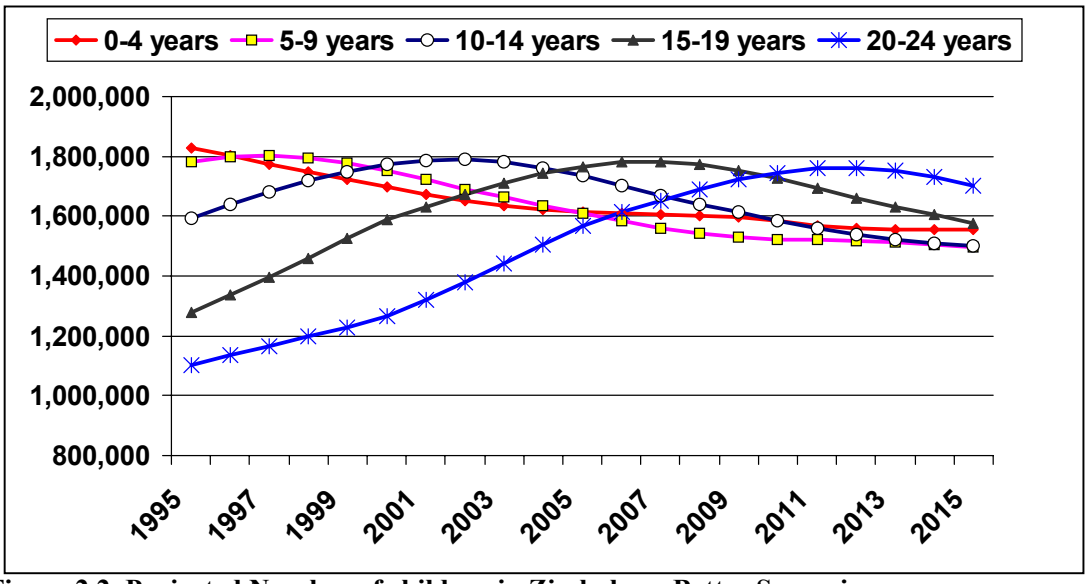


Figure 2.2. Projected Number of children in Zimbabwe. Better Scenario

In order to test the sensitivity of these projections to changes in our assumptions in the modelling we ran some scenarios where these assumptions were changed. The full details of these assumptions and the sensitivity analyses are given in Annex C. In summary, we asked:

- How would increasing the background fertility of women change the number of children?
- What would happen with the introduction of a programme to prevent mother-to-child transmission of HIV?

The results of the sensitivity analyses are presented in Figure 2.3 below.

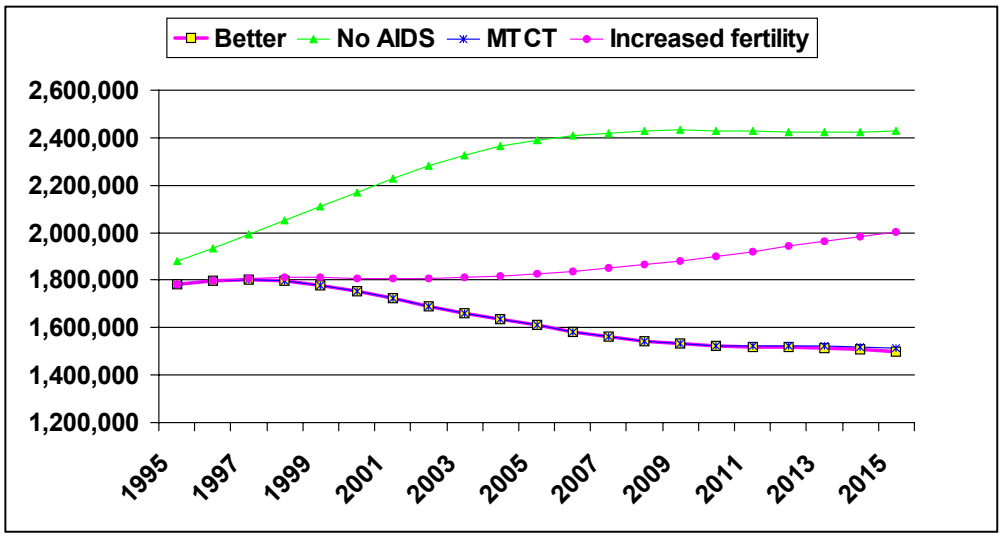


Figure 2.3. Number of Children aged 5-9 years under various scenarios

As can be seen the introduction of a MTCT programme has a minimal impact on the number of children. This is partly due to the fact that it is assumed that it will take time to get a programme like this up and running.

On the other hand, changing the background fertility of women has a very dramatic impact on the number of children in the population. There could be 20% more children by the end of the decade, if fertility rates do not decline at the rate that has been predicted.

2.2.1 Interpretation of the projections

- Overall, the projected impacts of the HIV epidemic on the numbers of learners have important implications for planners. Education sector infrastructure and human resource planning has to anticipate substantial changes in the expected number and age profile of learners.

- It is very difficult to anticipate with any certainty the extent to which learner numbers will decline. The approach that might be least risky is not to assume too drastic reductions in learner numbers, but keep a 15-20% margin of error in mind.

- As mentioned above the number of children the population is only one determinant of the number of children who enroll at school. AIDS Illness and death of adults, and the resulting impacts on the household, will have as great an effect, if not more, on the number of children who attend school. This can happen in a number of ways:

    - Economic effects on households and thus ability to pay for fees, uniforms, books or other items
    - Withdrawal to care for sick parents and siblings
    - Stigma affecting children from HIV/AIDS affected households
    - Psychological trauma of seeing parents or other household members die of AIDS
    - Loss of parental reinforcement of school attendance
    - Trauma related to HIV/AIDS diagnosis, illness or deaths among students.

- As with all projections, what is not clear is the local variability of the impacts of the epidemic. Experience from other countries suggests that some communities experience severe reduction in enrolments, while neighboring communities experience minimal or no reduction. There are two implications of this: (a) Increasing numbers of children may thus never enrol in school or drop out of school altogether, leading to lower than expected student numbers; (b) Increasing numbers of children may also repeat grades, leading to higher than expected numbers in certain grades.

2.2.2 Planning implications

The substantial decline in the growth of the population of school-going age due to HIV/AIDS, as well as other impacts of HIV/AIDS on potential enrollment, will require a review of previous assumptions in human resource planning and infrastructure development. In the long term, needs for human resources and facilities will be lower than previously expected. However, the implications in the short to medium term are not immediately apparent. In the case of human resources, training needs are also affected by loss of teachers to HIV/AIDS, for example, and infrastructure requirements will also be affected by many intervening considerations.

These issues are considered further in later sections. However, several issues specifically related to application of projections and impacts on enrollment warrant further mention.

- Planning should consider potential for error in projections of student numbers and enrollments, particularly further into the future. Decisions should therefore be based on "least risk" assumptions incorporating significant margin for error. We have suggested that there may be a margin of error of between 15% and 20%. Monitoring of data to check the validity of projections and their assumptions will be important.

- National and regional level projections provide very limited insight into levels of impacts at district or community level, where great variation within regions can be expected. Some factors that might make regions or districts more likely to face reductions in the number of children enrolling in schools include the following:

    - High HIV prevalence in the area.

    - High levels of poverty which predispose to lower enrollment.

    - Rural communities, where children might have to become involved in subsistence agriculture if many adults are sick or die.

- Migration trends are not captured in projections. The influence of HIV/AIDS itself on migration is not well understood. Communities with large migrant populations may be subject to greater in- or out-migration of potential students.

- The education system will benefit from greater flexibility, where teachers and other staff can be transferred rapidly to areas where they are most needed.

- A monitoring system needs to be in place, which can accurately track changes in enrolment over time.

2.2.3 Summary and conclusions

HIV/AIDS will lead to a declining growth rate in the number of children, with indication that the number of children aged 5-9 years is already declining. As the current, smaller cohort of younger children that has been heavily affected by HIV/AIDS grows older, growth in the number of children in the older age bands that they enter will fall. Enrollment rates may also be substantially influenced by HIV/AIDS impacts on the households of potential students.

Projections therefore indicate that education sector infrastructure and human resource planning has to anticipate substantial changes over time in the expected number of students as well changes in the age profile of the population served. Other factors, such as the impacts of HIV/AIDS on the rate of staff attrition, will have to be considered at the same time. The trends indicated in projections are robust to changes in a number of assumptions used in the projection models. However, significant potential for inaccuracy in projections has to be recognised. Changes in student numbers will be difficult to predict, particularly at local level, and planning will have to maximise flexibility to deal with uncertainty.

Assessment of accessibility of education needs to consider changes to the population of potential learners. Analysis of the 2001 Census and close monitoring will be required to assess the accuracy of these projections. Importantly, changes in student numbers, particularly at local level, will be difficult to predict and planning will inherently have to aim for flexibility to deal with uncertainty.

- *Earlier impacts on the size of the population in younger age groups*. Projections suggest that HIV/AIDS has already likely to have resulted in a decline in the absolute numbers of children in the 0-4 year old age band. The 5-9 year age group, which includes most children entering school, is likely to start declining around now, and will be around a 38% smaller than expected in the absence of AIDS by 2010. A plateau in the numbers of children aged 10-14 and 15-19 year ages groups is expected to occur around 2007 and 2012 respectively, followed by declines.
- *Robustness of projections to changes in many key assumptions*. The general trends that are projected seem relatively insensitive to changing key assumptions such as fertility of HIV infected women and rates of transmission of HIV from mother to child.

Data on primary school enrollment in Zimbabwe seems consistent with projections of declining numbers of children in primary school ages. Enrollment peaked at 2.49 million 1996 and has been static since then with indications of a decline since 1998. However, other factors complicate interpretation of enrollment trends. These include low expansion of schools provision, near achievement of universal primary education, and household pressures due to drought, other economic factors and possibly HIV/AIDS. The likely importance of these factors is illustrated by the slowing of secondary school enrolment since 1998, which seems unlikely to be explained by HIV/AIDS impacts on the number of youth *per se*.

Overall, the projected impacts have important implications for planners. Education sector infrastructure and human resource planning has to anticipate substantial changes in the expected number and age profile of learners. Assessment of accessibility of education needs to consider changes to the population of potential learners. Analysis of the 2001 Census and close monitoring will be required to assess the accuracy of these projections. Importantly, changes in student numbers, particularly at local level, will be difficult to predict and planning will inherently have to aim for flexibility to deal with uncertainty.

2.3 Orphans and Other Affected Children

The greatest impact of the HIV/AIDS epidemic on pupils and students while they are in Zimbabwe's schools will be through impacts on their families and households. These impacts require that 'vulnerability' for purposes of identifying children who may require extra support and care, be defined broadly. Generally and in addition to Orphans[18], the definition of vulnerable children or other affected children include, HIV+ children, children with disabilities, street children, children in institutions,

[18] Though HIV/AIDS is the primary cause of orphanhood, malaria was cited by several Education managers and teachers as being a significant contributing factor to orphanhood in certain parts of Zimbabwe

working children, sexually abused children, children with no schooling, children in child-headed households, and severely and moderately malnourished children (Hunter 2000). Common trends relating to abuse, disability, poverty, and exploitation for sexuality or labour pull together the different categories of vulnerability.

The diminishing capacity of families and communities to ensure that traditional mechanisms for protecting children's rights have resulted in the continuous erosion of the rights of children as espoused in the UN Convention on the Rights of Child and the African Charter on the Rights and Welfare of the Child, to which the Government of Zimbabwe is a signatory.

2.3.1 Empirical evidence of current orphanhood amongst Zimbabwean students

Empirical data on the number of orphans in Zimbabwe is very limited. No systematic orphan enumeration has been conducted, and definitions and methods used to estimate orphan numbers in schools vary widely.

Among Form 3 students in the school survey, around 10% reported that they were maternal orphans, and 5% were double orphans. For all schools, both Heads and Teachers were asked to estimate numbers of orphans in their school during interview, and these were converted to rates using numbers of students in the school as the denominator. Overall, some 7% of the total population of children in these schools were estimated to be maternal orphans (i.e. in these schools there was a total of 7381 maternal orphans out of a out of 108 268 pupils in schools which provided data on maternal orphaning) (from Head estimates).

Rates of maternal orphans were slightly higher for 'O' level schools than for primary and 'A' level schools (7.3% compared to 6% and 4.9% according to Head estimates). Higher rates of double orphans were also reported in 'O' level schools. In group discussions, estimates of orphanhood provided by teachers ranged from 20-60%.

In general in the school survey, estimates by Heads and Teachers were similar overall for Primary and 'O' level schools, but Heads estimates were considerably lower than those of teachers in A level schools.
Rates by level of school derived from Head and Teacher estimates are presented in Tables 2.4 and 2.5 respectively.

Table 2.4. Prevalence of maternal orphans by level of school: calculations based on Heads estimates of orphan numbers

	No. of pupils[19]	No. of school providing data	No. of maternal orphans	Percent
Primary	83621	164	5510	7%
O level	16029	38	1432	9%
A level	8618	15	439	5%
	108268	217	7381	7%

[19] The sum of pupils in schools which provided data on maternal orphans

Table 2.5. Prevalence of maternal orphans by level of school: calculations based on Teachers estimates of orphan numbers

	No. of pupils	No. of schools providing data	No. of maternal orphans	Percent
Primary	82781	159	6385	8%
O level	20086	41	1579	8%
A level	6213	13	1236	20%
	109080	213	9200	8%

With due regard for small sample size in some regions, substantial differences in maternal orphaning between regions were evident, with students in Masvingo having the highest proportion of orphaning, and students in Matebeleland South, the lowest. Differences between prevalence of orphaning in Masvingo, compared to the rest, were statistically significant (OR=2.1; 95% CI 1.3;2.5). Estimated rates of orphaning by region are presented in Table 2.6.

Table 2.6: Proportion of Form 3 students who are maternal orphans by region

Region	n(N)	%
Manicaland	12(141)	8.5%
Midlands	10(81)	12.4%
Mashonaland Central	8(87)	9.2%
Mashonaland West	8(67)	12.0%
Mashonaland East	14(122)	11.5%
Matebeleland	7 (121)	5.8%
Matebleland South	2(41)	4.9%
Masvingo	26 (147)	17.7%
Harare	11 (118)	9.32

Owing to missing data on student numbers in many schools, it was not possible to use all responses. Rates were calculated by dividing number of orphans in their school by the total number of children in the school. Only responses with complete information on both orphan numbers and student numbers and were used to calculate rates.

An important extra finding is that there is substantial variation around average levels, with many schools and classes having very high numbers of orphans, with a range of 3-17% between classes.

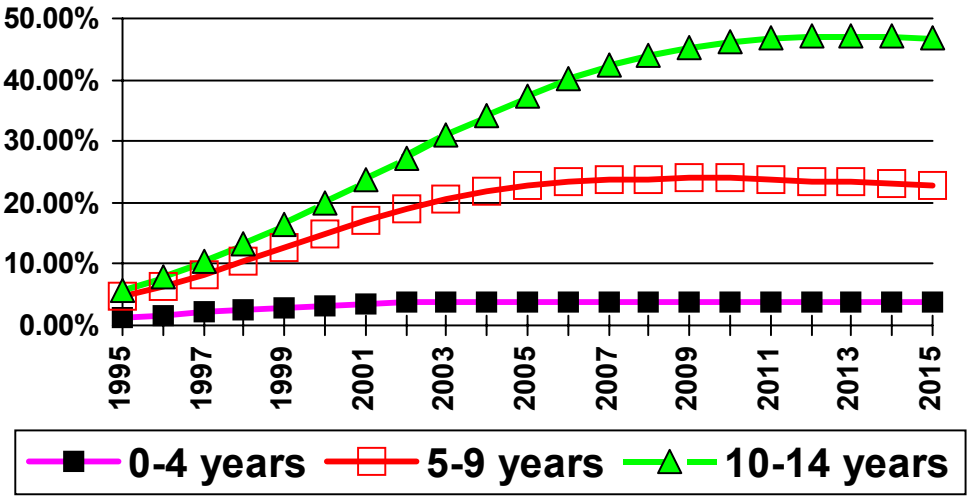
2.3.2 Projected numbers of orphans

Projections indicate that the total number of children in Zimbabwe who have lost at least their mother to AIDS, will rise from around 800000 in 2001 to around 1.2 million in 2010. [20]Orphans will be concentrated in school-going ages (Fig. 2.7). For 2001, around 4% of children aged 0-4 are estimated to have lost their mothers to AIDS. Almost 16% of children aged 5-9and 23% aged 10-14 are estimated to be maternal orphans. Rates among 5-9 and 10-14 year olds are expected to rise to around one-in-four and

[20] These projections are somewhat higher than previous projections of 543 000 in 2005 and 910 000 in 2005 (NACP 1998) but the overall trends and implications of each are largely consistent.

one-in-two respectively before the end of the decade. In some districts, schools and classrooms, rates of orphanhood can be expected to be higher than these average levels.

Figure 2.7: Projected percentage of children orphaned by AIDS by age group



The percentage of orphans estimated in the figure above for the Zimbabwean population is considerably higher than those estimated in the school survey. In the school survey some 10% of Form 3 pupils reported they were maternal orphans, and teacher's in O' and A' level schools reported around 11% maternal orphans, whereas orphaning in the 10-14 age band according to the model is estimated to be around 23% for 2001. It may be that the model overestimates numbers of orphans, however a more likely reason accounting for at least some of this discrepancy may be drop out and non-attendance by orphans, who then would not have been captured by the school survey. This is discussed in further detail, together with evidence for drop out and non-enrollment amongst orphans in the following sections.

Key issues to consider in planning orphan support

- *The orphan epidemic in Zimbabwe is at an early stage.* Orphanhood in school-going ages can be expected to increase three to five-fold above current levels over the next decade.
- *Antiretroviral therapy is unlikely to remove the need for more effective responses to orphans and vulnerable children..*
- *In many communities, schools and classrooms the levels of orphanhood will be much higher (or lower) than average* projected levels.
- *Pressures of orphanhood are likely to be greatest on older children and thus maintenance and expansion of secondary schooling is required.* This may have particular implications in an economy where higher levels of skills development beyond Junior Certificate level are required.
- *The number of <u>new</u> orphans each year will be much lower than the total number* of orphans projected. Thus if the main need for intervention by schools is to assist children with crises around the time of orphaning and set up sustainable support, the burden is more manageable.

2.3.3 Impacts of vulnerability and orphanhood on schooling

Orphans' schooling can be affected through economic stresses on their households related to illness and death of breadwinners, psychological impacts of illness, and changes in family structure and function that involve new responsibilities to care for the sick, the elderly or siblings, as well as loss of parental guidance and interest in children's education. Stigmatising attitudes and discriminatory practices worsen impacts, and may make it highly unlikely that a child will be able to continue to attend school or complete their studies.

2.3.3.1 Key findings from previous studies

A number of previous studies in Africa, and some limited Zimbabwean data, have indicated that orphans have substantially higher risk of delayed enrollment, poorer school performance and drop out rates in excess of 30% above non-orphans.

Recent studies in Uganda showed that orphaned children had around a 50% lower enrollment rate than non-orphans, and that enrolled orphans had more erratic attendance (UNAIDS 2000; Konde-Lule et al., 1996; Horizons Project, 2000). On Zimbabwean commercial farms, 48% of primary school orphans dropped out of school due to parents' illness or after their death, and 100% of secondary school orphans had dropped out. (UNAIDS 2000). However, not all studies have been able to show substantially higher drop out rates among orphans, and several indicate that orphans do not always seem to be at higher risk than non-orphaned children living in poor households. Other findings include:

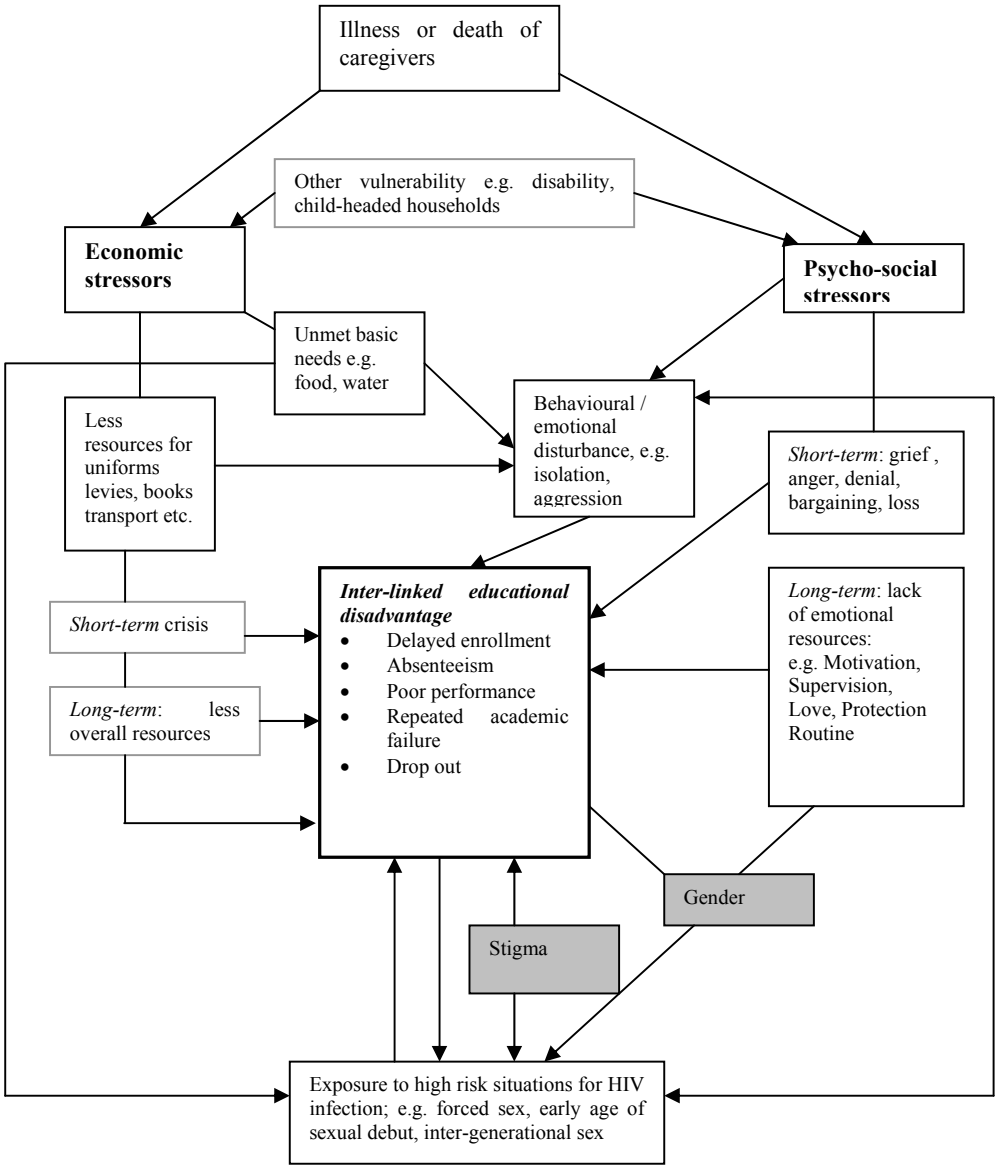
- *Lack of material resources to meet basic needs* is a common reason that children drop out of school, or perform poorly. This is borne out by Zimbabwean school enrollment data indicating that school attendance falls substantially due to household shocks such as drought.
    - In Kagera, rural Tanzania, households affected by adult deaths took certain children out of school as they could not afford to send them and because they were needed for household chores (Over and Ainsworth, 1996). The average number of hours of school attendance was lower among children in households affected by an adult death (Lundberg and Over, 2000). Delays in primary school enrollment of Kagera maternal orphans (but not paternal orphans) was found in 80% of cases. However, enrollment was maintained for older children aged 11-14 (Ainsworth *et al*., 2000).
    - In a Zimbabwean study, 13% of children in households after an adult female death were unable to attend school and absence lasted for more than six months in 75 percent of these children due to financial constraints (Mutangadura, 2000).
- *Gender dynamics* influence the way in way in the epidemic impacts on children's education. Studies have shown that girls tend to be at higher risk of dropping out than boys, girls are normally charged with the responsibility of taking care of sick parents or relatives, and girl orphans have different needs from those of boy orphans. Studies have also shown that household food distribution usually disadvantages children and women especially in heavily patriarchal societies where there is boy child preference.[21]
    - In Uganda, in various studies, a gender differential was also evident for school attendance whereby school attendance dropped for 47% of male and 67% of female orphans (UNAIDS, 2000; Konde-Lule *et al*., 1996; Horizons Project, 2000).
- *Impacts often occur before children are orphaned* due to effects of illness on their households.
- *The period surrounding parental death* seems likely to indicate a critical a critical point of heightened vulnerability.

[21] C Mposhere, HCC Conference, Thailand 2001, Post conference discussion 36.

- A Kenyan study found that 52% of AIDS-orphans were not in school compared to 2 percent of non-orphans. Among the orphans, 56% of girls and 47% of boys dropped out of school within twelve months after death of a parent. (Elmore-Meegan, 1999).

The next figure illustrates some of the mechanisms by which the education and well-being of OVC's may be threatened before and after illness and death of a parent or care-giver.

Figure 2.8: Diagrammatic representation of mechanisms of educational disadvantage amongst OVC's



2.3.4 Empirical evidence of children's vulnerability from the district visits and school survey

This study was not able to rigorously quantify impacts of orphanhood on education outcomes.[22] However, there were strong indications that a significant number of orphans are affected by poorer education outcomes through drop out and erratic attendance, poorer concentration and emotional/behavioural disturbances. An overwhelming 98% of guidance teachers interviewed in the school survey strongly agreed with the statement that being orphaned has a major negative impact on school performance. Some 58% of students participating in the school survey knew of fellow students who had dropped out because of family death. Several key informants noted that they knew of good students who had stopped performing or dropped out.

In this study, informants indicated several underlying problems faced by orphans that predispose them to educational disadvantage including the following:

- *Material needs*, including hunger and temporary or longer-term inability to pay for various needs including inability to pay for uniforms, levies, fees and basic materials.[23] In a number of areas, tendencies for OVC to prioritise finding work to address basic needs was noted, particularly among children in child headed households or those who lived with grandparents.
- *Psychosocial problems* due to stress, grief, stigmatization, neglect and abuse. Behavioural problems and lack of interest or motivation were mentioned by over 9% of boys and 4% of girls who participated in the survey as common reasons for dropping out of school. Parental death was also mentioned as an additional reason for drop out by a significant number of participants with no marked gender differences.
- *Loss of parental guidance and socialization* to reinforce learning and school-going, and appropriate value systems.
- *Greater household responsibilities.* Among Form 3 students, 19% reported that one or more care giving or other household activities had caused them to be absent from school. This appeared to be somewhat more frequent among maternal orphans (24%) and children who lived with grandparents as the household head (32%).
- *Loss of longer term vision in favour of short term needs and desires.* HIV/AIDS, combined with poverty and unemployment, makes children more likely to neglect longer term goals that require education. This predisposes to poorer performance, drop out and high risk sex. Orphans and other affected children also seem to be exposed to higher risk of HIV infection themselves due to their economic and social circumstances.
- *Lack of responsiveness of schools to OVC needs.* Many schools seem to only recognise stress of learners once this manifests as discipline problems or other late stage manifestations. Many orphaned learners, particularly those in boarding schools with higher levies, faced disruption through abrupt or unmanaged transfers between schools after parental deaths when they could no longer afford levies.

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[22] This would probably require a large study of cohorts of orphans to avoid risk of major biases. Potential biases of particular concern are that school-based samples of children may under-represent children who are disadvantaged by parental death and therefore don't attend school, and that there may be systematic under-estimation of impacts because school staff and students may simply not be adequately sensitized to OVC issues, or aware of them because of non-disclosure by OVC.

[23] The SACMEQ study suggests that lack of a morning meal has significant adverse effect on education outcomes.

- *Perceptions of infection and sometimes stigmatisation and discrimination.* A commonly held perception amongst school heads and teacher participating in the school survey, was that if a child's parents had died, particularly if they were thought to have died of an HIV/AIDS related illness, the orphan was also infected. Whether or not this translated to fears of contagion, or other potentially stigmatising beliefs was not examined. However some 23% of teachers believed that children in families affected by HIV/AIDS were treated differently from other children and a further 17% said they did not know whether or not these children were treated differently. There were no marked differences between teacher and pupil perceptions of who treats children from families affected by HIV/AIDS differently. Both sets of informants highlighted the role of other children, as well as the community and step or foster families in such treatment.

Important overall conclusions are that:

- *Material needs of orphans are perceived as the most pressing issue* by most teachers and schools, with less perception of psychosocial needs.
- *Orphans' vulnerabilities cannot, for practical purposes, be separated from those of other children in poverty.* For example, 37% of student survey respondents reported that they or other children in the household have gone hungry, and the proportion was only slightly higher among double orphans. Over half of pupils in Form 3 believed that financial obstacles (financial problems, economic hardship, inability to pay fees) would be the single most important reason for them not completing their schooling. Children in more affluent schools and areas appear to generally have better material and other support.
- *Adult deaths are having wider effects due to general stress and tendencies towards hopelessness* among learners who experience, or fear, the loss of parents or other loved ones.
- *Pressures on orphans and other vulnerable children are putting them at high risk of HIV infection.* They may be more likely resort to unsafe sex for material or psychological reasons and are at high risk of abuse and exploitation.
- *There is mixed evidence around whether girl orphans are experiencing more vulnerability to educational problems than boy orphans*. Survey results show no obvious gender differences in terms of children participating in one or more care giving or other household activities overall, or that has led to school absenteeism.
- *Children are more likely to experience greater psychological trauma in the period leading up to the loss of a caregiver i.e. the transitionary period where there is often greater uncertainty.*

Members of a School AIDS Club in Murambinda share their experiences about HIV/AIDS and how it affects their schooling

There are so many hardships that we students have to struggle with. AIDS is our enemy, like poverty we can't run away from it, all of us sitting here are lucky to be in school; we struggle to get here every day. We are children yet we can rely on our parents for very little because life is so difficult. (Grade 7 Learner)

Last month, we went for several nights without food because my parents had to spend money on taking care of my elder brother who is very sick. They had to hire transport to take him to the hospital and buy special foods to stop him from vomiting. They also had to buy a coffin for his baby who died two weeks ago. I am always hungry but I can't complain because there are so many other problems that must be dealt with first, I cannot trouble my parents, they are doing the best they can. (Grade 6 Learner)

This month has been a good month for my sister and I, all the people who had come to mourn with our family over the death of my cousin have now gone back to their homes. During the funeral there was so much noise, we couldn't sleep. I rarely saw my Mum. Many people argued, others would just cry. It was confusing. There was so much work to do and sometimes we would come to school late. (Grade 7 Learner)

I feel sorry for my roommate, she is an orphan and lives with her Uncle. She never has money and always asks for passes to be out from school especially at the beginning of term when she has no money for fees. It's easier to ask for passes because you don't get punished if you miss classes. I know there are a lot of pressures at home, her Uncle has many children of his own. She has a cough that doesn't go away. We all try and help, I gave her a bar of soap the other day. Our geography teacher sometimes takes her down to the shops and buys her sugar, he is very nice to her. (Grade 7 Learner)

We learn in our bible study groups about the importance of assisting your neighbours and treating them equally. It is terrible to be different. In our school orphans don't want to be treated differently. Many are reluctant to report death of family members because of that. They continue to suffer in silence. In some cases we know who they are, but in others it is hard to say because they struggle with problems that other children also struggle with i.e. school fees, textbooks, clothes, food. (Grade 7, Learner)

The Need for Urgency When Dealing with OVC Issues

There is concern that the needs of orphans and vulnerable children (OVC) may be a more substantial threat to education outcomes in Zimbabwe than reflected by current data, for several reasons:

- Limited sensitisation and awareness among school staff may lead to under-reporting of impacts.
- School based surveys may underestimate numbers of orphans if many orphans have already dropped out or attend erratically.
- Zimbabwe is at a relatively early stage in its orphan epidemic. At current rates of orphanhood effects may still be difficult to identify in many classrooms. Extended families and other support systems can also be expected to become increasingly strained in future, and important effects such as re-orphaning of children becoming more common.
- Girl orphan vulnerability may be under-estimated. Most informants agreed after prompting that orphaned girls are at higher risk of HIV infection than boys and have heavier domestic roles. In addition, successful participation of girls to both primary and secondary schooling remains systematically lower than for boys, with particular likelihood of girls dropping out during secondary schooling. Survey results reported a higher average rate of drop for girls than boys (4.5% and 3.6% respectively). 50% of Head teachers cited lack of school fees as being the most prominent reason for drop out for both girls and boys. Around 25% of School Head cited the need to earn more money as being another prominent reason for drop out with a gender bias towards boys. Importantly, over 40% of teachers cited pregnancy as being the most important reason for girls dropping out at schools offering 'Levels.
- More subtle effects, which are important in a schooling system that is striving to improve quality and extend access, may be difficult to identify at this stage. Examples of such effects are group psychological effects of the epidemic on students and society which may change current norms around schooling in unpredictable ways.

Conclusions-HIV/AIDS Impacts on Students

Overall, there should be no complacency even though it appears that current levels of impacts on orphanhood are not as severe as in other countries and studies. Orphanhood and impacts of HIV/AIDS at household level will inevitably make a significant proportion of children more vulnerable emotionally, psychologically and in terms of schooling. Current data certainly does not exclude substantial impacts on education outcomes. Zimbabwe should be consolidating those strengths which reinforce school attendance and performance, and dealing with certain key vulnerabilities. Importantly, responses to their needs may also benefit the substantial number of children who are not affected by HIV/AIDS in their households, but who already drop out of school or perform poorly.

2.4 Needs To Be Addressed To Protect Orphans And Other Vulnerable Children

The obstacles to the well-being and full education potential of OVC that were suggested by informants are presented in the Table 2.9. Also presented are the potential functions that are required to address them in a Zimbabwe context.

Table 2.9: Obstacles to educational outcomes and support functions required

(Functions in which teachers or schools could play an important role, even if they do not assume full responsibility, are shown in italics)

Obstacles to good educational outcomes of orphans	Functions required to preserve educational outcomes of OVC
1. Economic pressures • Lack of food • Lack of clothing and uniforms • Time required to access material resources • Transport to school • Loss of housing • Disinheritance, or abandonment by surviving parents in new relationships • Limited perceived benefits of schooling	**1. Reducing economic obstacles** • *Early recognition* • *Initiate registration for grants and other support* • Assessment • *Timely, efficient ordering and delivery of food, uniforms etc.* • *Monitoring well-being* • Legal or *practical/ logistical support* eg accessing grants, ensuring inheritance • *Effective education to ensure employment and advancement*
2. Home environment, roles and responsibility • Demands of caring for the sick, elderly or siblings • Inadequate parenting by the elderly, extended family, or siblings • Discrimination and stigma in the community and some extended families • Excessive numbers of children requiring care in certain households • Separation from siblings[24]	**2. Ensuring supportive home circumstances, roles and responsibility** • *Early recognition and mobilising assistance* • Assistance in parent's life planning, including *transfer between schools* • Support of weaker systems • *Support older siblings in carer/ parent role* • Ensure sibling contact and avoiding separation • Fostering (placement, *monitoring* and support)
3. Psychological trauma • Trauma of illness and death of parents and other family and friends • Fear of infection • Stigma (in community and school) • Bereavement and unresolved grief[25] • Behavioural disturbances	**3. Ensuring psychological stability** • *Counselling* • *Peer support* • *Reducing stigma* • *Recognise abuse* • *Managing behavioural disturbances*

[24] Separation of siblings is recognised as a major trauma for OVC. Parents and other adults are often insensitive to this and do not set up ways for siblings to maintain contact.

[25] Mechanisms to allow children to grieve and support them were reported to be very limited, particularly as traditional extended families have become disrupted.

• Abuse	• Legal protection
4. Greater HIV risk • Abuse • Commercial or other high risk sex by children under economic or otherSubstance abuse	**4. Reducing HIV risk** • *Assertiveness and life-skills* • *Counselling* • Ensuring and *monitoring* economic, legal or other support • Regulating liquor and bars

2.5 Current responses to needs of orphans and vulnerable children (OVC).

2.5.1 Aspects of the legislative and policy environment pertaining to OVCs

The Government of Zimbabwe is a signatory State to the Convention on the Rights of a Child and the African Charter on the Rights and Welfare of the Child. The Constitution of Zimbabwe promotes the fostering of conditions that will enable a child to develop fully in a healthy and productive way. Additionally, Zimbabwe has specific domestic legislation including the Child Protection and Adoption Act (Chapter 5:06) that ensure that cater for children's rights. This Act provides for the protection of children against, amongst other things, ill treatment neglect and exploitation of children. This study unveiled that few children and adults are aware or have knowledge of such rights. At the community level, responsibility for ensuring that the rights of a child remain protected remain limited.

Studies that have assessed the impact of the epidemic on the rights of children under the UN Convention, have shown that a child's rights are prone to becoming severely eroded with the loss of a caregiver and/or when the ability of caregivers to provide for the child's needs are severely reduced. (Hunter, 2000).

Factors that make implementation of the UN Convention on the Rights of the Child difficult include:

- Child poverty
- Traditional practices that do not respect children
- Insufficient support for working parents
- Violence against children particularly corporal punishment and sexual abuse
- Insufficient information about dissemination of the UN Convention on the rights of a child
- lack of youth participation in communities and decision making as this threatens traditional ideas about a child's place 'to be seen and not heard'
- Exploitation including labour
- Conflict and war
- lack of information and education about the importance of giving priority to the needs of children.

2.5.2 Basic Education Assistance Module and HIV/AIDS Strategy

In 2001, the Government of Zimbabwe launched a programme that has placed it ahead of several of several of its Southern African counterparts. The programme, known as the Basic Education Assistance Module (BEAM) was initiated to provide direct support to school going children from Grade 1 to 'O' level. The programme is one of a family of programmes initiated by the Government to provide assistance to vulnerable children and families, the others being Income Transfer and Public Works (ITPW), Children in Especially Difficult Circumstances (CEDC), and Health Fee Waivers (HFW).[26]

BEAM aims to cushion those children whose rights of access to and participation in education are likely to be affected as a result of a variety of factors. To do this it provides financial resources to these children by paying their fees, levies and examination fees. At the same time schools have been instructed not to

[26] Information obtained from an interview with the Deputy Director for Quality Assurance, MOESC, Harare, 31st July, 2001

exclude children who cannot pay other levies. BEAM pays particular attention to the needs of the target groups: orphans, children of unemployed breadwinners, children whose bread winners are chronically ill, and children from poor families that have no disposable assets. BEAM has also set aside 10% of all its resources for the support of children with special needs (disabled children). This portion of resources is claimed by the communities, and are channeled through and controlled by their respective local authorities. It is intended that 50% of secondary school children who benefit from BEAM be girls.

In general, BEAM seems to be an appropriate program that is effective in meeting key needs of OVC in many schools, despite some "teething problems". Challenges to the greater success of BEAM were identified as the following.

- *Low levels of implementation in some districts and regions. Delays in processes for selection and disbursement* as well as specific functions such as purchase of uniforms. This is particularly problematic in view of high inflation.
- *Current budget allocation systems*. Per capita-based budgets may not be sensitive to varying levels of need in different districts and schools. Selection of OVC only once a year also cannot respond to new children who confront crises in the intervening period.
- *Selection systems.* Perceived problems include inadequate definition of selection criteria, transparency and review mechanisms to ensure targeting of the most needy and avoid inappropriate biases in allocation in some areas. Factors such as fear of witchcraft, pressure from 'men and women of influence', political partisanship, and lack of awareness on the part of parents with deserving children, have been cited as influencing the choice of children to benefit.
- *Limited benefits for secondary and special needs learners.* Contributing factors include logistical problems when learners are at school outside their community and tendencies to support larger numbers of lower cost applicants rather than fewer, higher-cost learners. Secondary school boarders in particular appear vulnerable to exclusion due to inability to pay boarding and other fees.
- *Limited or no coverage of many priority needs of OVC.* Issues such as food, clothing and accommodation which seem likely to be a critical need of many OVCs, are not addressed. Capacity and resources of Social Welfare, which used to be substantial under the Social Dimensions Fund, are no longer adequate to address these.
- *Uncertainty around whether BEAM addresses girls' needs adequately and equitably.* However, they are required to receive at least half of all budgets.
- *Inadequate monitoring of the programme with regards to expenditure, beneficiaries, and current systems of disbursement etc.*
- *Complexities of using the community based system of allocation of funds.* This model has resulted in the exclusion of deserving children from the BEAM programme when such children live in one district yet school in another. Community Committees have been reluctant to use their funds to subsidise children who school outside the communities.

The HIV/AIDS Strategy developed by the MOESC commendably places children at the centre of its proposed programme implementation and evaluation activities. The strategy recognises the importance of child and youth participation in programme development, assessment, and analysis. It reiterates the importance of non-discrimination against children orphaned by AIDS and strongly advocates for capacity building for teachers seeing as they are the facilitators of a child's learning. Efforts to empower children, youth, and adults to support the affected and infected is an objective that the MOESC aims to achieve. Importantly keeping AIDS affected children in school is seen as a critical objective. Though the strategy doesn't propose specific interventions that relate to OVC's, it lays an important foundation upon which action plans could be developed that ensure for decentralisation, inter-/intra-sectoral collaboration, child participation, and community mobilsation in identifying appropriate interventions for OVC.

2.5.3 Other Forms of Support to Orphans and Vulnerable Children

At *school and district level* there has been little guidance on other aspects of school roles in response to the needs of OVC by the Ministry or other key sources such as the National HIV/AIDS Strategic Framework or National Orphan Care Policy. In most schools there seems to be very limited systematic action on OVC apart from BEAM. However, spontaneous actions have been initiated by some schools and teachers. These include:

- *Assistance with material needs,* through sourcing bursaries, referral of indigent children to Social Welfare and/or NGOs, feeding schemes, nutrition gardens and income generating activities (mainly in primary schools). Some teachers and other partners have given clothes, food, materials and uniforms to vulnerable children.
- *Addressing higher level/ comprehensive needs.* Actions include in-school counseling or simply providing children with an opportunity to talk. Referral to SPS and social workers in cases of abuse or other more gross problems occurred but seemed surprisingly infrequent in many areas. Some anti-AIDS clubs provide elements of peer support. *Flexibility to maintain access of OVC to schooling.* This includes non-exclusion for children who cannot pay fees even when BEAM funds are not yet available or are too limited, and accommodating absence of more than 2 weeks for OVC. Some schools have given OVC holiday work in schools to compensate for not paying levies.

Initiatives by NGO's such as Hope Humana, Action Aid, Red Cross, and other Community Based Organisations to assist vulnerable children exist in some areas and include the provision of blankets, immunisation, supply of school uniforms, books, the payment of school fees and/or examination fees, and the payment of boarding fees. However, these services are not widespread and more often then not, are limited to more accessible areas.
Several key themes emerge of relevance to improving OVC support:

- *There is no standard approach to identifying orphans and other vulnerable children* that allows for rigorous, pro-active management of their needs. The social register system is in place in many schools but is not used efficiently to address OVC issues.
- *A wide range of support functions are required and feasible*.
- *A number of internal and external role players and resources are usually available* to most schools
- *The capacity of schools and any other role players has to be assumed to be very variable*.
    - In general, the capacity of other key role players, particularly Social Welfare, CWFs and communities is far too limited to meet the scale of needs reported by schools.
    - Motivation, skills and capacity within schools to deal with OVC appears limited and it cannot be assumed that any particular cadre of staff (e.g. guidance teachers) will consistently be able to deal with all OVC issues alone.
- *Lack of systematic role definition and co-ordination between role players* within and outside schools is a major obstacle to effective action.

2.5.4 Obstacles to effective, sustainable OVC support

To compliment the inspiring action taken by some schools in responding to the needs of OVC's, this study revealed that the overall capacity of schools must be further developed to in order to overcome current and future burdens.

Obstacles that prevent the engagement and use of critical players and resources must be removed in coll. These obstacles and the critical players and resources are represented in the following table.

Table 2.10 Critical Players and Obstacles to effective, efficient support of OVC

1.Guidance and Counselling Teachers

- Limited skills and training – theory vs practical; guidance vs counselling
- Poorly defined career paths and appointment/ distribution –gap filling vs skills & motivation
- Poorly defined Role definition and referral systems
- Limited time tabled, teach other subjects – prioritise examinable subjects
- Limited support from school head, HODs, class teachers, district/ MOESC
- Unclear mandate and potential opposition from families/ communities
- Stigma and trust
- Loss of staff

2.Class Teachers

- Roles not clearly defined, lack of guidelines
- Skills - early recognition of vulnerability, counselling, other
- HIV/AIDS knowledge and misconceptions
- Limits on motivation and fear of over-extension once they get involved
- Limited support and guidance
- Trust

3.Peer Support

- Limited knowledge, experience and skills
- Structures and systems e.g. referral networks, G&C support appear weak in many cases
- Limited recognition of potential roles
- Stress on peers and other possible limitations such as e.g. trust and difficulties ensuring that credible peers are involved.

4. School infrastructure and resources

- Lack of rooms for counselling and interviews
- Lack of budgets for innovative support of OVC, and transport or reimbursement for outreach activities

5.Social Welfare Officers

- Limited capacity (skills, training, numbers, unfilled posts), leading to passive identification of orphans and delays in many aspects of responses and basic support.
- Inefficient use of time and skills – minimal counselling
- Inefficient systems – guidelines, referrals, feedback and networking
- Poor communication with other sectors, including health and education
- Limited leadership and direction, in a period of uncertainty due to transition
- Grant systems- stigma, design and implementation not effective

6.HBC and Health Workers

- Capacity; awareness and leadership from Ministry of Health and health sector; limited scope of VCT; weak networks with education, social welfare

7.Other Community and NGO/CBO

- School Boards has limited strength and parents in many cases seem are inhibited in working with schools on HIV/AIDS issuesVary in strength and some losing key capacity awareness; capabilities; unequal distribution; limited systematic integration and support by government; service delivery vs training/ support role of key staff; some extended families near breaking point Community/ family attitudes obstructing or abusing support
- Some traditional leaders sensitised but can have difficulty mobilising community

8.Police and Legal system

- Awareness; guidelines, legislation, regulations; capacity; training with respect to psychosocial issue and interviewing; delays restricted access due to lack of resources.

9.District co-ordination

- DAACs - variable strength and development of education related responses
- Vocational and non-formal education not integrated with school response
- Remote areas less informed/ mobilised and have more limited resources

10. Policy framework

- Lack of clear policies, traditions, guidelines or mandates on OVC
- Lack of clear mandate on intra and inter-sectoral collaboration

2.6 Recommendations – on Protecting Educational and Development Prospects of OVC

The MOESC have demonstrated a deep concern and determination to work independently and in collaboration with various players in the educator sector to mitigate the negative effects of the epidemic on its learners. A Regional Director expressed the sentiments of the Ministry by saying, "the institution of a Secretariat tasked to look at the problem of HIV/AIDS is an indication of the level of seriousness of the Ministry. Only HIV/AIDS and no other subject has its own Secretariat. The focus should now be on working effectively to achieve desired results". Worsening poverty continues to increase vulnerability to poorer education outcomes, and increasing numbers of orphans are adding to vulnerability. This poses a substantial threat to the MOESC's ability to serve national development objectives. Appropriate responses to orphan's needs will be relevant to the needs of many other vulnerable children.

There is clearly a need for a more systematic education sector response to needs of OVC. Social welfare and other role players have inadequate capacity to respond the scale and diversity of needs of OVC and are not as strategically placed to interact with OVC. The education sector has the largest body of professionals and an organizational network throughout the county. This represents a major resource to the nation in reducing HIV/AIDS effects on the next generation. Effective responses will have relevance well beyond the end of the decade.

2.6.1 An approach to responding to OVC

Orphan's needs have led some educationalists to call for reconceptualisation of *the school as "a multi-purpose development and welfare institution"*. This challenge is daunting to most education ministries and school staff. What seem to be realistic responses to this challenge in Zimbabwe?

Guiding principles behind this study's recommendations include the following.

- *Focus on efficient use of existing resources* rather than solutions requiring substantial extra resources, wherever possible.
- *Focus on system development* to allow more efficient use of resources *rather than relying on "capacity development"* which may be required on a huge scale.
- *Build on what has proved feasible* in Zimbabwe and other settings.
- *Flexibility and decentralised approaches are needed* to deal with local or individual limitations, and the scale and diversity of needs.
- *Recognise that responses must be the product of concerted efforts with other stakeholders in education. The MOESC cannot mitigate negative impacts on its own!*
- *Ensure for effective child participation in the development of response interventions in order to ensure that such interventions are more child-seeking, child caring, and are more healthier, protective.*
- *Recognise that there are no 'quick fix it' solutions to the challenges of OVC's and that flexibility will be required in the event that interventions require modification.*

2.6.2 Prioritising critical and feasible interventions

Prioritisation of functions of the education sector to preserve education outcomes of OVC is required to make the challenge more manageable. Many teachers, staff and planners tend to feel overwhelmed at suggestions that education take a significant role in responses to OVC. Systematic attempts must be made to focus on building on the key strengths of the education system and its partners, and prioritise actions

that are likely to make the most difference and be most feasible given constraints on available resources and expertise. The following priority functions have been identified in view of their likely effectiveness, particular strategic advantages of the sector and various constraints:

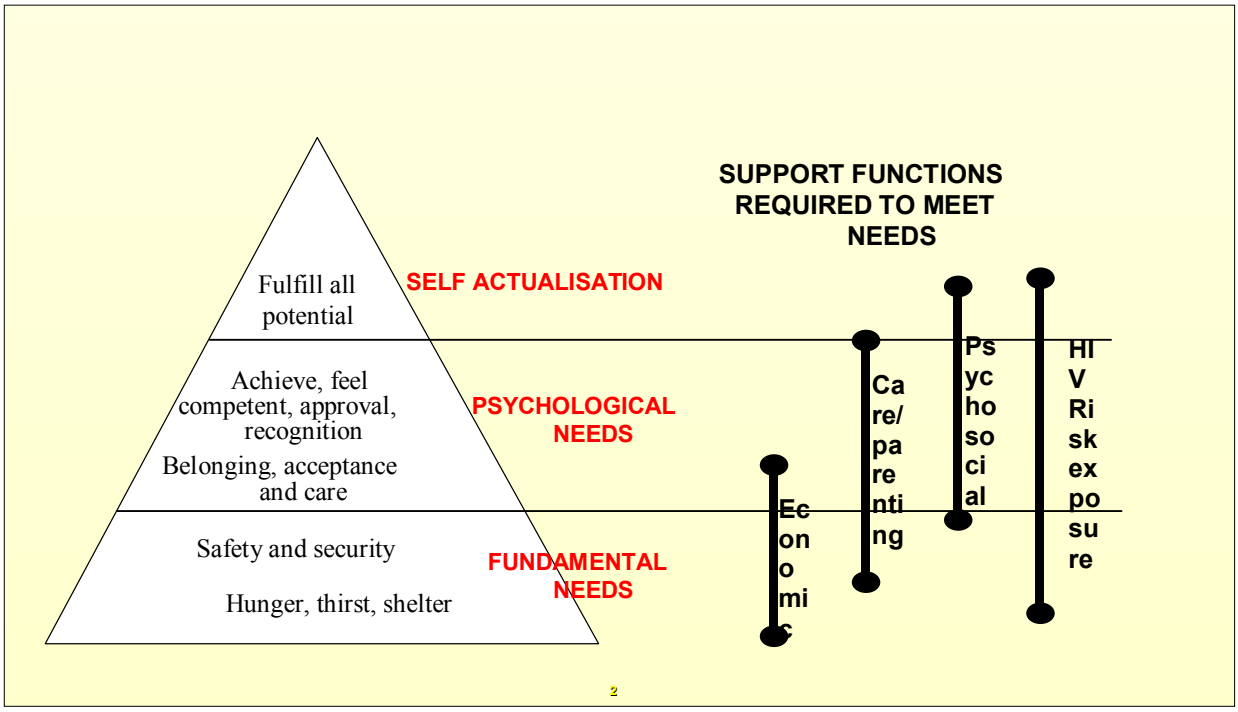
1) ***Keeping children in school.*** This is critical as bringing children back to education is likely to involve significant obstacles. OVC needs are also much easier to address while children are still integrated into a formal system. Early stabilisation of OVC through pre-empting (or managing) crises is a key objective. Key functions to achieve this are:
    - Early recognition of vulnerability- in the course of regular contact with large numbers of children and youth.
    - Timely response to prevent drop-out / performance problems - Responses may be directly by teachers or through referral if necessary.
    - Referral to other resources if necessary- Identifying problems will often be easier for schools due to daily contact and access than for social workers.
    - Monitoring of well-being-
2) ***Basic needs and assistance before complex services.*** Basic needs were consistently identified as priorities for OVC. Children who do not have basic needs such as food, clothing and levies met are unlikely to have successful education outcomes regardless of other services. More sophisticated aspects of psychosocial support and counselling should still be strengthened but may be more complex to develop and should not be the immediate priority in responses.
3) ***Enabling dropouts to re-access education.*** This is likely to be less effective than helping children to stay in school. However, dropouts and early termination of schooling are already significant challenges in Zimbabwe. The education sector should consider ways to make schools more receptive to re-entry and explore efficient use of non-formal, distance and vocational training to ensure that OVC's who drop out can still acquire key life skills.

Initial focus on meeting basic needs.

Prioritising response to the needs of OVC can be guided by Maslow's diagram which categorises need in a hierarchical way (Figure 2.11). OVC have a range of needs related to economic and psychological pressures, and home or family circumstances, as well as a range of support functions required to address them (see Table 2.10).

The proposed focus on basic needs does not deny the importance of making progress in addressing higher level psychosocial needs. Important inter-connections between the categories of need in reality cannot be ignored. For example, meeting basic needs most effectively may involve engaging with family dynamics to ensure plans are made for orphans to be taken into family homes and that grants are applied for. In particular, as indicated in Figure 2.11, protecting OVC from high risk of HIV infection is often likely to require that a number of their higher level needs, such as dealing with stigmatisation, self esteem and psychological stress are addressed.

Figure 2.11: A hierarchy of OVC needs to guide prioritisation.



2.6.3 Other specific recommendations OVC in Zimbabwe

1. *Strengthen BEAM.*
   - Key issues to consider include: improving efficiency; refining targeting, including review of selection criteria, budget allocation criteria and needs for possible checks and balances on selection processes; consideration of increasing the scale and types of support to ensure key needs are met; ensuring equitable coverage; reviewing systems for key groups such as secondary and special needs learners; Consider use of BEAM systems as conduit to streamline assessment, screening, referral and disbursement for other aspects of OVC support.

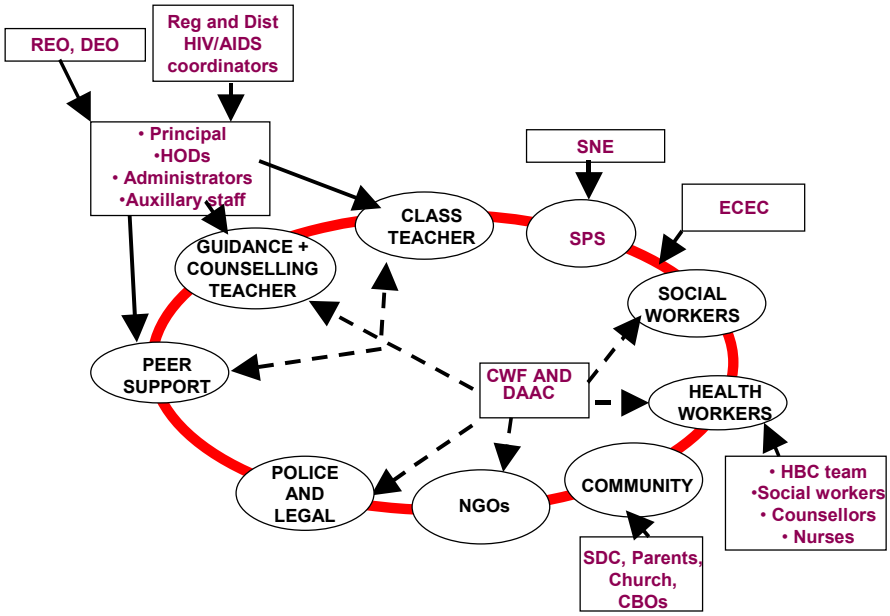
2. *School feeding and nutrition programmes*.
   4. Previous school feeding schemes have proved effective in boosting enrollment and need for feeding is mounting independent of HIV/AIDS. Morning meals have also been shown to have a strong association with schooling outcomes.
   - Income generating activities and nutrition gardens may be an important supplement to feeding schemes and can also be used to build solidarity and empower OVC.
   - Schools and education systems also need to serve as venue for health and nutrition services provided by external role players in the community.[27]

[27] S. Shaeffer, HCC Conference, Thailand 2001, Presentation on Education and HIV/AIDS Affected Children.

3. *OVC identification.*
    - Revise the social register system to make it more action orientated and effective in identifying OVC for specific responses and planning purposes. Develop guidelines to assist teachers to assess learners vulnerability and prioritise responses.

4. *Develop "Circles of Support" and inter-sectoral cooperation in each school to deal with OVC issues.* This model is based on developing networks with available resources inside and outside schools. This network is intended to maximize use of available capacity to respond to the wide range of OVC needs and ensure allocation of functions in the most manageable and efficient way. Potential resources are shown in Figure 2. The precise resources that are incorporated into the circle from in and outside of a school may differ according to the capacities and logistical issues prevailing in the school and district. Key components of ensuring that Circles of Support are formed and are functional include the following.
    - *Define the roles, responsibilities and accountabilities of schools and key education stakeholders* such as the DEO, heads and SPS in responding to OVC needs.
    - *Negotiate effective buy in and commitment of key external players at all levels* to support the Circle and enforce effective participation. Critical stakeholders include Social Welfare, Local Authorities, NACP, DAACs, Child Welfare Fora, and parents/ SDC's/SDAs.
    - *Review legislation and regulations* to ensure that these define roles and allow efficient allocation of resources and functions within Circles.
    - *Develop and publicise roles and guidelines* on circle formation, accessing support and approaches to particular issues such as abuse, particular needs of the girl child and other OVC support.

Figure 2.12. Circle of Support for OVC



Key Assumptions for an effective Circle of Support intervention:

- *A holistic approach must be adopted that considers the relationship of the educator sector with all the other components of the circle.*
- *A participatory needs analysis, taking into account risk and resilience factors must be performed by all the components in the circle in order to provide more information about the specific needs of children in differing contexts.*
- *Community ownership and empowerment is a critical factor for the success and sustainability of any interventions.*

Monitoring and evaluation interventions involving the participation of children is critical.

The concept of a circle of support should not under any circumstance undermine planned or existing community based interventions. On the contrary the education sector should work to contribute to such interventions and should be regarded as resource for assistance where feasible in order to bolster the capacity of families and communities to care for and support OVC. An example of a community based intervention that should be supported by the education sector is the 'community based orphan care intervention' that is currently being implemented in over 30 communities in Zimbabwe. Three different models of community care to deal with the dynamics in urban, rural, and commercial farm areas have been developed (Van der Vilt, 2000). These interventions have created referral systems which enable Government to better understand the needs of the community and gives communities the ability to influence state policy.[28]. There are several ways in which schools could be utilised more effectively by the community. Schools should work towards become more reliable and accessible sources of AIDS information and skills (i.e. through AIDS Clubs) and as a resource for care and support (i.e. through Guidance and Counselling Teachers).

Though capacity may vary, most schools can:

- Transmit AIDS prevention messages to the community
- Lead efforts to minimise sexual violence and overcome female disempowerment
- Track and trace the lives and well-being of these families in collaboration with other community development and welfare agencies.
- Provide peer education and volunteer help to individuals and families, especially children in charge of households, girls caring for the sick and orphans.

5. *Mobilise more resources for education sector OVC initiatives.*

1) Advocate for allocation of more AIDS Levy funds to education sector OVC initiatives, including extension of BEAM.

6. *Enhance capacity within schools to coordinate Circles and provide specific OVC support.*

- Strengthen the number and skills of *Guidance and Counselling teachers* around OVC issues but avoid over-reliance on guidance and counseling teachers alone.
- *Increasing class teacher sensitisation, skills and confidence* in recognising and dealing with OVC issues. Reduce tendency to only respond once stress manifests in "discipline problems" or to abdicate responsibility.

[28] Another successful community based OVC intervention that exists in rural and urban Zimbabwe, is The Farm Orphan Support Trust (FOST) that aims to keep sibling orphans together. It operates foster schemes on farms, using farm development committees to train caregivers, establish monitoring procedures and raise community awareness.

- *Refine the role of SPS* to maximize benefits of their expertise in programme development.
- *Consider more formal integration of social workers into the education system,* to maximize use of their skills in OVC support.
- *Consider innovative classroom programmes to deal with stress or grief including encouraging children to create memory boxes with caregivers.*[29]

7. *Enhance flexibility and responsiveness of school organisation and systems to OVC's constraints.*
   - *Ensure effective inter-school referral systems* to minimize disruption and support for transferred learners
   - *Ensure adequate flexibility in scheduling and rules,* including e.g. school hours, response to being late or erratic attendance, age norms, facilitating homework
   - *Review hostel and accommodation policy* to ensure support of the most vulnerable.

8. Involve learners in decision making, planning and responses wherever possible.
   - Reinforce peer solidarity and develop means to communicate information on rights, responsibilities and support systems

9. *Other issues*
   - Develop and disseminate a code of conduct on confidentiality and other issues in dealing with OVC and parents

"Start with the most vulnerable, for even if you make a positive change in only one child's life, you are making a great difference"
Guardian's story, Malawi

2.7 Needs of infected students

Schools will contain substantial numbers of students who are infected with HIV, through maternal transmission, sexual abuse or relationships in their teens. Schools are likely to have many more students who fear that they are, or will be, infected.

2.7.1 Empirical evidence of HIV/AIDS infected students and risk factors

Experience of schools seems to indicate that relatively small numbers of students who are known or thought to be ***ill with AIDS***, although few schools kept formal records on numbers of pupils chronically ill from AIDS or any cause. In the school survey, the response rate on numbers of children thought to be ill with AIDS was low, but estimates that were obtained for around 35 schools, ranged from 0.05% of children in the school to 11% of children in the school. For girls: heads estimates of infected girls ranged from 0 to 18.5%, with a mean of 1.9% and median 0.89% (95% C.I. 0.54-1.19). For boys: heads estimates of infected boys ranged from 0 to 8% of boys in the school, mean of 1.12%, median 0.57%. There were insufficient complete answers provided to examine differences between level of school. The answers indicate that in terms of numbers, in most schools student illness is generally not considered to be a priority concern.

[29] Memory boxes are created to contain memories that a caregiver would like to leave their children should she/he know she won't live to see them grow up.

Nonetheless, death and illness among youth of school going ages continue to remain a reality and a source of stress and trauma for the student and teacher. Knowledge of even a single case of illness poses the potential for disruption in a school environment. Around 20% of students who participated in the school survey indicated that they were aware of other children in their school who had frequent health problems.

A greater concern is the ***growing number of HIV positive students***, who become newly infected during their school years. While the empirical work did not aim to estimate the extent of HIV infection amongst students,[30] the survey and district visits explored the perception of Heads, teachers and pupils. Some 31% of the schools that were surveyed reported the attendance of students who were though to be HIV positive. Surprisingly, more Heads in primary schools than other schools believed there were children in the school thought to be infected or ill, perhaps indicating the presence of children at lower levels with symptoms of illness. Some 35% of heads of primary schools, 23% of heads of O level schools and 11% of heads of A level schools reported that there were children in their school thought to be infected with HIV or ill with HIV/AIDS. [31] Of those heads who said they knew of ill or infected children, over 54% of school heads deduced the HIV status from the student's appearance and symptoms. Many (wrongly) deduced HIV status from knowledge of parental death.

Situations that put students at high risk of becoming infected with HIV appear to be common in Zimbabwean schools and communities. Some 14% of Form 3 students were survivors of rape or forced sex. Both boys and girls reported forced sex, with a greater proportion of girls having experienced forced sex (17% vs 10%). Fellow students were the most frequent perpetrators of forced sex, followed by relatives and then teachers.

Intergenerational sex appeared to be common, with16% of surveyed students reporting that relationships between students and teachers were frequent. 38% of students said that relationships between older men and pupils were frequent. Of students who had had sexual intercourse, many are many are likely to have had unprotected sex and may have been exposed to risk of infection. Only 23% of Form 3 students reported that condoms were easily available. As discussed in the section 2 on Prevention amongst students, knowledge of basic facts about HIV/AIDS was low amongst students surveyed, with around 47% of Form 3 students giving incorrect responses to one or more questions that assess basic knowledge of HIV/AIDS.

> "We suspect that many of our students are HIV positive. We have had two incidences where girls have been involved in car accidents with truck drivers who later turned out to be their boyfriends. One of the truck drivers has since died of AIDS."
> School Head, Bindura.

2.7.2 Projections of numbers of ill and infected children

The proportion of school-going age children who are infected with HIV infected will vary at different levels. In the age group 5-9, an estimated 1% of students are infected rising to around 1.6 % by 2010. Under one in one hundred 10-14 year olds and less than 10% of 15-19 year olds are estimated to be infected, with levels remaining quite constant over the decade in the absence of behaviour change. While

[30] This would be an impossible task without conducting HIV testing, as most infected people are unaware of infection and symptom-free in the early stages.

[31] The figure would need to be carefully interpreted, it may have been the result of over-reporting based on perceptions and not proper recording.

many 15-19 year olds may become newly infected with HIV while they are still at school, most of these children will not become ill with AIDS during their school years, owing to the delay between infection and onset illness of around 8-10 years.

The proportion of children ill with AIDS, even by 2010, is expected to be below 0.5% of children aged 5-9, falling lower in the 10-14 age group and remaining below 0.5% in 15-19 year olds. Deaths from AIDS are likely to be substantially lower than deaths from other causes among children aged 10-19.

Recommendations - infected students

Significant numbers of students will need support to deal with psychological stress and stigmatization around HIV infection or fear of infection. Universal precautions against accidental infection and medical or other support for students with AIDS will remain important issues for individuals and school communities. However, risk of accidental exposure to HIV infection in most schools is likely to be quite limited and relatively few students will need medical support. Issues such as prevention of sexual transmission and management of other impacts of HIV/AIDS on students are thus likely to be higher priorities.

3) ***Psychosocial support and counselling strategies should consider needs of students who are HIV infected or fear that they are infected***. Roles of specialised resources located in School Psychological Services, Volunteer Counselling and testing programmes and other counselling services outside of schools should be considered.

4) ***Develop and disseminate policies and guidelines on the following:***
   - *Accidental exposure to HIV and opportunistic infections in schools*. These should combat unnecessary anxiety about accidental exposure and deal with issues such as TB and other opportunistic infections. Schools should ensure that they have the material and human resources to ensure children's safety. Interviews with key informants revealed that when it comes to the safety and well-being of their children parents, are not prepared to take chances. They therefore warn their children against excessive contact with ill-looking children whom they suspect could be infected. While some of these fears and responses are legitimate, they also reflect (a) gaps in their knowledge of how HIV is transmitted, (b) their lack of confidence in the school's ability or preparedness to take effective precautionary measures. One of the effective ways of allaying parental fears is by involving them and engage them more and more in issues of this nature – they can learn and contribute ideas, get assurance and give their children more support and assurance.
   - *Protecting infected students' rights to education and well-being*. These need to consider issues such as combating stigmatisation, codes of conduct and systems to ensure appropriate confidentiality, and reasonable ways to reduce practical obstacles to continued education of infected or ill children.
     - Consider developing curriculum to allow sick children to study at home
     - Make it easier for children to get back into the school system
     - Reward schools that assist children get back into the system
     - Introduce special classes to help children catch up
     - Work with families of children with HIV to assist them in understanding the vital need of education for their child.
     - Introduce training on attitudes and information about HIV and HIV transmission in all schools.

- *Efficient, feasible approaches to ensure medical and other support for children who are ill with HIV/AIDS in each school.* All schools should ensure that they have basic medical supplies to handle the medical or health problems likely to be faced by infected children on a day-to-day basis. While medical advice can be provided to each school depending on their need and financial resources in this regard, the ideal situation is to ensure that minimum basic medical supplies are available in each school. Maybe the assistance of NAC could be enlisted in the case of the poorer schools.
- *Relationships with critical players in communities i.e. healthcare workers, home based caregivers,* and utilise their experiences to increase awareness of the needs of the HIV positive child and children at increased risk of infection in the school.

4) ***Develop training and communication strategies to build staff capacity and confidence*** in managing issues around infected and ill students. The assumption made by the current HIV/AIDS and Life Skills Education programme is that there are no infected children in schools. One encouraging thing was that in some schools visited, teachers admitted that they suspected that some of the children in their school or class were already infected. *The programme, however, does not equip teachers with skills for handling such children. The existing training programme should be enhanced by building into it the skills needed to handle infected children.*

> *"At home we are told to stay away from people living with HIV, but at school they say you must care for them. This is confusing."* – Pupils, Girls High.

3. How does HIV/AIDS affect ability to deliver quality education?

The MOESC already faces substantial challenges to maintaining and improving accessibility and quality of education. Financial constraints are affecting all aspects of the delivery of education, including erosion of teacher salaries and benefits and dwindling non-staff budgets, as an increasing proportion of the budget (over 90%) goes to personnel. Other issues such as management capacity and systems, and teacher qualification levels and morale remain important challenges.

The MOESC realizes that its key resource is its staff. To maintain a highly trained and motivated workforce the Ministry has generally pursued policies on salary levels and structures (within fiscal constraints), pre- and in-service training, deployment, transfers, advancement, promotion and re-grading that are conducive to this aim. The Ministry of the Public Service has created a Unified Teaching Service for all teachers. Since the late 1980s teachers have been public servants under the framework of the Public Service Regulations (Statutory Instrument 1 of 2000).

Most HIV-infected education sector employees can be expected to remain well and lead fulfilling, productive lives for many years before they develop the severe illness associated with AIDS. The length and quality of their lives can be enhanced by fairly basic health care interventions and positive approaches to living with HIV/AIDS, even if antiretroviral drugs (ARVs) are not widely available. However, significant numbers of teachers are at risk of being severely ill and dying. With better understanding of impacts of HIV/AIDS on employees and the function of the education system, it is possible to actively reduce negative effects in both areas.

3.1 Workplace impacts of HIV/AIDS

HIV/AIDS clearly imposes large human costs on employees in many workplaces. From an employer's viewpoint, HIV/AIDS among employees imposes direct and indirect costs on organisations. In some cases these result in clearly recognisable financial costs. In others, they may lead to hidden costs, including increasing inefficiency and lower performance of an organisation. Particularly in the public service environment, with relatively fixed budgets and inability to increase spending, these indirect costs have the potential to be of greater significance.

Direct costs result firstly from increasing costs of medical care for employees and dependents with HIV/AIDS. Other direct costs can arise from increasing claims on pension, life and disability cover by employees with HIV/AIDS. In Malawi, the cost of group life assurance has increased by five times from 1987 to 1997 (Myslik, 1997). In Zimbabwe, it was estimated that AIDS related deaths already made up 48% of individual and 38% of group life insurance claims in 1995.(SAfAIDS, 1995). The cost of an average set of risk benefits in South Africa was expected to double between 1997 and 2007, unless benefits were restructured (Table 3.1)

Table 3.1. Projected costs of risk benefits as a percentage of salary in South Africa

	1997	2002	2007
Lump sum death or disability benefit	1.5	2.9	4.5
Spouse's pension	4.0	5.9	7.5
Disability pension	1.5	2.1	2.6

Source: Metropolitan Life Ltd

Indirect costs arise from the following impacts.

- Employee absenteeism due to illness, funeral attendance or caring for sick family members.
- Higher recruitment and training costs. Replacement involves time and training. Many new employees or trainees may themselves become ill with AIDS. Some Zimbabwean firms have reported that they hire or train up to three employees for single posts to avoid disruption due to AIDS absence and deaths.
- Loss of skilled employees due to AIDS illness and deaths. This can disrupt work in individual organisations and, in the longer term, increase market wages for people with scarce skills. An increasing proportion of employees will be inexperienced, potentially reducing availability of experienced employees to provide formal or informal training.
- Reduced job performance due to physical disability or increased stress created by knowledge of diagnosis and stigmatisation.
- Stress and reduced morale caused by illness and death of fellow employees, friends and family members.
- Potential labour relations breakdowns and litigation costs in organisations that fail to manage human resource issues arising from HIV/AIDS.

International experience indicates that the contribution of various types of costs to overall HIV/AIDS costs varies, and some cannot easily be quantified. However, studies consistently show that non-health care and indirect costs can contribute a very substantial proportion of costs. Table 3.2 shows the findings of studies of costs in companies in Botswana, Zambia, Kenya and Zimbabwe. Costs of absenteeism and training and recruitment tend to be very significant. Where medical benefits are low, these are often not a very high element of costs, but as illustrated by the case of the Zimbabwean transport company where more substantial health benefits are offered, they can be a much larger component.

Table 3.2: **Types of HIV/AIDS costs to employers as a proportion of total HIV/AIDS costs**

Type of cost	Botswana 1997	Zimbabwe bus company 1997	Kenya 1994	Zimbabwe transport co. 1997
Absenteeism	54%	89%	54%	24%
Training and recruitment	23%	2%	24%	17%
Funerals and travel	1%		10%	
Medical costs	14%		12%	56%
Other benefits	8%	9%	-	3%
TOTAL	100%	100%	100%	100%

Source: Botswana National Task Force on AIDS at the Workplace (1997). AIDSCAP (1997)

Overall, studies tend to indicate that HIV/AIDS related impacts and costs are unlikely to be disastrous to most larger companies and organisations in any one year, particularly as they tend to adapt where necessary. However, they indicate a long-term drain on resources and productivity that needs to be tackled.[32]

Experience in many workplaces indicates that it is possible to actively manage the burden on infected employees and their dependents, as well as costs to employing organisations, to the benefit of both groups.

3.2 Susceptibility of education staff to infection

The susceptibility and vulnerability of teachers and other education sector employees to HIV/AIDS is increasingly recognised throughout Africa. However, data on the impacts of HIV on education sector employees is relatively scarce. Teachers are often cited as having higher risk of HIV infection than other adults through factors such as physical separation from stable partners, higher mobility and relatively high incomes and social status, which expose them to higher risk sex (Kelly 2000). There is widespread evidence from Africa that in early in HIV epidemics, more educated people are at higher risk of HIV than other adults (World Bank 1997). However, there is mixed evidence on teacher risk from other countries. HIV risk is strongly determined by the age and gender profile of employees, which may account for differences in HIV infection or death rates that have been found in some comparisons of teachers with other groups.[33] Nevertheless, it remains uncontroversial that HIV/AIDS impact on teachers is a reality.

- In the Côte d'Ivoire, confirmed AIDS cases amounted to seven out of every 10 deaths among teachers in the late 1990s (UNAIDS 2000).
- In the Central African Republic, with an adult HIV prevalence of around 14%, almost as many teachers died as retired between 1996 and 1998. Of teachers who died, 85% were found to be HIV positive, and they died at an average of ten years before reaching the minimum retirement age of 52. The study recorded that 107 schools had closed owing to staff shortages, significantly more than the 66 that remained open (Meriane 2000; UNAIDS 2000).
- In Zambia, death rates among teachers had risen to 3.9% by the late 1990s, and mortality among teachers was reported to be 70% higher than in the general population (Kelly 2000).
- In 1998, Zambia lost around 1300 teachers to HIV/AIDS, the equivalent of two thirds of its teacher training college output, and levels were expected to exceed college output by the year 2000 (UNAIDS, 2000).

Indications of risk in Zimbabwe

In Zimbabwe, it is clear that education employees are at substantial risk of HIV infection, like any other workforce in the country, but their susceptibility relative to the population or other groups is uncertain.

[32] Smaller organisations and work units, or organisations that are very reliant on key individuals tend to be much more vulnerable to absence and loss.

[33] For example, reported HIV prevalence rates are often not standardized for age and gender in comparisons with rates among other population groups. If a high proportion of teachers are young women one would expect them to have higher rates than other groups even if their risk exposure is similar to other young women.

The 2000 Antenatal survey provides some tentative indications of possible risks faced by teachers, but all are limited by the survey sampling methodology, lack for standardization for important factors such as age and small sample sizes for some groups.[34] Some of the findings are that:

- Pregnant women in formal sector employment are at similar risk (35.5%) to other women.
- Infection levels among married women (34.5%) are very close to the overall average level, though lower than for the small number of unmarried women sampled.
- Levels among women with secondary education (34.3%) are similar to the overall average. Levels among students and those with tertiary education may be lower but sample sizes (<87 and 9) are too low to draw firm conclusions.

More direct evidence from a population-based study in Manicaland found that male and female teachers had similarly high levels of HIV infection to other adults in the general population (19.2% and 28.8% compared to 19.2% and 27.6% respectively) (Gregson et al 2001).

Fieldwork discussions with teachers and managers in this study also suggested that teachers have been and many remain at significant HIV risk. Importantly, teachers have not been comprehensively targeted by HIV prevention programmes. It was apparent that many education managers and staff still have inadequate basic knowledge and awareness around HIV/AIDS and many informants suggested that behaviour change has been limited. Less accessible rural areas seemed to be particularly disadvantaged by the limited penetration of HIV/AIDS programmes. Denial, fatalism and feelings of inability to manage risk were widespread.

In addition, many indicated that teachers are at greater risk of infection because of their relative wealth and status in the community, and limited availability of other forms of entertainment and condoms. A major concern of teachers, both male and female, is being posted away from their spouses and other stable partners – with temptation to be involved in extramarital relationships that may lead to HIV/AIDS infection. The are many MOESC officials who have to travel and stay away from their families frequently as part of their work, and they were identified as a particular at-risk group.

Available evidence thus suggests that teacher infection levels may be very similar to other adults in Zimbabwe. However, teachers also seem likely to be better equipped to reduce their risk as they are relatively well informed and probably more able to alter their risk once they recognise their own susceptibility to HIV infection (see eg Gregson et al 2001). Thus, in many areas teachers may already have somewhat lower infection rates, although the feed through from this to lower rates of illness and death would take an average of 8-10 years.

3.3 Projections of HIV/AIDS impacts on education staff

Projections of HIV/AIDS impacts on a sub-group of people such as education employees should be based on a detailed demographic profile of the group. As illustrated in previous sections, a person's risk of HIV infection differs substantially depending their sex, age and geographical location. Age also affects average survival time with HIV.

No representative data was available on the age, gender and geographic distribution profile of education employees. This, combined with lack of HIV seroprevalence data specifically among teachers, means that *only crude projections for teachers were possible*, based on level of school and gender as reported in the 2000 Millennium Report.[35] The percentage of the adult population with AIDS illness and deaths, derived

[34] Important limitations are the convenience sampling approach used and exclusion of private sector clients.

[35] Although teacher mortality data became available subsequently, attempts to calibrate the crude projections

from our general population projections, were then taken and applied to these educators. Best and worst case scenarios were applied as described previously. Further details of the methods are given in Annex C.

3.3.1 Results of projections

Due to data limitations, projections should be considered as very rough guides for planners that may be adequate to inform certain policy and planning decisions, but certainly not all. While they provide perspectives that clarify some policy and planning decisions, they should not be considered to be definitive projections of HIV/AIDS risk. *Projections should be interpreted in conjunction with comments in the section following the presentation of results.*

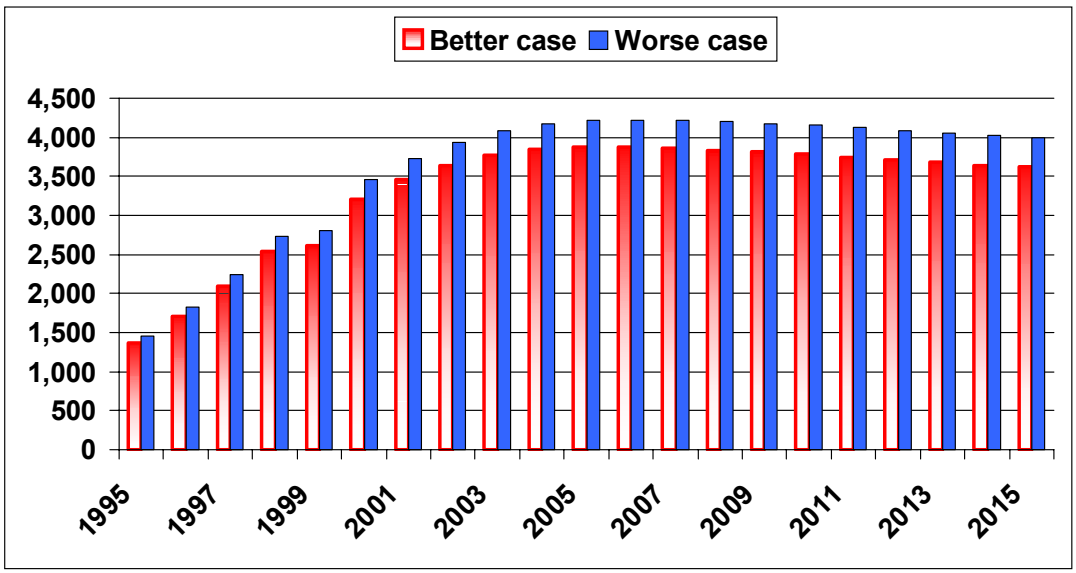
HIV infection levels among teachers

Projections suggest that around a third of all teachers in Zimbabwe are infected with HIV with potential to rise to a plateau of around 40% in the absence of behaviour change among teachers and trainees.

AIDS illness

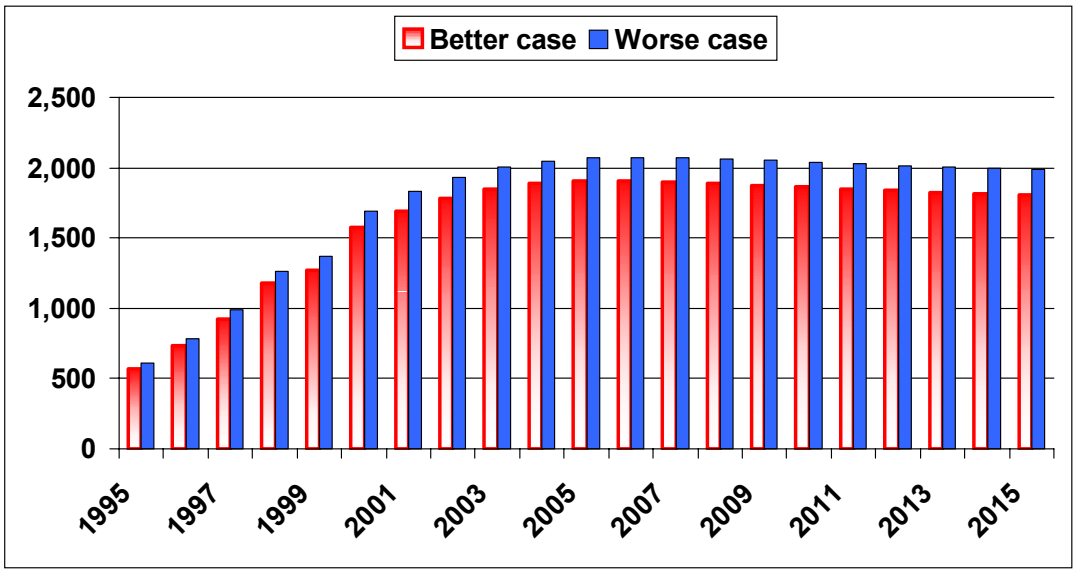
The number of teachers who are sick with AIDS *each year* is expected to be nearing a plateau level at this stage in Zimbabwe's epidemic, as shown in Figure 3.1 and Figure 3.2. In the year 2002, around 3700 primary school teachers and 1800 secondary school teachers may be ill with AIDS, and this may rise to around 4000 and 2000 teachers in 2005. There is relatively little difference in the scale of AIDS illness between the better and worse case scenarios from an impact management perspective.

Figure 3.1. Projected annual AIDS cases among Primary School Teachers 1995-2015



against this were judged to be likely to provide only spurious accuracy. In the absence of adequate demographic profile data, it would be difficult to sensibly predict the future path of the epidemic among teachers even if the projections could be made to correspond to the point estimates of mortality for the short time series that was available.

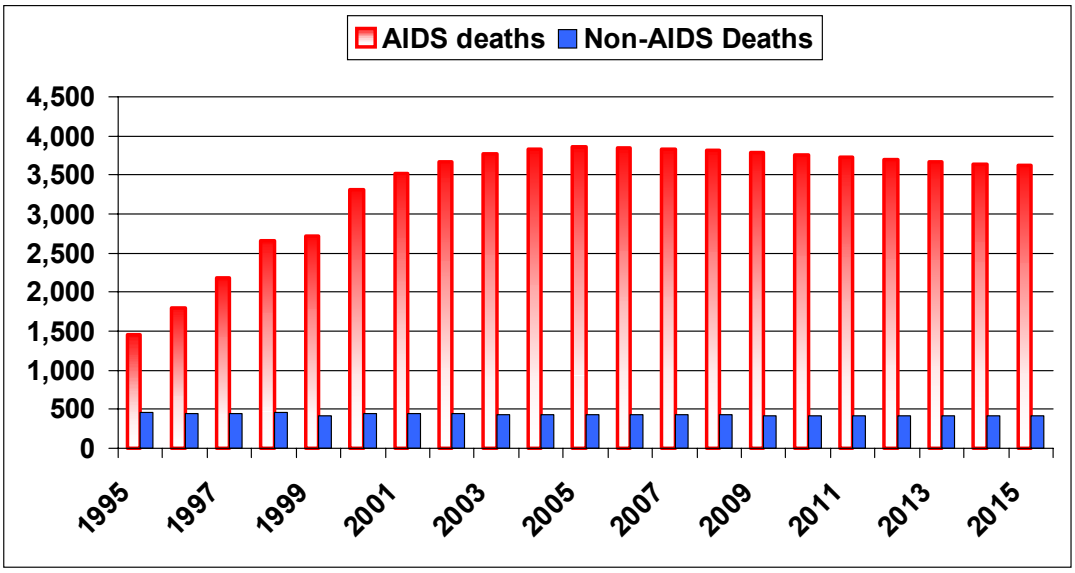
Figure 3.2. Projected annual AIDS cases among Secondary School Teachers 1995-2015



AIDS deaths

Given the high level of HIV infection in Zimbabwe, it would be expected that many teachers would be dying of AIDS. Figure 3.3 shows the projected number of AIDS and non-AIDS deaths, assuming that teachers are at the same risk of HIV as the general population. AIDS deaths would be expected to climb somewhat from current levels until the middle of the decade, and then start to plateau. Non-AIDS deaths are expected to remain constant at a fairly low level and are far exceeded by AIDS deaths

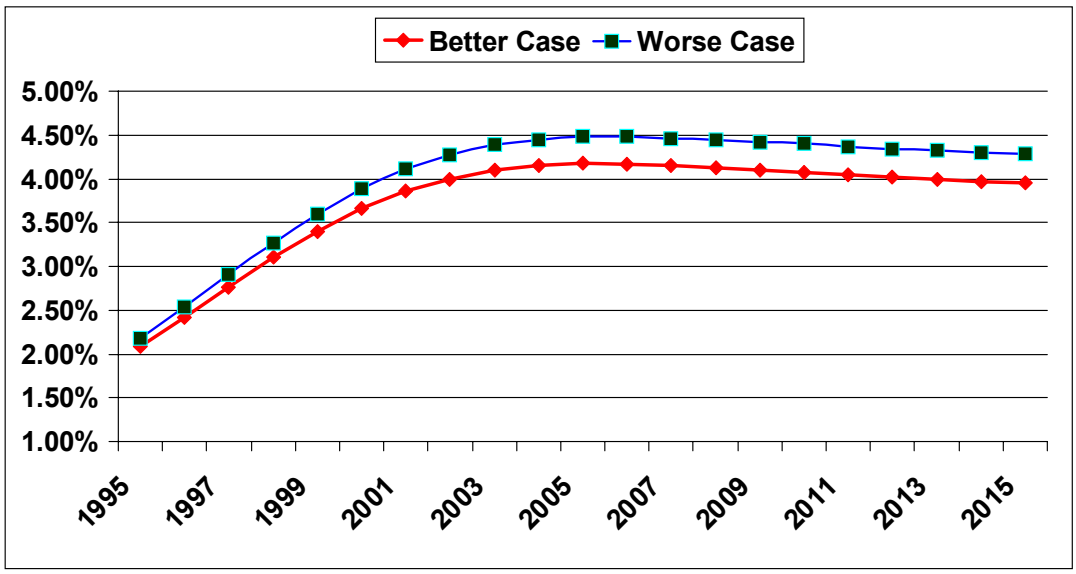
Figure 3.3 AIDS deaths and non-AIDS deaths among teachers 1995-2015. Better Scenario



Projected AIDS deaths as a percentage of all teachers per year are shown in Figure 3.4 below. The projected rate of death/ terminal illness in 2001 is almost 4%. By 2005 – 2007 it is possible that as many

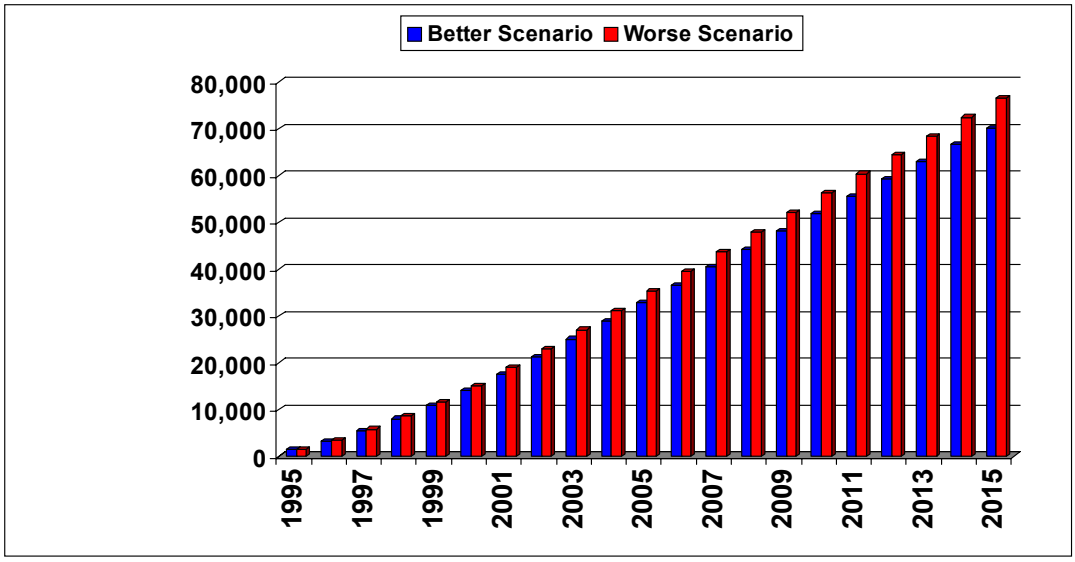
as 4.5% of teachers could be dying of all causes per year. Rates are not expected to increase dramatically from current levels under the projected scenarios.

Figure 3.4. Projected AIDS related death rates among teachers.



The projected cumulative death toll among teachers as a result of the epidemic is shown in figure 3.5 below. The projections suggest that the MOESC could have lose around 30 000 teachers to AIDS between 2001 and 2010 and 50 000 teachers between 2002 and 2015, equivalent to almost 30% and 50% of the current teaching workforce respectively.

Figure 3.5. Cumulative AIDS deaths among teachers 1995 to 2015.



3.3.2 Validation and interpretation of projections

The above projections provide very rough estimates of the risk of HIV/AIDS impacts on the education sector. This section firstly discusses available data on teacher mortality rates and then, in the light of this and other considerations, how the projections should be interpreted.

Data on death and incapacitating illness among teachers

Based on previous trends in mortality in Zimbabwe, a death rate of around 0.5% would have been expected among adults aged 20-60 in the absence of HIV/AIDS. Subject to the possible influence of the age and gender profile of education sector employees, teacher mortality would be expected to be somewhat below this due to a "healthy worker' effect: employed people tend to have better pre-existing health status and better socio-economic circumstances than the average adult.

Limited data on mortality among teachers could be accessed during this study.[36] Attrition data extracted manually from personnel registers for 1999-2001 is shown in Table 3.3. Interpreting levels and trends in death and terminal illness from this short time series of data is difficult. [37] However, the data suggests that:

- Death rates among teachers are higher than would be expected in the absence of AIDS.
- Death and ill health retirements combined, which is probably a more reliable indicator of terminal illness, had reached over 2% of teachers in 2001.
- There may possibly be a rising trend in death/ terminal illness rates from a low base.

Table 3.3: Teacher and school head deaths and ill-health retirements

	1999	2000	2001*
Teachers – deaths	**303**	726	807
Teachers – medical retirements	57	306	933
Heads - deaths	7	44	75
Heads - medical retirements	2	14	42
Teacher and heads – total deaths	310	770	882
Teacher and heads – total deaths + medical retirements	369	1090	1857
Total Deaths (% of total trained teachers)	0.38	0.91	0.98
Total Deaths + medical retirements (% of trained teachers)	0.45	1.29	2.05

Source: Personnel registers. Denominator teacher numbers from Education Millenium Report (2001). Untrained teachers are not captured in personnel attrition registers.

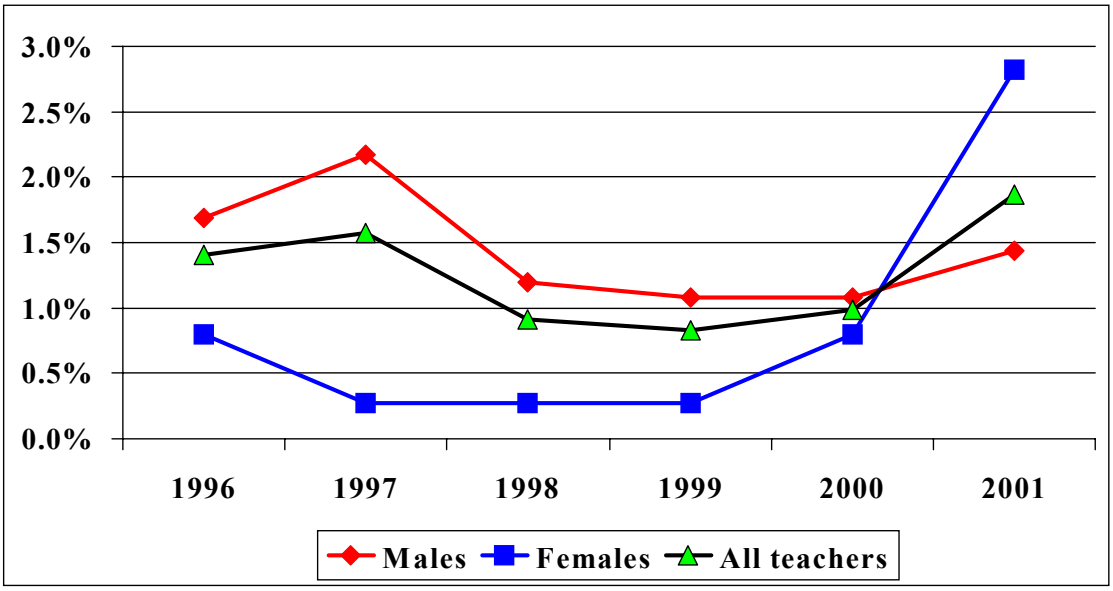
- Data may not be complete for the year as it was collected in December 2001.

[36] The Ministry should be able to obtain more comprehensive data to identify levels and trends of illness and deaths to validate projections from the SSB database, and the Pension Fund once computerisation of their system is complete. PSMAS may also be able to provide mortality data in future with some indication of diagnoses, but scheme membership is likely to be a biased sample of sicker employees.

[37] Some particular cautions should be exercised in interpreting this data. Personnel officers indicated that the data is likely to be complete and not subject to large or changing time lags in reporting, but the validity of data is not completely clear. Nearly all causes of attrition (including eg early or normal retirement, and resignations) showed marked increases over the period. This may indicate underlying data problems that could not be pinpointed, or may suggest new influences related to eg economic factors that could possibly influence ill health retirement.

Data from Nyanga District, illustrates mortality experience at District level. Since 1996, annual deaths rates among teachers have average around 1,45% for men (n=830) and 0.9% for women (n=377) per year, with rates as high as 2.2% for men and 2.75% for women in certain years. There is no clear trend in death rates however. (Figure 3.6)

Figure 3.6: Mortality rates among teachers – Nyanga District



Source: District records. 2001 rates annualized from data collected to September.

Interpretation of projections

Overall, these data strongly suggest that mortality rates are below those that would be projected if teachers have the same risk profile as the general population. There are several possible explanations for this:

- *The projections do not fully adjust for gender and age.* We would anticipate that they could well seriously over-estimate educator HIV risk, as the educator population is likely to be older on average than the general adult population.[38]
- *Educators have a lower risk of infection than the general population.* The limited available information on HIV infection levels among teachers and similarly educated people suggests that their risk is similar to the general population. But it is possible that educators may in fact have lower risk behavior in general than similar adults in the general population.
- *Educators have the same risk of HIV infection, but are surviving longer than expected.* It is possible that a significant number of teachers who develop AIDS have until recently been receiving effective antiretroviral treatment funded at least in part by medical aid. Teachers may also have generally better access to basic health care and nutrition.
- *The AIDS epidemic may be developing later than suggested by the projections.* It is possible that difficulties in interpreting Antenatal Survey data (see Annex 3) mean that the time lags assumed in calibrating projections for Zimbabwe are have advanced the epidemic by 1-3 years. If this is

[38] Many of the staff hired and trained during the rapid expansion stage of the education system are likely to by now have entered relatively low risk age groups.

the case projected levels might still be reached and a larger proportional increase in death rates above current levels should be assumed in the near future, rather than plateau at current levels. If the delay results from a longer average survival time of Zimbabwean adults with HIV than assumed in projections however (median 9.5 years), the final level of the plateau would be expected to be lower.

- *The overall population projections over*-estimate likely levels of AIDS impacts. Possibilities of this are discussed in Annex C. However, over estimates of levels of infection in the community seem unlikely to explain the large discrepancy between projected and recorded ill health and deaths.
- *The information on mortality among teachers is not accurate*. This is always a possibility, especially since the data had to be collected manually.
- *There is a "healthy worker" effect*. Older teacher trainees may not enter employment if they are already experiencing mild or more severe illness by the time that they graduate. Anecdotal reports from teacher training colleges suggests that this may well be occurring to some extent.

Longer term estimates of cumulative deaths over time should be interpreted with particular caution. In the absence of alternative data, the projections assume that the demographic and other risk profile of the teaching force will remain constant over time. In reality, significant number of teachers and trainees may have begun to protect themselves from infection by now. Deaths of teacher with high risk over time might also leave the remaining teaching workforce with a lower average risk. Finally the age and gender composition of the workforce may change over time, altering risk in unpredictable ways.

It is probable that a combination of all these factors account for the discrepancies that are seen between the recorded mortality rates and those produced by the projections models. Until better information is available to inform projections, the issue is unlikely to be clarified.

One issue that needs to be raised is the potential use of antiretroviral drugs (ARVs) among employees of the MOESC. The use of ARVs could have a dramatic impact on mortality of employees. Projections that were done for other Southern African countries suggest that widespread access to ARVs could reduce annual AIDS mortality rates by around 50% over the next decade.

No data was available to establish the current and potential scale and duration of ARV use by infected teachers in Zimbabwe. Under current circumstances, there are considerable cost and logistical barriers to widespread and sustained use of ARVs. Reductions in prices of ARVs, together with an increased commitment by development agencies to their introduction, may however change this scenario. Public sector employees would be ideal candidates for an ARV programme.

3.3.3 Summary and conclusions – HIV/AIDS impacts on Staff in the Education Sector

Despite the limitations of the projections they suggest several important conclusions for consideration by planners and policy makers.

- *HIV prevention initiatives targeted at education sector employees and trainees will remain important for many years to come.* Reducing their risk will have a significant effect on illness and mortality in future years. Even though the epidemic is probably close to a plateau in infection rates, new infections replace those infected people who die.
- Impacts seem *unlikely to be devastating in any one year at a system-wide level even if around four in a hundred teachers per year die of AIDS.* However, *cumulative impacts* on the sector, and human and social costs are likely to be substantial, even if mortality is half what is projected.

Cumulative effects may well be worsened by loss of teachers to other employment as the overall skills base contracts due to HIV/AIDS and other factors.

- *Even if levels remain at around half the projected levels, it is important to recognise that the average levels of impacts shown in projections will hide many schools, districts or other workplaces where levels may be much higher in a given year.* Impacts in particular workplaces and institutions may thus be much more severe than suggested by aggregated projections.[39]
- *The potential for death rates to increase from current levels may be significant.* While it is hoped that death rates are close to the plateau indicated by the projected dynamics of the overall epidemic among adults, the projections may inadvertently have shifted forward the timing of the AIDS epidemic. A certain degree of random year-to-year variation in levels should also be anticipated.
- *Loss of particular key or specialised staff may be particularly problematic.* Skills shortages and higher costs of labour due to HIV/AIDS in wider society in the medium to longer term may affect the ability of the education sector to replace and retain personnel.
- *Given various uncertainties, it will be important to monitor the appropriateness of assumptions used in projections and validate projections to refine planning.* HIV seroprevalence surveys should be considered, and reporting of deaths and ill health retirements among teachers and other employees should be actively monitored.

Despite uncertainties about current and future levels of illness and death among staff, it is clear that AIDS is causing significant disruption and distress in many schools and will continue to do so. Improving projections and data should not stand in the way of planning and action to prevent new infections and mitigate impacts of existing infections.

3.4 Implications for employees and education delivery

HIV/AIDS impacts on staff are clearly having a marked impact on many Districts and schools, although there is considerable variation. At all levels, a significant number of known or suspected AIDS cases and AIDS deaths were reported, along with greater use of indefinite sick leave amongst employees.

However, there is no shared perception of the magnitude of the problem. Some managers and teachers seem to deny that there are significant impacts, while others are deeply concerned by the levels that they are seeing. In part this may be due to the limited number of staff that are likely to become ill in any given time period, so many schools may not be heavily affected. The school survey, only 15% of school heads knew of HIV infected staff in their school.[40] In only 5 of 36 schools had the infected teachers disclosed directly to the head. Only 12% of guidance teachers knew of infected colleagues and all had merely surmised this through frequent illness of the colleague.

[39] In the school survey, most schools reported no deaths but 6 (2.4%) reported at least three teacher deaths, 13 (5%) had at least two deaths and 34 (14%) had had one death within a two year period.

[40] The highest proportion of heads reporting HIV infected staff were in Matabeleland North, Manicaland, Matabeleland South, and Harare/ Chitungwisa, where over 20% knew of infected staff while none of the 45 school heads in Mashonaland Central knew of infected staff.

Staff still find it very difficult to talk openly about HIV/AIDS among teachers, and particularly about their personal experiences.[41] Denial is also clearly significant. One top official, in a Region where District and other officials expressed strong concerns about HIV/AIDS deaths and illness among teachers, stated: "*As far as I am concerned, we haven't lost any people through AIDS … I have not experienced any situation that would be cause for alarm … It is the districts that would know what is happening on the ground, not us"*. In the school survey there were indications that schools that reported losing teachers tended to indicate more severe impacts of illness and death.

The impacts of illness and deaths that were noted included the following.

- *Significant anxiety and stress of infected and affected staff.* Many school and district informants noted high levels of anxiety and stress due to illnesses and deaths. Frequently noted effects were the following.
  - *Grief and loss* were noted by many informants to depress infected or affected staff.
  - *Stress of covering for sick colleagues* was widely cited and teachers reported that they are under substantial stress anyway to cope with large classes and to get good results.
  - *Fear of personal infection or illness*. Many informants indicated that fear of personal infection was a significant stress. Reports of a high level of sexual networking among teachers in certain schools were noted by some informants. This seemed to create particular stress once the first person in the network had become ill among other teachers in the network.
  - *Care of sick family members, orphans and other surviving family members*. In addition to psychological and financial stresses due to these factors within their own families, a number of teachers indicated that dealing with the problems of affected pupils and students was an extra emotional and sometimes financial burden. Certain others expressed fear of being accidentally infected through care of sick learners or relatives. Some expressed frustration with having to constantly re-teach topics as a result of many students being absent due to ill health, deaths, and household responsibilities
  - *Stigma.* Ten percent of surveyed school heads but 29% of guidance teachers felt that teachers who were infected, or from affected families, were treated differently by colleagues or the community. The most common response cited was avoiding the staff member, with around 5% of heads reporting verbal or other abuse of infected or affected teachers. In visits to districts it was apparent that some ill staff who do not have HIV/AIDS are stigmatized as having AIDS, thus further exacerbating the undesirable effects of stigma. In addition, several informants noted that infected staff became withdrawn and felt different, consistent with the problem of "self-stigmatisaton" of people with HIV/AIDS that is increasingly recognised worldwide. Others noted that stigma was a particular problem for teachers because they and others expected them to be role models.

  The general air of depression and anxiety of living in a school and broader community affected by AIDS was widely expressed. A secondary school head in Matebeleland South commented: *"We lost one teacher and one teachers' spouse so far, but almost every week we receive some bad news"*.

  Women teachers were felt by many to bear a disproportionate burden due to traditional caring responsibilities. Some also expressed fear about possible unsafe behaviour by their partners. However, several male informants reported stress related to financial burdens and formal family responsibilities including the need to travel to visit sick relatives or bereaved families. Most

[41] Only one teacher in all the schools visited indicated, somewhat indirectly, that she was HIV positive. She had lost her husband to AIDS several weeks before, the school head confirmed.

informants, at least initially, expressed the view that men and women teachers were equally though differently affected.[42]

- *Higher levels of absenteeism*. Staff absenteeism was a frequently cited problem on school visits. In the school survey:
  - 57% of school head respondents believed that staff absenteeism was a serious problem or sometimes a problem to quality of education at the school (17% serious and 40% sometimes a problem (n=209).
  - The main reasons cited for staff absenteeism were funeral attendance (47% of school heads), followed by sickness of employees (30%) and family issues (22%).
  - Heads indicated rising trends in absenteeism for all of the above causes. Increasing absence due to funerals (86% of respondents) and illness (41%) were the most prominent areas of increase.
  - Among students surveyed, only 20% had not had a teacher absent from lessons in the last two weeks. 41% had had a teacher absent for 2-5 days and 22% had a teacher absent for six or more days.
  - Absence due to sickness was cited as main reason for absence by more heads in Mashonaland Central and Matabeleland than most other regions (41% and 47%, compared to 30% overall).

- *Poorer quality of teaching by teachers who were more severely ill or affected.* Many children, colleagues and managers reported examples of severely ill teachers struggling to teach due to physical and psychological effects of illness. This reduced effectiveness of teaching, time-on-task, marking etc. In addition, some teachers who had to travel or stay up late due to illness and death in the family also were concerned about impacts on their teaching. Several expressed frustration that doctors encouraged sick teachers to come to school even though they are not capable of coping and that this meant colleagues had to step in at a later stage and re-teach several topics that the sick teacher was not able to cover effectively

- *Loss of skilled staff.* Quality staff were noted to be difficult to replace temporarily or in the longer term, particularly in remoter areas. Deaths and illness were noted to exacerbate problems related to high staff turnover in rural schools.

- *Emotional stress on children.* In several instances children noted being traumatized by having a sick teacher who deteriorated until death. One group of secondary school students noted: *"Three teachers have died so far. It really frightened us!"* Several others indicated that they grappled with complex emotions when teachers were ill, ranging from anger at poorer teaching, to guilt at feeling this, and compassion for the teacher.

- *Complications in staff allocation and distribution.* Apart from difficulties in finding replacement teachers, HIV/AIDS is reported to lead to increased movement of teachers as many sick teachers in rural schools move to urban areas with medical services, while other, often more terminally ill teachers, transfer to teach near their rural homes. Transfers were noted to have become a large problem issue in view of perceived decline in the quality of health care in many areas of the country.

Impacts on management and support functions

[42] Previous studies have noted that women in Zimbabwe bear a disproportionate share of caring burdens and may suffer greater economic disadvantage than men (Mposhere 2002). Many informants' perceptions in this study that women may be no more affected than men may reflect lack of gender awareness and accepted norms that women bear a disproportionate load which is not recognised by men and women without sensitisation

Direct impacts of deaths and chronic illnesses among managers at district and higher levels were seldom reported during fieldwork.[43] However, a number of District level managers indicated that the demands of helping schools and teachers to deal with issues around deaths and illness placed a considerable drain on their time and systems. In addition, managers indicated that the system was vulnerable to disruption if certain key managers were absent, under-performed or died. These included school heads, specialised staff, Planning Officers and Executive Officers.

Several school head and teachers reported that non-teaching staff had become ill or had died and that this was often difficult to manage. However, there was no general indication that such instances had had a significant disruptive effect on education delivery.

Vulnerable schools and functions

Many organisations have found value in prioritizing certain vulnerabilities in designing HIV/AIDS responses to make them more valuable and efficient in meeting organizational objectives. Informants and observations indicated that certain situations and work processes had greater vulnerability to disruption by absenteeism, skills loss or poor performance. These included:

- *Small schools and offices* with limited capacity for internal cover and often with less experienced managers.
- *Schools with multiple sick staff.* In schools with several staff sick or absent at one time, ensuring ongoing performance was noted to be a greater problem for delivery.
- *Remote areas and disadvantaged communities* with limited ability to attract staff and fewer local skills for temporary cover. Rural and remote schools were also noted to be more susceptible to disruption when staff were affected or even in need of basic health care due to logistical problems of attending to such matters. In addition, high staff turnover rates in rural areas were noted to make the process of relationship building and the establishment of trust among staff a challenge which complicated management of HIV/AIDS issues.
- *High workloads and small classrooms.* Both limited options to cover for absent staff.
- *Inflexible work processes*. These including those where key management decisions could not be obtained if a senior person was absent and those where there was little teamwork so that potential for cover was limited.
- *Scarce and specialised skills*. These were more difficult to replace temporarily or permanently.
- *Key "seasonal" activities* where workloads increase or deadlines are inflexible. For example, coping with absence or loss of staff was more difficult during examination preparation and when plans or budgets had to be developed.
- *Workplaces with weak general management and problem solving*. Managers noted that weak managers at school level were often less able to manage disruption.
- *Organisational culture and low morale*. In some workplaces, low morale had an impact on the willingness of staff to cover effectively for colleagues and ensure quality delivery.

3.4.1 Impacts on quality and process of education

Many informants suggested that the impacts mentioned above have significant impact on system function and quality of education in the schools and classes that are affected. As indicated

[43] No quantitative data could be accessed to assess levels of impacts among managers and support staff

As indicated, school heads felt that absenteeism was significant problem for quality of education in their school.[44] Although HIV/AIDS cannot be assumed to be the only cause of such absenteeism, it is likely to contribute substantially to quality problems over time. Many informants among students, teachers and managers indicated that continuity of learning was disrupted and learning time was lost. In several instances, informants reported that that complaints from parents or children had been received due to prolonged absence or under-performance of a teacher or school head.

In the school survey, 74% of schools indicated that if a teacher was absent, another teacher would attend to their students or pupils. In 35% pupils were generally asked to join another class. Relief teachers were also available to cover for more prolonged absences. While this indicates that schools do have ways to manage impacts on delivery, informants indicated that these measures did not necessarily preserve quality adequately. Supervision and actual teaching quality by colleagues who are covering was frequently noted to be inadequate. In addition, quality of relief teachers was noted to often be limited. Particular problems were noted for certain specialized subjects in some schools. Some of the problems are illustrated by the following quotes.

"One of our teachers is frequently sick. We miss English lessons and fail tests. Students just laugh and make noise or 'funnies' when the teacher is away, especially boys because they are not serious. There is no cooperation in our class, so we can't learn on our own"

"When an experienced teacher dies towards examination time, the school employs an inexperienced, untrained teacher who might not have interest. As a result, students fail." (Secondary school head, Matabeleland)

Previous indications from studies such as SACMEQ also suggest that the impacts reported for HIV/AIDS have potential to significantly affect quality of education and its outcomes in affected schools. The studies, for example, established that the factors that were most strongly correlated to learning achievement, in order of importance, included pupil's attendance, provision of qualified teachers, the number of books in the home, the number of exercise books provided by the school, and the provision of furniture, teacher/pupil ratio and the provision of electricity (Murimba et all 1995). HIV/AIDS threatens to impact not only on teacher availability, qualifications, contact time and continuity. Problems related to basic school supplies and equipment, which often depend on parental or SDC/SDA support and fees, also could be exacerbated as the poverty of many households and communities is exacerbated by HIV/AIDS.

Key conclusions – Effects of HIV/AIDS impacts on staff on schooling quality and processes

- *Impacts of HIV/AIDS on staff in many schools and classes is severe.* The schools that tend to be most vulnerable to the impacts on staff include small or remote schools, schools in poor communities, and those with multiple sick members of staff.
- *Management of the system above school level does not seem to have been markedly affected*. However, there is concern that loss or absence of staff with key skills or in key positions could be severely disruptive, with "multiplier effects".

[44] MOESC has explicitly recognised the importance of teacher attendance in its minimum standards for the number of days and hours of attendance and teaching.

- *It is not clear that HIV/AIDS per se is destabilizing the whole education delivery system thus far*. A relatively small proportion of schools and districts are seriously affected at any given time.
- *Cumulative impacts in terms of loss of skills, institutional memory and possibly morale pose serious threats*, although impacts in any one-year seem unlikely to be disastrous for the overall system. HIV/AIDS can at very least be considered to contribute significantly to stress and declining morale.
- *HIV/AIDS impacts tend to exacerbate disadvantages of schools in previously disadvantaged areas* such as remoter and poorer schools. In general, HIV/AIDS impacts tend to exacerbate pre-existing weaknesses and vulnerabilities of the system and seems likely to exacerbate inequities.
- *Many significant impacts may be difficult to pick up timeously from macro-level and quantitative analyses and data*. Impacts are likely to be gradual and not affect a large proportion of schools at any time.
- *Certain schools, workplaces and work processes are more vulnerable to serious effects of HIV/AIDS.* Identification and prioritisation of key vulnerabilities may be a key component of response strategy

3.5 Response analysis and ability to protect education quality

In the school survey, four main priorities for the MOESC response to needs of infected and affected teachers emerged (Table 3.4). These were mirrored in discussion with other informants. Teachers expectations of support also seemed quite low and they often expressed fatalistic attitudes. They had little awareness of the range of systematic support that employers can provide as part of HIV/AIDS responses

Table 3.4. MOESC actions required to support teachers affected with AIDS.

CHANGE	PROPORTION	RANK
AIDS levy to cater for affected teacher /loans and funds to assist	40.9%	1
Subside AIDS drugs/supply free medication	27.7%	2
Leave with full salary	16.8%	3
Improve early retirement conditions	10.5%	4
Other	4.1%	

The following sections discuss various responses by the MOESC and potential components of a response to manage HIV/AIDS impacts on staff and function of the education system.

3.5.1 HIV/AIDS policy and programmes

Workplace issues around HIV/AIDS have received specific attention at national level and various rights and obligations are regulated under Statutory Instrument 202 of 1998. This creates a legal obligation on all employers to provide HIV/AIDS education to employees. It also defines employees' rights in relation to testing, confidentiality, promotion and training, employee benefits, and sick and compassionate leave. The central tenet is that HIV infected people should in no instance be discriminated against on the basis of HIV status *per se*.

At the level of the Ministry, the needs for a systematic workplace response to prevent HIV infections and support infected and affected employees has only recently been recognised. No Education sector workplace HIV/AIDS policy and no systematic workplace programme have been implemented as yet.

The current draft MOESC HIV/AIDS Strategy takes important steps towards a workplace response. However, it remains limited in scope and does not provide the sense of a coordinated approach to dealing with the many dimensions HIV/AIDS impacts affecting employees and education delivery which have been discussed above, or the many possible components of a response to workplace issues which are discussed in following sections.

A coordinated approach is essential both to provide capacity and momentum to deal with the range of issues that have to be tackled, as well as to maximise synergy and minimise conflicts or inefficiencies between responses in different areas.

Schools that were visited generally did not have any planned and coordinated response to the problem of HIV/AIDS among staff. They tried to handle each case as it came although some had implemented responses such as a staff fund to cushion peers in times of financial need. But there also seemed to be a tendency to assume that school's problems can only be addresses through external intervention.

Recommendations – workplace policy and programme

- *Develop a MOESC workplace HIV/AIDS Policy*. This should provide a framework to guide responses to various impacts on employees and the system and be disseminated to all sector employees.
- ***Develop a MOESC workplace HIV/AIDS Programme.*** This should consider HIV/AIDS prevention and impact management in an integrated and holistic way.
- *Policy and programme development should assist in defining structures and roles* for coordinated programme development and implementation. A specific coordinator and team to guide and coordinate action is needed.
- ***Policy and the programme should focus*** in the first instance on protecting the *rights and providing care and support for staff* as individuals. Care and support systems for education staff have clear benefits for them as individuals, but also assist in creating an environment which facilitates management of impacts on education delivery. However, it should also integrate consideration of issues around *managing the impact of HIV/AIDS on education delivery*.

3.5.2 Counselling and employee assistance

As indicated in previous sections, stigma, fatalism and hopelessness affect a significant number of infected and affected education employees. A teacher association official reported that *"general knowledge among employees and managers about how to handle HIV/AIDS issues is very poor"*. A number of cases where teachers had resigned prematurely or committed suicide after finding out their HIV status and come to the attention of the Association. Behind these dramatic cases are many other employees whose well being and performance will be compromised if they do not have access to more systematic counselling and advise on employment and other issues.

Counselling is an important component of care and support for infected and affected educators**.** *Wellness or Employee Assistance Programmes (EAP)* are widely recognised as an important, coordinated way to assist infected and affected staff to deal with stresses created by HIV/AIDS. They can provide or facilitate access to counseling, advice services for issues such as life planning, pensions, medical care, disease management, nutrition and positive living, coping with stigma, and testing. Wellness and EAP's can also

provide a mechanism by which managers and planners can be made aware of the scale and types of HIV/AIDS related problems without compromising confidentiality of individual employees.

In designing a Wellness programme consideration needs to be given to some core concerns identified in fieldwork and from previous experience. Fears around confidentiality and potential for stigmatization associated with use of programmes tend to be critical considerations. Teachers and other professionals often seem to find it relatively difficult to be open with each other about and develop support mechanisms such as support groups around issues such as HIV/AIDS.[45] Thus programmes have to recognise limitations on localized and school based systems and will generally need to create opportunities to consult "anonymous" external support.

In the context of resource constraints facing the MOESC, imaginative approaches to developing an effective employee assistance system are required. Networking with other resources such as counselling services, pre-existing EAPs, medical aid, pensions and other employing Ministries and the private sector will be important to avoid duplication, allow for greater coverage and limit needs for large resources from education alone. Partnerships with staff associations seems likely to considerably strengthen such programmes to build on trust and existing ideas and initiatives. ZIMTA has been exploring the possibility of a helpline for teachers that could be critical resource.

Recommendations – Wellness programme

- *Establish a Wellness or EA Programme* to facilitate a coordinated and holistic mechanism for employees to access counselling and other support.
- *Investigate other possible sources of counselling in the interim* and facilitate employee access to counselling.
- *Ensure synergy and enable cost and capacity sharing through partnerships* with other stakeholders and resources, particularly other line Ministries and employers, and employee associations and unions.

3.5.3 Voluntary Counselling and Testing

The MOESC has not actively promoted Voluntary Counselling and Testing (VCT) among employees although it is an important component of national HIV/AIDS strategy. VCT can make important contributions to enabling employees to plan more effectively and live more positively with HIV, as well as reinforce prevention (through behaviour change among the infected and uninfected), openness and destigmatisation.

The 1999 DHS indicated that 21.5% of people with higher education had already been tested for HIV. Around 42% of those who had not been tested would like to be tested. However, 29% of those who had not been tested did not know of place to be tested. This suggests strong potential for uptake of VCT among education sector employees and for benefits of actively facilitating access to it. However, it is unclear that those who can benefit most from testing are those that have accessed VCT so far.

[45] Informants and school survey indicated that infected and some affected staff would usually disclose personal HIV issues only to one or two very trusted colleagues if they disclosed at all, and they often would not disclose to school management.

During school visits, some discussion groups raised the issue of VCT. Even teachers who seemed committed to HIV/ AIDS issues expressed fear of finding out their status, particularly as they feel that there is minimal benefit in knowing their status as support systems and medical care are limited.

Recommendations - VCT

- *Encourage and facilitate access to Voluntary Counselling and Testing* as part of the MOESC programme. However, the Ministry should ideally promote VCT in the context of clearly defined broader policy and support responses so that employees feel that they can gain something by knowing their status.

3.5.4 Prevention programmes

Education sector employees are skilled, relatively empowered people. They are thus likely to be more able than most to protect themselves from HIV infection once they recognise their personal risk. Sector staff at all levels, like most other adults, need to be empowered to develop new life skills to protect themselves from infection. They need particularly strong skills to provide information to and support for learners, and to act as role models. In addition, the higher levels of knowledge, skills and openness that can result from effective prevention programmes create a key foundation for more effective management of HIV/AIDS impacts in the workplace.

Current responses

Statutory Instrument 202 of 1998 creates a legal obligation to provide HIV/AIDS education to employees. In education, the role of employee prevention programmes is even more critical.

The adequacy of coverage and activities appears patchy. In the survey of school heads, 153 (61%) of indicated that the MOESC had provided some HIV/AIDS prevention, training or education for staff in their school, while 88 (35%) said no interventions for teachers had occurred.[46] Sixty one percent of school heads indicated that the level of preparedness of staff around HIV was excellent or good.[47] Around 60% of school heads said that condoms were available for staff but only 3% said they were available from the school.[48]

Current initiatives include programmes being developed by Zimbabwe Teachers Association (ZIMTA) in partnership with other teachers professional associations. These are based on the union education and study circle infrastructure to develop integrated HIV/AIDS modules for teachers that cover basic knowledge about HIV/AIDS and the epidemic and issues around prevention and positive living.

In visits to Districts and schools for qualitative data collection, there was widespread concern about the coverage and quality of staff preparedness as illustrated by the following comments.

[46] Heads of 133 schools said that the Ministry had either conducted or sponsored workshops attended by their staff In these schools, an average of four staff had participated in training or other workshops suggesting about a 10-15% coverage rate of teachers as a whole. The other common prevention interventions for staff were awareness posters, pamphlets or books (117 schools) and AIDS days (93). Only 10 schools had promoted VCT.

[47] Ten percent of heads regarded preparedness as poor or very poor while 24% were uncertain.

[48] These proportions matched closely with responses by guidance teachers.

"Knowledge levels about HIV/AIDS are generally high, but the more contentious area related to attitudes and real life issues of behaviour. The feeling that it can only be someone else who gets AIDS is common." Head, Secondary School

" People assume that teachers have knowledge about HIV/AIDS so nothing is targeted at them and they are actually at high risk." Guidance teacher, Harare

"MOESC has never given teachers facts on HIV/AIDS in a systematic way. We have had to go out of our way to find the information. The Ministry must begin with the teacher." Teacher, Primary School, Matabeleland

" So far there has been no real programme to ensure that infected and affected teachers have survival skills." Teacher, Harare.

"All of us need education on HIV/AIDS: how to protect ourselves, advise others and nurse our partners and others" - Teacher, Harare

In some discussion groups, informants noted that unresolved anxiety about personal HIV status (or having sick relatives) and limited knowledge makes it more difficult for them to lead learner HIV/AIDS sessions effectively or to respond to needs of infected an affected colleagues or learners. Scepticism and fatalism about the effectiveness and necessity of prevention programmes for teachers was however noted on several occasions, even among top officials: one commented *"How can you protect someone against AIDS, let alone an adult?*

In the school survey 41% of guidance teachers felt that more awareness programmes and AIDS workshops for staff were a major priority to reduce impacts of the epidemic.

An area of particular concern is the limitations of HIV prevention among teacher trainees. All teacher training colleges implemented training around HIV/AIDS from 1994. ZOU has also incorporated HIV/AIDS training into its in-service courses. An evaluation of the college programme in 1999 (Benoy et al 1999) indicated improvement in knowledge and some change in attitudes but gave very limited indications of behaviour change in response to this. It also indicated that the content of programmes had not kept up with trainees needs and new developments and that attitudes to people living with HIV/AIDS remained too negative. In this study, AIDS clubs or groups were active in several colleges that were visited. However, several concerns were noted.

- Informants indicated a significant degree of fatalism and denial, among trainees. *"Some of our peers have a negative attitudes about AIDS. They say, 'It is just like any other disease, so it doesn't matter what you die of'" – Student teacher.*
- Anecdotal reports of trainees at colleges and at University of Zimbabwe having *sugar daddies or engaging in commercial sex work* were widespread. A contributing factor was thought to be increasing poverty and reductions in student financial and other support.
- Sexual relationships between lecturers and trainees were noted. *"It is very common for lecturers to have sexual relationships with students, including Guidance/Counseling lecturers. The misconception among consenting students is that the Guidance/Counselling lecturer knows well enough about HIV/AIDS to play it safe."* – Lecturer, Teachers' College.
- HIV/AIDS training often tends to be focused on teaching skills rater than dealing directly with the susceptibility of trainees themselves. In addition, messages of training and clubs were noted to miss key target audiences. *"When your message is abstinence and maintenance of virginity, those*

who have already 'crossed the line' feel that the message is irrelevant, and will not listen to your message." – Student Teacher.

- In a couple of schools visited, students indicated that recent graduates who were actually involved in school HIV/AIDS activities were harassing female students or were known to be poor role models for safe sexual behaviour.

Recommendations – HIV prevention among education staff

There are strong indications that teachers and new teacher graduates are inadequately equipped to protect themselves and play an optimal role in prevention and support in the school environment.

When the suggestion of life skills programmes targeted at teachers themselves was raised in a number of discussions with teachers or managers, this received considerable support.

The following recommendations are made.

- *An aggressive HIV prevention programme targeted at educators, trainees, and other staff should be seen as a critical priority for the MOESC and MHET.* The goal should be 100% coverage with time.
- *To ensure success, programmes must be holistic in scope and build on a clear understanding of critical success factors* for workplace prevention programmes and best practice experience worldwide. They should reinforce basic knowledge about HIV/AIDS risk and its impacts, address life skills and empowerment to enable staff to protect themselves from infection in their own relationships, and deal in depth with issues such as stigmatisation, living positively with HIV/AIDS, and care and support.
- *Current initiatives to train managers in HIV/AIDS issues should be strengthened to ensure leadership support for programmes*
- *Address systemic risk factors related to employment and training* as far as possible. These include quality of accommodation and work away from spouse or other regular partners.[49] In the school survey reducing separation of spouses was seen as the top prevention priority by 57% of guidance teachers. Pay specific attention to economic and social situations (including allowances and meals) of teacher trainees which seem to be associated with sugar daddies or commercial sex work.
- *Support partnerships with ZIMTA and other stakeholders to build teachers' knowledge and skills* in relation to HIV prevention and impact mitigation.
- *Ensure reliable condom access in schools and training colleges*. This is likely to be a particular priority in more remote schools with limited alternative condom access.

3.5.5 Medical Aid and health care

Health care can play a major role in managing impacts of employees and on system performance. Psychosocial support, early treatment of minor infections, preventive treatment against infections, and effective early treatment of TB in particular, can have major benefits for infected staff, although they have limited ability to extend survival. Antiretroviral drugs are the most effective way to reduce illness and extend the lives of people with AIDS but cost and infrastructure to deliver ARVs are major challenges.

[49] Ministry policy has recently emphasized the desirability of posting married teachers to the same location but implementation of this policy is often difficult in practice.

From a system perspective, availability of effective health care is important not only to improve productivity and avoid premature loss of staff, but is critically important for morale of infected and affected staff. Improved health care for staff with HIV/AIDS was frequently noted as a priority issue by informants in schools and higher levels. In the school survey, subsidized medication and AIDS drugs were the second most frequent suggestion, made by 28% of guidance teachers, on how the MOESC should assist teachers affected by AIDS.

Education sector employees have the option to secure medical cover from a medical aid society of their choice. Government pays 60% of membership contributions. Most employees are members of the Public Services Medical Aid Society (PSMAS) with some being enrolled in CIMAS. Precise statistics on enrollment and coverage as a percentage of teachers or education sector employees could not be provided but seem likely to be in the region of 35-55%.[50] PSMAS membership has been increasing due to active marketing and greater demand thought to be driven by HIV/AIDS and greater accessibility of hospital services.

Most teachers who are members of PSMAS the Main option, with higher income officials opting for the Premier option. Some employees take the less expensive Primary plan. Cover under the schemes is generally quite comprehensive in scope.[51] Doctors, hospitalization, tests and X-rays are full covered. Other important aspects of HIV/AIDS and particularly terminal care (e.g. Home Based Care, terminal nursing care, psychology and social worker services) are covered but subject to limits. PSMAS is also intending to offer a funeral insurance plan.

The main areas of vulnerability associated with these schemes are the following.

- *General cost inflation is already a major issue for schemes.* Although the Main plan has lower claim rates because many members are located in rural areas with little access to private care, PSMAS has noted a major increase in hospital utilisation, and HIV/AIDS is thought to be an important contributing factor. The cost of medicines in Zimbabwe rose by 288.6% during 2001 (CSO, 2002).
- *Financial limits on a number of benefits* leave members without cover when this may be cost effective and necessary. Administrators indicate that most members exhaust their annual benefits.
- *Limits on prescription medication* raise particular problems for people with chronic illness, especially given high prices of imported drugs
    - *Sustained combination ARV treatment is effectively unaffordable* to most members unless they pay substantial amounts out of savings or income.[52] Co-payments and non-reimbursable drug costs were reported to be a significant problem for many education and other employees. Taking ARVs intermittently or not in combination is likely to have limited effect on survival despite high costs, and risks creating resistant viruses with serious public health consequences in future.

[50] Medical aid managers estimated that around 40% of public sector employees were members of PSMAS. Teachers could have higher or possibly lower enrollment rates than average, for example if they are better paid, or alternatively younger and healthier, than the average public servant.

[51] Benefits are described as for January 2001 member benefit schedules.

[52] Annual limits of $ 4400, $14 400 and $ 23 000 for the Primary, Main and Premier plans respectively were too low to cover combination therapies that are currently available on the market in Zimbabwe. At 2001 prices, combination therapy even with substantial discounts negotiated by some countries would probably cost in excess of Z$ 40 000. Recent announcements of ARV therapies priced at US$1 per day in some countries would potentially be affordable at the official exchange rate but it is uncertain whether such options will be available to education employees in the near future.

- *Schemes have limited or no active management of HIV/AIDS or other care.* HIV/AIDS is a complex disease and many providers and patients may make poor decisions about care options. Unless decisions on care are guided by good policy, information and review, this can mean that available benefits can be inefficiently used and members who start treatments that are not financially sustainable can die destitute. PSMAS has been upgrading its information systems but has limited information to guide strategy. It has paid limited attention to routine tracking HIV/AIDS impacts although it should be possible to track much of the HIV/AIDS utilisation and impacts on costs and mortality and compare education employees with other members in future.
- *Co-payments and limits for general practitioner visits* may create barriers to early treatment for members. Accessible primary care (by GPs or nurses), rather than specialist HIV/AIDS care, has been shown to be both feasible and cost effective in a number of settings by limiting needs for expensive hospitalization.

Cost implications.

HIV/AIDS care is generally needed by adults in age groups that traditionally had few health problems. This new burden and the chronic nature of the disease can result in substantial increases in medical aid costs. PSMAS was not able to provide data on current or projected costs of HIV/AIDS for medical schemes. Previous CIMAS studies have suggested that HIV/AIDS poses a significant threat to future scheme sustainability.[53]

Lack of data on education sector employees, cost structures and medical scheme membership profiles made it unfeasible to explore costs and sustainability of HIV/AIDS care for education employees in this project. Assessments done for various companies and public service employers in the SADC region suggests that *medical aid costs for ARV or non-ARV care tend to be the largest or second largest potential financial cost to employers.* ARVs pose a particular cost complication as successful treatment results in an accumulating number of members on expensive medication, with result in increases in medical aid costs. Factors such as fee-for-service reimbursement, costs of imports and high general inflation expose Zimbabwe's medical aids to high cost inflation.[54]

However, studies also suggest that a reasonable quality of care for people with HIV/AIDS is often more affordable for medical schemes than might be assumed especially if benefits are well managed. Furthermore, overall cost impacts on *employers* may be limited either because medical benefits shrink to cope with cost increases, or if fewer employees enroll as medical aid cover becomes less affordable over time. This would however have knock on costs for individuals and could have indirect costs in terms of education delivery and quality.

Recommendations

Strengthening medical aid access and cover will be a critical component of successful management of the impacts of HIV/AIDS on employees and the education system.

- *The MBESC should urge other Ministries, including Finance, and NACP to systematically develop strategy towards medical aid cover for public servants with HIV/AIDS.*

[53] Previous estimates by CIMAS indicated that meeting claims of only one percent of beneficiaries with AIDS, even without ARVs, could add 31% to medical aid expenses (Southern African Economist 1997).

[54] Schemes that do not rely on private sector providers are protected to some extent – many of the lower benefit schemes rely primarily on public sector services.

- *Specific attention should be paid to the potential to access affordable ARV drugs* and developing effective delivery systems for key groups such as teachers. They are a major national asset, have good prospects of successful adherence to treatment and good potential to participate in cost sharing arrangements.

- *Pressure should be exerted on medical schemes to provide relevant costs and utilisation data and projections, as well as specific proposals on improving access, effectiveness and affordability of HIV/AIDS care.*
- *At all levels, discussion with the MOH should be pursued to ensure the most efficient possible treatment of education staff who do not have medical aid cover*. In many situations this will be critical to maximize staff well being and ensure coordinated strategy to minimize disruption of education system function.

3.5.6 Pension benefits and medical Boarding

HIV/AIDS raises several important issues around pension and death benefits. How will increasing claims on benefits affect costs to government and to scheme members? Are benefits structured to provide adequate benefits to infected and uninfected members, as well as their dependents, to meet their personal needs and broader social goals? Do the benefits help to manage impacts of HIV/AIDS on the function of the education system?

The State Services Pension Scheme that covers education sector employees is a defined benefit scheme.[55] Claims are funded out of general government revenue on a "pay-as-you–go" basis. However, plans are being developed to restructure it and convert it to a pre-funded scheme. Government and employees each pay half of the monthly contribution (15% of salary).

The structure of benefits is largely orientated to providing good benefits for people who take normal retirement rather than the new situation where increasing numbers of younger members are ill or die of AIDS. However, benefits include death in-service pensions for spouses and children under 18 for employees who have completed more than 5 years of service, and a lump sum gratuity for those with shorter service. Ill health retirement is limited to a lump-sum gratuity for the first five years of employment and a pension thereafter. Pensions are linked to years of service and final salary. Polygamous spouses share one pension and children's pensions decline for employees with more than 5 children. Recent reforms provide spouses with the same pension whether the employee dies in service or in ill health retirement. Funeral assistance is provided only for members aged over 55.

Cost and sustainability implications

HIV/AIDS causes increased levels of claims by members who would traditionally be expected to have been healthy and continue contributing to pensions. The scheme already reports that death in service and ill health retirement are already the leading causes of pension payouts, rather than normal retirement. The cost implications of HIV/AIDS for the MOESC are complex to determine and would require a full actuarial evaluation. Not only are the costs linked to the risk of the broader membership pool beyond education, but cost implications of increasing claims by young members are not self evident. For example, depending on benefit structures and employee profile, death at a younger age may reduce future liabilities for more generous pensions. And even if the overall long term costs of the fund are sustainable, in the short term cash flow problems may require contribution increases. In the short term however, the

[55] This means that beneficiaries are given defined benefits under various conditions rather than simply the returns on their own and employer contributions as in a defined contribution scheme.

fund has recently performed a sustainability analysis that indicated needs for certain changes to ensure sustainability as claims are exceeding income for a number of reasons.

A full actuarial valuation of the implications of HIV/AIDS and other factors and to inform options for restructuring has been put out to tender by the scheme but has not yet been completed. This should provide a clearer indication of costs to expect.

Ability to meet member and dependents needs and reduce HIV/AIDS impacts on education provision.

Several problems in relation to pensions were noted.

1) Structure of benefits

- Ill health retirement pensions, at 60% of final salary, are very limited for households dealing with a terminal illness. They are reported to often be exhausted by costs of care and drugs. Limits of ill health and death benefits are particularly acute for younger staff with short periods of service, who may also have younger dependent children. The situation is even more acute for staff with less than 5 years service.

It is widely accepted that the result is that ill employees have an incentive to stay in service as long as possible. As one manager put it: *"many pensioners with AIDS die early, killed by the fear of looming poverty. They don't sleep because of worry about their children's future"*.

2) Boarding procedures

- Medical Boarding for ill health retirement is inefficient. Delays are caused when Education and other Ministry managers or officers fail to follow correct procedures, and also because of logistical difficulties in accessing the Boards which are located centrally in each province.
- In some cases Boards have been noted to make inappropriate decisions leading to premature or delayed Boarding. The former waste expertise and can have negative psychological implications for employees who lose the fulfillment of work. The latter have negative implications for education provision, MOESC costs and well being of employees.
- Reemployment of teachers who have been medically boarded is difficult. This increases tendencies for people to avoid Boarding. It also creates potential to lose the skills of any people who retire prematurely and subsequently recover sufficiently to resume teaching.

3) Other issues

- *Many teachers, particularly in rural areas, do not have a good understanding of the benefits* that accrue to them under the scheme. This means they cannot make informed decisions about taking ill health retirement.
- *Claims processing by the fund is slow.* After correct submission of claims it takes 3-5 months before they are paid out. This has negative effects on members and their dependents.

Recommendations – Pensions and Boarding

- *Track closely any emerging information on expected costs of pensions and changes to pension structures.*
- *Actively engage in debates around restructuring benefits and urge consideration of structures that reduce impacts on employees and MOESC function.* One option that may well be affordable is to give Boarded employees a short period (3-6 months) of pension at full salary immediately after retirement. This would reduce employee incentives to stay in service after they are incapacitated
- *Reinforce efficient processing of claims and Boarding procedures.*

- Actively support and encourage pension fund initiatives to train personnel and other staff in pension issues and support dissemination and use of guidelines that are to be released by the fund
- *Liaise with the MOH* to investigate potential to increase efficiency of Board processes. The fund reports that the MOH has developed ways to process its own employees applications more efficiently than in other Ministries.
- *Assist with dissemination of information* about pension entitlements to members
- *Support initiatives to make sure that staff have their beneficiary details up to* date to speed up payment of dependent benefits.

3.5.7 Sick leave and absenteeism management

In addition to normal vacation leave, teachers have an annual entitlement to 90 days sick leave on full pay and then a further 90 days on half pay subject to a medical board opinion that the person will be able to resume duties. Surveyed school heads indicated that around 2% of staff were on long-term sick leave in mid-2001, with a range from 0% to 50% of staff between schools, and up from 1.5% in 2000 and 1999. Special leave on full pay, which is used for urgent private affairs such as funerals, is formally capped at 12 days.

There were very widespread reports by informants that management of ill health and disability are inadequate in the MOESC system. Most frequently the concerns are that teachers remain in position or on long-term sick leave when they are already incapacitated and needed permanent replacement if negative implications for pupils and colleagues are to be avoided. This has negative implications for infected staff, who work well beyond the time when they are severely ill with negative physical and psychological impacts.[56] In some other cases poor management had negative impacts on ill employees because managers handled their cases insensitively, because of uncertainty about how they would be treated or because they were encouraged to be Boarded or take long term sick leave too early.

The financial problems of pension entitlements and Boarding have been discussed above. They are reiterated by the school survey results that the third and fourth most common suggestions on ways for the Ministry to improve support to employees affected by AIDS were to extend leave on full salary (16.8%) and improving early retirement conditions (10.5%). However, it is also clear from discussions with school heads and other managers that many have difficulty enforcing application for ill health retirement because of unfamiliarity with procedures and emotional stresses of dealing with hard issues within the school community. Some complexities of managing sick leave are illustrated by the following quotes.

" Many want to die in service and go on until they collapse in service as disclosure invites Boarding." ZIMTA official

"Young teachers, in particular, are reluctant to be Boarded, so they get letters of fitness from their doctors just before the 90 days [sick leave on full pay] expire." DEO Mashonaland Central.

" There is a tendency to write off people with signs of HIV/AIDS. They have a future and should be used better even if for lighter duties." Teacher, Harare.

[56] A number of school level informants teachers indicated that retirement should be early enough to prevent staff going through the embarrassment of having to go to classes when they had "classical" symptoms of AIDS.

In addition to sick leave, many managers are clearly having difficulty managing funeral an other private affairs leave, as confirmed by school survey findings mentioned above.

Recommendations - Strengthening management of absenteeism and ill health.

- *Initiate a review of sick leave entitlements.* Strongly consider reducing the routine amount of sick leave entitlements to ensure that an employee's health status is confronted and active management of ill health absenteeism begins before negative impacts on learning and the individual. This should not preclude the ill employee from continuing to teach if they are not permanently incapacitated, and granting of further special sick leave should be possible after further, structured review.[57]
- *Ensure efficient function of the medical boarding system (see also under Pensions).*
- *Strengthen supervision and support of schools to identify and assist in management of ill health and other absenteeism.* This is likely to be particularly important in rural areas where supervision and support is often limited.
- *Consider review of leave entitlements, arrangements and practice around funeral attendance and other family matters.* More prescriptive regulation of compassionate leave may be warranted. In several countries with more advanced HIV/AIDS epidemics traditional norms around funeral attendance policies have had to be altered to preserve functions of government departments.
- *Coordinate with the pension fund to ensure ill health retirement processes are efficient and that pension entitlements do not obstruct timely ill-health retirement.*
- *Provide school and other managers with training, guidelines and support* that enable them to manage the emotional and other complexities of ill health management more effectively.
- *Consider possibilities for refining perfomance management systems to assist in managing sick leave*. Performance assessment and management tools can be useful to establish a more objective basis for decisions on when teachers and other staff can be considered unable to continue working. However, systems have to be sensitive to quite rapid declines in function, as well as potential for recovery from illness as HIV/AIDS can have a fluctuating course and severely ill people e.g. with TB can stage remarkable recoveries.

3.5.8 Cover for absent staff

Relief teacher systems are increasingly recognised as a key tool in managing absenteeism and delays in appointments to ensuring continuity and quality of learning and limit stress on colleagues. In the school survey 85% of informants recommended greater flexibility to appoint staff temporarily or permanently as the key change needed to cope with illness and absence of teachers. 20% of schools indicated that they had one or more vacant post, with levels up to 25% in Matabeleland South and as high as 33% average for mission and mining area schools. Relief teachers are already a significant proportion of the teaching workforce. For example, most untrained secondary school teachers (7.4% of teachers in 2000) are relief teachers An informant reported that in one District, 27 teachers had been absent for a period of three months without being replaced.

Cost implications

Projections suggest that the cost of relief teachers to cover for HIV/AIDS ill health absenteeism is unlikely to be completely unaffordable if the system is well managed. Even if it is assumed that the costs

[57] This type of arrangement has been negotiated with unions in South Africa.

per person with AIDS on average are equivalent to between 60 and 135 days at the full average salary for teachers, the cost of cover for those days would amount to an additional 1.2 –2.7% of the salary bill for teachers. [58] Projections suggest that this figure seems unlikely to rise further over the decade as death incidence is close to a plateau. Thus if sick leave use is managed down to reasonable average levels and availability of relief teachers is not abused for other reasons, the extra cost should potentially be a sustainable part of strategy to reduce impacts on the learning process.

System limitations

Informants suggested that there are a number of *deficiencies in the relief teacher system*. The most common complaint was that relief teachers are inadequately qualified to provide quality teaching. Particularly in rural areas relief teachers are less skilled and more skilled teachers need to spend a significant amount of time guiding and supporting them to ensure reasonable standards. Adequate relief teachers are not readily available in some of these areas, leading to delays. This is compounded by chronic shortages of skilled teachers and high turnover of these and relief teachers in some rural areas. The net results are disrupted learning and stress for colleagues who provide informal cover.

Deficiencies of the system and likely fiscal constraints in the short term suggest that both refinements and complementary strategies to the relief teacher system should be considered.

Recommendations – cover for absent teachers

Relief teachers systems should be adapted and complemented to be more responsive to higher levels of absenteeism and also the shorter-term, unpredictable and intermittent absenteeism associated with HIV/AIDS. Strategy should also be considered to boost skills of relief teachers. In addition, changes to teaching methods and processes may need to be considered to reduce impacts of inadequate relief.

- *Consider development of more stable pools of relief teachers to enhance availability and quality.* Incentives to increase reliability and reduce turnover of relief teachers include more structured career development paths towards permanent positions, creation of greater opportunities to participate in in-service training and changes to remuneration.
    - *Consider developing targeted strategies for disadvantaged areas*
- Consider use of *distance learning materials and aids* such as radio or alternative teaching methods and processes (eg large class teaching skills) to facilitate learning with more limited teacher capacity. In some countries students have been known to use nonformal education materials voluntarily and in case of teacher absence they can continue learning with supervision from relatively unskilled staff or community members.
- *Encourage effective succession planning* to ensure colleagues or relief teachers are prepared to take over teaching with limited disruption.
- *Monitor performance and costs of systems* such as informal cover, secondments, temporary appointments and use of relief components to ensure effective and equitable systems and application in practice

[58] This assumes that the average absent teacher with late stage HIV/AIDS will take between 60 days at full pay before retirement or 180 days sick leave of which half is at 50% pay.

3.5.9 Recruitment, appointments and deployment

Efficient recruitment, transfer and appointment systems become more important due to AIDS because of higher levels of attrition among staff. Projections suggest that attrition rates due to AIDS deaths alone could reach around 4% per annum. Even if rates are only half of this level, it would be a substantial rise above the recently recorded attrition rates among MOESC staff which were 1.3% (1999) 4.2% (2000) and 6.14% (2001) from all causes.

In addition to the baseline attrition contributed by AIDS deaths and ill health retirements, rates of transfers between schools and offices also increase. In many cases teachers who are ill are noted to try to move to schools in urban areas to be closer to better medical facilities. Staff with more terminal illness were also noted to tend to try to move to areas closer to their families, often in rural areas, although some are boarded before this happens. Other staff were noted to seek transfers to be closer to ill spouses or relatives. [59]

As indicated above a large proportion of schools (20%) report that they have vacant posts. In interviews it was noted that new teacher appointments often take 2-3 months and for school heads in some rural areas replacement could take as long as 3-5 years. While such delays do not add to financial costs of the MOESC, they can have substantial hidden costs in terms of education quality.

Overall therefore, HIV/AIDS seems likely to add a substantial and ongoing burden on systems for recruitment and appointments. Monitoring and active management of staff turnover and efficiency of processes is therefore likely to be important.

Teacher *deployment and allocation systems* have been a source of ongoing concern in the MOESC. Centralised systems of deployment and allocation have been replaced with flexible systems including voluntary exchanges or "swapping" by teachers.[60] There is ongoing concern about the equity of teacher allocation as well as high turnover rates particularly in rural areas. HIV/AIDS introduces new complexities to teacher allocation issues. Some schools appear to have disproportionate numbers of sick and potentially under-performing staff, and illness-related movements and deaths of staff have potential to exacerbate inequitable distribution.

Recommendations – appointment, transfer and deployment

- *Monitor adequacy of current staff allocation, deployment and transfer arrangements.* Review of arrangements may be warranted in view of HIV/AIDS and other considerations.
- *Pay ongoing attention to ways to enhance efficiency of recruitment and appointment processes.* Particular consideration should be given to efficient appointments to key managerial or other positions where processes can be slow and implications for system function more severe.
- *Consider issues such as housing and other incentive to ensure equitable distribution of teachers and streamline transfer and redeployment,* particularly for rural and remote schools.

[59] Ministry policy is to try to facilitate moves based on such needs.

[60] In terms of regulations, transfer even without the approval of a staff member is permitted.

3.6 Skills losses and teacher training requirements

Short term skills shortages due to absence or death of staff were widely reported from school through to MOESC level. In the longer term, HIV/AIDS creates potential for exacerbated skills shortages through cumulative effects of deaths. People with AIDS are often at stages in their career when they have accumulated substantial skills and would be candidates for managerial and leadership positions. Loss of existing and future managers and leaders not only has direct implications for skills availability but also has indirect implications through loss of capacity for mentorship and informal skills transfer. HIV/AIDS in the region also has potential to create higher costs of labour in the wider economy in the medium to longer term. This will affect the ability of the education sector to replace and retain personnel.

Responses to ensure availability of skills and avoid disruption and discontinuity when an employee or manager becomes ill or dies can include:

- *Prevention programmes to avoid future skills loss.*
- E*ffective treatment*s.
- *Replacement of lost skills through training and recruitment.*
- *Management of knowledge* that helps to keep the system functioning, and strengthening ways to disseminate this knowledge;[61]
- *Changing work organisation.* Examples include: sharing capacity across clusters of schools; specific job redesign with redistribution of less skilled tasks to less skilled staff; teamwork; and multi-skilling; and modifying systems to reduce the load of routine, unproductive work, in order to increase overall efficiency and reduce need for as many skilled staff
- *Career development and succession planning.* Career development involves identifying and supporting staff with particular promise of being able to develop and provide the relevant skills.[62] Succession planning involves ensuring that when a key skilled person is identified as being ill or likely to leave, a successor (or successors) is identified to develop the skills to fill their role (see Flint Taylor 2001).

Replacement strategies (i.e. increased training output) can involve substantial cost. In addition, unlike some of the other strategies they have limited potential to actually enhance performance relative to existing levels or deal with problems of institutional memory and "soft skills" which are difficult to teach in conventional training. Zimbabwe is therefore likely to have to consider a mix of these strategies.

Teacher training requirements

To date, teacher training in Zimbabwe has not been guided by specific modeling of teacher output requirements. HIV/AIDS introduces complexity to teacher provisioning planning due to higher rates of teacher attrition and due to reduction in the potential number of children requiring education over time.

[61] Appropriate mechanisms may, for example, include: skilled delegation to build experience; meetings to keep a team up to date and familiar with a broader range of issues than those with which they deal directly; use of cc email to keep people updated on developments in other areas; and systems for ensuring key documents and records are accessible. Effective systems disseminate not only information but the "softer" skills and knowledge gained from experience and soft skills.

[62] Of note, seniority rather than skills and aptitude, was reported to be a dominant factor determining promotions in the sector at present.

In the absence of reliable data to project likely impacts of HIV/AIDS on the teaching workforce and establish other key indices, detailed reliable modeling is not feasible. However, certain broad indications may guide further action

Total projected teacher deaths between 2001 and 2010 are estimated at around 30 000. If annual attrition of teachers from other causes is assumed to be 2% over the period this would result in a requirement for an extra 20000 teachers, resulting in need for a total of 50 000 teachers for replacement purposes. Although projected numbers of potential learners aged 5-19 are projected to fall by around 6% from current levels, it seems risky to assume that there will be any lower demand for teachers due to uncertainty about projections and the likelihood that much of the fall would result in lower class size rather than fewer classes. Based on teacher training college and University education enrollments for 2000, the total output of teacher training at current levels would be expected to be in the region of 50 000.

Subject to major limitations, these estimates suggest that Zimbabwe's current teacher training capacity could be stretched to meet needs for new teachers to maintain current levels of quality and access. Furthermore, they do not give an indication of possible shortages of teachers at different levels in the schooling system or specialist fields.

The estimated costs of training replacements of 30 000 teachers lost to AIDS over the decade through teacher training colleges would be expected to be in the region of $ 11 000 000 000 in 2001 prices.[63] Much or all of this could however, based on the above estimates, be absorbed within current college allocations.

Overall, available information suggests that planning of teacher provisioning deserves further, focused attention by the MOESC and MHET as a matter of some urgency.

Recommendations – Skills losses and teacher training capacity

- *Develop more sophisticated estimates of the number of teachers required to maintain progress towards quality and access targets.*
- *Develop a specific capacity development strategy for teaching, management and other skilled staff in the education sector* which considers HIV/AIDS impacts. Consider the full range of replacement and other potential strategies to address skills losses and avoid prematurely limiting the range of options. Attempt to identify the most feasible and cost-effective options, as well as those that can actually enhance sectoral performance independent of their role in countering HIV/AIDS impacts.
- *Review the content and structure of current pre- and in-service training.* Identify ways to ensure flexibility to meet needs for capacity and skills more urgently. This may require clearer definition and prioritisation of key competencies and skills sets, including essential knowledge and "soft skills" required to maintain various functions and quality of teaching.
- *Reinforce strategies to create systems, practices and incentives for sharing of capacity and use of existing skilled staff to disseminate practical knowledge* gained from experience and institutional memory. Options may include programmes under BSPZ, study circles and other mentoring systems.
- *Consider greater emphasis on management skills in training* to equip more staff to take on management roles in view of attrition among current and future managers.

[63] Based on 2001 budget estimates for Teacher Education and 2000 enrollments.

- *Consider multi-skilling approaches* to ensuring resilience of delivery. This includes consideration of whether high degrees of specialisation are more desirable than focus on generic skills that increase ability to cover for absent colleagues.
- *Consider which systems other than training may enhance efficient use of any available capacity and reinforce knowledge transfer.* This may include e.g. improved communication systems or systems to reduce unnecessary bureaucratic procedures and routines.

3.7 Overall recommendations – ensuring capacity to delivery quality education

HIV/AIDS is an important challenge to the ability of the education sector to deliver education to all children and to respond the needs of employees as the nation's largest employer. HIV/AIDS will be remain an important issue well beyond the end of the decade. Key policy, planning and management recommendations for consideration include the following:

11) ***Develop a workplace HIV/AIDS Policy and Programme.*** These are a priority to guide action and allocation of responsibility across role players, and to ensure an integrated approach to the range of issues to be considered. They should consider HIV/AIDS prevention and impact management in an integrated and holistic way. Impact management should focus in the first instance on providing care and support to staff as individuals, but should not exclude consideration of issues around managing the impact of HIV/AIDS on education delivery.

12) ***Prioritise effective HIV prevention among educators, trainees, and other staff.*** Education sector employees should specifically be targeted and the goal should be 100% coverage with time. Major spin-off benefits of synergies with learner prevention and support are likely, including ability to act as role models.
    - *Programmes should be holistic in scope and build on a clear understanding of critical success factors for workplace prevention programmes.*
    - *Structural risk factors related to employment should be addressed as far as possible*. These include quality of accommodation and work away from spouse or other regular partners.

13) ***Strengthen Care and Support for Educators.*** This will have clear benefits for them as individuals, but also create an environment which facilitates management of impacts on education delivery.
    - *Establish a Wellness or Employee Assistance Programme (EAP)* to provide access to counseling, advice and services for issues such as life planning, disease management, nutrition and positive living, coping with stigma, and testing and counseling. Partnerships with staff associations and other sectors may considerably strengthen such programmes.
    - *Strengthen medical aid cover.* Systematic attention should be paid to improving the adequacy and efficiency of medical aid cover. The current system has major limitations. Adequate care for employees not on medical aid should also not be neglected.

14) ***Review pre- and in-service training.*** Training will play a critical role in reinforcing prevention and impact management strategy. In-service training is likely to be increasingly important to supplement skills of new and existing educators.
    - *Aggressively promote effective prevention programmes for trainees.* This is likely to be one of the most cost-effective approaches to HIV/AIDS in the longer term. Many staff are probably infected before they join the teaching service. Programmes should include skills for managing of HIV/AIDS impacts on staff and learners.

- *Develop more sophisticated estimates of the number of teachers required over the coming decade.* This is a critical to ensure ongoing delivery.
- *Review the structure and content of training* to ensure efficiency and create flexibility for more rapid training of teachers. Course duration, structure and content may warrant modification. Greater emphasis on *management skills* may be required. Other issues for consideration include review of approaches to specialised training to accommodate loss of specialist subject teachers.

15) Strengthening management of absenteeism and ill health. Several issues need strong consideration and should be approached in a coordinated manner.

- *Review sick leave entitlements.* Strongly consider reducing the routine amount of sick leave entitlements to ensure that an employee's health status is confronted and active management of ill health absenteeism begins before negative impacts on learning and affected individuals. This should not preclude the ill employee from continuing to teach if they are not permanently incapacitated, and granting of further special sick leave after assessment, with further structured review. Leave entitlements and systems around compassionate leave for funerals or family matters should also be reviewed and monitored.
- *Strengthen relief teacher and other systems to cover for absent staff.* Relief teachers systems should be adapted to be more responsive to shorter-term, unpredictable and intermittent absenteeism and to boost skills of relief teachers. Development of pools of relief teachers, career development planning and new budgetary mechanisms may be appropriate.
- *Streamline medical review and disability management* processes to ensure fair, timeous assessment and review.
- *Coordinate with the pension fund to ensure ill health retirement processes are efficient* and that pension entitlements do not obstruct timely application for ill-health retirement.

16) Strengthen other HR management systems and capacity.

- Training to build confidence and competence of line and HR managers in basic human resource management and development will help them to deal with many of the impacts of HIV/AIDS in addition to improving general system performance.

Specific systems that need to be strengthened and possibly modified including the following:

- *Effective succession planning* to facilitate skills transfer and avoid unnecessary delays in appointments will be key to reducing service disruption due to absence or death of staff.
- *Efficient recruitment, appointment, deployment and transfer systems and practice*. Incentives and other systems need to be considered to fill key managerial and technical posts as well as vacancies in remote or "unattractive" schools. Consider strategy to avoid or manage situations if certain schools or workplaces have disproportionately large numbers of ill staff.
- *Other innovative means of skills sharing and transfer.* These include teamwork approaches and improving communication.
- *Performance appraisal systems,* to ensure fair assessment and management of incapacity among infected staff.

17) Review Employee Benefits. The MOESC should actively engage with other relevant Departments, stakeholders and specific funds to review medical and pension benefits. These should be structured to meet massive new HIV/AIDS related needs of employees and their dependents, as well as education delivery requirements, in an affordable and cost effective way. Processes to inform employees of their benefits and streamline ability to access them should be reinforced.

18) ***Identify vulnerable workplaces and work processes for targeted attention.*** The MOESC should, at all levels, undertake a systematic review of which workplaces and work processes that are most vulnerable to absence or loss of staff due to HIV/AIDS and develop plans to target these.

19) ***Improve Information.*** Many aspects of HIV/AIDS impacts on the education system capacity remain unclear and better information is required. Key issues for consideration include:
    - *Active tracking of illness, death, and absenteeism*.
    - *Qualitative information to supplement routine quantitative information systems* to obtain clearer understanding of the functional implications of HIV/AIDS.
    - *District, circuit and institutional level analyses* to identify impacts that may not be apparent from aggregated data.

20) ***Capacity and coordination of employee impact management.***
    - *The Human Resource Division should take a major role in developing the HIV/AIDS policy, programme and review of conditions of service.* The process will require dedicated capacity as well as involvement of stakeholders such as the Staff Advisory Committees.
    - *Ensure coordination with other stakeholders* such as the PSC, MOH, MHET, Employee Associations and Finance as key stakeholders in many areas.

4. Implications for education sector components

A number of the HIV/AIDS issues raised in the previous sections which primarily dealt with primary and secondary schooling, also affect other components of the education system. Proposals for various interventions i.e. prevention, OVC support, are more often than not, inter-linked with strategies/priorities for other divisions and units. Coordination between schools, divisions and units at all levels particularly the local level, is likely to evoke a greater sense of ownership for HIV/AIDS interventions across all components of education. It is also likely to make responses more effective, feasible and sustainable given capacity constraints and possible economies of scale.

In particular, *all components have to give priority to considering the impacts of HIV/AIDS on staff and delivery*. Enhanced co-ordination across sub-sectors is mandatory in order to develop an effective and coherent workplace programme. The various components of education are more likely to succeed in tackling HIV/AIDS related issues if there is a sharing of resources, and experience across board. components are less likely to succeed All responses aimed at mitigating impacts at the individual or group level must give sufficient consideration to general system weaknesses. Priority to should be given to addressing and managing impacts that are likely to further compromise system functions.

The following sections discuss specific impacts and implications of HIV/AIDS for components of the education system other than schools.

4.1 School Psychological Support Services (SPS)

Schools Psychological Services (SPS) is one of the Ministry's strongest components. Although SPS faces capacity limitations, it has a network of services across the entire country, with trained officers at each of the 57 District and 9 Regional Offices. Together, they have a wealth of experience in developing materials and programmes to support children with special needs including guidance and counselling.

Findings from the District visits indicate that the bulk of children who are brought to the attention of SPS, are largely those who have physical and mental handicaps. It was clear that there are a large and growing number of children who have undergone intense emotional pressure, and who have suffered varying levels of emotional trauma for various reasons including the loss of a parent or parents, or being abused. The MOESC should consider ways to utilise the services of SPS more effectively at all levels in responding to the needs of vulnerable children.

The following recommendations are made to complement the Divisions operational plan.

Recommendations:

- *Provide expertise for capacity building around OVC identification and support.* SPS could provide input into HIV/AIDS programme planning and management, training of teachers on OVC support and assisting schools in identification and management of vulnerable children, rather than waiting for referral at a time when children are severely stressed and manifest "discipline problems".

- *Provide expertise in the development of resources (materials, books etc) that cater for the needs of OVC.*
- *Develop mechanisms of monitoring and evaluating the effectiveness of guidance and counselling sessions for pupils*
- *Consider training peer counsellors to deal with specific issues around OVC.*

4.2 Early Childhood Education and Care

Expansion of ECEC has been an important objective for MOESC. Access has risen to 35%. The system represents an important resource although most ECEC centres are still poorly resourced and the provision of infrastructure falls below desirable levels. Early Childhood Education and Care Section has potentially important roles in several aspects of the HIV response. It can contribute to laying foundations of HIV prevention from early ages in its curriculum, nurturing, caring and socialising young orphans with limited parenting at home, and relieving older children of sibling support roles so that they can attend school.

The following recommendations are made to complement the Divisions operational plan.

Recommendations:

- *Develop appropriate responses in terms of support and precaution to avoid infection and stigmatization of infected children.* ECEC should be aware that a significant proportion of their target age group will be HIV-infected.
- *Mobilise awareness of HIV/AIDS in the community* ECEC could have a strong role in working with the community. Reliance on community funding for aspects of ECEC may become more difficult due to economic impacts of HIV on households.
- *Equip learners with basic skills which can help them to speak out when they are in danger of abuse* and which form a sound base for positive sexual behaviour and healthy relationships in the future.

4.3 Adult and non-formal education

Zimbabwe has one of the highest literacy rates in Sub-Saharan Africa. Because of Zimbabwe's very high gross and net enrolment ratios, the hope has always been that, with time, the problem of adult illiteracy would naturally be reduced to negligible levels. Currently, Adult and Non-formal Education is designed to cater for those learners - largely adult learners who missed the opportunity for formal education at the basic or post-basic level. The current policy is to ensure that there are enough opportunities created for all such learners, and the programmes are designed to address the peculiar needs of learners who face special circumstances as adults with other socio-economic responsibilities.

In 2000, about 60% of youth of secondary school-going age and 10% of youth in primary school ages were out of school, with girls more adversely affected. The target clients of adult and non formal basic education are likely to be at particularly high risk of HIV infection due to social circumstances of out of school youth and less educated adults, and because women have traditionally made up the bulk of candidates. The target group of non-formal education is likely to become larger due to HIV/AIDS as more children find it difficult to stay in the formal education system, rather than declining in relative importance, as might otherwise have been expected. In addition, the age profile of the target group may change, with increasing representation of younger candidates. Both these factors require monitoring and consideration of appropriate responses.

Non-formal education programmes need to see HIV prevention and other HIV/AIDS issues as a critical part of their activities. Broadly, there are many advantages that this Section can offer to an emerging group of young adult learners, most of them female, who now face special circumstances brought about by HIV/AIDS. Its learning schedule is flexible, the curriculum is response to immediate learner needs, In addition, its target group is strategically placed to capture the section of the population that is not only most vulnerable, but can also make a big difference in mitigating the impact of HIV/AIDS.

The following recommendations are made to complement the Divisions operational plan.

Recommendations:

- *Mobilize community responses in prevention and impact mitigation.* Non-formal education programmes also have relatively high penetration into communities directly or through their students and should use this opportunity to deliver the right messages and work with communities.
- *Strengthen distance learning materials and techniques* both for non-formal programmes and to support learning in schools and classes where teachers are absent.
- *Integrate HIV prevention, care and support into curricula*. i.e. the Adult Literacy programme of Zimbabwe as part of national skills base development. The curriculum should equip students with skills that helps them to cope with the multiple demands of being a learner as well as a breadwinner. It may need to deal with the more practical issues related to HIV/AIDS, among them hygiene, diet and health, sickness, care and death as well as coping skills within a context of growing fatalism.
- *Explore opportunities to promote income-generating* activities to assist HIV-affected households.
- *Develop stronger links with formal schooling to facilitate re-entry*

4.4 Curriculum development and examinations

Curriculum development falls under the Research, Policy and Development Division. Soon after Independence, the policies that guided the work of the Curriculum Development Unit (CDU) from 1980 to 1990 focused on curriculum reform. New goals which reflected the new socio-political dispensation and aspirations of post-independence Zimbabwe were formulated, and these were supported by new materials (syllabi, books, teaching aids) and new teaching strategies. When HIV/AIDS came onto the scene, CDU responded to the challenge by putting in place an ambitious HIV/AIDS and Life Skills Education programme, one of the most well known in the sub-region.

The objective of including HIV/AIDS on the curriculum is that of shaping behaviour through a complex process of knowledge acquisition as well as inculcating new values, attitudes and opinions. Studies conducted so far indicate that knowledge levels of teachers and pupils are relatively high, but data from the field showed that there were some gaps in teachers' and pupils' knowledge on HIV/AIDS. HIV/AIDS and Life Skills Education is a compulsory but non-examinable component of the curriculum, and so it has generally not been prioritised.

The following recommendations are made to complement the Divisions operational plan.

- *Consider integrating life skills into the curriculum.* Consolidation of life skills into the curriculum and timetable for learners, teachers and schools is critical.
- *Facilitate creation of capacity between national and school level* to provide more effective support, to review and upgrade content of syllabus so that it is relevant to learner and teacher needs as well as to fast track increases in curriculum development capacity relevant to HIV/AIDS.

- *Reinforce focus on curriculum to develop practical skills for the world of work* Adaptations are likely to be increasingly relevant to ensure that any trends to leave school early do not result in a cohort of inadequately skilled young people.
- *Consider ways to use examinations and other assessment to evaluate performance on HIV/AIDS* programmes for students and reinforce them being considered a core issue in every school. Consultation with the Examinations Council and other stakeholders will be required.

4.5 Planning Research and Development

The Research, Planning and Development Division are the one that is expected to provide informed policy guidance to the Ministry. It occupies the razor's edge of the policy development process by generating data and processing it in such a way that it informs the process. It identifies weaknesses in the Ministry, provides a broad variety of indicators on all facets of the system's performance, and picks up any system malfunctions through the various research activities and alert those who should take the necessary actions. This Division also has a coordinating role, including the coordination of donor inputs.

MOESC's policy is that policy development should be based on information, and this is why it invests in research, EMIS and National Information Statistical Information Systems (NESIS). In addition, it is also MOESC's policy to decentralise planning activities to the lowest possible level. This is consistent with overall government policy for facilitating local communities' participation in development through the establishment of relevant development structures.

One of the major activities that the Planning, Research and Development Division is involved in the development of EMIS (by the Computers and Statistics Unit), conducting and supervising commissioned research (usually survey research) and evaluation studies (by the Research and Evaluation Unit).

Planning Research and Development faces important challenges in improving information on HIV/AIDS impacts as well as responses, as indicated in various sections of this report. Key challenges include use of EMIS to track impacts which may not immediately be apparent, obtaining more non-routine and qualitative information to inform planning and monitoring, and ensuring timeous analysis and feedback of information to cope with information needs in a period of change and uncertainties. District and school level management information system to inform management decisions also need to be considered. Other issues for the Division include adaptations to curricula to incorporate HIV/AIDS more effectively, investigation of appropriate staffing norms in view of HIV/AIDS, and infrastructure development in view of lower learner growth rates and new needs of learners for e.g. counselling and accommodation. The unit is likely to play a key role in inter- and intra-sectoral coordination, including coordination of donor initiatives.

4.5.1 EMIS and improved information to guide planning and implementation

EMIS is the responsibility of the Computers and Statistics Section, and over the years it has improved both the scope of the information it gathers and the timeliness with which it delivers it to the users. Despite these positive developments, the capacity of the Section to deliver and to improve the quality of its services has over the years been threatened by the loss of highly skilled staff.

EMIS data that currently exists is largely at national level, and is derive d from data gathering activities taking place at Regional office, District Office and school levels. These other levels, however, seem to be passive players in the process in the sense that they simply pass on the data they collect to Head Office, but do not process and store the same data for the management of HIV/AIDS and other impacts at the at their local level.

Many aspects of HIV/AIDS impacts on the education system capacity remain unclear and better information is required.

Recommendations:

- *Develop indicators to analyse and address the more pressing demands of an education system that is going through a difficult period which is exacerbated by HIV/AIDS.* Some of the EMIS data needed relates to the development of more sensitive, quantitative and qualitative indicators disaggregated at the appropriate level. Examination performance may be one way to assess the complex impacts of HIV/AIDS. Given pupils' performance in exams, the complex set of input and processes variables that mediate between pupils and learning is clearly known, and it does not require much perspicacity to make inferences on quality when the influence of HIV and AIDS on these variables is known.
- *Facilitate effective intra-sector collaboration* for purposes of determining appropriate indicators to use. To ensure that EMIS data addresses the relevant issues, it must derive its content and form from the needs of Ministry as articulated by the different Divisions, Sections and Units. It is important, therefore, that the user sections and units define the indicators it thinks are most useful in monitoring the impacts of HIV/AIDS.
- *Ensure greater participation of EMIS units at lower levels in the generation, monitoring, and analysis and use of information.* District, circuit and institutional level analyses will be important identify impacts that may not be apparent from aggregated data. Qualitative information to supplement routine quantitative information systems is required from lower levels to obtain clearer understanding of the functional implications of HIV/AIDS.

4.6 Sports and Culture

It is well-known that culture can be a powerful determinant of behaviour patterns, and can thus be used for purposes of behaviour modification. In Zimbabwe's education system, the indigenous culture is promoted culture consciously through drama, dance, traditional music and the display of other cultural artifacts. But more importantly, it is expected that the teaching-learning process will infuse culture by promoting positive values from the Zimbabwean traditional society while at the same time confronting those elements of culture that work against universally accepted values.

A significant proportion of cases of sexual abuse are justified by individuals on the grounds that culture expects or demands it. Females become extremely vulnerable because of certain cultural beliefs and norms. Sport and Culture play several potential roles in the HIV/AIDS response.

Recommendations:

Culture
The promotion of cultural values which do not violate universally accepted principles is important, and this should begin with the curriculum itself. Cultural activities should be given a special place on the curriculum by using positive cultural values to carry messages on HIV/AIDS, with platforms created to give learners an opportunity to confront negative and harmful cultural practices. In particular, it is

imperative that the process of socialisation in school settings emphasise certain values that promote democratic, supportive values such as mutual respect, responsibility, etc. These are the life skills the HIV/AIDS and Life Skills programme seeks to promote. Gender relations are a special area where unequal treatment is perpetuated using culture as one's defence or reference point. In these times when cultural values are in a state of flux, the supportive nature of the school environment must be monitored by assessing the extent to which they promote and uphold positive cultural values. Culture must seek to empower, not to disempower.

Sports
The potential role that sports and culture would play in reducing infection rates and promoting prevention is by providing alternative entertainment to reduce HIV risk, active promotion of HIV/AIDS prevention and impact mitigation messages through events and role models. Sport and cultural activities can also facilitate stress management, socialisation, and positive peer interaction for OVC.

4.7 Higher Education and Technology

The Ministry of Higher Education and Technology (MHET) is responsible for all institutions of tertiary education, and these include universities, polytechnics, teachers' colleges, technical colleges and agricultural colleges. Of direct interest are universities and teachers' colleges because they are directly linked to MOESC. Teachers colleges and universities get their students from among secondary school graduates, and they prepare their students for service in schools that fall under MOESC.

4.7.1 Teacher's Colleges, Universities and other Institutions

Students in these Institutions often find themselves being exposed to high risk activities. Teacher trainees become vulnerable because of their relative wealth in comparison to members of the communities that they live in when on practical training. When they are at the colleges a significant number of them engage in high risk activities for a number of reasons including material or educational needs i.e. books where grants or alternative funding is inadequate. The majority of colleges are ill prepared to mange the impacts of the epidemic on their staff and learners.

HIV/AIDS education is part of the formal or informal curriculum for students in Teacher training colleges, universities, technical colleges, agricultural institutes and polytechnics. The difference between University and other Institutional programmes and Teacher Training College programmes are that, in the latter, the teacher is expected to acquire skills in teaching it, while in the former it is for students' own consumption. The programme in universities and other colleges therefore largely takes the form of stand-alone HIV/AIDS clubs or peer education. Participation is voluntary, while every teacher takes it as part of the teacher education curriculum.

Higher Education institutions could play a critical role in responding to and managing staff impacts.

General issues
- *MOESC and national leadership should provide decisive support* to assist Higher Education Institutions leadership to drive an effective HIV/AIDS programme and overcome any inertia of staff, students or partners in responses. Support should particularly be given over contentious issues such as campus safety and harassment.
- *Consolidate a framework for routine monitoring of HIV/AIDS impacts and responses* among students and staff, and include consideration of ways to track impacts on graduates.

- *Review and refine the Policy and Strategic Plan regularly* to ensure that they cover emerging priorities such as student care and support, treatment and staff issues. Consider benefits of each faculty having to develop individual but coordinated HIV/AIDS plans.
- *Create dedicated, expert capacity to drive the Institutional HIV/AIDS response.* The size of the student bodies and staff complement in these institutions warrant investment in full time high level capacity to develop an effective programme.
- *Aggressively pursue expert input in key areas* such as student and staff prevention, care and support, workplace impact management and curriculum reform to complement limited internal capacity and ensure that interventions are based on best practice from the beginning.
- *Strengthen infusion of HIV/AIDS into curricula and research agendas.* All students will have to confront HIV/AIDS-related issues in their professional and personal lives. HIV/AIDS related research provides a unique opportunity to consolidate academic credentials and serve social agendas.
- *Consider formal training programmes for academic staff* on HIV/AIDS, impacts and impact management issues.
- *Combating stigma and denial* among management, staff and students is an ongoing priority as it is clearly impeding prevention and impact management.
- *Ensure ongoing networking with other Zimbabwe institutions and Universities* in SADC and elsewhere to share experience and expertise in mainstreaming HIV/AIDS.[64]

Student impacts

- *Reinvigorate prevention programmes in line with best practice innovative and participatory approaches.* Prevention will remain a central priority for the foreseeable future, and even gradual or partial success will yield great dividends to the nation. Include positive messages to combat fatalism and explicitly consider gender issues that put women students at high risk.
- *Reinforce HIV prevention programmes in feeder schools* as significant numbers of students are likely to be infected before reaching university or other tertiary levels education.
- *Reinforce basic interventions such as zero tolerance of harassment.* Also consider roles of hostel accommodation and alcohol use in HIV risk, and develop appropriate responses.
- *Consider institutionalisation of student participation in HIV/AIDS related projects and outreach* and compulsory HIV/AIDS related courses.
- *Strengthen care and support initiatives for students.*
    - *Facilitate the provision of VCT* through external Organisations with relevant expertise.
    - *Where problems are encountered, consider alternatives to on-site and in-house services* for various counselling, medical and other support services to reduce problems of stigmatisation, capacity and capacity utilisation, and because volume of some service requirements are not certain to increase very dramatically over the next decade.
- *Planning of student output and curricula.*
    - *Review planned enrollment for the next decade* once clearer information on infection rates are available, to accommodate expected skills losses in Zimbabwe. Interim recommendations of increases above current targets are probably reasonable until this information is available.
    - *Coordinated enrollment planning with key sectors* is required to plan expected need for increased outputs of graduates in health sciences, social work and other areas of greatest need to respond to the epidemic or economic development.

[64] Innovative programmes in institutions such as University of Pretoria are beginning to provide particularly interesting insights into potential for mainstreaming HIV/AIDS.

  - *Reform of curricula and course structures* may be important to ensure more flexible and cost-effective output of skills. Modular training and a hierarchy of shorter courses leading to higher professional degrees should be considered. Consideration may need to be given to increasing roles for part-time and distance learning.

Staff impacts

- *Reinforce development of a comprehensive workplace strategy and programme.*
- *Initiate a formal life skills/ prevention programme* for staff at all levels, starting with senior academic and managerial staff, to reduce denial and stigma and lack of HIV/AIDS "literacy" that undermines all aspects of Institutional response.
- *Strengthen human resource management capacity and systems for managing impacts*. These are reportedly limited independent of HIV/AIDS. Particular weaknesses include policy and systems around medical aid, pensions, sick leave management and recruitment.
- *Develop specific strategies for scarce skills areas,* including prevention. Impact management among staff and senior students ay include strategies such as teamwork, "multi-skilling" for teaching purposes and succession planning.
- Develop access to a staff Wellness programme to assist infected and affected staff.

4.7.2 Vocational education and training

It is government's policy to ensure access to vocational training by establishing at least one vocational training college in every district. These colleges represent another avenue for the development of a strong human resource base. These colleges usually cater for students who might have not have succeeding in acquiring five full 'O' levels, but who have the potential to develop a career in specific trade areas. Because of their large number, vocational training colleges represent a large proportion of investment in human skills.

Current justifications for strengthening VET are reinforced by expected HIV/AIDS-related skills losses in the economy. VET may also provide accessible and effective ways to respond to the educational and skills development needs of affected children who have less formal schooling opportunities. However, some caution is warranted in defining the role of VET in responding to educational needs as many aspects of vocational training are highly trainer intensive and shortages of trainers are likely to become more difficult to remedy.

- *Ensure adequate, dedicated capacity in VET to effectively develop HIV/AIDS programmes* in the sector.
- *Coordinate with other Ministry components and develop specific VET initiatives* to address HIV/AIDS impacts on staff and learners at all levels.
  - *Consider* targeting prevention and care for staff and trainees with scarce skills.
- *Review previous training targets and approaches* developed in response to previous needs assessments to ensure appropriateness in view of HIV/AIDS impacts. A particular issue is planning of outputs for Health Institutes to meet increasing demands for health care.
- *Engage with private sector training institutions* to ensure that training is cost effective and efficient, incorporates HIV/AIDS training and confronts negative perceptions of the payback on training, with possible use of subsidies as an incentive to address these issues.
- *Continue to strengthen innovative approaches to training* (e.g. modular and broad based) to increase accessibility and cost effectiveness of VET.
- *Consider HIV/AIDS-related needs for further strengthening of Brigades* in current the current review of their management, funding and training delivery as they may be a key way to provide more accessible education for affected young people.

- *Consider particular needs of girls and young women* who may have increasing benefits of greater access to VET.
- *Carefully consider the role of cost recovery in vocational education* strategy in view of potential for greater numbers of disadvantaged students due to HIV/AIDS, as well as reports of employer reluctance to invest in VET due to perceptions of less payback.[65]
- *Consider possible roles for VET in establishing income generating projects, food production and other support* for households or children affected by HIV/AIDS.

[65] Government sole sponsorship of VET is considered to be unsustainable. Current strategy includes increasing cost sharing with beneficiaries, removal of some training allowances and introduction of boarding fees.

5. Driving the HIV/AIDS response

5.1 HIV/AIDS and Life Skills programme capacity and structures

Development and coordination of a large new programme such as that required for the education sector HIV/AIDS response requires significant resources and capacity. While it is inevitable that the response will need to prioritise and phase in components over time it is critical that core capacity and resources are available. Experience in many Education sector, company and country HIV/AIDS programmes shows that effective action is likely to be very limited if dedicated posts and adequately skilled personnel are not available to the Education programme.

In view of resource constraints the following aspects of capacity development need consideration.

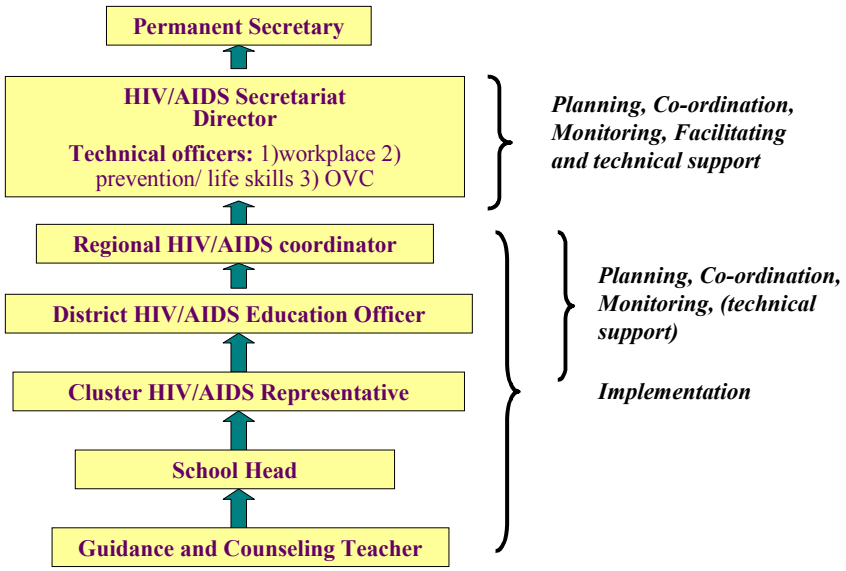
- *Organisational culture*. A successful education sector response to HIV/AIDS will to a large extent depend on cultivating caring and the willingness of individuals and groups to embrace the challenge, and respond to needs of colleagues and students. Bureaucratic traditions and tendencies to avoid personal initiative should also be combated.
- *Reinforcing HIV/AIDS programme capacity at all levels*. The structure of the HIV/AIDS programme should be adapted not only to increase capacity but also to reflect the need for decentralized action.
- *Ensuring appropriate selection, motivation and role definition of key staff*. A critical issue in increasing capacity is to ensure that people appointed to programme positions are appropriately motivated and skilled. Currently, staff given HIV/AIDS responsibilities are in many cases those who are "left over" when other appointments have been made or other key traditional functions allocated. At school level many informants were frustrated that knowledge gained from HIV/AIDS conferences, and workshops is not communicated effectively to all staff members by the person who attends the sessions. Key reasons cited for this were inappropriate selection of participants who have no real interest in HIV/AIDS related issues, lack of structured time, tools and processes for feedback and skills dissemination; and a high rate of staff turnover so that many people who have attended such sessions leave before disseminating the information.

  Another common problem in many HIV/AIDS initiatives at all levels is poor role definition. One frequent problem is that people at higher level who should be playing strategic planning, coordination and facilitation roles get bogged down in implementation issues which consume their capacity and lead to loss of perspective. Another aspect to combat is that once an HIV/AIDS focal person designated other actors tend to feel that they have no further responsibility to be actively involved, when their participation is essential to deal with the scale and nature of the many issues involved in the programmes.

A *provisional proposed structure for the HIV/AIDS programme* is shown in Figure 5.1. At a minimum the following basic components are proposed for implementation as soon as feasible.

- At *school level,* the Head should specifically be held accountable for the implementation of HIV/AIDS responses. A dedicated post should be created for a Guidance and Counseling Co-coordinator who will be responsible for technical support for co-ordination, referral activities and aspects of service delivery and technical support within the school. The Head should have discretion in the allocation of responsibilities provided that outcomes are achieved, and ensure that all functions are not left to the Guidance teacher. In smaller schools, consideration should be given to part time post allocation and possibilities of sharing a guidance and counseling post with other schools in the cluster.
- At the *Cluster level*, a skilled HIV/AIDS Coordination and technical support person should be identified from participating schools.
- *District and Regional Offices* require a full time HIV/AIDS Coordinator responsible for inter and intra agency coordination of activities, as well as facilitate and provide technical support when necessary.
- At *national level*, the HIV/AIDS Programme Director should report directly to the Permanent Secretary and be a member of the Senior Management team to enable communication, authority and input into policy and strategy formulation. At a minimum, full time positions should be created for three Technical Programme Leaders responsible for each of the workplace, prevention and life skills, and OVC programmes. Current support staff capacity should be increased in line with the increasing functions of the Secretariat.

Figure 5.1 Provisional HIV/AIDS programme structure



In addition to this formal structure at each level it will be important to define committees and other mechanisms of non-full time partners to provide the capacity and networks within the education sector and with other sectors.

i. *Focal persons and HIV/AIDS committees* should be established in all Directorates and major units.

ii. *Consider formal arrangements to second or otherwise tap into key capacity, expertise and systems* in components such as SPS at each level.
iii. *Ensure that the school inspectorate and cluster initiatives are fully integrated into the programme* as a vehicle to provide support for implementation monitoring activities.

5.2 Partnerships with other sectors and civil society

In addition to its internal capacity and structures to confront the epidemic, the education sector will inevitably have to develop strong partnerships with other players to deal with the scale and complexity of the issues. Partnerships with sectors such as health, social welfare, higher education, women's and youth affairs, and local government are likely to be particularly important. To deal with workplace related issues, the finance and human resource related sectors are likely to also be key partners.

NGOs and CBOs are another critical resource without which successful responses, particularly at school level will be much more difficult. Zimbabwe has traditionally had a vibrant NGO/CBO sector. NGO's are clearly an important source of expertise and services in the HIV/AIDS response.[66] In addition, NGOs and CBOs are critical partners to overcome capacity and resource constraints, and facilitate flexible local responses to various challenges in HIV/AIDS prevention and support. In several regions and Districts school and other role players indicated that NGOs were able to respond more rapidly to urgent situations than is possible for government in many situations.

Nevertheless, there were many reports of inefficient liaison with NGOs, ignorance of available resources and sometimes antagonism, resentment and suspicion. For a successful strategy, the Ministry should therefore specifically consider ways to streamline cooperation with NGOs and enhance their roles and sustainability.

5.3 Financing and resource allocation issues

As indicated in previous sections, limited finance for education has been an increasingly difficult challenge to the education system since the early 1990s. At the time of this study, this not only limited programme budgets but also had major implications at school and district levels where budgets for items such as transport were a major constraint on various routine activities, as well as others such as networking activities in clusters under the BSPZ. Responses to the HIV/AIDS epidemic therefore have to take prioritisation seriously in order to deal with fiscal realities.

Adequate funding of HIV/AIDS responses is required at all levels. The goal should be to incorporate most HIV/AIDS-related activities into core budgets and functions in the longer term. However, initial extra investment is likely to be necessary to develop and disseminate knowledge, develop capacity and devise systems to respond to HIV/AIDS. There are strong arguments for greater prioritisation of HIV/AIDS activities in resource allocation at all levels which include the following.

- HIV/AIDS represents the single greatest inefficiency in the education system. Premature death of learners and employees to HIV/AIDS at current infection rates probably will amount to loss of a third or more of the investment in education. Thus actively preventing and managing HIV/AIDS impacts is in itself an investment.

[66] For example Mhloyi (2001) reported that people who had attended talks on safe motherhood and MTCT mentioned 5 NGOs 7 CBOs and 3 government departments as the organizers of such events.

- HIV/AIDS is an enduring problem that will lead to various other costs in the system beyond this decade.
- As is evident from this impact assessment, as the nation's largest employer and organizational network, as well as through its unique, daily contact with millions of at risk and vulnerable children, the education sector has a key role to play in the national HIV/AIDS strategy.
- HIV/AIDS will reduce the community resources and capacity for education particularly in the most disadvantaged communities, thus undermining key equity objectives of the sector.
- Many key responses to HIV/AIDS are likely to be "affordable" if they are given appropriate priority over time.

Recommendations – resource allocation

- *Develop a specific resource mobilisation strategy* to ensure adequate funding for HIV/AIDS activities.
- *Prioritise funding of posts and other requirements to create the basic capacity at all levels to drive the sector's response*.
- *Consider implementing a general requirement that all education components down to school level should allocate a certain percentage of their budgets to HIV/AIDS-related activities*. This could encourage mainstreaming of HIV/AIDS in activities and budgets and relieve pressure for allocation of extra resources. Even if budgets are small, pooling of budgets and coordination of activities could result in significant progress.
- *Mobilise AIDS Levy funding allocations*. The MOESC should be bold in competing with other sectors to solicit a large share of this funding in view of the expanded response required by education as a critical part of the national strategy to respond to workplace, prevention and vulnerable children needs. In addition, it could have a major effect on morale and motivation in the sector: in many discussions education sector employees expressed major frustration about the AIDS Levy which they had been paying for over a year without seeing benefits for them, sick family members, orphans or communities.
- *Require planners to consider opportunities to prioritize and reallocate existing capacity away from less urgent matters* within various Directorates and other components of the system to complement specific HIV/AIDS staff.
- *Increase priority of funding of programmes and functions that are already recognised as important that are relevant to the HIV/AIDS response*. Examples include management skills development, cluster initiatives to share capacity and strengthening human resource management capacity and systems.
- *Targeting resources to address the most vulnerable communities schools and aspects of delivery* should be considered. These include focus on the girl child and female officers, rural and other disadvantaged communities and schools. An important issue is reviewing the targeting and resource allocation formulae of programmes such as BEAM to maximize benefits to those communities and schools in greatest need.
- *Focus on interventions and resources with "multiplier effects"*. These may include items such as activities to disseminate examples of best practice and telephones and transport to facilitate coordination of resources.
- *Consider innovative approaches* such as an incentive fund to stimulate and support planning and implementation of HIV/AIDS activities by individual districts, clusters or schools.

- *Resist tendencies to rely heavily on donor funding for key components of the programme.*[67] Donor funding is too limited to ensure coverage of sufficient numbers of schools, and sustainability of what have to be core activities for the sector may be compromised.

[67] Zimbabwe's HIV/AIDS response and other aspects of its development programme have been substantially less dependent on NGO and donor support than in many other countries. The draft HIV/AIDS Strategic Plan recognises this principle but remains heavily dependent on external funding.

6. Conclusions and recommendations

HIV/AIDS represents a huge threat to social development in Zimbabwe. Impacts are expected to continue and accumulate well beyond the end of this decade. Education represents Zimbabwe's largest investment in development and one of the nation's greatest successes. Future assessments of the adequacy of Zimbabwe's response to the epidemic are likely to be based largely on whether it has preserved the lives, development potential and rights of the current generation of children and youth. The education sector is uniquely placed and essential to ensure a successful national response to these challenges.

HIV/AIDS has fundamentally changed the internal and external environment of the education sector. The epidemic is already affecting the sector and compounds the negative effects of other social, economic and organizational constraints on the system's ability to deliver quality, accessible education. At current infection rates, around one third or more of the investment in education is being lost through infection and premature death of learners during or after schooling. Many thousands of learners are having their potential undermined through HIV/AIDS impacts on their households. As the nation's largest employer, the sector also has a major responsibility and societal role to play in reducing impacts on its employees, with spin off benefits for their many dependents and learners.

In any single year, HIV/AIDS alone seems unlikely to destabilize the whole system. However, this hides insidious effects on quality and access, as well as severe impacts on many schools and many thousands of infected and affected employees and learners. The cumulative impacts of the epidemic over time threaten to obstruct further progress in education outcomes and undermine gains made by the sector and society so far.

In this context, recognition of HIV/AIDS as "core business" for the whole education sector is critical. All facets of education are affected and have roles to play in protecting the system from HIV/AIDS impacts.

- "Mainstreaming" of HIV/AIDS within all components of the education sector is as valid as the need to mainstream it across other sectors if Zimbabwe is to manage the epidemic effectively. HIV/AIDS can no longer be seen as simply the responsibility of the School Health and Life Skills Secretariat.
- There has to be a sense of urgency and commitment at all levels in laying solid foundations for effective action over the next decade. Focus has to shift from short term needs and "fire-fighting" to longer term views on HIV/AIDS. Plans must consolidate specific actions to be taken, the structures to be put in place, and allocation of adequate personnel and resources to the challenge.

Fortunately, *HIV/AIDS presents opportunities not just a threat.* Many aspects of HIV/AIDS responses are consistent with existing priorities, programmes and initiatives to strengthen education independent of HIV/AIDS. While HIV/AIDS is a threat to success of such programmes, it reinforces the need for them and can be used as a reason to unblock obstacles to efficient implementation, due to their greater relevance and urgency in the context of the epidemic.

The following overall recommendations focus on what is required to develop and sustain an effective MOESC response.

13. ***Ensure informed, committed leadership.*** Sustained, high profile political, managerial and professional leadership across all components and levels of the education system is critical for effective responses to HIV/AIDS. Leadership is needed to inspire staff, provide guidance, and ensure

that action occurs. There is awareness of the problem among staff at Head Office, but HIV/AIDS is not prioritised in MOESC and levels of understanding and commitment varies widely from denial to enthusiasm among management.

14. ***Combat stigmatization, secrecy and denial around HIV/AIDS.*** These factors are widespread and undermine any effective response to HIV/AIDS at the individual and system level. Facilitation of *open discussion* of HIV/AIDS will be a key part of a successful response.

15. Define roles and accountabilities of various education components and players, and develop guidelines for action. Many HIV/AIDS challenges are relatively new.
    - Better definition of roles and expectations has to be formalized, for example in legislation, regulations, guidelines and codes, to ensure action in areas such as staff impact management, OVC responses and HIV prevention to ensure that HIV/AIDS is considered "core business" in all relevant areas.
    - Development and dissemination of practical guidelines is an urgent priority to promote decentralized action in many areas mentioned above as soon as policy and strategy are confirmed in various areas.

16. ***Disseminate knowledge across the sector and include positive messages***. Basic knowledge of educators and other key stakeholders is often deficient and many have little idea of what can be done even if they are motivated. Effective communication of information on key aspects of HIV/AIDS prevention, impacts, strategy and best practice is needed to mobilize and sustain responses. Fatalism around HIV/AIDS and other stresses on education stakeholders make it critical to communicate positive messages of commitment, hope and practical steps that can be taken. Mechanisms should be established for *networking and sharing of experience and best practices* between schools, districts and MOESC planners.

17. ***Decentralise approaches.*** Effective action against HIV/AIDS requires a central strategic framework to define roles and coordinate role players and activities, as well as specific central action on issues such as review of the employment framework and teacher training, and development of a range of policies and guidelines. However, ultimate success will depend on effective action at school and district level. Centralised authority, capacity, capabilities and models are unlikely to cope with the diversity of circumstances in schools and the scale of the challenge. A key strategic principle must be to facilitate and support flexible, effective responses at district, cluster, school and community level, possibly building on initiatives such as the Better Schools Programme.

18. ***Retain flexibility to deal with uncertainty.*** Many aspects of HIV/AIDS impacts and appropriate responses remain uncertain, particularly at school or institutional level. "Least risk" scenario planning approaches should be used in planning in areas where important uncertainties exist, for example, around levels of impacts on teacher and student numbers. In addition, a key consideration in planning and practice should be how to ensure flexibility in many aspects of education system management to facilitate creative, and service orientated responses to unforeseen needs or circumstances.

19. ***Enhance inter- and intra-sectoral co-ordination and partnerships***. Many aspects of the responses to impacts of HIV/AIDS on staff and students require cooperation with other sectors.
    - *Coordination with other sectors, particularly the NACP, MHET, Health, Local Government and social welfare* should be boldly pursued at all levels to overcome traditional divides that undermine HIV/AIDS responses.
    - *NGOs and community organisations* are key partners who are not adequately supported by government, and ways to streamline relationships with them is critical.

- *Better co-ordination across Divisions and units within the MOESC* is needed to ensure effective responses.
- *Co-ordination with professional associates*. Zimbabwe's teacher and other public service unions are increasingly aware of the impact of HIV/AIDS on members and society. They are already developing responses and are key resource. However, their members may resist important aspects of change and new roles required in the education sector. Certain aspects of workplace policy, procedures and practice as well as teachers roles in programmes may need to be negotiated. Liaison with staff associations to present a combined front to the epidemic is important.

20. ***Improve strategic and operational plans.*** The current HIV/AIDS and Life Skills strategic plan lays an important foundation of the education sector's response. However, knowledge of gaps and difficulties in implementation have increased since it was developed. In addition to review of the national plan.
    - *All MOESC Divisions and Units* should urgently develop HIV/AIDS plans.
    - *National policy and strategy* should be communicated to all schools.
    - *School, District and Regional HIV/AIDS plans* should be developed with adequate guidance and support.[68]

21. ***Reinforce existing programmes that are relevant to managing HIV/AIDS, and adapt them where necessary.*** Many current initiatives will enhance ability to respond to the challenge of HIV/AIDS and are critical to stabilize the overall education system to deal with HIV/AIDS and other stresses. For example, sectoral activities such as the Better Schools Programme, learner centered teaching, curriculum development, strengthening of basic human resource management, poverty alleviation among learners, and community participation are highly relevant to combating the epidemic. However, HIV/AIDS introduces new vulnerabilities and needs in many of these areas that need to be factored into planning.

22. ***Improve information and monitoring of impacts and responses***
    HIV/AIDS prevention and impact management is hampered by lack of good information.
    - EMIS and other routine information and reporting systems should be reviewed and strengthened to address HIV/AIDS issues and monitor implementation of HIV/AIDS programmes.
    - In addition to routine statistics, participatory approaches and qualitative information gathering are required, along with specific research projects.
    - Consider developing a District Management Information System with key HIV/AIDS components to allow decentralized analyses and utilisation.

23. ***Mobilise and allocate resources.*** Dedicated budgets and capacity at schools, district, regional and Ministry level are required to mobilize, support and coordinate effective responses to HIV/AIDS. The goal should be to incorporate most HIV/AIDS-related activities into core budgets and functions. However, initial extra investment is likely to be necessary to develop and disseminate knowledge, develop capacity and devise systems to respond to HIV/AIDS.
    - AIDS Levy funding should be secured to support an expanded role for the education sector particularly around OVC and workplace impacts.

[68] Only 39.3% of surveyed guidance and counselling teachers were aware of any policy or strategy on AIDS for schools, teachers and pupils. 41% of respondents indicated that their school has developed its own plan or approach to HIV prevention. However, plans that were seen often had deficiencies and seldom

- Targeting of resources to address the most vulnerable stakeholders and aspects of delivery should be considered. These include focus on rural and other disadvantaged communities, at risk institutions and the girl child.
- Prioritise interventions and resources with multiplier effects such as activities to disseminate examples of best practice and telephones and transport to facilitate coordination of resources.
- Consider innovative approaches such as an incentive fund programme to support planning and implementation of HIV/AIDS activities by individual districts, clusters or schools.

24. Create strategic HIV/AIDS programme capacity and structures. Development and coordination of a nationwide programme such as that that required for the HIV/AIDS response requires greater capacity than is available at present. Taking account of existing resource constraints the following aspects of capacity development should be possible to consider.

- *Reinforcing HIV/AIDS programme capacity.* This will need greater, dedicated capacity at National, regional, district and school level in addition to various committees and networks. It is critical that selection of key staff is appropriate, roles are clearly defined, and that accountability of programme and other players such as school heads and inspectors is assured.
- *Effective prioritization and reallocation of existing capacity away from less urgent matters* within various Directorates and other components of the system components to complement specific HIV/AIDS staff.
- *Transforming organisational culture* to cultivate caring, willingness and personal initiative and avoid obstacles created by bureaucratic traditions and tendencies.

Annex A: Acknowledgments

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The following schools were visited by the study team:

Manama High School
Stanmore Secondary School
Mtshabezi High School
Mawabeni Secondary School
Devuli Primary School
Devuli Secondary School
Murambinda 'B' Primary School
Murambinda Secondary School
Nyamauru (Dangamvura No.2) High School
Rujeko Primary School
Sakarombe Primary School
Nyamhuka Primary School
Mudekunye Secondary School
Chisamba Primary School
Nyangani Secondary School
SOS Maizelands Primary School
Rutope Secondary School
Chindotwe Primary School
Chipindura Secondary School
Shingirai Secondary School
Tsungubvi Primary School
Ran Primary School
Chihuri Primary School
Chihuri Secondary School
Nyachuru Primary School
David Livingstone Primary School
Girls High School
Epworth Primary School
Domboramwari High School

Nyatsime College
Zengeza No. 4 Primary School
Crest Breeders Primary School
Porta Farm Primary School

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Annex C: Methodology for Producing the Projections Used in This Report

An important component of this impact assessment is the demographic projections. Even if Zimbabwe had perfect information on current levels of infection, deaths and orphanhood, projection modelling would still be necessary to give planners an indication of future levels of impacts that they need to consider. The projections have a number of important functions for education planners and managers including the following:

- They allow prediction of trends in the number of children who will be candidates for education. This is important because the epidemic is likely to slow growth in the number of children as result of the decline in the number of women of childbearing age; reduced fertility among HIV-positive women; and increased mortality among children as a result of AIDS.
- They can indicate what potential numbers or proportion of children are likely to be ill with AIDS, or infected with HIV now and in the future.
- They can give an indication of the likely number of children who will be orphaned by AIDS.
- We can use demographic projections to estimate the number of teachers infected with HIV, or who will be ill due to AIDS.

Demographic projections are based on mathematical models and incorporate a large number of assumptions. They therefore have important limitations which should be understood when assessing the reliability of the projections and to allow for informed, appropriate use of projections for advocacy and planning. The following sections indicate some of the key features and assumptions of the modelling process used in this study

.

The Metropolitan Life/ Doyle Model and general approach

The model used for projections was the most up to date version of the Metropolitan Life/ Doyle model.[69] This model has been used for a number of studies in the SADC region. In South Africa and Botswana the model has been able to predict the course of the HIV and AIDS epidemics with some success. In the past, the model has tended to produce somewhat less severe projections of HIV/AIDS illness and deaths in South Africa and Botswana than others such as the Spectrum/AIM, the US Bureau of the Census and the UNAIDS Epimodel. However, the outputs of models are often influenced more heavily by their calibration and input data than the models themselves. The Metropolitan model has particular flexibilities that allow for sub group modelling as well as features that allow for more detailed exploration of various aspects of the epidemic than many other models.

The Doyle model combines features of a macro-simulation model and a micro simulation programme. A macro-simulation model is calibrated in terms of inputs at a macro level, such as the reported HIV prevalence level from the annual antenatal survey. Pure macro-simulation models rely on inputs that can be very broad, and seek to extrapolate from national or regional surveys. They are therefore not directly defensible except through confirmation of the results they produce.

[69] The model's calibration is updated by the Metropolitan Life AIDS Unit to incorporate significant new demographic and epidemiological data from South Africa and other countries.

A micro-simulation model is built on comprehensive, scientifically defensible input parameters that consider the risk behaviour of individuals in a given population and aggregate their effects to produce projections of HIV/AIDS for whole groups or populations, through complex iterative calculations. Pure micro simulation models depend on a range of input parameters, for which there is often little reliable information. They can also often have difficulty in producing reliable projections at population level.

Combination of features of a macro and micro model thus make the Doyle model robust and better able to produce reliable medium and longer term projections at a macro level without losing sensitivity to underlying micro parameters which may be relevant to particular sub-populations. The epidemic in a province or a country is assumed to be an aggregation of many sub-epidemics in particular population sub-groups. Each of these is defined by its unique demographics (e.g. gender, age profile), its geographic location and the timing of the epidemic in the area relative to other areas, and risk in terms of sexual behaviour patterns.

A central feature of the model is the notion that the epidemic moves through a population through interaction between various risk groups. Four behavioural risk groups are defined in the model: commercial sex workers and frequent clients; other people with high risk of sexually transmitted diseases; people at some risk of infection; and people not at risk of infection. Sub-epidemics are initially fed by infected persons from outside a community and then multiply through contact between people in these risk groups.

In modelling the epidemic in Zimbabwe, in order to obtain a better estimate of demographic impacts, independent projections for rural and urban populations were made. These were then aggregated to produce national projections. The more detailed approach of aggregating separate projections for each province was attempted but could not be supported by the available data.

The projections that were produced can be expected to give a reasonable indication of many key dimensions of the HIV/AIDS epidemic in Zimbabwe and important trends at population level. However, models are only a simulation of the real world and have inherent limitations. They are also critically dependent on the input data used in them. They cannot therefore be guaranteed to predict a complex reality perfectly.

General population projections

The data used for the basic demographic projections were those recommended in discussion with Central Statistical Office and are displayed in Table C1.

Table C1. Data sources for the demographic projections

Data Acquired	Source	Data used and comment
1. Baseline population data	CSO	1992 Census & 1997 intercensal survey
2. Zimbabwe life table 1991-1997	Griffith Feeney	Population by age and sex, 1982 and 1992 census & 1987 and 1997 intercensal surveys. Death registration data for 1982, 1986, 1990-1992 and 1995. 1994 DHS data (for use in sibling survival method)

3. Age specific Fertility Rates (ASFRs): 1982 & 1992 censuses	CSO	1982 & 1992 Censuses.
4. Fertility estimates: William Muhwava & Timeaus Ian	William Muhwava & Ian Timeaus[70]	Uses rich combination of data, 1969, 1982, and 1992 censuses, 1984, 1988/89 and 1994 ZDHS and the 1987 Intercensal survey.
5. Age specific deaths by district 1991-1995	CSO	Data by district. Allows use for analysis by district as desired in order to understand regional variations.
6. Infant mortality rates: 1978-1990 and 1992 Estimates from 1992 census	CSO	1992 census
7. ZDHS 1988, 1994, 1999	CSO & Macro International	Demographic and Health Surveys
8. Internal migration	CSO	92 Census
9. HIV AIDS data: 1987 (1993)-2000(June)	Zimbabwe ministry of Health	National Health Information and Antenatal Survey data

Demographic input data

Total Population profile

The base population was drawn from the CSO 1992 census and the 1997 intercensal survey. The projections were calibrated to produce outputs for 1992 that conformed to the 1992 census population. The 1992 population numbers are given in the table below.

	Male	**Female**	**Total**
0-4	788963	795728	1584691
5-9	821319	832469	1653788
10-14	724905	731846	1456751
15-19	615728	632510	1248238
20-24	466837	523060	989897
25-29	335713	376495	712208
30-34	280066	326299	606365
35-39	229360	259555	488915
40-44	174266	189509	363775
45-49	145437	143441	288878
50-54	133261	147339	280600
55-59	94713	86729	181442
60-64	95510	84213	179723
65-69	51202	50902	102104
70-74	58279	62479	120758
75+	52026	68403	120429
NS	15952	18034	33986

[70] Centre for Population Studies; London School of Hygiene and Tropical Medicine.

Mortality

Baseline mortality was derived from 1992 Census data. This was checked against other sources, and smoothed for modeling purposes. The mortality trends prior to 1990 were considered to be the baseline mortality. Mortality tables that were used for the modeling are shown below:

Age	Male	Female	Age	Male	Female
1	0.03272	0.028409	41	0.009499	0.004708
2	0.007378	0.006759	42	0.009664	0.004806
3	0.002656	0.002529	43	0.009841	0.004913
4	0.001134	0.001096	44	0.009918	0.00489
5	0.000639	0.000622	45	0.010001	0.004869
6	0.000697	0.000578	46	0.010104	0.004856
7	0.000671	0.000555	47	0.010246	0.00486
8	0.000562	0.000464	48	0.01045	0.004894
9	0.000488	0.000402	49	0.011021	0.004951
10	0.000366	0.000301	50	0.011671	0.005032
11	0.000359	0.000307	51	0.012382	0.005129
12	0.000382	0.000326	52	0.01312	0.005229
13	0.000444	0.000379	53	0.013844	0.005314
14	0.000542	0.000463	54	0.014297	0.005548
15	0.000674	0.000574	55	0.014693	0.005772
16	0.000547	0.000668	56	0.015058	0.006006
17	0.00067	0.000815	57	0.015529	0.006282
18	0.000805	0.000978	58	0.016386	0.006777
19	0.000949	0.001149	59	0.017309	0.007305
20	0.001395	0.001478	60	0.018664	0.008003
21	0.001704	0.001729	61	0.020158	0.008766
22	0.002015	0.001973	62	0.021817	0.009605
23	0.002322	0.002204	63	0.022803	0.009937
24	0.002831	0.002465	64	0.02392	0.010313
25	0.003322	0.0027	65	0.024782	0.010526
26	0.003794	0.002914	66	0.02573	0.010772
27	0.004248	0.003107	67	0.026751	0.011048
28	0.004697	0.003291	68	0.027776	0.011232
29	0.005232	0.003419	69	0.028852	0.011429
30	0.005781	0.003552	70	0.030836	0.012233
31	0.006355	0.003696	71	0.032945	0.013103
32	0.006965	0.003858	72	0.0352	0.014051
33	0.007612	0.004036	73	0.03637	0.014402
34	0.007842	0.004092	74	0.037651	0.0148
35	0.008106	0.004165	75	0.039126	0.015373
36	0.008411	0.004257	76	0.040758	0.016023
37	0.008765	0.004372	77	0.042563	0.016757
38	0.009178	0.004515	78	0.043106	0.016802
39	0.009248	0.004559	79	0.046256	0.018244
40	0.009357	0.004624	80	0.049774	0.019886

Fertility

There has been considerable debate about the baseline fertility rates in sub-Saharan Africa, and Zimbabwe is no exception. For these main projections the fertility rates estimated by Muhwava and Timeaus were used (the lower estimates of fertility shown in the table below). There was concern about underestimating the fertility rates as changes in fertility since the early 1990s may reflect a temporary rather than permanent shift, as this could have major implications for education planning . For this reason a scenario was also produced that assumed that the reduction in fertility was 15% higher than would have been indicated by the trend suggested by 1990s fertility data. (This had a large impact on the projections of the number of children, and illustrates the need for cautious use of projections in planning until further data becomes available from the 2001 Census to validate projections).

	Original Fertility	% decrease	Higher Fertility	% decrease
1980	6.86		6.86	
1990	5.83	15.0%	5.83	15.0%
2000	3.99	31.6%	4.726	18.9%
2010	2.73	31.6%	3.831	18.9%

Migration

Migration was not considered for any of the demographic projections and should be accommodated by post hoc adjustments where necessary.

The HIV/AIDS epidemic

Identifying and predicting the course of Zimababwe's HIV epidemic was very challenging. The main surveillance method for HIV (and the mainstay of HIV/AIDS demographic modelling) is the antenatal seroprevalence survey. Zimbabwe's antenatal survey has used a convenience sampling method rather than a more representative sampling approach such as probability proportional to size. It can therefore not be assumed to reflect the levels of infection in a representative sample of pregnant women in Zimbabwe. In addition the sampled sites have differed between surveys. There are years in which surveys were not conducted in many of the key areas, limiting ability to even use data to track trends. Furthermore, in sites that were included, there have been some very marked swings in recorded point estimates of prevalence that do not allow plausible trends to be identified for some sites. This makes deriving conclusions from this data difficult. It also suggests that attempting more sophisticated calibration of the model against antenatal data than was done is likely to lead to spurious rather than real accuracy.

A summary of the antenatal clinic data is shown in Table C2. From this data one see the variability from year to year. The most reliable and consistent data is from Harare and Bulawayo, and the projections were based on these figures. However, data suggests that rural areas have a less severe epidemic.

In addition, HIV/AIDS death data from NACP (2000) and MOHCW (1998) were used as an indication of the age profile of people dying of AIDS.

To deal with the uncertainty about the profile of the epidemic in Zimbabwe, two main scenarios were produced to define a range within which actual values are likely to fall over the next decade. The **worse case scenario** assumed that all areas will experience levels and trends in HIV prevalence rates similar to those observed in urban areas, separated only by a time lag between the epidemics in different areas. The

better case scenario assumes that rural populations have an HIV prevalence 20% lower than urban populations both in the growth and plateau phases of the epidemic.[71]

Table C2. Observed HIV Prevalence among Antenatal attendees

[71] Certain rural sites such as commercial farming areas have often had much higher levels of infection than urban areas. However, on examination, these sites seem likely to represent a relatively small proportion of the overall rural population and are unlikely to influence overall rates among rural populations as extensively as might be supposed.

Province	Site	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Urb/ Rur
Bulawayo City	Bulawayo City	17.1			26	30		24			31.1	Urban
Chitungwiza	St Mary's clinic							33.3			33.5	Urban
Chitungwiza	Chitungwiza City		29		41.7							
Chitungwiza	Seke North Clinic							31.3				
			29		41.7			32.3			33.5	
Gweru City	Gweru City	28	24	21								Urban
Gweru City	Mkoba Polyclinic							30.7			38.1	Urban
Gweru City	Gweru Urban		37	20.9								
Gweru City	Mkoba 1							19.2				
Gweru City	Private ANC patients							24				
		28	30.5	20.95				24.63333			38.1	
Harare City	Edith Oppoman Clinic							28.1			27.8	Urban
Kwekwe City	Mnene & Msume Hospitals		8	20				30.3			54.5	GP
Kwekwe City	Mberengwa rural		7.7	20.3	25.5							
Kwekwe City	Mbizo 11 Clinic							7				
Kwekwe City	Kwkekwe rural	22	22	25								
Kwekwe City	Shabane mines	16										
Kwekwe City	Shurugwi Mines	23	20	17								
Kwekwe City	Commercial Farm Workers		23	22.5	36.2							
		20.33333	16.14	20.96	30.85			18.65			54.5	
Manicaland	Eastern Highlands Tea Estates			13.3								Comm
Manicaland	Rusape Hospital	34				67						Comm/urb
Manicaland	Murambinda hospital	13				41.4					25.7	Rural
Manicaland	Birchenough Bridge		15.5	24								Rural/GP
Manicaland	Mutare City					33.6		36.7			33.9	Urban
Manicaland	Chipinge			15								Comm
Manicaland	Hauna Growth Point			18								GP
Manicaland	Vengere Clinic							53.3				
Mashonaland Central	St. Alberts Hospital					23		23				Rur
Mashonaland Central	Karanda Hospital			20	22	26		23.9			18.3	Rural
Mashonaland Central	Bindura Government Hospital				40	27		29.3			32.1	Urb
Mashonaland Central	Mary Mount Hospital							34.9				
Mashonaland Central	Chitsungo							37.3				
Mashonaland East	Mutoko District		25.9					19.1			33.7	Gp
Mashonaland East	Chivhu Hospital							31.4			42.7	Rural
Mashonaland West	Zvimba Kadoma							24.3			36.9	Comm/min
Mashonaland West	Sanyanti Hospital			18.5								
Mashonaland West	Banket Hospital		287									
				18.5				24.3			36.9	
Masvingo	Chiredzi Hospital		39.7			70.2	46.7				70.7	Comm
Masvingo	Gutu Mission				20.5	39.5					27.4	Rural
Masvingo	Masvingo City	30.9	42.1		35.2		36.5					
Masvingo	Mashoko Mission				18.1	19		30				
Matabeleland North	Hwange Hospital	24	20		22.9			18.8			32.5	Min
Matabeleland North	Binga Hospital		17		14.4			9.2			13	rural
Matabeleland North	Chinotimba							42.6			55.7	Urban/bord
Matabeleland North	Bubi											
Matabeleland North	Lupane											
Matabeleland North	Nkayi											
Matabeleland North	Tsholoshto											
Matabeleland North	Karirangwe							7				
Matabeleland North	All results						20.5					
Matabeleland South	Gwanda Hospital	17	21	25				48			30.4	Urban
Matabeleland South	Beitbridge District				15			46			41.4	Urban/bord
Matabeleland South	Plumtree Hospital	10	11									
Matabeleland South	Kezimatobo District				16							
Matabeleland South	Antelope Hospital							28				
		10	11		16			28				
Midlands	Gokwe District	22	22.6	27.1	33.5							
Midlands	Gokwe Growth Point		22.6	27.1								

Assumptions used in calibrating other HIV/AIDS parameters in the model

a) *Survival time after infection with HIV*. The median time from infection to onset of AIDS is assumed to be approximately 8.5 years, with median survival with AIDS of 1 year.[72] The model incorporates

[72] Survival time in Africa was previously thought to be much shorter than for developed countries. Recent evidence from Uganda and South Africa suggests that if data is adjusted for other, pre-existing risk of mortality, HIV/AIDS survival time is relatively close to that in developed country populations.

different survival times for infected people of different ages. Older adults and children have a quicker progression to AIDS than young adults.

b) *Absence of any significant intervention to alter the course of the epidemic*. The basic projections assume that no interventions (e.g. vaccines; antiretroviral therapy) will be implemented on a large scale in Zimbabwe in the foreseeable future. As most AIDS deaths in adults up to 2010 will be determined by current levels of HIV infection, vaccines or behaviour change would have limited impact on projected population sizes and death/AIDS rates to at least 2010.
    - A vaccine to prevent new HIV infections could significantly alter the course of the epidemic in future. However, there are many technical problems in vaccine development, including frequent changes in the characteristics of the virus and potential dangers of inadequately tested vaccines. Thus a vaccine should not be assumed to be available in Southern Africa for at least 5 years.
    - Several medical interventions can reduce illness and slow the progress of HIV-infection to AIDS and death. Treatment with combinations of anti-retroviral drugs (ARV's) are the most effective intervention. ARV's can prolong life by many years, and dramatically reduce episodes of illness during that time. However, given the cost of ARVs and the massive logistical challenge of providing ARVs on a large scale, it is unlikely that ARVs will influence mortality trends very substantially at population level in the foreseeable future. Other interventions may also somewhat delay progression to AIDS and death in many individuals but are unlikely to very substantially alter the overall course of the epidemic. These include: early treatment of any infections in HIV-positive people, particularly tuberculosis; preventive therapy against certain common infections, including TB; treatment by health care staff who are well trained and experienced in HIV care; maintaining healthier lifestyles, good nutrition, and avoiding re-infection with different viral strains

    No existing treatments offer a complete cure for HIV infection and it cannot be assumed that one will be found for many years, if ever, due to the complex nature of the virus.

c) *The rate of mother-to-child transmission of HIV* is assumed to be 30%.[73] This can be considered to be optimistic, as transmission rates have been shown to be up to around 40% in breast or mixed-feeding women. However, this adaptations to this assumption or implementation of mother-to-child interventions are expected to have quite limited impact on projections of the school going and working age population before at least 2010.

d) *Fertility of HIV infected women* is assumed to be around 30% lower than in uninfected women. However, fertility impacts are assumed to differ for infected women in different age groups. This assumption influences birth rates and the degree to which Antenatal Survey rates are likely to under or over-estimate community prevalence.[74]

e) Projections of point estimates indicate the situation on *1 January of each year*. As antenatal data is collected at other times, and the HIV/AIDS epidemic grows rapidly even within one year, this lag may lead to some discrepancy with projections from other sources.

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[73] Around half of the infected children die within two years of birth, and most will die before they turn 5. However, a significant number can survive even into their teenage years before developing AIDS.

[74] Fertility adjustments are in line with age specific fertility in HIV infected women derived from a review of all available studies in Zaba B, Gregson S. *Measuring the impact of HIV on fertility in Africa.* AIDS 1998;12(suppl 1):S41-S50. Impacts of HIV on fertility of infected women are still not completely understood. Specifically in Zimbabwe, higher fertility rates appear to occur among infected than uninfected younger women until relatively older ages, when fertility among infected women fall below that of uninfected women. This suggests that antenatal rates may not underestimate rates among all women to the extent found in other countries. (S Gregson pers comm.)

f) For modelling, average age of sexual debut was assumed to be later in Zimbabwe than in other Southern African countries such as South Africa and Botswana in line with DHS as well as other data. (e.g. S Gregson pers comm.)

Sensitivity analyses

In order to test the potential implications of key assumptions used in the main scenarios presented, the following sensitivity analyses were performed.

- A scenario where a programme was gradually introduced to reduce mother-to-child transmission of HIV. We assumed that we could reduce about 30% of all HIV transmission to infants, starting from 2002.[75] The start date of the roll out of the intervention is 2002, with half of all pregnant women covered by 2009 and universal implementation by 2015.
- Scenarios to illustrate effects of behaviour change (these scenario should be seen as illustrative rather than predictive). The behaviour change scenarios involve combinations of condom usage, STD treatment, and reduced numbers of partners. The one scenario assumes condom usage in 30% more sexual contacts by people at risk across risk groups; effective treatment of 30% more STD cases to reduce the risk of transmission per contact by treated individuals; and 30% reduction in the number of partners by people in at risk categories although the number of sexual encounters remains the same. Similar interventions but with lower levels of change are assumed in the 15% intervention. The change is assumed to begin in 2002 and ends in 2015.

Projections of AIDS Impacts among Education Sector Staff

No representative data could be made available during this project on the age, gender and geographic distribution profile of education employees. In addition, lack of an HIV seroprevalence survey as well as of reliable mortality data at the time of projections, *only crude projections for teachers were possible*, based on level of school and gender as reported in the 2000 Millennium Report. The percentage of the adult population with AIDS illness and deaths, derived from our general population projections, were then taken and applied to these educators. For 1995 – 2000 we used real gender disaggregated data. For the projections from 2001 onwards we assumed the same teacher profile as in 2000. Best and worst cases were applied as described previously. Since these projections do not adjust for age, they will almost certainly over-estimate educator HIV risk, as the educator population is likely to be older than the general adult population. Due to the lack of information on the demographic profile of teachers, no calibration of projections against mortality data was attempted, as the point estimates provide inadequate indications of likely future trends even if the projections could be made to match the mortality data for the three years that were available. The table below indicates the gender of teachers by level of school that was used for 2000 onwards.

[75] While ARV drugs can reduce MTCT by 50%, it is unlikely that this level of effectiveness can be achieved on a large national scale.

Primary School		Total
Male	Female	
34,349	32,091	66,440
Secondary School		
21,386	12,777	34,163
Total number of teachers		100,603

No representative data on other education sector employees from management through to unskilled workers was available to make projections for them.

Comparison to other data and projections

The other demographic projections that have been done are by the NACP (NACP 1998) using the Spectrum/AIM model. The full set of assumptions used in this modelling is not documented. However, comparing the Doyle model with these projections shows that the Metropolitan model predicts a more severe epidemic. Also included in this comparison is information given by UNAIDS in their country report for Zimbabwe for 2000[76]

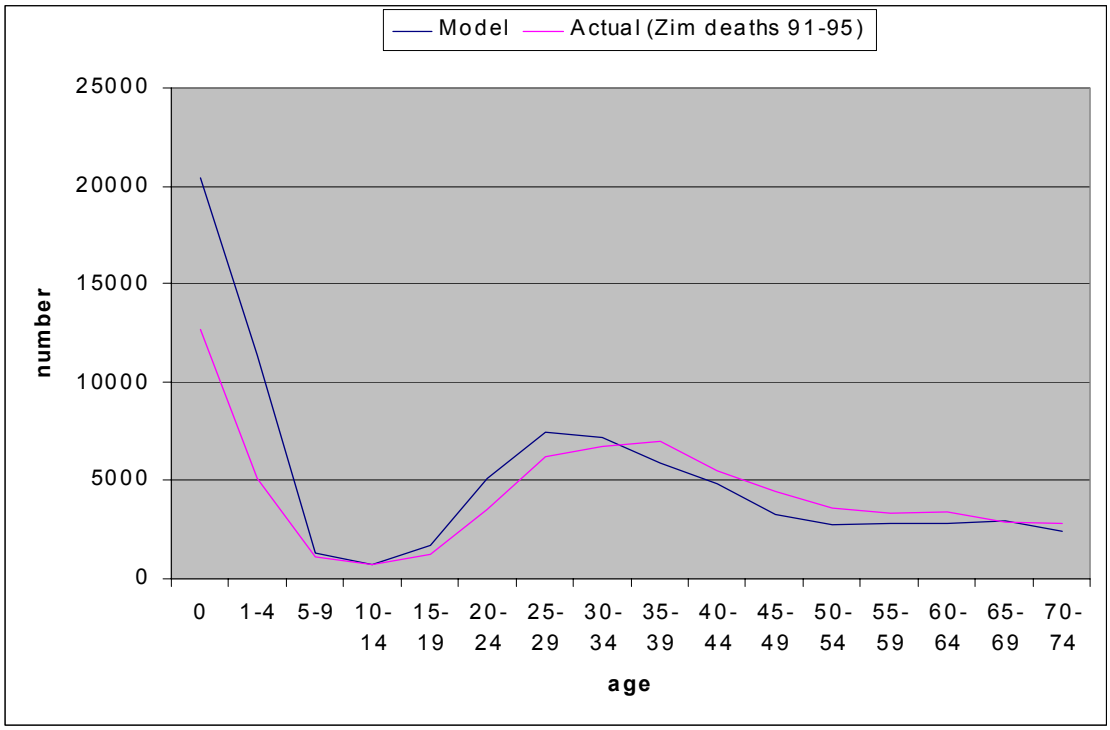
- *Adult HIV prevalence.* In the Metropolitan projections this is 30% in 1996 increasing to 33.5% in the year 2000, where it reaches a plateau. The AIM projections estimate prevalence at 20% in 1996 (apparently based on interpolations from 1994), increasing to 22% in 2000, which is the plateau. This does not seem consistent with the 2000 Antenatal survey, which suggests much higher prevalence. UNAIDS estimates adult HIV prevalence of 25.06% in 1999.
- *Cumulative AIDS cases:* The AIM model projects about 1.3 million case of AIDS would have occurred by 2005. Doyle predicts a higher figure of about 1.9 million cases.
- *AIDS Deaths*: The Doyle model predicts that there will have been around 1.3 million deaths due to AIDS in 2005. The AIM projection is similar, at 1.2 million deaths. Similarly, the prediction of annual deaths among adults aged 15-49 is quite similar, at around 150 000 a year in 2002, increasing to 170 000 a year in 2005. UNAIDS estimates that 160 000 people (adults and children) died of AIDS in 1999.
- *Orphan numbers* (aged 0 – 14 years) are shown in the table below

Year	Doyle Model	Future's Model	UNAIDS
1995	201 000	150, 000	
2000	670,000	543, 000	623 000
2005	1,076,000	910, 000	
2010	1,160,000	Not recorded	

[76] Zimbabwe. Epidemiological fact sheets on HIV/AIDS and sexually transmitted infections. 2000 Update (revised). WHO / UNAIDS Geneva 2000

Comparison to reported death data

In the figure below actual deaths between 1991 and 1995 reported from death notification data by Timaus are compared with reported deaths from the model for the same period. The fit is fairly good, although the model seems to overestimate deaths among young adults and underestimate deaths among older adults.[77] For infant and child mortality, under-reporting tends to be large in vital registration data, and the divergence between projected and actual mortality may this not be as large as suggested. The actual infant and child mortality rates produced by the models do not seem to diverge markedly from those founding the 1999 DHS. The model produces an IMR of 51/1000 in 1999, compared with UN estimates of 69/1000. In terms of assumptions used in education planning it seems appropriate to assume a higher number of children in younger age.



Issues in interpretation of projections

In interpreting projections the following issues should be considered. The assumptions noted in previous sections and the main text should be noted. Overall, it should be recognised that the results shown in this report are *projections* based only on previous demographic and epidemic trends. They are not *forecasts* that would allow for a wider range of variables out of line with previous experience to influence the size (e.g. through changes in preferences around childbearing), risk profile (e.g. large changes in risk behaviour) and treatment outcomes (e.g. widespread ARV access) of various population groups.

[77] The extent of underreporting of adult and child deaths from the vital registration system remains uncertain despite extensive examination by Timaus and others. Thus comparison of the age profile of reported adult deaths rather than the levels are likely to be the main validation that can be provided by the reported data.

Overall population projections on which child and teacher projections are based should be interpreted with the following particular points in mind.

- Antenatal Survey data has major deficiencies that limit ability to project the epidemic with confidence.
- Given the observed levels of HIV infection in Zimbabwe at present, it seems very unlikely that Zimbabwe will not experience levels of HIV/AIDS impacts of about the magnitudes projected, unless a) the antenatal survey is very unrepresentative of pregnant women in Zimbabwe or b) basic, widely used assumptions used by epidemic modellers around the world (such as survival times from infection to death) are in fact wrong. If however, better mortality data becomes available from the 2001 Census or other sources that suggest lower than expected impacts the following may be useful in interpreting such data:
    - It seems quite possible that the calibration used in these projections could bring forward the AIDS epidemic by as much as two to three years simply if lag times between the epidemic in different areas are not adequately calibrated in the absence of adequate data. In this event, death data might suggests that the AIDS epidemic is not as severe as projected when in fact it will climb to the projected level within a couple of years i.e. the difference reflects a delay rather than a permanently lower impact.
    - Another possibility might be that the survival times from infection to death may be longer than assumed. In this case, there would not only be a delay in the rise in deaths and illness, but one would expect that the plateau level of the epidemic would be lower than projected.
    - The epidemic curves derived from antenatal data, or extrapolations from them to the general population may contain errors.
- *The 2001 Census results may shortly be available. While the current projections are likely to provide sufficient guidance for many planning decisions, it seems advisable to validate projections before making any decisions that are very dependent on accuracy of projections.*

When considering the projections of the size of the *learner population* it is important to consider a number of issues:

- As mentioned above, the *projected number of children is very sensitive to changes in the fertility of women* in the population. HIV-related suppression of fertility, as well as the marked general decline in fertility rates among women in Zimbabwe is still not fully understood. It is possible that fertility declines in HIV infected women may not be as marked as assumed, and trends in declining background fertility may not continue on the same trend line – i.e. rate of decline may slow. Other factors such as important effects on child projections if there are even relatively small overestimates in infection and death rates among younger adults should also be borne in mind.
- *Actual demand for schooling may not be well correlated with the number of children in relevant ages.* While HIV has a significant impact on the total number of children in the population, the impact on enrolment into school is likely, if anything, to be greater due to indirect impacts of the epidemic such as children dropping out of school to care for sick relatives, financial constraints on households etc.
- *Until better validation data is available it seems appropriate to advise planners that they should assume that there will be higher than projected numbers of children in earlier age groups* (and in older age groups with time). They should assume that the deceleration in numbers of children will not be quite as marked or early as projections suggest. If plans are made using the lower range of numbers, and the number of children turns out to be higher, then shortages of teachers and infrastructure could result that might be difficult to remedy at shot notice.

When interpreting and validating the *teacher projections*, the projections should be considered a very rough estimate of the potential HIV/AIDS burden in this group, although they can indicate the potential severity of the problem as well as some key responses that may be warranted and feasible. Deviations of actual mortality from projected levels could arise from a host of factors including the age/gender/

geographic location of teachers, lower average risk behaviour among teachers or errors in the general population projections.

- *Overall, it seems likely that the projections over- estimate the severity of AIDS impacts so far* among teachers. However, this does not necessarily indicate that mortality could not climb to levels similar to those projected at the plateau level in future e.g. if timing of the epidemic is incorrect in the projections, the projected higher levels could be reached within a couple of years. These and other issues are discussed further in the main report text.
- *The HIV risk of teachers is not clearly understood.* An anonymous, unlinked random HIV seroprevalence study using saliva tests among teachers and trainees should be seriously considered to resolve this issue and assist in future more rigorous projections, evaluation of mortality data and planning.

Annex D : Methods used in Survey of schools

The school survey component of the HIV/AIDS impact assessment on Education in Zimbabwe was a cross-sectional analytic survey of schools in Zimbabwe. It was designed to complement the other components of the impact assessment with empirical quantitative description of currently experienced and likely impacts of HIV/AIDS and response capacity in a nationally representative sample of schools.

Sampling

The study population comprised some 6309 schools on the most recently available EMIS database in Zimbabwe.

A stratified random sample of schools proportional to enrollment within each strata was drawn to total 250 schools. Strata used were education region, level of school and urban/rural. Simple random sampling was used to select the specific schools in each strata i.e. primary (rural/urban) and secondary (rural/urban).

A sub-sample of secondary schools was selected using simple random sampling, for data collection from Form 3 pupils. Where a sampled school had more than one Form Three class, further random sampling was done to choose the specific form three class that would participate.

The final sample comprised 250 schools.

Refusals or non-response were supplemented by a further school randomly sampled from the equivalent strata.

Detailed below is a summary of the sampling frame.

REGION	Primary school enrolment	Primary schools sample	Secondary school enrolment	Secondary school sample	Sample Total
Harare	221032	17	101129	7	24
Manicaland	407205	31	135487	10	41
Mash. Central	204568	15	51109	4	19
Mash. East	269314	20	101412	8	28
Mash. West	245658	19	79214	6	25
Masvingo	341839	26	121065	9	35
Mat. North	272469	21	90060	7	28
Mat. South	155384	12	48461	3	15
Midlands	343200	26	116244	9	35
TOTALS	**2460669**	**187**	**844181**	**63**	**250**
Total number of students = 3304850 **Total number of schools = 6309**					

Most schools that participated in the survey were from the rural communal areas (52%), followed by schools in the commercial farming areas and then the urban high density areas, as shown in the following table.

Region	Urban-high density	Urban low density	Rural-communal	Rural – commercial	Resettlement	Mining	Growth point	Urban-industrial	**Total number of schools**
Manicaland	3	0	21	7	8	0	1	0	41
Midlands	6	0	24	3	0	1	1	0	35
Mashonaland Central	0	3	13	4	2	0	0	0	22
Mashonaland West	0	0	8	7	4	5	1	0	25
Mashonaland East	1	1	18	7	2	0	0	0	29
Matebeleland North	4	2	18	3	0	0	0	0	29
Matebeleland South	1	0	9	2	0	0	0	0	12
Masvingo	1	3	18	4	6	0	0	0	33
Harare/Chitungwiza	12	6	0	1	0	0	1	1	24
Total (responded)	**28 (11%)**	**15 (6%)**	**129 (52%)**	**38 (15%)**	**22 (9%)**	**6 (2%)**	**4** (1.6%)	**1 (0.4%)**	**250**

Rural council authorities run almost 60% of the schools that participated in the survey.

Region	**Govt.**	**Rural Council**	**Farm School**	**Private School**	**Mission School**	**Municipal School**	**Other**	**Total number of schools**
Manicaland	3	28	3	2	3	1	0	41
Midlands	4	22	3	1	3	0	1	35
Mashonaland Central	0	14	3	2	2	0	1	22
Mashonaland West	0	19	1	3	0	1	1	25
Mashonaland East	3	17	5	0	2	1	0	29
Matebeleland North	8	15	1	1	2	0	2	29
Matebeleland South	0	8	2	1	1	0	0	12
Masvingo	4	20	1	2	6	0	0	33
Harare/Chitungwiza	13	0	0	8	1	2	0	24
Total (responded)	**35 (14%)**	**143 (58%)**	**19 (8%)**	**20 (8%)**	**20 (8%)**	**5 (2%)**	**5 (2%)**	**250**

Measurement and data collection

The survey used three questionnaires to collect data from the research participants. One questionnaire was for school heads, the second one was for guidance and counseling teachers while the third one was for students. Questionnaires for heads and teachers were designed to be administered by trained interviewers, and questionnaires for pupils were designed to be self-administered in a classroom situation.

Training of interviewers

A one-day workshop was held at the Postal Tele Communication Training Center in Harare to train the research assistants and the researchers on the survey methods and data collection procedures. The workshop was held on the 8th of September 2001. A total of 32 people participated in the training (18 research assistants, 7 researchers, 4 resource persons & 3 secretarial staff).

The research assistants were students of the Zimbabwe Open University based in the ten regions throughout the country. They participated in the study collecting data in schools in their regions. They were supervised by the seven researchers who were ZOU full time and part time lecturers.

Pilot and field testing instruments

The research instruments were field tested in a pilot that was carried out in Harare and Manicaland. The pilot sampled four schools in Manicaland and four others in Harare. In each region two were urban while the other two were rural. Also, two were secondary while the other two were primary, one each between rural and urban settings. Some questions in the questionnaires were found to have problems and were adjusted accordingly. It is the corrected instruments that were eventually used in the main study. The collected data was not analyzed but was judged by the researchers to be analyzable. The pilot was carried out by the research assistants who had been trained to carry out the actual survey under the supervision of the researchers for those regions.

Data analysis:

The data in this survey was captured and coded by trained research assistants under the guidance of qualified statisticians. The survey used the Statistical Package of the Social Sciences (SPSS) and STATA to cross-validate responses from the different informants and analyze data.

Annex E – Management information requirements

As indicated in previous sections, HIV/AIDS has potential to impact on the education system in a number of important ways. As far as the impact of HIV/AIDS on education management is concerned, some of the important areas to consider include:

- Declining enrollment
- Increasing drop-out/drop-in rates
- Decreasing retention and transition
- Increasing number of orphans
- Teacher absenteeism, attrition and relocation
- Loss of experience, quality and contact time
- Reduced school graduation and higher education entrance among strong students
- Decline in the overall quality of education provided and consequently in educational attainment
- Post graduate attrition and levels of skills in the workplace
- School revenue collection

It is important for the MOESC to be able to monitor all of the above, and in a way that allows for a rapid response if the need arises.

- Ideally, information and monitoring systems should generate a set of early warning signals that identify systems, districts, institutions and individual staff or learners threatened with severe dysfunction that require timeous intervention.
- Data and analyses disaggregated by gender, age and socio-economic status should be used where feasible to guide responses, and clarify key gender-related and other equity issues raised by HIV/AIDS.

Besides the important issue of *what* information to collect, there is also the issue of *how* to collect it, which may be done in a number of different ways. A framework is useful to classify the information by the method of data collection and the level at which it is analysed. This would include the following:

- *Routinely collected data analysed at a national level*, including the Annual Return and other national surveys. Instruments used for these surveys should be scrutinised to ensure that they capture HIV/AIDS-appropriate information. This is discussed in the tables below.
- *Routinely collected information analysed at other levels*. There is increasing recognition that data collected at school level which is analysed and used at a school, cluster or district level is crucial to develop timely and appropriate responses to the AIDS epidemic.
- *Analyses of secondary data*. In some cases other organisations may have collected information that is of relevance to the MOESC. Examples of this are illness and deaths collected by medical insurers and pension fund managers. The MOESC may want to keep track of these sources, to complement its own information
- *The use of sentinel sites,* where more intensive research is done. This is likely to be particularly important to assess new intervention e.g. orphan support mechanisms.
- *Research targeted at answering specific questions.* This could include KAP surveys and targeted HIV sero-prevalence surveys.
- *Qualitative research or monitoring.* This is likely to be critical to understand AIDS impacts that may not be adequately uncovered by quantitative analyses. This may be incorporated into routine

management through development of instruments that, for example, enable school inspectors to elicit qualitative information from staff and students.

- *Adverse events monitoring*. Systems for managers or other stakeholders to report adverse events (e.g. effect of teacher absence on learning) may help to identify priority issues for responses.

Some considerations in tracking HIV/AIDS impacts and education sector responses are presented in Table E1 and Table E2. The tables illustrate the potential of routinely collected indicators to monitor AIDS impacts among learners and personnel respectively, and point to areas where special surveys or alternate strategies to collect data may be needed. This is a relatively comprehensive list of data needs, and will need to be prioritised in consultation with various stakeholders.

Table E1: Potential Indicators for Tracking Impacts on Learners and Monitoring Responses

Indicator	Priority	Comment
IMPACT INDICATORS		
Enrollment	+++	> Numbers of children enrolled are collected in the MOESC Annual Return. > Robustness of net enrollment ratios (NER) based on population data cannot be assured owing to the likely unreliability of population projections based on the 1991 Population Census. Use of population data from the 2001 Census adjusted by projections incorporating HIV/AIDS impacts is likely to improve robustness of NER. > Population surveys specifically asking about school enrollment are recommended to give more specific indications of enrollment and, in particular, to capture and understand circumstance s of out-of-school youth. Repeat inter-censal surveys are likely to be important to track changes over the next decade. > Establishment of sentinel sites and repeat surveys including questions on enrollment, attendance and progress through the school system may be warranted to allow tracking of enrollment over time. > Identification of schools where lower learner numbers stem from social and economic HIV/AIDS impacts on households poses a particular challenge to the Ministry. School enrollment data from the Annual Returns should be interpreted together with Drop out and Transfer data. Consideration should be given to gathering qualitative data from schools on perceived reasons for changes in enrollment.
Drop outs and re-entrants	+++	> Overall numbers by form and sex are collected in MOESC Annual Return. Overall data may hide growing disparities at school or district level. > Difficulties accessing existing up to date information. > The category, “other” limits usefulness of data, particularly at school and district management level. > Available data indicate growing gender disparities in drop out rates, which require further tracking and system responses. > It may be appropriate to expand data collected on drop outs and re-entrants in the Annual Return, as this is likely to become a more important indicator of sector performance and challenges. Consider e.g. requesting a register by name and description, as is required for learners with special education needs. > Monitoring drop outs and out of school youth through sentinel sites and repeat surveys will be important to assess educational needs of these children, as needs may be more appropriately met outside the formal school system e.g. for overage learners. > Incentive schemes to reward schools which assist drop outs to re-enter the formal system or other forms of education may be appropriate to encourage school management to monitor and support drop outs.

Transfers	++	> Data on transfers available from Annual returns but uncertain whether this captures all relevant movement between schools. > Consider comparisons of transfers in and out to monitor success of referral systems between schools.
Repetitions	++	> Data on repetitions available from Annual returns. May indicate important HIV/AIDS or other impacts on student performance.
Transition rates	+++	> Available from Annual returns. > Drop-out at key transition stages e.g. Std 5 to Form 1, may be important manifestation of HIV/AIDS impacts. As higher level transition is often strongly influenced by supply of places rather than demand, consider tracking cohorts of learners to check whether the best quality candidates are progressing or liable to drop out due to socio-economic and HIV/AIDS factors.
Learner absenteeism	++	> Not in Annual Returns, though thought to be a strong influence on learner performance. > Recorded at school level, but quality and availability of data to track trends is uncertain. > Probably mainly feasible as part of action linked DMIS or school-level action-related management information systems. > Usefulness of prolonged or frequent absenteeism as early warning signal of impending drop outs should be explored - with linkages to intervention
Learners with special needs, potentially including OVC	+++	> Orphan registers with details of individual OVC are probably only feasible and useful at school level, but reporting of overall numbers of OVC (categorized by particular types of vulnerability) in Annual Return is probably desirable. > Develop robust indicators for early identification of vulnerable children for routine use at local level > Coordinate with registries of OVC compiled by social workers and some schools in design of instruments to assess care and support needs and trends. Consider issues such as confidentiality and sensitivities of children and parents/ guardians in system development. > Consider closer tracking of education outcomes of traditional special needs children who may be more vulnerable to HIV/AIDS impacts.
Other indicators of education quality e.g. examination results, school performance indicators	+++	> Pass rates routinely collected, and important independent of HIV/AIDS > Monitor trends at individual school or cluster level which may be hidden in aggregated statistics > Consider studies to identify any correlations between performance and indications of teacher illness or orphan rates in preceding years. > Qualitative information on school performance among orphans may be important.
Indicators of quality of school environment - Counselling rooms - School safety		> Counselling rooms not identified in current EMIS > Appropriate school safety indicators not clear. May include infrastructure e.g. lighting and incident reporting
Age range in classes		> Available from existing EMIS > Increases in late enrollments, temporary drop out and failure rates may significantly increase the range of student ages in classes. This may have implications for teaching process and approaches, as well as for high-risk sexual activity among students.
RESPONSE MONITORING INDICATORS (input, process and outcome)		
Input		
No. teachers trained to implement HIV/AIDS interventions	+++	> Consider incorporating in Annual Return

No. of peer educators in schools	++	> Consider incorporating in Annual Return
Barriers to access e.g. school levies, non-payment rates		> Consider in Annual Return
Process		
Implementation of HIV/AIDS curricula	+++	> Qualitative validation of effectiveness of implementation is important through school inspector or other assessment. Must include learner input into assessment.
No. schools with HIV/AIDS policies and plans	+++	> Consider itemizing key components of HIV/AIDS response in survey forms (e.g. OVC systems, staff prevention, workplace programme access etc in line with prevailing strategy.
Condoms distributed in schools	++	> Depends on MOESC condom policy change. Potentially important to assess overall effectiveness of programmes and efficient management of condom distribution. > Not currently routinely collected. Could be asked in the Annual Return.
Outcome		
Risk behaviour of learners	++	> Pregnancy data available from EMIS > Need to reduce "unknown" reasons for dropout > Review other sources of data e.g. DHS, KAPB studies and include in reports
Teacher sexual misconduct		> Monitor number of cases and outcomes centrally
Rates of new HIV infection among learners	+	> Tracking the rate of new infections across the whole system is unlikely to be a priority. However, consider serial HIV prevalence surveys or behavioural surveys in sentinel junior and senior secondary schools to assess patterns of new infections, susceptibility and vulnerability among learners, effectiveness of prevention and as a way to mobilise behaviour change.
Drop out, enrolment and repetition rates among needy children	+++	> Liaise with orphan surveys and studies utilizing OVC registers. Repetition rates captured in Annual Returns

Table E2. Potential Indicators to Track Impacts on Teachers and Monitor Responses

Indicator	Priority	Comments
IMPACT INDICATORS		
Rates of HIV infection amongst educators	+++	> Strongly consider anonymous HIV sero-prevalence surveys to validate the findings from projections, and mobilise support for responses. > System-wide HIV testing is unlikely to be a priority.
Educator and support staff attrition due to ill health, death and other causes	+++	> Information on MOESC teacher mortality can be extracted from the teacher data base. > Review reliability and efficiency of ongoing use of the above system. > Consider disaggregated analysis at school or cluster level to assess severity of impacts which may be hidden in aggregated statistics. > Reinforce systems (e.g. consider exit interviews) to establish reasons for attrition. Reasons for attrition that may be indirectly

		related to HIV/AIDS, such as skills shortages elsewhere in the labour market or stress, may become at least as important as death or illness as reasons for attrition. > Consider ways (e.g. DMIS or other local action oriented systems) to allow for effective use of ill health and mortality data to manage impacts timeously at local level.
Educator absenteeism	++	> Important information but reliable data not available. It is inherently difficult to enforce good routine reporting without appropriate incentives. > Sentinel sites or DMIS may provide more reliable information to inform planning. Consider monitoring absenteeism in urban centres to which staff may migrate to be closer to health care facilities. > Useful to disaggregate by cause to inform policy development e.g. around funeral attendance
Time taken to fill posts of teachers and managers	+	> Time taken to fill vacant posts is not routinely tracked. > May be key information to inform planning to reduce disruption due to attrition and transfer, and design of relief teacher systems.
Educator work performance	+	> Consider studies to assess differences in subject or overall school outcomes and possible correlations with teacher illness. > Qualitative information likely to be important to understand impacts.
Educator workload	+	> Monitor especially in relation to specialist subjects.
Intake and output of teacher training	+++	> Consolidation and routine tracking of intake and outputs of teacher training is urgently required. > Analysis of trends in specific skills areas likely to be critical > Monitor attrition during training and after graduation.
No. of teachers transferred on health and other grounds	++	> Monitor number and geographical distribution of health and other transfers > Monitor impact on availability of scarce skills and equity of teacher distribution.
RESPONSE MONITORING INDICATORS		
Inputs		
No. teachers reached by HIV prevention programmes	+++	> Not currently routinely collected. Could potentially be asked in the Annual Return.
No. of schools in possession of HIV/AIDS Code of Conduct/ policy	+	> Not currently routinely collected. Could potentially be asked in the Annual Return. > Qualitative data on effective use of policy likely to be important.
Availability and use of relief staff and other cover	++	> Not routinely tracked. Important to assess level or disruption of teaching, quality of relief teachers and costs of cover systems.
Process		
Ill health retirement and death benefit processes	++	> Monitor appropriateness and efficiency of utilisation of retirement, death and disability benefits processes.
ARV availability and outcomes	+++	> Request routine reporting of statistics on numbers of education staff on ARVs, treatment failure rates and other aspects of HIV/AIDS care from PSMAS. > Monitor trends in medical aid coverage and costs
No. of teachers utilising wellness	++	> Not currently routinely collected. Need information on the impacts of ARVS on absenteeism and mortality.

programmes and counselling services		
Outcomes		
Risk behaviour amongst staff	++	> Review data available from national surveys > Consider sentinel surveys, KAP studies and qualitative data collection to inform HIV prevention and response planning
New HIV infections among staff	+	> Tracking the rate of new infections across the whole system is unlikely to be a priority. However serial sentinel HIV prevalence surveys in select schools should be considered to assess patterns of new infections and vulnerability among teachers, effectiveness of prevention and to mobilise behaviour change.
Adverse impacts on learning	+	> Consider monitoring of ill health retirement vs. death rates, as well as adverse events monitoring (e.g. complaints of inadequate teaching due to illness).

The availability of information or data is certainly critical to informed decision-making, but the key is being responsive to the data 'alerts'. In order to implement this data 'wish list', the Ministry should prioritise initiatives and resources, with particular attention to management issues.

For example, the Ministry should consider the following:

- *Current constraints* to effective EMIS (e.g. human and financial resource capacity); which hamper the link between data collection and policy and planning.
- *Improving processing capacity* at Ministry and district level to capture and analyse the data as well as increase access to data in order for the Ministry to respond effectively and efficiently to issues raised.
- *Institutionalising EMIS and DMIS* into mainstream operations of the Ministry.

What to do with the information collected should also be a consideration in the light of limited human and financial resources. The Ministry should consider exploiting synergies between activities such as monitoring and evaluation, lifeskills, out-of-school youth programmes, health and social workers for assistance in data collection and analysis to facilitate early identification of problems and rapid responses. Each role-player in the circle of support is in a position to provide data input and action based on the data efficiently.

In this way, responses to HIV/AIDS would not be exclusive or onerous, but will be relevant to other challenges facing education (for example poverty).