Abt Associates South Africa Inc.

THE IMPACT OF HIV/AIDS ON EDUCATION IN BOTSWANA

WORKING DRAFT – NOT FOR CIRCULATION

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Abstract

Since independence, Botswana has made great strides in economic and human development. In education, almost 100% of children now enrol in primary school, over 90% start secondary school and girls have enrollment rates similar to those of boys. However, Botswana's HIV epidemic is one of the world's most severe. The 2000 national antenatal survey of pregnant women found that 38.5% were HIV-positive and it is estimated that around one third of the adult population is infected. This presents a major challenge to further development and improvement in the accessibility and quality of education. The HIV/AIDS impact assessment commissioned by the Ministry of Education (MOE) and UNDP has explored implications for the education sector.

How does HIV/AIDS affect the needs to be met by the education system?

HIV prevention
A critical challenge to education is the need to prevent infection among youth. Infection rates climb from close to zero in 10-14 year olds, to estimated levels of over 40% in 20-24 year olds. Without effective prevention, premature AIDS deaths of learners could thus lead to loss of around one third of the nation's investment in education.

The education system is uniquely placed to prevent infections among the learners with which it interacts each day. However, current programmes are clearly not adequate to produce an AIDS-free generation. Levels of basic HIV/AIDS knowledge are high, but there is no clear sign that teenage infection rates are falling. Ongoing problems include a lack of skills to avoid unsafe sex and misconceptions about HIV/AIDS. A new concern is that increasing access to antiretroviral (ARV) treatments may lead to complacency about HIV prevention.

There is an urgent need to complement current programmes by fast-tracking a new HIV/AIDS life-skills programme, reinforcing peer educator programmes and extending programmes to primary school learners before they become sexually active. Parents and communities need to become involved, in order to address social, cultural and economic factors outside schools that counteract school-based programmes. Another priority for the education sector is to ensure that school themselves are free of sexual abuse or coercion, and that sexually active learners have effective access to condoms.

We must remember that around nine out of ten youth aged 15-19 are *un*infected and most men are only infected in their twenties. This is despite the early age of sexual debut among teenagers. More positive messages are therefore needed to combat fatalism about infection among teenagers.

Infected learners
Support to learners who are infected or who fear infection is a further need created by the epidemic. However, available data suggests that it is unlikely that more than 1-in-150 learners will be ill with AIDS in any year. Thus, while the trauma around each learner with AIDS should not be underestimated, school-based services for ill learners should not be considered a priority.

Orphans and other affected children
Orphans and other children affected by AIDS in their households and families are an enormous challenge to Botswana. Projections indicate that the total number of children under 15 years who have lost one or both parents will quadruple between 2000 and 2010. Orphans will be concentrated in school-going ages. Almost one in three children aged 5-9 and one in two aged 10-14 are expected to be orphans by 2010. In some schools and classrooms, rates can be expected to be higher than these

averages. Even under fairly optimistic scenarios of ARV access, numbers of orphans seem likely to at least double from current levels.

Orphans and children with sick household members face a range of stresses, due to economic and psychological impacts and new household roles as carers. There are mixed indications of whether school dropout is common among orphans in Botswana, but reports of declining school performance and disadvantage are common. Key factors protecting education outcomes seem to include availability of social welfare grants, school meals and a culture of school attendance. However, there is concern that many teachers may not be recognising the full impact of being an orphan on children, and there can be no complacency given the early stage and expected levels of orphanhood. Already, extended family structures and social services are under severe strain.

Schools are uniquely placed to perform key functions such as early recognition of vulnerable children, mobilising timely responses to prevent unnecessary trauma and monitoring of their well-being. Spontaneous responses at school level indicate that schools can perform such functions effectively, but that this requires a range of potential partners in and out of school to work together.

The immediate priority is to ensure that orphans' basic needs such as food, uniforms and shelter are met efficiently. Without this, schooling will inevitably suffer. However, to do this will require much stronger inter-sectoral co-ordination, particularly with Social Welfare services, which already battle with high workloads worsened by system inefficiencies. At the level of each school and district, formalised networks or "circles of support", which coordinate sources of capacity in each school, district and other sectors should be established. Leadership of the MOE in defining roles, accountabilities and mandates in schools and districts is essential.

Inadequate counselling capacity in schools is a major concern of teachers and needs to be increased, but this is a difficult challenge. Also, monitoring tools, such as regular school census's to identify vulnerable children also need development. The current policy focus on orphans is an important way to target need, but consideration will also need to be given to expanding the focus to other vulnerable children.

How will HIV/AIDS affect capacity to deliver education?

Current levels of death among education sector staff appear to be lower than estimates for the general population. This may be due to a combination of lower risk behaviour, antiretroviral drug use or simply delayed effects of infection among teachers. Even if teacher's risk is only half of that of other adults with their age and gender profile, almost 25% are likely to be infected, with the highest levels among primary school teachers and levels above 10% among senior, generally older, staff.

Death and illness of staff are not destabilising the overall system so far, but HIV/AIDS is causing significant anxiety and stress. Individual schools and classes can be more heavily affected, and HIV/AIDS is complicating staff allocation and management.

Looking forward, despite uncertainty, several key issues emerge. Firstly, if education staff obtain high levels of access to effective ARV treatment, this will substantially reduce loss of skills, and as much as 80% more teachers with HIV would survive to the next decade. ARV treatment can also narrow the range of attrition rates that have to be considered in planning. Importantly, high levels of ARV access combined with expected declines in learner numbers should be able to ensure that Botswana will not have to markedly increase its teacher training capacity above current levels. However, even under optimistic ARV and risk scenarios, teacher death rates are likely to exceed 2.5% per year by 2010. In addition, the combined proportion of teachers with AIDS or on chronic ARV treatment could rise to around 12% by 2010. Medical costs are likely to be the largest cost to the system, with most other costs falling within manageable limits for Botswana.

Management of impacts of HIV/AIDS on staff and system function is the most under-developed area of sector strategy at present. Several key recommendations are made.

- Ensure high levels of ARV access for staff. Wide ARV access is in line with overall government policy, but it will need active support from the sector.
- Develop coordinated workplace policy and programmes to address both prevention and impact management. A key component will be wellness programmes to support staff.
- Pay specific attention to improving ill health and absenteeism management.
- Develop modern management techniques to cope with loss of skills, particularly in vulnerable functions.
- Re-orientate teacher training to consider the new skills required of teachers in prevention and support.

The overall response

HIV/AIDS is a core issue for the Botswana education sector and fundamentally challenges its mission. Since 2000, major strides have been made in developing and implementing an education sector HIV/AIDS strategy. However, plans need to be reviewed and refined and several general issues need to be considered. Leadership commitment to HIV/AIDS responses at all levels must be consolidated, and the stigma and denial that remain widespread in Botswana must be combated. The education sector needs to embrace inter-sectoral co-ordination, which includes NGOs, as a cornerstone of any effective and efficient response. Clear guidelines are needed for education managers and teachers. These should be based on principles of facilitating flexible, decentralised solutions that can fit local circumstances, as well as on more effective mainstreaming of HIV/AIDS into all components of the sector, and a shift in organisational culture to meet these challenges. Improved information is also required, and systems need to be able to pick up impacts that are hard to quantify or that may be hidden in average, overall levels of impacts. As the challenge to the system becomes clearer, it is also evident that greater investment in dedicated capacity at national, regional and district level is needed to drive the sector's response.

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Acronyms

ARV	**Antiretroviral drug**
BPOMAS	**Botswana Public Officers Medical Aid Scheme**
CBO	**Community based organisation**
CJSS	**Community Junior Secondary School**
DPSM	**Department of Public Services and Management**
DMSAC	**District Multi-Sectoral AIDS Committee**
HAART	**Highly Active Anti-Retroviral Therapy**
HBC	**Home-based care**
MOE	**Ministry of Education**
MOH	**Ministry of Health**
MLG	**Ministry of Local Government**
NAC	**National AIDS Council**
NACA	**National AIDS Coordinating Agency**
NDP8	**National Development Plan 8**
NGO	**Non-governmental organisation**
OVC	**Orphans and vulnerable children**
PLWA	**People living with HIV/AIDS**
PMTCT	**Prevention of mother to child transmission of HIV**
PTA	**Parent Teacher Association**
SSS	**Senior Secondary School**
TSM	**Teaching Service Management**
TT&D	**Teacher Training and Development**
VCT	**Voluntary counselling and testing**
VET	**Vocational Education and Training**

Summary - Impacts of HIV/AIDS on Education in Botswana

The HIV epidemic in Botswana is one of the most severe in the world. In 2000 38.5% of all women attending antenatal services tested HIV positive and it is estimated that 32% of the adult population is presently infected with HIV. In this context it is unlikely that the education system will be spared from the devastating effects of this pandemic, which has the potential for reversing many of the gains that Botswana has made in educating it's population.

Like other ministries of education in the Southern Africa region, the MOE in Botswana is grappling with planning for the impact of the epidemic on the education sector. HIV/AIDS raises four main questions for the education sector:

1. What is the role of the Education in preventing the spread of HIV among young people?
2. How does the sector ensure that all young people, especially orphans and other vulnerable children, achieve their full potential?
3. How does the sector, which is the biggest employer in the country, prevent HIV infections among their employees?
4. How does the education sector continue to improve access and quality of services in the face of the AIDS epidemic?

Last year a study was undertaken which looked at the impact of the epidemic at a school level. Because of this it was agreed that this study would focus on placing the impact of the epidemic, and the responses of the MOE, in a broader context of the impact of the epidemic at a societal and sectoral level. Also, this study would focus on providing some future scenarios that could assist planners. Issues around the costs of the epidemic to the education system, and management information that might be required to address AIDS impacts were also addressed. The methodology used in this study consisted of the following:

- Projections of levels of HIV/AIDS infections, illness and death among students and staff.
- Interviews with key individuals in the MOE and other stakeholders.
- Field visits to four education districts
- A review of relevant documents, policies and regulations

Background

Botswana is one of the success stories of Africa. As a result of revenue generated from its mineral wealth, together with political stability, Botswana has been able to invest considerably in economic and human development. This has led to remarkable improvements in all areas of human development, from life expectancy to literacy.

However, Botswana faces significant challenges, independent of the AIDS epidemic. Although its per capita GDP is the highest on the continent, a large number of people still live in conditions of poverty. In addition, there are high levels of unemployment, especially among women and the youth. Botswana is a large, sparsely populated country, which creates logistical constraints. From being a predominantly pastoral society, there has been a rapid transition to a more modern, urban based society. Many individuals and communities have to cope with challenges without the traditions and structures on which they could previously rely.

Pre-existing skills shortages will now be exacerbated by high levels of HIV/AIDS death and illness in economically active age groups, unless the education sector can produce new, well qualified graduates to fill the gap.

The Botswana Education System

The core of the education system is the 740 primary schools and the 270 secondary schools. The primary schools serve around 320 000 children and employ 12 000 teachers. Secondary schools serve around 145 000 students and employ around 8300 teachers. There are six teacher-training colleges, 3 technical colleges, and one University. Many students are sent abroad for tertiary education in specialist areas. Other vocational training and non-formal education for children out of school are also available.

The Ministry of Education in Botswana has made significant strides towards providing universally accessible education of good quality. Almost 100% of children enrol in primary school, and an increasing number are progressing to Junior Secondary School (up to 95%). Girls have had a high enrollment at all levels of the education system. There has been an impressive decline in both pupil teacher ratios, and pupil classroom ratios, to 28:1 and 41:1 respectively in 1997.

While access to education has improved tremendously, the focus has turned increasingly to the quality of education. The objectives set out in the 1994 revised National Policy on Education focus on raising the standards of education at all levels, emphasising science and technology, improving the partnerships between schools and communities and providing lifelong education to all sections of the population.

To achieve many of theses objectives the education sector still has to overcome many obstacles. These include limited management capacity, together with a limited capacity overall. This has been exacerbated by the rapid expansion of the system. At the same time policy promotes decentralisation, which requires well-trained and competent managers at all levels. Many staff at all levels are still overly reliant on a rules and procedures based approach to their work, which reduces flexibility, responsiveness and efficiency. This is the opposite of the qualities that are needed to mount a successful challenge to the AIDS epidemic.
Until 2000, education sector responses to HIV/AIDS were very limited. The epidemic was largely seen as a health issue and responses were largely limited to prevention of HIV among students. The relevance of HIV/AIDS to the sector more broadly was not widely appreciated or formalised in policy and structures.

Since 2000, major strides have been made. Important momentum was created by a presidential requirement for responses in each sector, and accountability and reporting to NACA. A Ministry HIV/AIDS Committee of all Heads of Department has been established. A HIV/AIDS coordinator has been appointed reporting directly to the Permanent Secretary. A Technical Working Group composed of focal point persons from all Departments has been established to plan and coordinate the Ministry's response. A strategic plan, including sub-plans for all Departments and certain key Divisions, institutions and units was formulated in February 2001.

The Impact of the epidemic on numbers of children

In the absence of AIDS the number of children in Botswana would have increased steadily throughout the next decade despite a decline in fertility in general. The number of young children is now expected to begin to decline. This is being caused by a number of different factors: declining fertility trends which were already in place; HIV/AIDS deaths among women of child-bearing age; reduced fertility of women with HIV; and increased mortality among the children infected with HIV around the time of birth, most of whom die before the age of 5 years.

Projections indicate that the total number of people aged less than 25 years would have increased from around 920 000 in 1995 to 1 200 000 by 2015. However, as a result of the HIV/AIDS epidemic, the number of people under 25 will probably decline to around 860 000 by 2015.

Younger age groups will be affected earlier on, and the 0-4 year old age band is probably already declining in absolute numbers. The 5-9 year old age group, which includes children entering school, is likely to start declining around now, and will be around a quarter smaller than expected in the absence of AIDS by the end of the decade. Education system data shows that the growth in Std.1 enrollment seems to have been slowing for a while, and actually declined by 3% in 1998. Numbers of older children will decline later, with 10-14 year olds decreasing in number from around the middle of the decade, and being about 20% smaller by 2010. Declines in the numbers of children in older age groups will only become apparent by the end of the decade.

These projections are subject to number of assumptions. Changing assumptions about HIV-related fertility, and using different demographic models, has little impact on the projected number of children. Likewise, introduction of programmes to reduce MTCT of HIV will increase the number of children, but the effect is relatively small and it will take a while for these programmes to make a meaningful difference. In addition, enrollment into school is affected by many other factors, and so the issue of declining numbers of children needs to seen in a context of accessibility of schooling combined with the many other ways that AIDS will impact on communities.

These projections have important implications for planners. The need for infrastructure, books and equipment is obviously related to projected numbers of students. In addition, close monitoring is required to assess the accuracy of these projections. Projections indicate that education sector infrastructure and human resource planning has to anticipate substantial changes in the expected number of students as well changes in the age profile of the population it serves. Human resource planners also need to consider impacts of HIV/AIDS on the rate of staff attrition. Changes in student numbers will be difficult to predict, particularly at local level, and planning will have to maximise flexibility to deal with uncertainty.

How will HIV/AIDS affect students' needs?

Needs for HIV prevention

The challenge. Antenatal survey data indicates that infection rates are close to zero in the early teens, and then rise rapidly from the mid-teens to as much as 40%- 60% among women aged 25-29 in many communities. In young men the rise in infection occurs later, but is thought to rise to levels similar to peak levels in women by the time men are in their 30s. For all males and females combined, young people rates are estimated to rise to around 1-in-10 in the 15-19 age group before leaping to between one-in-three or one-in-two in the early 20s.

HIV infection fundamentally challenges the mission of the Botswana education sector. At current rates of infection, up to half of all students will become infected during or soon after their education. Most of these will either die of AIDS or have a chronic disease requiring ongoing anti-retroviral treatments before they reach the age of 40. Failure to prevent HIV infection among students thus represents the single greatest inefficiency of the education system in its efforts to promote human and economic development. More than any other sector, education has opportunities to influence levels of HIV infection among young people now and in future years, through its direct access to and influence on cohorts of children as they move through the system.

Responses. The main approach of the MOE to HIV/AIDS education has been to infuse topics into other subjects. Content has often been biased mainly to technical aspects of HIV/AIDS. The programme has only recently begun to target primary school students in Standard 6 and 7. The MOE is currently piloting new school health materials in CJSS and Primary schools. Other components of

intervention include Guidance and Counselling and Educational Broadcasting. The sector has been supported by several NGO initiatives, particularly peer education by PACT.

Antenatal survey data and various surveys of knowledge attitudes and practices indicate that despite high levels of awareness of AIDS and basic HIV/AIDS knowledge, there has been no change in behaviour that seriously begins to turn back the epidemic.

Recommendations – HIV prevention

There should be no illusion that current initiatives are anywhere near what is required to produce an AIDS free generation. Key recommendations include the following:

- Strengthen and extend the current infusion-based programmes
- Fast track development of a separate stand-alone HIV/AIDS and lifeskills programme to deal in a more focused and holistic approach to HIV/AIDS than achieved through infusion.
- Aggressively extend initiatives to all levels of primary schools to educate children before they become sexually active.
- Strengthen peer education approaches and in particular the PACT programme.
- Aggressively increase HIV/AIDS training for staff in co-ordination with workplace prevention and impact management programmes.
- Ensure that all education staff and managers see HIV/AIDS prevention as the sector's core business and give it appropriate priority.
- Develop ways to address home, community and cultural issues that are undermining school programmes.
- Develop more flexible, innovative and participatory approaches to HIV/AIDS education to avoid "prevention fatigue" and allow new and more complex issues to be raised and addressed.
- Improve capacity and systems for monitoring and evaluating implementation of programmes.
- Increase focus on positive messages and care and support issues to combat fatalism and denial.
- Make schools a safe environment where HIV/AIDS can be discussed without fear of stigma and free from abuse and harassment by staff or other students.
- Develop specific plans to deal with students in particularly high risk situations e.g. orphans, proximity to army bases or construction projects.
- Develop and disseminate guidelines on accidental exposure to HIV in schools to reduce high levels of unnecessary anxiety and ensure safety.
- Create better, sustained linkages with the NGO sector and adolescent health services to enable them to be more effective partners.
- Condoms should be available at every secondary school and higher standards in primary schools as part of a coordinated school prevention programme. Should this prove problematic due to community responses, each school should clearly demonstrate that sexually active students face minimal barriers to condom access.

Needs of infected students

Educational institutions will face a significant number of HIV-infected students who are infected with HIV, either from maternal transmission, or through sexual abuse or relationships in their teens.

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 but this could rise to almost 4% by 2010. The 10-14 age group is estimated to have levels of around 1% over the period. Around 10% of 15-19 year olds and 40% of 20-24 year old are estimated to be infected, with levels remaining 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 one-in-100 children aged 5-9, down to one-in-2000 in 15-19 year olds. Deaths from AIDS are likely to be substantially lower than deaths from other causes among children aged 7-19.

Significant numbers of students will therefore need support to deal with psychological trauma and stigmatization around HIV infection or fear of infection. However, risk of accidental exposure to HIV infection in most schools is likely to be quite limited and quite small numbers of students will need medical support. Universal precautions and medical or other support for students with AIDS will remain important issues for individuals and school communities. But they are likely to be lower overall priorities than prevention of sexual transmission, including STD treatment, and management of other impacts of HIV/AIDS on students.

Recommendations - infected students

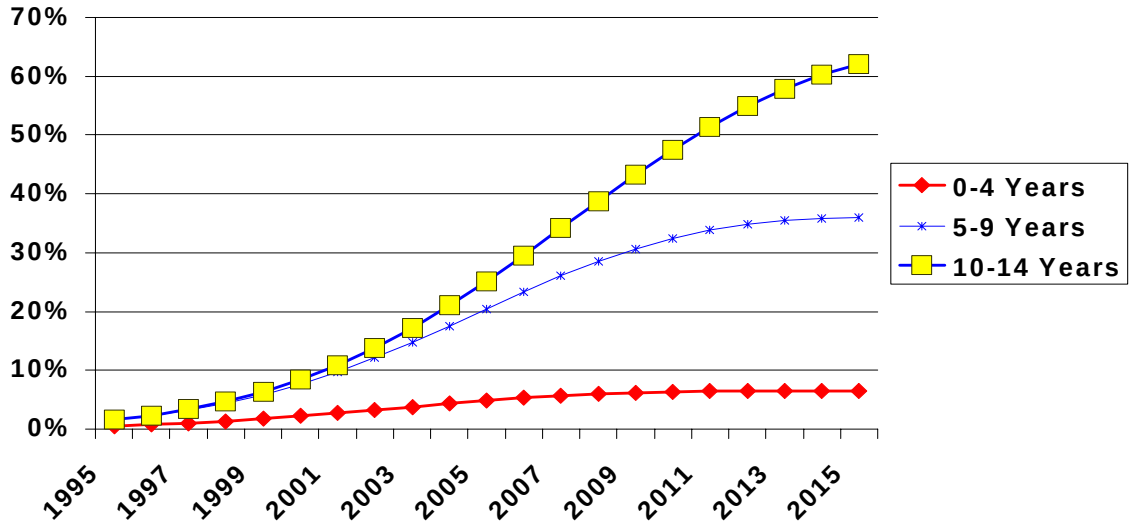
- *Counselling strategies for schools should consider support for students who are HIV infected or who fear that they are infected.*
- *Develop policies and procedures for management of accidental exposure to HIV in school settings.* These policies should combat widespread, unnecessary anxiety that exists about accidental exposure through blood, saliva and toilets, and deal with issues such as skin rashes, TB and other opportunistic infections. Ensure wide dissemination of policy and ensure availability of basic protective equipment in all schools.
- *Actively combat stigmatisation of infected students to protect their right to education and well-being*.
- *Develop codes of conduct, systems and guidelines to ensure appropriate management of confidentiality and non-discrimination around infected children.*
- *Develop efficient, feasible approaches to ensure medical and other support for children who are ill with HIV/AIDS in each school.*
- *Consider ways to reduce practical obstacles to continued education of infected or ill children*.
- *Incorporate training and communication strategies to cultivate confidence of all staff in managing issues related to infected and ill students*.

Orphans and other affected children

The biggest impact that the HIV epidemic will have on students will be through the disruption of families and households. AIDS orphans are already recognised as one the most critical challenges facing Botswana.

Estimated numbers of orphans. Projections, which seem to be reasonably consistent with reported numbers of orphans, indicate that the total number of orphans in Botswana will rise rapidly from 38 000 in 2000 to 101 000 in 2005 and 161 000 in 2010. Orphans will be concentrated in school-going ages (Fig. 1). Around one in 10 children aged 5-14 are estimated to have lost their mothers to AIDS but almost one in three children aged 5-9 and one in two aged 10-14 are expected to be orphaned by 2010. In some districts, schools and classrooms, rates of orphanhood can be expected to be higher than these average levels. Some secondary school teachers said that 20-30% of students in some classes are orphans.

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



Impacts of orphanhood on schooling. Orphans' schooling can be affected through economic stresses in their households; psychological impacts of illness and death, stigma and abuse; and new responsibilities to care for the sick, the elderly or siblings and loss of parental guidance. A number of studies in Africa have shown that orphans are at substantially higher risk of delayed enrollment, poorer school performance and drop out rates in excess of 30%, although they do not always seem to be at higher risk than non-orphaned children with living in poor households. Girls tend to be at higher risk, and impacts often occur before children are orphaned due to effects of illness on their households. A common reason that children drop out of school, or perform poorly, is lack of material resources to meet basic needs. If short-term crises can be avoided or managed, many orphans can continue successfully with their schooling.

In Botswana, there is mixed data on how severely orphanhood is impacting on drop out rates and education outcomes. All available information may be significantly biased and provides limited data on vulnerability. Anecdotal reports of negative impacts are frequent but most teachers have mainly reported poorer performance rather than drop out. Sources suggest that between one third and one half of orphans need active support.

So far, however, it seems plausible that adverse effects on educational outcomes are lower than experienced elsewhere. Botswana has several strong advantages in reducing impacts of orphanhood on schooling. These include a formal grant system and school meals to meet basic material needs, an established culture of schooling and high female enrollment, less reliance on child labour for subsistence tasks, home based care systems that can relive children of caring for sick adults, and relatively good prospects of advancement after successful schooling.

Nevertheless, there are a number of reasons why complacency is misguided at this stage. The effects of orphanhood may be under-estimated through limited awareness among many teachers, or because rates are still relatively low, making effects difficult to identify in many classrooms. In a schooling system that is striving to improve quality and extend access, more subtle effects have increased importance. More importantly, Botswana is at an early stage in its orphan epidemic and the epidemic is set to be more severe than in most other countries that have been studied. Extended families and other support systems will become increasingly strained in the near future. Effects such as re-orphaning of children becoming more common and group psychological effects of the epidemic on students and society may change current norms around schooling in unpredictable ways. Many non-orphans will be affected indirectly by AIDS impacts on their friends and families, particularly if children in households that take in orphans face declining levels of nurturing and resources per household member. Orphans and other affected children will also be exposed to higher risk of HIV

infection themselves, as they may be more likely resort to unsafe sex for material or psychological reasons and are at high risk of abuse.

Responses to needs of orphans and vulnerable children (OVC). There has been limited systematic leadership from the MOE on this issue until recently, and no clear definition of an Education sector role in Social Welfare and DMSAC strategic plans. Nevertheless, many teachers and schools have developed a range of responses to OVC needs. These include recognition and referral of OVC for grants and other support, providing supplies, monitoring orphan well-being, interacting with households and HBC teams to address stresses on children, addressing psychological needs and behavioural disturbance, and developing school HIV/AIDS plans. The responses show that a wide range of functions are required and feasible, and that co-ordination with other sectors, particularly social welfare and HBC, is critical. They also show that a wide range of resources is potentially available in each school setting to share the burden.

However, the level of response varies considerably, and teachers and schools feel daunted at the challenge of responding to increasing orphan numbers. There are a number of important obstacles to be addressed. Particular problems include weaknesses in the Guidance and Counselling (G&C) system, lack of support by school heads and other teachers, inaccessibility of Social Welfare systems and poor co-ordination with schools, and the need to define HBC team involvement, and the roles of communities, NGO/CBOs and other District stakeholders.

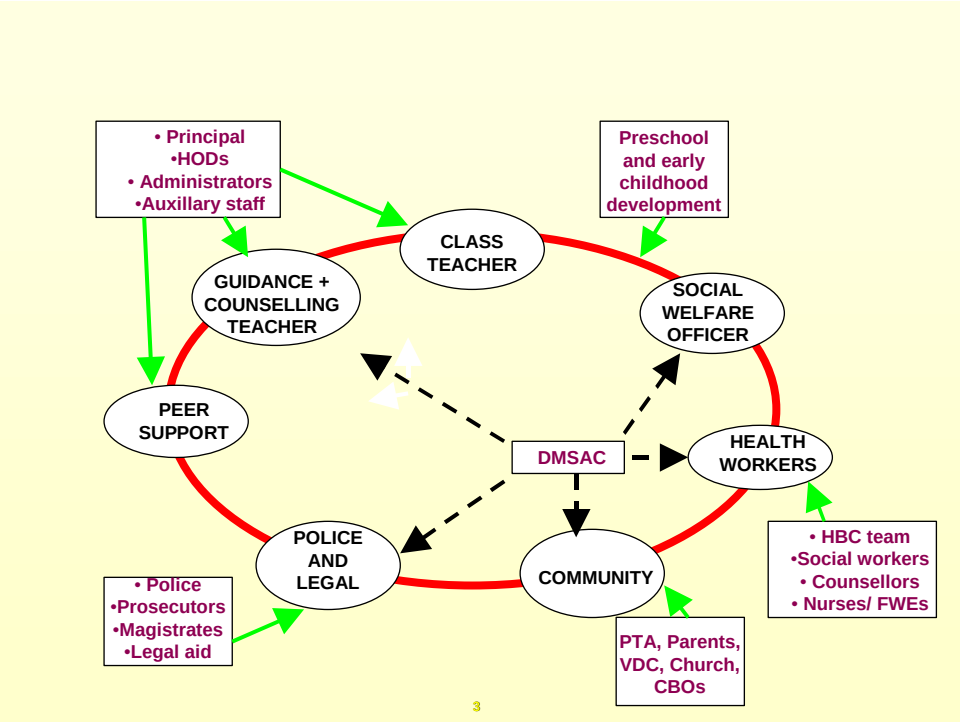
Recommendations – orphans and affected children

There is clearly a need for a more systematic education sector response to needs of orphans and vulnerable children. Social Welfare is battling to cope with the number of orphans, and HBC organisations have other workloads. All other stakeholders have significant limitations. The education sector has a direct interest in ensuring that OVC are supported. It also has the single largest body of professionals and an organizational network throughout the county, and is thus a major resource to the nation in reducing HIV/AIDS effects on the next generation. However, a major shift in understanding of the role of schools towards seeing them as part of a multi-purpose development and welfare system, not just a place of teaching is required if they are to successfully preserve the development potential of many students. This may be difficult initially and will be gradual, but will have relevance well beyond 2010. The following components of an education sector response are proposed.

- *Develop policy to define roles, responsibilities and mandates*. Several principles are suggested to guide this.
    - *Responses should be based on the idea of creating networks or "circles of support" (see Figure 2) to address the various needs through more efficient use of available expertise and capacity.* This requires reaching consensus with other sectors, particularly Local Government and Social Welfare, Health and HBC, District leadership and DMSACs, community organisations, police and prosecutors. Within schools, networks should include managers, class teachers, parents and students' peers.
    - A key issue is to *define overall responsibilities and accountabilities* of school heads and other sectoral leaders. They should have *flexibility* in precise allocation of tasks between network members to deal with the particular capacity and other circumstances available.
    - Focus should be on developing *efficient systems* eg for referrals, as this will often be more feasible in the short term than building capacity and capabilities.
    - *The core functions of schools* should be to recognise vulnerable children early and to mobilise timely responses to prevent crises that threaten schooling. In addition, schools and other sector components should enable any drop outs to re-access school or other educational opportunities.
    - *Priority should be given to ensuring that basic material needs of orphans are met through co-ordination with Social Welfare.* Psychological counselling and responses

to other needs are required but may take more time to mobilize given constraints on skills and capacity.

Figure 2. Circle of Support for orphans and other vulnerable children



- *Co-ordination with prevention and workplace activities.* This is advisable both because of synergies between prevention and support, and to avoid duplication.
- *Guidance and counselling.* Over reliance or responsibility shifting to G&C within schools must be avoided. This is due to limited skills and time of G&C teachers, and serves as an inherent requirement for involvement of other teachers. However, G&C is a natural and relatively motivated system to provide key capacity for HIV/AIDS responses.
    - It is recommended that as a rule, one full-time equivalent post is allocated for G&C per school but this may be shared between teachers, depending on motivation and skills.
    - G&C capacity and systems in primary schools need urgent strengthening.
    - Several other key issues require consideration, including: adequate timetable time for G&C and recognition of OVC work outside the formal timetable; career paths and improved selection strategies for HODs and G&C teachers; training and skills development, particularly in practical counselling skills and working with other sectors; flexibility to appoint social workers to key HIV/AIDS related posts in view of their skills; and mandates in relation to outreach, where they may meet resistance from families when investigating OVC problems.
- *Class teachers.* Obligations of all class teachers in OVC identification and monitoring, and in preserving confidentiality around OVC problems should be well defined in guidelines. They should be encouraged to develop skills and take on other roles as part of the team.
- *Social welfare.* Social workers are critical to OVC support through grant provision and also have counselling skills that tend to be better developed than among teachers. However, social workers are clearly overloaded. Complaints of delays and poor communication by social workers seem almost universal. This seems to be due to capacity problems but also major system inefficiencies. Social workers spend a large part of their time ordering and delivering rations rather than doing skilled functions such as counselling and assessments.
    - MOE and regional/district structures should facilitate development of clear referral and other co-ordination systems with Social Workers.

  - Education should support MLG attempts to: increase the status and capacity of the Social Welfare Division in the Ministry; obtain more posts for social workers; appoint dedicated stores officers to relieve social workers from less skilled tasks; training of social workers to enhance skills including time management; monitor and review grants and foster care systems.
  - Guidelines and systems should, where necessary, create flexibility for schools to take on certain social worker roles including purchase and distribution of uniforms and other orphan supplies, and basic OVC assessments and monitoring.
- *Peer support.* This should be cultivated. PACT should receive sustained support to maintain and extend functioning programmes.
- *OVC Audits.* All schools should be required to obtain information on each student's home circumstances once per term to identify vulnerable children and mobilize responses where appropriate.
- *Co-ordination and support capacity.* Specific structures and dedicated support capacity should be created at the level of each district and region to facilitate development of efficient orphan support systems and provide direct support to schools and teachers where necessary.
- *Caution around cost recovery policies.* Intentions to increase cost recovery in the sector should be considered with caution as they may raise important barriers to OVC education.
- *Further investigation and planning on specific issues.* These include: hostel accommodation; school counselling rooms; flexibility to accommodate students who cannot conform to conventional school hours or whose schooling is interrupted; pre-primary programmes to nurture young orphans and relieve older siblings of responsibilities for care.
- *Consideration of vulnerable non-orphans*. Many non-orphans will face similar pressures to orphans and should not be excluded in ongoing planning.
- Implementation of *district/regional education management information systems* which captures OVC absenteeism and drop out.

How will HIV/AIDS affect capacity to deliver education?

It is generally acknowledged that the teaching service in many African countries has been severely affected by AIDS. Death rates in excess of 3% per year have been reported in at least two countries, with some prevalence surveys indicating teachers have higher infection rates than other adults. Whether this is due to risk factors particular to teachers, or whether this is a result of teachers being predominantly young women who have high risk is not clear. However, it is evident that the AIDS epidemic has already caused an increase in mortality among teachers in Botswana, although from a very low baseline. Mortality rates among primary school teachers rose most dramatically between 1994 and 1999, almost certainly a result of the AIDS pandemic.

To understand implications of the mortality trends that are being seen among teachers, projections were done of impacts on teacher and non-teacher staff in the education sector.[1] Data on the demographic profile of staff in the education sector were obtained from the Infinium database, and the projected levels of HIV infection were then applied to them. There were 20 794 teachers for which information was available. Of these 57% are based in primary schools. 68% are women, and around three-quarters of teachers are below the age of 40, both suggesting relatively high risk. Empirical data suggests that teachers death rates were around 50% lower than the general adult population. This could simply reflect a delay in the epidemic, rather than that teachers are at lower risk. However, a second more optimistic scenario was produced which assumed that teachers had 50% lower levels of HIV infection due to early behaviour change. On top of each scenario, an assumption was built in that an increasing number of teachers who developed AIDS would access antiretroviral drugs (ARVs),

[1] The Doyle model Scenario D1 produced for Ministry of Finance and Development Planning (2000) was used to estimate population risk. This scenario projects levels and age patterns of adult mortality that appear consistent with the 1998 Demographic and Health Survey results.

until around 85% of those who had reached the AIDS stage of disease would be treated by 2002. This significantly reduces the number of deaths due to AIDS.

While these projections can be argued to be consistent with various data, they should be considered with caution. Nevertheless, they provide some useful perspectives for planning. Firstly, they confirm that primary school teachers are expected to be at high risk due to their age and gender profile. Secondly, if teachers have the same risk as other adult Batswana with the same gender and age profile, it is possible that as many as half of all teachers and one in eight school heads are infected in 2001. If the teachers have the lower risk of infection, then the rate of infection among them infected would be around 24%. Even in this optimistic scenario, HIV prevalence has potential to continue increasing over the decade to about 30% in teachers by the end of the decade, unless there is successful prevention among existing staff and new entrants. Thus, even under optimistic scenarios, infection rates are a considerable challenge to the MOE.

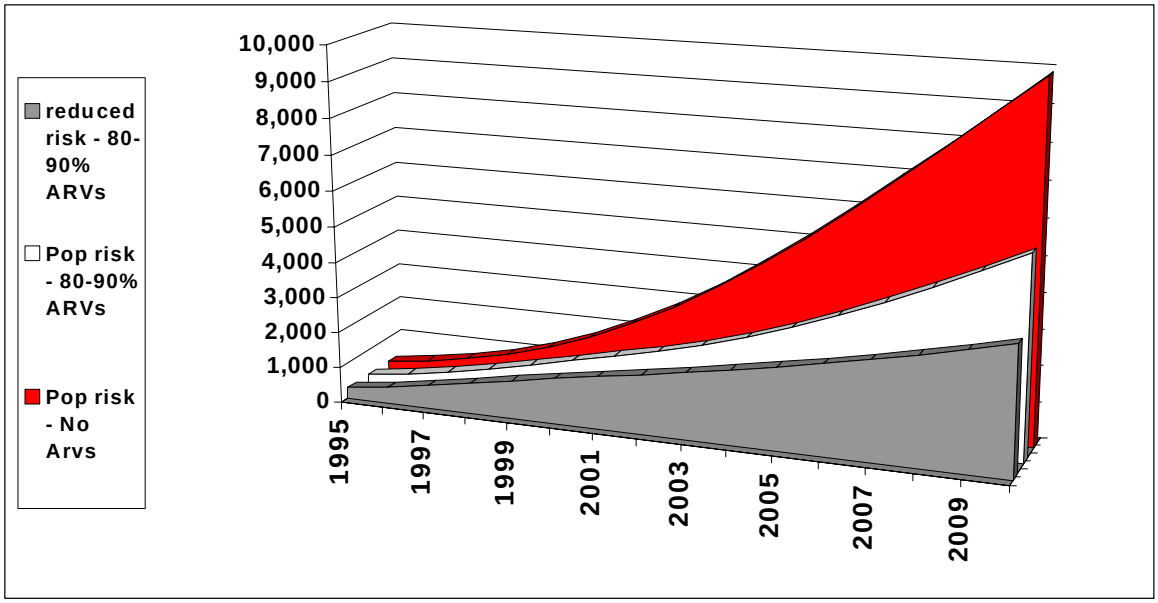
One consequence of extensive ARV therapy scenarios is that an increasing proportion of staff will not die of AIDS and will therefore be on chronic medication, with some still being ill or requiring frequent check-ups. The number of employees who are ill or on ARVs will climb rapidly from around 1000 in 2001 to between 3 000 and 5000 teachers in 2010. In a 2000 survey it was found that all schools had at least one teacher who was chronically ill, which seems consistent with the projections.

The projections also indicate that 200 (ARV+ low risk scenario) to 500 (Population risk) teachers will die of AIDS in 2002. These numbers could rise to between 300 and 1000 teachers a year respectively in 2010. Access to highly active antiretroviral therapy (HAART) would thus make a large difference to teacher mortality, and could mean that as many as 80% more teachers would survive over the course of the decade (see Figure 3), but would not remove mortality completely.

While the mortality rates among teachers at a primary school level could be as high as 3.5% a year by 2015, despite antiretrovirals, the levels at a secondary level would be about 2.5%. While this is lower, it still is significant attrition.

It should also be borne in mind that overall levels of impacts will hide many schools and classrooms where impacts are much more severe than the average. Some schools or districts may have several sick or affected staff at once. Even an individual case of absence or low performance of a teacher for a week or more of the school year may have severe impacts on 40 or more students.

Figure 3: Projected cumulative number of AIDS deaths among teachers



Implications of staff infections

HIV/AIDS can have various impacts on sectors and institutions. Direct costs result from financial costs of employee benefits, hiring of temporary staff, and costs of recruitment and training. Indirect costs include loss of productivity due to absenteeism, loss of skills, low morale and low performance of ill employees. Most studies of HIV/AIDS impacts on employees and organisations indicate that the impact on overall organisation function and costs is seldom disastrous in any one year, unless a person occupying a key position is lost at a critical time, for example. Experience in other countries indicates that greater concern is the gradual relentless loss of skills that can build up to a significant deficit, and a gradual decline in quality. Concentration of deaths among staff in the 30-39 year age group, just when they have accumulated important experience, means not only loss of their skills, but can potentially compromise less formal processes of mentoring and skills transfer within the sector over time.

Experience in the Botswana education sector confirms that impacts on staff have not had a major impact on overall education provision so far. Schools and other workplaces find various ways of coping with illness or death of staff with relatively minor overall disruption at a system-wide level. However, illness and death of staff does clearly increase stress. Informants also indicated that they can be more seriously disruptive if a key person such as a deputy head or head is persistently sick or dies, or if several teachers are ill in one school at the same time.

Implications of costs for medical benefits are subject to a number of assumptions, but for the total education workforce under a ARV scenario, it seems likely that medical costs could well exceed 0.9 % of the basic salary bill in 2005 and 1.8% in 2010. Both Public Officers pension funds are structured in a way that mean that the cost implications of HIV/AIDS illness and deaths to the sector will be neutral. However, there is some concern that the levels of benefits provided to employees who are ill or die could be considered to not meet social objectives. Furthermore, the benefits give sick employees a financial incentive to stay in their posts until they die, even if this is otherwise undesirable for them or it seriously affects productivity.

Absenteeism could also be a significant cost, either in terms of paying for temporary cover or through lost productivity. In 2005 even in the ARV scenario it could exceed 0.9% of the current work days, rising to over 1.2% if the average employee who dies is absent for their full 120 days of sick leave.

As indicated even by projections, HIV/AIDS remains a serious concern even in optimistic ARV scenarios, due to the human impact and potential for loss of skills and for key staff to be affected.

Recommendations – internal impacts

Planners, teachers and managers need to respond to the impact that the emerging AIDS epidemic will have on staff and students. Key policy and planning issues include the following.

- *Development of an integrated HIV/AIDS workplace policy and programme.* The current HIV/AIDS strategy makes important progress in areas such as sensitization, starting prevention initiatives and beginning to address aspects of care and support. However, efforts are fragmented and do not systematically address ways to manage impacts on service function. It is recommended that the development process should be driven by high level capacity in TSM, in consultation with other relevant stakeholders and expertise.
- *Effective HIV prevention among teachers, trainees and other staff.* The level of infection is high in all job categories, and makes prevention programmes and employee management a priority at all levels of the education system. 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. However, visits to education Districts strongly suggest that many education managers and staff still have inadequate basic knowledge about HIV/AIDS.[2] Sector staff at all levels need to be empowered and develop new lifeskills to protect themselves from infection, just like any workforce. They need particularly strong skills to provide information to and support for students, and to act as role models. The outcome of prevention programmes may be disappointing if they are not planned with a clear understanding of what has enabled similar programmes to succeed in other countries. The sector should also target structural factors related to employment, such as work away from regular partners, and types of staff or trainee accommodation, which may expose staff to unnecessary high-risk situations. Some Departments and units have already identified staff at risk through frequent travel.
- *Promote access to antiretroviral drugs.* Projections show that ARVs can have a profound impact on the number of teachers dying of AIDS. In addition, if HAART is available, uptake is high and treatment compliance is good, it narrows the difference between the projected death rates among teachers under the high and low-risk scenarios for teachers. The education sector should attempt to be a lead sector in ensuring that staff benefit from Botswana's ARV programme. Access to treatment needs to be enhanced, through increasing membership of BOPMAS or other means that may become available through the current government treatment initiative. Systems to ensure access to treatment for staff in outlying areas, to avoid congregation of chronically ill staff in major centers will be desirable. Management of treatment to increase compliance will be critically important to control costs and effectiveness. A HIV/AIDS management programme has only recently been introduced by BOPMAS.
- *Appropriate flexibility in human resource planning.* Levels of HIV/AIDS impacts are difficult to predict, particularly at institutional or district level. Planners at all levels will need to be flexible in their responses, and identify the "least risk" assumptions to be used in planning.
- *Identifying vulnerable workplaces and work processes.* The MOE, regions, districts and schools should 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. Performance of remote schools or those with small staff complements may be particularly vulnerable, for example. Even in job categories where mortality rates may be lower certain job categories such as senior management or specialist positions may create vulnerabilities.

[2] For example, many were concerned mainly about HIV transmission to students though dirty toilets, food handling and utensils, or blood spills in the playground, rather than sexual transmission.

- *HR management systems and capacity*. AIDS impact on staff will make active, effective human resource management a critical issue for the education sector. A major focus of the response will be to strengthen tracking and active management of absenteeism at all levels. New sick leave provisions and management should be seriously considered, as sick leave is at present very inefficiently managed, with negative implications for affected staff and institutional function. Performance appraisal systems will be important to ensure fair assessment and management of incapacity, among infected and affected staff. Effective succession planning, to facilitate skills transfer and avoid unnecessary delays in appointments, will be key to reducing service disruption. Streamlined systems and managerial skills around ill health retirement should ensure that boarding occurs efficiently and neither too early or too late for the wellbeing of employees and maintenance of delivery. Systems around redeployment, transfers and work sharing are likely to become increasingly important. Incentives to staff to ensure that vacancies in remote or "unattractive" schools can be filled are likely to require specific attention.
- *Substitute and supplementary teacher systems*. Consideration should be given to strengthening the temporary teacher system as it is likely to be required extensively due to deaths of teachers and illness of staff either on ARVs, or who have failed or never had therapy. The system needs to be responsive to shorter- term, unpredictable and intermittent absenteeism. Projections suggest that cover should not add too substantially to the wage bill if it is well targeted and managed, and benefits in terms of students' learning will be substantial. Consideration should be given to developing pools of trained teachers, or temporary teachers who receive some key in-service training to maintain quality. Teaching by community members or retired teachers may need to be facilitated for situations when a teacher is absent or dies and cannot be replaced rapidly.
- *Capacity sharing.* School clusters or district/regional level management units may become important options to ensure that all schools and programmes have access to scarce managerial capacity. They will have specific importance in providing skilled management of HIV/AIDS related issues among staff, as this may not be feasible in all workplaces at least in the short term. Staff may also not be confident to disclose HIV/AIDS related problems within their workplaces due to concerns around stigma and confidentiality.
- *Employee benefits.* The education system should actively engage with MPSA, other departments, employee representatives and BOPMAS and the two public service pension funds to ensure that medical and pension benefits are structured adequately to meet massive new HIV/AIDS-related needs of employees and their dependents in an affordable and cost effective way. Facilitating access of staff to good care will be important parts of strategy to reduce absenteeism and skills losses. Adequate medical care for employees not on medical aid should also not be neglected.
- *Care and support for teachers.* Employee assistance programmes (EAPs) will be increasingly important to enable infected and affected staff to deal with stresses created by HIV/AIDS and initiate active management of impacts. EAPs can also provide a mechanism by which managers and planners can be made aware of the scale of HIV/AIDS related problems without compromising confidentiality of individual employees.
- *Improve information.* Many aspects of HIV/AIDS impacts on the education system capacity remain unclear and better information is required. Unlinked anonymous HIV prevalence surveys among teachers and trainees should be considered to validate projections and to inform human resource management and prevention programmes. Tracking of illness, death and absenteeism among staff will also be critically important.

Implications for teacher training

As already mentioned, AIDS will cause a decline in the number of children, and this together with AIDS attrition among teachers needs to be considered to assess the implications for teacher training. The previous report on AIDS impacts went into considerable detail on the issue of teacher provisioning. A model was developed to predict the number of teachers that were required to be trained at a primary and secondary level, in order to replace lost teachers and meet the targets as set

out in the RNPE. While that report laid the basis for planning on this issue, it was decided to update those projections of teacher requirements with the teacher specific projections that were produced for this study.

As mentioned above, two scenarios were used to project AIDS attrition. Both assumed an 85% access to ARVs, but the one scenario assumed that teachers have the same risk of HIV infection as the general population, while the second assumed a reduced risk, of up to 50% of the general population. Therefore for the purposes of this report these figures will be given as a range of possibilities.

It is calculated that between 2 900 and 3 800 primary school teachers will require to be trained over the next decade. The four teacher training colleges have a combined output of 500 teachers a year, indicting that there will probably be no need to increase the numbers of teachers being trained. Over the same period the country will need to train 3000 to 3 500 Community Junior secondary school teachers, and around 1000 – 1200 Senior Secondary school teachers. This is certainly within the capacity of the existing teacher training colleges.

The numbers presented above give some idea of the scale of training of teachers required, considering both the decline in the number of children, and the attrition of teachers as a result of AIDS. However, the various assumptions used in such modeling exercises require some caution in interpreting results. Assumptions should be validated wherever possible as information becomes available. At present it seems most appropriate to err on the side of oversupplying teacher training, particularly in the case of scarce specialist skills areas.

Teacher training curricula will need to consider new competencies that may be required of teachers. For example, they will need to be able to address prevention issues, respond effectively to needs of their HIV/AIDS affected students and may need to have large-class skills. Many may need to take on management roles relatively soon, to fill gaps when more experienced teachers become ill or die.

HIV/AIDS effects on the role of other education components

Vocational education and training

Vocational training has been suggested in some quarters as a mechanism to provide an education for affected students whose normal schooling has been disrupted. Thus expansion of VET is likely to have important benefits. However, there are certain vulnerabilities such as difficulties sourcing trainers, and relatively high cost per trainee when compared to normal schooling.

Non-formal Education

Initiatives such as establishing BOCODOL, the Centre for Continuing Education, and new facilities in regions, as well as distance learning radio and other materials, are likely to become increasingly important in education. The Department should be supported to give specific ongoing attention to:

- Programmes targeted at out-of-school youth. These are likely to be increasingly important. As programmes tend to target at somewhat older students, need for adaptations should be assessed.
- Customised HIV/AIDS education for older target groups and out-of-school youth.
- Using community, CBO and NGO contacts to develop community involvement in school related prevention and care issues.
- Exploring opportunities for promoting income-generating activities.

Curriculum Development and Evaluation

Apart from key roles in G&C and developing prevention programmes, increasingly important aspects of CDE roles are likely to include:

- Continuing to strengthen relevance of the Basic Education Curriculum to the world of work. Adaptations to content and structure may be justified if fewer students than previously expected will complete 10 years of schooling.
- Increased roles of radio and distance learning materials to enhance learning when teachers are absent or less productive.

Special Education

Disabled children may well be at higher risk of sexual or other abuse and neglect, particularly when they are orphaned. Some children with HIV/AIDS may be candidates for support through special education services. The division may have particular expertise in developing support networks and systems through its work with NGOs that could benefit OVC initiatives.

Planning and research

The Planning and Research Division has to play an increasingly complex role in guiding policy and planning in view of changes and uncertainties created by HIV/AIDS.

- Routine Education Management Information systems, which are already being adapted to track HIV/AIDS impacts and responses, are likely to need more support capacity. This is required to: ensure more rapid processing of information to track emerging trends, support decentralized analysis and use of data for routine management of HIV/AIDS impacts in schools and districts; to track new data on issues such as medical care; and to perform more disaggregated analyses of data, as aggregated analysis may hide significant problems in certain locations.
- Consideration should be given to piloting a District/Regional Management Information system that collects and regularly analyses richer HIV/AIDS related and other data to inform local and regional management decisions, for example absenteeism.
- Greater co-ordination with other Departments, particularly TSM, Primary and Secondary Education is likely to be needed to coordinate planning related to staff allocation and issues such as housing.
- More internal capacity for research, and ability to coordinate with research institutions such as UB will be needed to increase understanding of many aspects of HIV/AIDS impact. Importantly, quantitative information will need to be supplemented with qualitative data to understand impacts that may not be adequately reflected in the former.

Overall conclusions and recommendations

The Botswana education system is already beginning to experience the impacts of the AIDS epidemic. The impact will grow rapidly and continuously for at least the next 15 years. Future judgements of the adequacy of Botswana's response to HIV/AIDS are likely to be made mainly on whether we have 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 success in responding to these challenges.

HIV/AIDS poses a direct challenge to the education system's mission and ability to function effectively. The epidemic threatens to undermine and even reverse the efforts of this system to increase its capacity and efficiency. Huge levels of "wasted investment" in individuals will result if students die soon after being educated. The epidemic also threatens the education of thousands of other students affected by HIV/AIDS in their households, and leaves them in economic and social circumstances that put them at high risk of infection. As students from disadvantaged communities are likely to be most affected by the epidemic, the challenge to social development objectives is particularly acute. Responses to student needs will increasingly require educational institutions to pro-actively provide, coordinate or facilitate responses to the broader social and economic factors that put

young people at risk of infection, as well as the HIV/AIDS impacts on the socio-economic and psychological circumstances of students.

This study is clearly limited in its ability to develop proposals on all relevant issues to be addressed and appropriate responses. However, the following recommendations are likely to be central to developing a more effective education sector response.

- *Leadership.* Effective responses to the new challenge of HIV/AIDS are unlikely without sustained, active political, managerial and professional leadership across all components and levels of the education system. Leadership will need to ensure that action occurs and to inspire renewed commitment to longer-term goals at times when role players are discouraged by inevitable limitations on their ability to prevent all impacts.

- *Actively reducing stigmatization, secrecy and denial around HIV/AIDS* is a major priority. These factors are increasing the human cost of HIV/AIDS and undermine prevention programmes, the ability to support infected and affected students and staff, and the ability to manage impacts on system function.

- *Co-ordination with unions*. Botswana's teacher and other public service unions are increasingly aware of the impact of HIV/AIDS on members and society. However, their members may resist important aspects of change and new roles required in the education sector, and certain aspects of workplace policy and programmes may need to be negotiated. Liaison with unions to present a combined front to the epidemic is therefore likely to be important.

- *Refinement of the Ministry's HIV/AIDS strategy and action plans.* The current plan has laid important foundations of the education sector's response. However, certain aspects of the plan have made limited progress and new knowledge and awareness of gaps have increased since it was developed.

- *Guideline development and adaptation of regulations and codes.* Development of practical guidelines is an urgent priority to guide decentralized action in many areas mentioned above as soon as policy and strategy are defined in various areas. Review of regulations, legislation and codes in a number of cases will be a prerequisite for appropriate action by officials.

- *School District and Regional HIV/AIDS plans*. A number of schools and education Districts have developed plans on instruction from DMSACs. Other schools, Districts[3] and Regions should be required to do this and all should receive support to develop and refine them.

- *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. The MOE and its components at all levels need to be bold in ensuring that traditional divisions between it and other sectors, particularly Health, Local Government, Welfare and DPSM are overcome to allow for efficient responses. NGOs and community organisations are also key partners who are not adequately supported by government, and ways to streamline relationships with them is critical. Within the MOE, better co-ordination across Departments is needed, for example in workplace programme development and planning staff deployment.

- *Flexibility*. Many aspects of HIV/AIDS impacts and appropriate responses remain uncertain, particularly at school or institutional level. A key consideration in strategy is likely to be ways to create appropriate flexibility in many aspects of education system function to allow for appropriate, creative, and service orientated responses to unforeseen needs or circumstances.

[3] Although District management is currently being consolidated into Regions, the need for inter-sectoral coordination seems to make it imperative that a point person is located at District level.

"Least risk" plans should be chosen where important uncertainties exist, for example, around levels of impacts on teacher and student numbers.

- *Decentralised approaches.* Many responses to HIV/AIDS require solutions planned or led from the MOE. Examples include reform of the employment framework, plans for teacher training, curriculum reform and development of a range of policies and guidelines. Overall, however, managing the diverse, unpredictable nature of a wide range of impacts and circumstances will tend to be beyond the capacity and capabilities of centralised responses or centrally developed models. Initiatives to facilitate and support flexible, effective school and community level responses are likely to be a key component of strategy.

- *Reinforcing existing programmes that are relevant to managing HIV/AIDS, and adapting them where necessary.* Many current initiatives will enhance ability to respond to the challenge of HIV/AIDS. These include: managerial decentralisation and regional integration, performance management and management strengthening, strengthening VET, adapting curricula to prepare students for the world of work more quickly, reinforcing non-formal education and in-service training, and strengthening community participation. However, HIV/AIDS introduces new vulnerabilities and needs in many of these areas that need to be factored into planning. For example, HIV/AIDS may affect key staff at regional level in addition to imposing new challenges on capacity, so backup support is likely to be increasingly important.

- *Improving information and its dissemination.* Many aspects of HIV/AIDS prevention and impact management are hampered by lack of good information. Internal systems and partnerships with organisations such as UB should be strengthened to address routine monitoring and research. Mechanisms should also be set up for networking and sharing of experience and best practices between schools, districts and MOE planners. In addition, the current process of disseminating key information on HIV/AIDS impacts and strategy should be intensified.

- *Organisational culture*. The success of the education sector response to HIV/AIDS will to a large extent depend on cultivating a culture of caring and willingness of individuals and groups to embrace the challenge and respond to the needs of colleagues and students. Bureaucratic traditions and tendencies to avoid personal initiative should also be combated.

- *Capacity and resources to plan and implement the education sector response*. Dedicated budgets and capacity at schools, district, regional and MOE level are required to mobilize, support and coordinate effective responses to HIV/AIDS. Although the goal should be to incorporate most HIV/AIDS-related activities into core budgets and functions, initial extra investment is likely to be necessary to develop and disseminate key knowledge, develop capacity and devise systems to respond to HIV/AIDS. Despite dedication of many individual Departmental Focal persons, other commitments and in some cases limited capabilities, are hampering progress in key areas. The HIV/AIDS Coordinator is the only full time staff member and does not even have a secretary. A full time coordinator of HIV/AIDS programmes should be appointed in each region and also for each district. In Districts with large numbers of schools, dedicated staff may need to also be allocated to school clusters. These staff can potentially play a direct service support role as well as mobilize and coordinate prevention and impact management. As systems and school level capacity are developed, it is possible that this dedicated district/cluster level post may become less necessary. A key objective should be to ensure that school inspectors begin to see monitoring and support of HIV/AIDS activities as a key part of their function.

1. INTRODUCTION

The HIV/AIDS epidemic has become well established in Botswana and sub-Saharan Africa over the last two decades. However, the full implications of HIV/AIDS for societies and communities in Sub-Saharan Africa have still to be realised, even in countries with the most advanced epidemics. Understanding of many features of impacts is still at an early stage.

Investigation of the implications of HIV/AIDS for the education sector has only begun recently, and much remains to be learned about which responses are required, appropriate and effective. However, there is a growing general recognition that HIV/AIDS is confounding attempts to reach Education for All targets in Africa, by adding substantially to an existing set of problems and challenges (Harris 2001). Broadly, the challenges it raises for the education sector and each of its various components are:

1) What is their role in preventing the spread of HIV/AIDS and premature loss of a generation?
2) What is their role in preserving the life chances of students affected by HIV/AIDS and ensuring that they can contribute optimally to development goals in their communities, society and economy?
3) How should the sector as an employer prevent infection among employees and be respondsive to the needs of infected and affected employees?
4) How can the sector ensure stability and improvement in access and quality of education in the face of illness, death and stress among employees?

This report investigates the current levels and types of HIV/AIDS impacts on education in Botswana. In addition to this "snapshot" view of experience at this relatively early stage of the epidemic, it also considers what needs to be anticipated as the full AIDS epidemic unfolds in Botswana, and possible effects of interventions, particularly wider access to antiretroviral drugs. The report reviews key aspects of current responses, preparedness and capacity of the sector to meet challenges raised by HIV/AIDS. Recommendations are then made as to how the sector can build on current responses to ensure that education and national goals can be preserved and achieved.

1.1 Terms Of Reference And Methodology

The brief for this study was to:

- Identify the impacts of HIV/AIDS on the external environment and service needs to be addressed by the education sector in Botswana, as well as impacts on staff and the ability to deliver education.
- Assess current responses and preparedness of the sector to tackle HIV/AIDS impacts and
- To recommend appropriate responses

After consultation with the Reference and Technical Groups, and in the light of other recent work on HIV/AIDS impacts in the schooling system (HIV/AIDS and Education Study Group. 2001),[4] it was agreed that particular focus would be placed on:

- Contextualising HIV/AIDS impacts on education and appropriate responses by the Ministry of Education (MOE) within a broader understanding of impacts and roles. This involves closer consideration of socio-economic circumstances, the education sector beyond primary

[4]This impact assessment was briefed to deepen the analysis, as well as broaden the scope of investigation beyond that study. Some educators felt that that the study report had under-stated the significance of impacts being experienced in the sector and communities. However, an explicit decision was made not to duplicate work of that study or increase the sample size as it was uncertain that this would resolve uncertainties at this relatively early stage in the epidemic, or substantially alter recommendations.

and secondary schooling, other sectors and civil society, community and family capacity.
- Analysis orientated towards future scenarios and planning for these, rather than focusing on current impacts at a relatively early stage of the AIDS epidemic
- Focus on sustaining and improving quality of education, not simply more gross manifestations of education performance such as drop out.
- Integration with the strategic planning and implementation process which was already under way.
- Addressing key planning issues such as costs and management information requirements

The methodology of the assessment involved the following:

- Semi-structured key informant interviews with MOE officials and other stakeholders.
- Review of documentation and data available from the MOE and other sources.
- Field visits to four education Districts[5] to conduct key informant interviews and group discussions with education managers, school principals and staff, students and other key community and sectoral stakeholders. The methodology of these interviews and discussions was open ended to give informants the opportunity to raise and discuss priority issues as they saw them.[6] Although facilitators had further prompts to stimulate discussion where necessary, the questions posed were often limited to:
    - What impacts of HIV/AIDS on students had the informants identified?
    - What impacts of HIV/AIDS on staff had been seen?
    - What responses to these impacts had been undertaken?
    - What recommendations should be made to strengthen the education sector's response to HIV/AIDS?

Projections of HIV/AIDS demographic impacts were based on projections produced for a previous project for the Ministry of Finance and Development Planning in 1999 (Abt Associates 2000). These were extended to 2015 and certain adaptations were made to enhance understanding of key dimensions of impact (see Annex C for further discussion of methodology and issues in interpreting projections).

1.2 Botswana – General Background

Botswana has a strong track record in economic and human development. From being among the poorest countries in Africa at independence the country now has the highest per capita GDP on the continent due to its substantial mineral wealth. Economic growth combined with investment in health, education and welfare have led to marked improvements in many indicators of development, ranging from life expectancy and health status, literacy and access to health services. Botswana is one of very few African countries with an established social welfare system which includes grants and other support for the very poor and vulnerable.

Through prudent fiscal policies, the Botswana government has ensured investment of substantial surpluses from mineral income to provide for longer-term economic sustainability. The country's stable democratic government has overseen the country's dramatic development and ensured social stability, as well as high levels of accountability and low level of corruption. In addition, it has placed emphasis on improving the life chances of children and youth in its development programme and is a signatory of the United Nations Convention on the Rights of the Child. This commits government to making the needs of children paramount throughout its development strategies and to prioritise the four pillars of the Convention: survival rights, development rights, protection rights and participation rights.

[5] Gaborone/Lobatse; Maun; Francistown; Serowe/Selibe Phikwe

[6] This qualitative research approach also created opportunities to be a catalyst for action. There were indications that in several cases, it began discussions that created momentum for further discussions and action by participants.

However, limits to development (and in some cases development itself) mean that several important challenges remain which are of particular relevance to education in Botswana and its resilience to HIV/AIDS impacts.

- Serious levels of poverty and inequality exist despite high overall levels of income and progress towards poverty alleviation. Almost 50% of Batswana were found to live below the poverty datum line in the 1991 Census and 1993 Household Income and Expenditure Survey. Measures of inequality such as the country's Gini coefficient[7] are high by world standards, with the poorest 40% of households only having around 12% of total income.
- High unemployment, particularly among youth and women.[8]
- Shortages of skilled labour, and a small population, with limited spare capacity to devote to new needs and programme development.
- A large geographical size, with many sparsely populated rural areas, leading to logistical constraints on programmes.
- Major social and cultural change due to the transition from a traditional pastoral society to a modernised society, with high levels of social and geographic mobility and influenced by new ideas such as the of rights of women and children. Many traditional mechanisms that ensure social cohesion, regulate behaviour and provide a social safety net are already destabilised with limited development of alternatives.
- High expectations of government by politicians and other constituencies.

As a result of these factors, government's technical, professional and management capacity is already extremely challenged by economic development and social change.

1.3 The HIV/AIDS Epidemic In Botswana

Botswana has the most severe HIV/AIDS epidemic in the world. Surveys of HIV infection rates among pregnant women, which are used to track the epidemic, have shown a sustained rise in infection levels to an estimated 38.5% nationwide in 2000 (Figure 1.1).[9] Estimates based on these surveys suggest that in 2000, between 28 and 32% of Batswana aged 15-59 were infected with HIV, with higher rates in the 15-49 year age group (Abt Associates 2000; AIDS/STD Unit 2001).

The 2000 survey revealed levels ranging from 30.4% in Molepolole to 50.3% in Selibe Phikwe, and similar differences in levels of infection have been reported in previous surveys. However, data available so far suggests that these regional differences are due mainly to time lags between the epidemics in different locations, rather than fundamental differences in risk in different parts of the country.[10]

[7] The Gini coefficient reflects income inequality within societies. In 1994, the Gini coefficient for cash income was 0.683, and 0.54 for total income in cash and kind (CSO HIES 1995).

[8] Overall national unemployment rates have been around 20% in the late 1990s. The 1993/4 Household Income and Expenditure Survey showed unemployment rates of 27% among males and 40% among females aged 20-24.

[9] The methodologies used in the Survey do limit its ability to reflect trends in the short term.

[10] The emerging plateau levels of infection are different in Francistown, Gaborone and Selibe Phikwe, but are of similar magnitude. A 1998 analysis also suggested that rural populations' infection levels may be around 20% below urban areas. Whether this is the case, and whether rural areas may catch up after a short time delay, awaits confirmation.

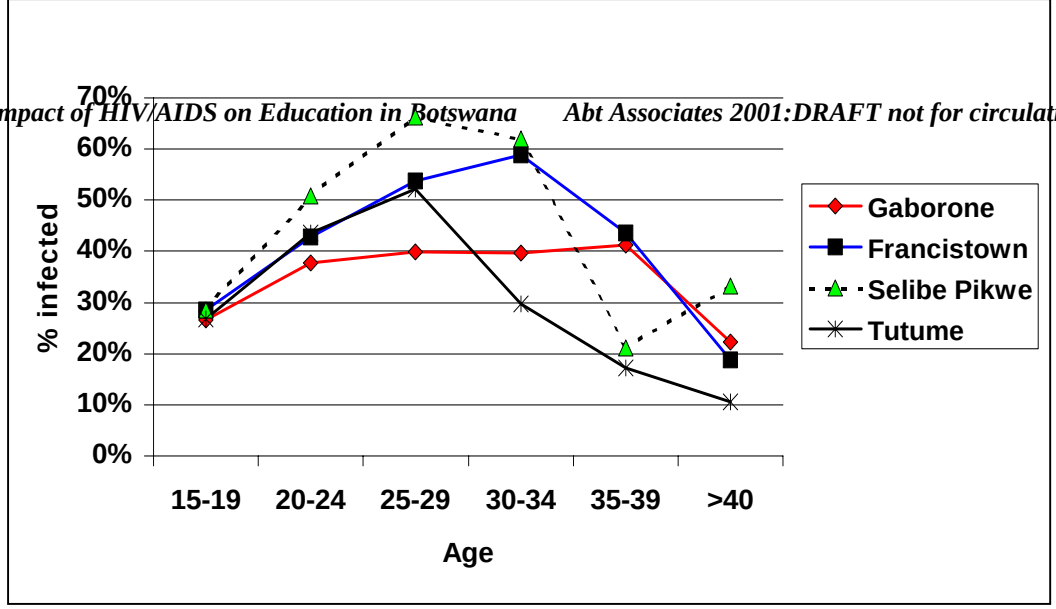
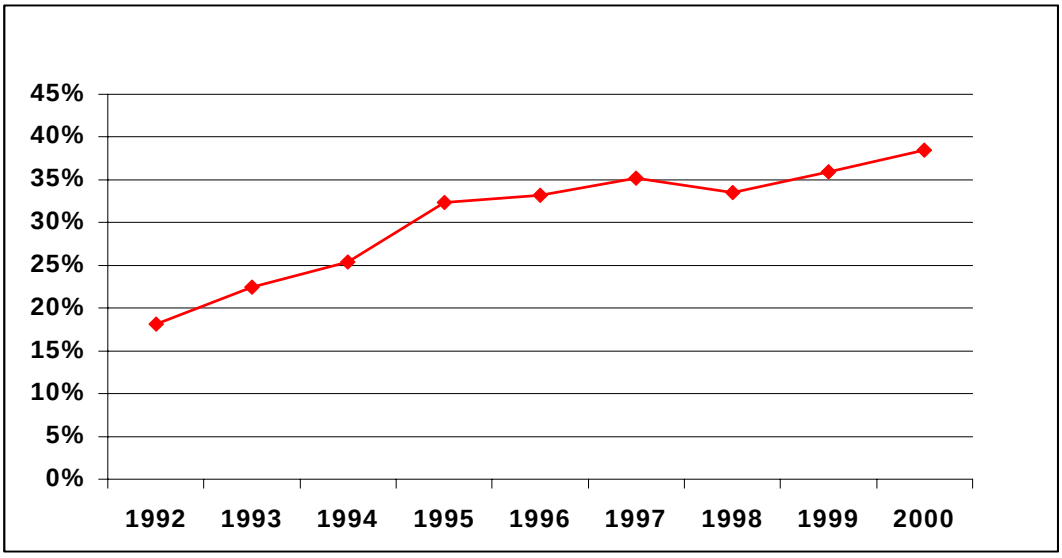


Figure 1.1: Levels of HIV infection among pregnant women in Botswana (median across sites)

Infection rates are substantially higher in certain age groups, particularly the 25-34 year age groups among women (Figure 1.2).

Figure 1.2 : Age profile of HIV infection rates among pregnant women (2000).



Ministry of Health statistics show a consistent rise in the number of AIDS cases and AIDS deaths (Abt Associates 2000). However, these statistics and known AIDS cases and deaths in communities are considered to massively under-represent actual AIDS deaths. This is because of limitations of testing and reporting systems, secrecy and non-disclosure of AIDS diagnoses in communities.

Data on deaths from any cause from many sources is strongly suggestive of increasing numbers of AIDS deaths. Anecdotal reports from most communities suggest large increases in deaths from illness among young adults.[11] Funeral services report rapid increases in the number of funerals.[12] The 1998 Demographic and Health Survey shows an increase in infant mortality after declines over the last two

[11] Community evidence was reported to this study team by home based care groups and NGOs, Family Welfare Educators, the police, village kgotlas, training centres, social and health workers, and teachers

[12] See also UNDP (2000). Botswana Human Development Report 2000.

decades. Furthermore, the age profile and levels of deaths from all causes is also strongly suggestive of AIDS mortality, with high numbers of deaths among young adults aged 20-39, age groups that traditionally would have relatively low mortality rates.[13]

'The situation is very clear: no one doubts the existence of AIDS…. People did not believe; we know now because deaths are rising.' Government official, Gumare.

1.3.1 What seems to be making the epidemic so severe?

An understanding of the factors that seem to be driving the overall epidemic is important to help the education sector identify where it should be bold in addressing issues of prevention and impact management in ways that are consistent with a coherent, overall national approach to the epidemic. What Botswana confronts is a viral disease transformed into a pandemic by social, cultural, economic and political conditions, rather than a particularly infectious form of the virus (Gray et al, 2001). Among the key factors that seem to be exacerbating the epidemic are the following.

- *Poverty*. HIV spreads more easily in poorer communities due the lack of knowledge about the virus, unsafe sexual behaviour driven by economic hardship and less access to STD treatments.
- *Socio-economic inequality and high levels of unemployment*, particularly among youth, which creates conditions conducive to high risk sexual behaviour.
- *Gender inequality*. Low status and poverty of women, makes it more difficult for them to negotiate safe sex and resist abuse.[14]
- *Family dislocation.* Many families have multiple households at cattle posts, lands, villages and in town. Botswana also has unusually low rates of marriage, which may predispose to less stable sexual partnerships.[15]
- *Norms that condone intergenerational sex and male dominance.* This results in transmission of HIV into new groups of uninfected young people.
- *Disruption of certain cultural norms which regulated sexual activity*.
- *High levels of mobility and good infrastructure.* There is a tradition of high levels of movement of the population, particularly men, between their different homes in urban areas, villages, lands where crops are planted and cattle posts.
- *High levels of other STDs.*[16] STDs enhance HIV transmission, and to some extent reflect high-risk behaviour.

1.3.2 Evidence of behaviour change?

Antenatal survey results indicate that the epidemic has probably reached a plateau level in Francistown, Gaborone and Selibe Phikwe.[17] However, it is unclear if this is due to sustained changes in behaviour or saturation of at-risk groups combined with increased deaths of HIV infected women.

[13] See Annex C for graph of deaths reported in the DHS.

[14] In urban male-headed households the average monthly cash income was twice that for female headed households in 1993/4. When income in kind is considered, income of female headed households is 80% of male headed households. Income per capita within male and female headed households has not been reported

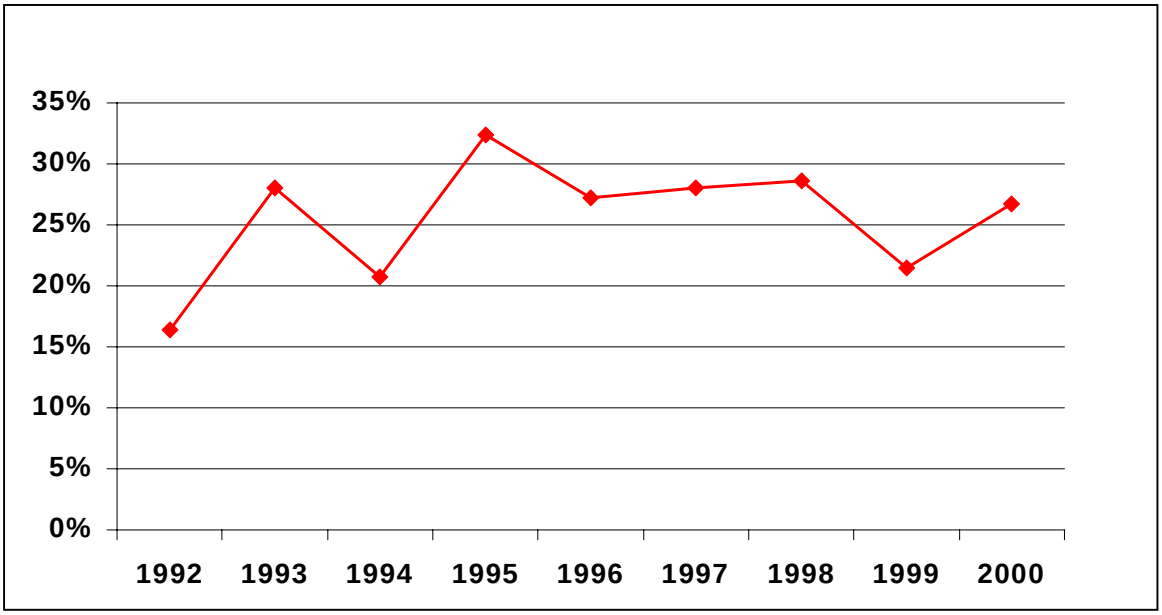
[15] see Lesitedi and Ngcongco (1995). In the 2000 Antenatal Survey, in all sites more than 72% of women were single. Single women in all sites had substantially higher infection rates than married or cohabiting women, although this association has not been rigorously explored.

[16] See e.g. SIAPAC (1997) and Sheller (1995). In 1994, over 25% of males aged 18-25 had symptoms of STDs.

[17] However, levels rose slightly in Francistown and Selebi Phikwe in the 2000 survey.

At a national level there is no clear evidence of a declining trend in infection levels among 15-19 year olds, which should be the earliest age group to show evidence of declining infection rates (Figure 1.3).[18]

Figure 1.3: Levels of HIV infection among pregnant women aged 15-19 in Botswana



Several Knowledge, Attitude and Practice (KAP) studies have examined risk behaviour among young Batswana.[19] These do provide some evidence of improved knowledge, attitudes and practice which may lead to reduced infection rates and affect the course of the epidemic.

- The 2000 Multiple Indicator Survey (MIS) found that 95% of women aged 15-49 have heard of AIDS, with levels ranging from 94% in 15-19 years olds to 96% in 25-19 year olds.[20]
- In 1996, around 80% of a sample of rural and urban youth knew of at least two valid ways to protect themselves from HIV infection. The 2000 MIS found that 67 percent of women could identify three important ways to prevent HIV infection and 81 percent were aware of at least one way to prevent transmission.[21] Knowledge about HIV/AIDS increased with increasing education levels.
- Among sexually active youth surveyed, 75% had casual partners in 1996 compared to 50% in 1994.
- Condoms have become more acceptable. Condom use in casual relationships during the last sexual encounter reportedly was around thirty percent in 1992 and 85% in 1996. Condom use in regular relationships was over 50% in 1996, although condom use in regular and casual relationships still seems to be inconsistent. The 1996 FHS also suggests significant increases in condom use, which now accounts for over 50% of reported contraceptive use in 15-19 year olds.

Unfortunately, the degree to which *reported* knowledge, attitudes and practices reflect consistent behaviour or behaviour change is unclear. Sampling differences and other methodological issues also

[18] The Antenatal Survey has limitations on its ability to reflect behaviour change in teenagers in the short term, but it is clear that infection rates remain much to high to achieve anything near the ideal of an AIDS free generation.

[19] See e.g. Social Impact Assessment and Policy Analysis Corporation (Pty) Ltd: *Sexual Knowledge, Attitudes and Practices in Botswana 1992-1996.* SIAPAC *Monitoring trends in Youth Sexual Behaviours* 1994.

[20] There was no significant difference between urban and rural areas in the knowledge of how AIDS is transmitted, although there is some variation between districts.

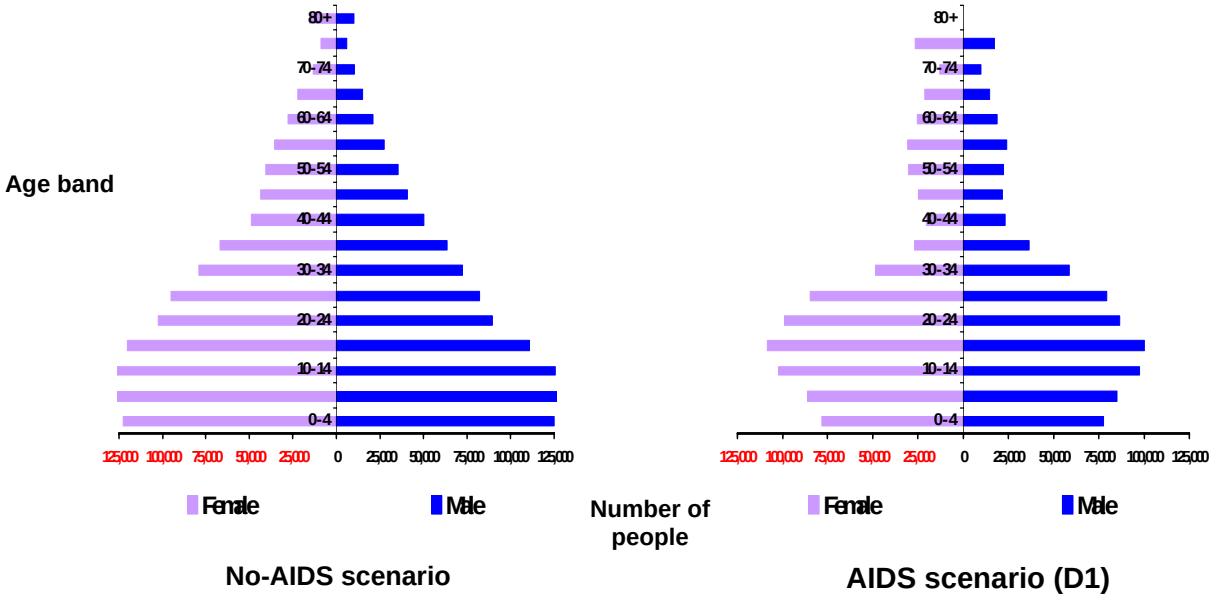
[21] Options presented to women were: having only one, uninfected partner; consistent condom use; or abstention.

limit ability to identify trends over time. Of concern in the MIS is that knowledge of common misconceptions about HIV/AIDS was very limited, with only 30% being able to identify three common misconceptions.[22]

1.3.3 Impacts of HIV/AIDS on society and the sector's environment

HIV/AIDS poses a unique threat in Botswana because of the scale of the epidemic and because it causes death and illness mainly among young adults. These adults have critical roles as breadwinners and carers in families and are the core of the productive workforce. The scale of potential impacts on the structure of Botswana's population is illustrated by the projected population pyramid for 2010 (Figure 1.4).

Figure 1.4: Change in projected structure of the Botswana population in 2010



Impacts of the epidemic are generally found to be greatest on households and families. At this level a combination of costs, lost earning capacity, impacts on family structure and psychological stress due to illness and death can have very severe consequences. At a community and societal level, the implications of relentless stress caused by ongoing illness and deaths, as well as the disruption of social fabric, cannot be predicted with certainty, but seem likely to have profound effects on the psychosocial environment within which the education sector must function. At a recent workshop, a participant noted that *"if Botswana were an individual, it might be described as paralysed by grief… some kind of therapy is needed to help us move forward and deal with the epidemic more effectively"*.[23]

At the level of the economy, impacts are expected to be significant with marked impacts on growth of GDP. A major factor in this is loss of skilled, experienced labour. AIDS is also expected to lead to a significant increase in levels of poverty (BIDPA 2000).

Government capacity to promote development will be impacted in two main respects. Firstly, many of its employees will be lost to AIDS, reducing capacity to deliver. Secondly, demands on available

[22] Common misconceptions presented were that HIV can be transmitted by: supernatural means; mosquitoes and only unhealthy looking people. 79% did however know that HIV can be transmitted by healthy looking people.

[23] National HIV/AIDS Workshop on IEC, Gaborone, January 2001.

resources for delivering services will increase. While all sectors will be affected, the two sectors that are likely to be affected most are health and social welfare.

The health care sector is already battling to cope with health care needs of people with HIV/AIDS, and demands on the sector are expected to still rise substantially (Abt Associates 2000b). With the introduction of antiretroviral drugs, new demands and costs will confront the sector.

Impacts of HIV/AIDS on the social welfare sector have not been studied. However, it is clear that the sector is also having difficulty in meeting needs for support of the AIDS sick in home based care, and surviving dependents. Financial implications of grants, as well as increased staffing needs, can be expected to continue to climb rapidly from current levels.

Intense HIV/AIDS impacts on the social and community environment and other sectors have significant implications for the education system.

- Education is challenged to rapidly produce a generation of students equipped to fill the gaps in communities and the national workforce.
- Competition for extra resources can be expected to intensify, with strong demands for them to be used to meet urgent needs for health care and social support.
- The health and welfare sectors are likely to have difficulty meeting demands on them, and will have limited capacity to support education sector efforts to preserve education outcomes.

1.3.4 Responses to the epidemic

Botswana's national HIV/AIDS response was initiated in 1987, with the establishment of the National AIDS Control Programme. Early responses to the HIV/AIDS epidemic were largely focused on biomedical issues, the health sector, primary prevention, and monitoring and evaluation. Botswana's HIV/AIDS strategy is currently guided by the Second Medium Term Plan on HIV/AIDS (MTPII) for 1997–2002. The plan has recently been reinforced by increasing recognition by a wide range of stakeholders of the severity of the HIV/AIDS epidemic and the need to address it to preserve Botswana's development objectives. Political commitment at the highest level is now prominent, led by the President.

Important developments over the last few years in terms of MTPII include the following:

- Formation of the National AIDS Council (NAC) chaired by the President.
- Establishment of the multi-sectoral National AIDS Coordinating Agency (NACA) to coordinate and oversee the national response to HIV/AIDS.
- Establishment or strengthening of key programmes.
    - *Prevention* initiatives include: general HIV/AIDS awareness and IEC, condom distribution, STD treatment, expansion of voluntary counselling and testing (VCT), inclusion of HIV/AIDS in secondary and now primary school curricula and prevention of mother-to-child-transmission (PMTCT) of HIV.
    - C*are and support* initiatives include: home-based care (HBC), treatment protocols, expansion of counselling services, and a plan of action on orphans. Government is also aggressively developing a programme to make antiretroviral drugs (ARVs) available to the Botswana population.

Many aspects of Botswana's HIV/AIDS response and service delivery have depended on NGOs or been spearheaded by them. In addition, volunteerism and initiatives by many local CBOs (including HBC teams, church and women's groups, and village development committees) have played critical and often self-motivated roles in prevention, care and support.

Increasing emphasis is being placed on the need for a multi-sectoral response to the epidemic. At national level, a presidential directive requires that all government sectors are responsible to NACA and the NAC for developing and implementing their HIV/AIDS response, including consideration of

staff impacts. At District level District Multi-sectoral AIDS Committees (DMSACs) have been implemented since 1997/8.

Major progress has been made on many fronts. Nevertheless, it is clear that many aspects of the inter-sectoral response still face major challenges, including the following.

- *Stigmatisation.* A striking feature of Botswana is the ongoing stigma and secrecy around HIV/AIDS. Only a handful of people are living openly with HIV/AIDS. Heartbreaking stories are told of those who want to go public on their HIV positive status, but are prevented by families worried about eviction, social isolation and stigmatisation.
- *Limited clarity on roles of various role players and sectors at national and district levels.*
- *Limited commitment* by key sectoral officials and inadequate communication between sectors.
- *Limited capacity to operationalise responses* to the multiple new challenges raised by HIV/AIDS.
- *Health and welfare systems' difficulties coping* with basic health care, home based care, counselling and support needs.
- *Unresolved issues related to co-ordination with and funding of NGOs and CBOs*, including issues around appropriate incentives for community workers.
- *Concern about community and household capacity*. There are increasing reports that many households and communities are not coping well. There is increasing concern particularly about shifting of burdens of care onto households as health services are overwhelmed while systems for HBC are under-developed (see e.g. Jacques 2001).

1.3.5 Implications of antiretroviral therapies

Recent political commitment to increased access to ARVs in Botswana could have major implications for the future course of the epidemic in Botswana, and specific education system impacts. ARV treatments can substantially reduce illnesses and deaths among HIV infected people, with implications for workforces such as teachers, as well as other impacts such as numbers of orphans.

Planning to expedite implementation of ARVs has begun. However many aspects of the plans remain to be resolved and ensuring wide access to ARVs is a large challenge (Bannenberg 2001) that may take years to roll-out to most of the population. Certain key uncertainties remain.

- *Likely coverage and levels of uptake of ARV treatment,* as determined by health care infrastructure, cost and decisions of people with HIV/AIDS.
- *Effectiveness of ARVs*. This is partly because multi-drug ARV therapy was only introduced in the late 1990s, limiting experience of the long-term effects of therapy. The available evidence suggests that as many as 25% of patients with AIDS who access therapy may fail therapy within a year due to side-effects, viral resistance and compliance problems.
- *Possible implications of ARV therapy for new HIV infection rates.* A particular concern is that if people assume that they can get ARV therapy, complacency around unsafe sexual practices may recur and lead to increases in infection rates.[24]

Later sections discuss specific implications of an ARV programme in Botswana for education planning decisions. Overall, ARVs are likely to be an important part of managing the impacts of the HIV/AIDS epidemic in Botswana once they are available. However, it seems dangerous to assume that ARVs will "solve" the human and system wide problems created by HIV/AIDS.

- Even with fairly ambitious levels of ARV access and success, the scale of Botswana's epidemic means that a significant increase in illness, deaths and associated impacts will still occur.

[24] This problem is very widely reported in developed countries with relatively good access to ARVs.

- If anything, increasing access to antiretrovirals increases the need for prevention programmes in the foreseeable future.

1.4 The Botswana Education System

1.4.1 Structures, systems and capacity

The MOE is divided into eight main Departments - Primary Education; Secondary Education; Non-formal Education; Vocational Education and Training (DVET); Curriculum Development and Evaluation (CDE); Student placement and bursaries; Teacher Training and Development (TTND); and Teaching Service Management (TSM). Other core MOE components are the Divisions of Planning Statistics and Research; Examinations, Research and Testing: and Special Education. The University of Botswana is funded through the Ministry but has a high degree of autonomy. The Ministry of Local Government provides basic infrastructure services in primary schools, but has limited influence on their function. The private sector plays a significant role in schooling (see below), as well as in vocational education and training, where the Ministry of Labour also has a role.

The core of the education system are the over 740 primary schools and over 270 junior and Senior Secondary Schools. Primary schools serve around 320 000 children and employ 12 000 teachers. Community Junior Secondary (CJSS) and Senior Secondary Schools (SSS) serve around 145 000 students of whom just under 10% are in Forms 5 and 6, and employ around 8 300 teachers. Ten percent of primary schools and 15% of secondary schools are private, as opposed to government or government aided schools, but they covered less than 7% of pupils at each level in 1998. The average size of primary schools in 1998 was around 450 students and 16 teachers, compared to secondary schools with an average size of around 530 and 29 teachers. Secondary schools and particularly Senior Secondary Schools tend to be located in larger centres.

DVET is currently being expanded significantly from a 1998 base of 3 Technical colleges (total 1000 students), 7 Institutes of Health (1350), four vocational training centres (3500) and 31 brigades (4000).

The country has six Teacher Training Colleges, supplemented by 12 Education Centres for in-service training (IST) and the University.

While organisation varies across Departments, most functions and institutional arrangements are divided into Ministerial, regional, district and institutional levels. Primary school support structures tend to focus at district level, while secondary school and most other support functions tend to be organised in regions.

1.4.2 Achievements in education

The education sector in Botswana has made rapid strides towards universally accessible education of improved quality (see Ministry of Education, 1999). Educational achievements include:

- Enrollment of close to 100% of children in primary school, with trends to increasing enrollment.
- Overall, an estimated 85 percent of children of primary school age in Botswana were attending primary school in 2000. Rural areas have relatively high, though variable levels of attendance (CSO 2001).[25]
- Marked increases in children obtaining Junior Secondary schooling (transition rates from Standard 7 to form one increased from 45% in 1988 to 95% in 1997).

[25] In urban areas, 88 percent of children attend school while in rural areas 81 percent attend. School attendance in Ghanzi is significantly lower than in the rest of the country at 76 percent.

- High levels of enrollment of girls in primary school.[26] In all components of the education system females have constituted close to or greater than 50% of enrollees, with the exception of vocational and technical training (37%), (see Table from 1997 Education Statistics Report).
- Increased qualification levels of teachers and upgrading of all Teacher Training Colleges to Colleges of Education.
- Declining primary pupil teacher ratios, reaching 28:1 in 1997, with relatively equitable distribution (range 17-32 with most in 23-29 range)
- Declining primary pupil classroom ratios to 41:1 in 1997.
- Increases in adult literacy rates from 54.8% in 1991 to 74.4% by 1997.

1.4.3 Key challenges and policies

In the context of these strong achievements, provision of basic education to the entire school going age population and more equitable access remain core priorities of the Government for economic and social development. However, policy and strategy has placed increasing focus on quality and efficient delivery of education. Overall objectives of national education set out in the 1994 Revised National Policy on Education to guide the sector over the next 25 years are to:

1. Raise educational standards at all levels
2. Emphasise science and technology
3. Make further education and training more relevant and available
4. Improve the partnership between school and community in development of education
5. Provide life long education to all sections of the population
6. Take more effective control of the examination mechanism to realise broad curriculum objectives
7. Achieve efficiency in educational development

Other key components of strategy include:

- *Raising the transition rate from junior to senior secondary* school, with a current target of 49%
- *Effective preparation of students for life, citizenship and the world of work*[27]
- *Improvement of teacher performance* and status
- *Effective management* of the education service, and cost-effectiveness and cost-sharing in financing education.

In many of these areas significant progress has been made already. However a number of general constraints in the MOE and lower level management affect the sector's ability to respond to new challenges efficiently have been noted. These include:

- Limited management and other capacity at all levels. An important contributor to this is simply the rapid expansion of the sector with a need for large intakes of relatively inexperienced staff. Lack of basic administrative infrastructure and resources also inhibits efficient and timely delivery.
- Challenges of decentralisation. Policy promotes comprehensive decentralisation within Departments to regional, district and institutional level.[28] This is already well advanced but the process has not been as rapid as anticipated because of staff and housing shortages. The policy has raised further challenges such as tendencies for higher levels to abrogate

[26] Net primary school enrollment rates among girls have been higher than for boys from 1991-1997 but from the early 1990s enrollment among boys seems to have been catching up with that of girls. (Education Statistics Report 1997).

[27] The need for more effective preparation for the world of work and for curriculum review to cultivate entrepreneurial skills are highlighted in NDP8.

[28] Including Primary, Secondary, Non-formal, Teacher Training and Development, and Teaching Service Management

responsibility once it has been devolved, rather than providing adequate support, in part due to overload of staff. Decentralisation is also reported to have resulted in tendencies for inadequate communication between levels, with regional and district offices operating to a large extent, independently of headquarters, and limited appreciation of local conditions by headquarters.

- Bureaucratic procedures and organisational culture. Staff tend to be procedure and rules based in their approach to work and are resistant to change. Many key MOE procedures are complex, reducing flexibility and responsiveness. Furthermore, decision-making tends to require long consultative processes. Officials indicate that the amount of time consumed by complying with formal procedures and attending meetings is a major constraint on effectiveness and efficiency.

1.4.4 Ministry of Education responses to HIV/AIDS

Until 2000, education sector responses to HIV/AIDS were very limited. The epidemic was largely seen as a health issue and its responses were largely limited to prevention of HIV among students. The relevance of HIV/AIDS to the sector more broadly was not widely appreciated or formalised in policy and structures.

Since 2000, major strides have been made. Major momentum through Presidential requirements for responses in each sector and accountability and reporting to NACA has been gained. A Ministry HIV/AIDS Committee of all Heads of Department has been established. A HIV/AIDS coordinator has been appointed reporting directly to the Permanent Secretary. A Technical Working Group composed of focal point persons from all Departments has been established to plan and coordinate the Ministry's response. A strategic plan, including sub-plans for all Departments and certain key Divisions, institutions and units was formulated in February 2001. These structures and initiatives are discussed in greater detail in subsequent sections.

1.5 Conclusions

Botswana is confronted with the beginning of a large and rapidly rising AIDS epidemic. Prevention programmes so far have not led to the required levels of behaviour change to prevent further HIV infection. The AIDS epidemic will have a pervasive effect on society, communities, institutions and development. The environment within which the sector has to operate and plan is being fundamentally altered by HIV/AIDS.

Capacity to respond to the needs raised by HIV/AIDS will stretch already limited capacity in all sectors. The Botswana education system has critical strengths when compared to the systems of other hard-hit countries. Many core objectives of education are being achieved and current initiatives have set high standards and goals, with high priority on enhancing quality and efficiency. The sector also faces smaller increases in needs than other major social sectors such as health and welfare. However, it is still vulnerable in terms of its ability to respond to new pressures, particularly if key capacity is lost and core inefficiencies are not addressed.

2. IMPACT OF HIV/AIDS ON NEEDS TO BE ADDRESSED BY EDUCATION

The sector needs to produce increasing numbers of students who are equipped to fill the gaps left by AIDS in households, communities and the workforce, and to maintain and improve the fabric of a traumatized Botswana society. The following sections look specifically at the scale and types of needs to be considered to ensure that this overall goal can be achieved.

2.1 How Will HIV/AIDS Affect the Number of Children of School-Going Age

The HIV/AIDS epidemic will impact on population growth, and therefore future numbers of school age children, through the following main mechanisms:

- Many women of childbearing age will die, reducing the number of children born.
- Women with HIV have reduced fertility due to their infection.
- Children born to HIV infected women have about a 30% chance of being infected with HIV. Most of these children will die before they reach the age of five, many within the first 2 years of life.

Projections using both the Doyle and Spectrum models were produced to project the effects of the high levels of HIV infection on the growth of the population over the next 15 years, and in particular the effect on the number of school-age children. Further details of the models and assumptions used in producing projections are provided in Annex C. The results are summarised below.

2.1.1 Projected numbers of children

The HIV epidemic is projected to cause a decline in the number of children in Botswana over the next 15 years. Figure 2.1 shows the number of children that would be expected in a no AIDS scenario. The following figure (2.2) demonstrates the impact that the AIDS epidemic will have on the number of children in Botswana. The impact of the epidemic is clear in the younger age groups from early on, and is likely to already be present in the 0-4 and 5-9 age groups. There will be a decline in the number of 10 – 14 year olds from around 2004. The impact on the number of older children is less severe, and numbers will decrease later, as the effects of the epidemic on fertility and child mortality feed though into older age groups.

Figure 2.1 Projected number of children and young people, 2000-2015 (no AIDS scenario)

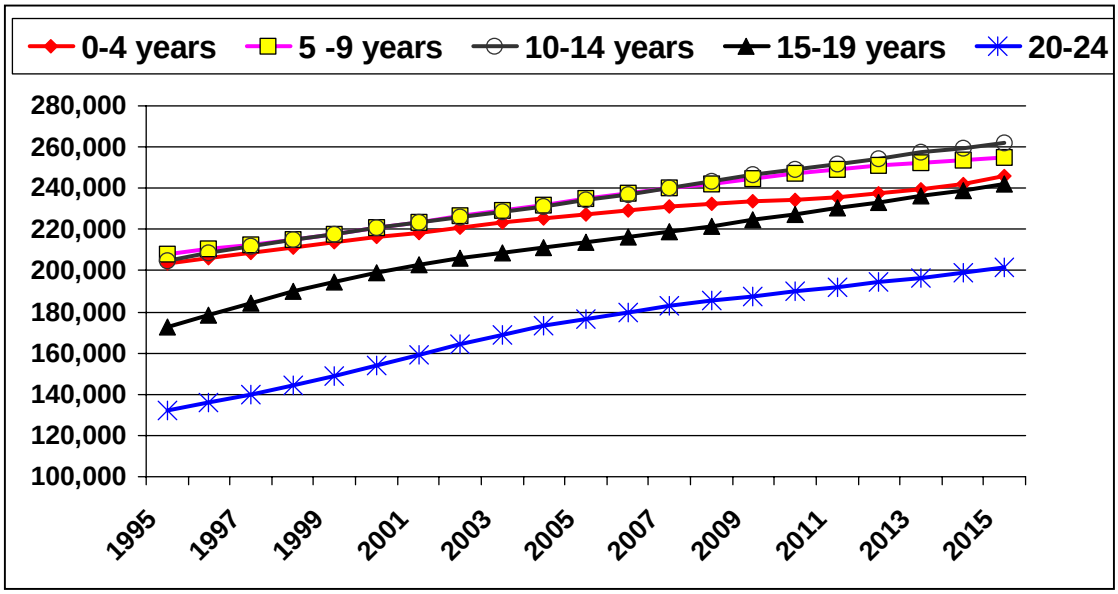


Figure 2.2. Projected number of children and young people, 1995-2015 (D1)

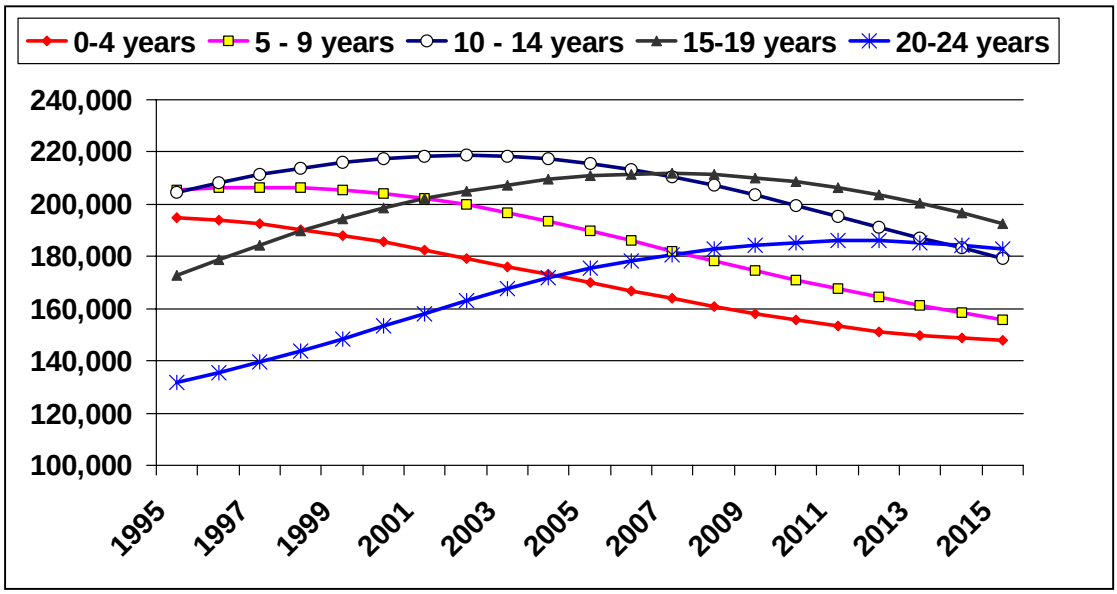
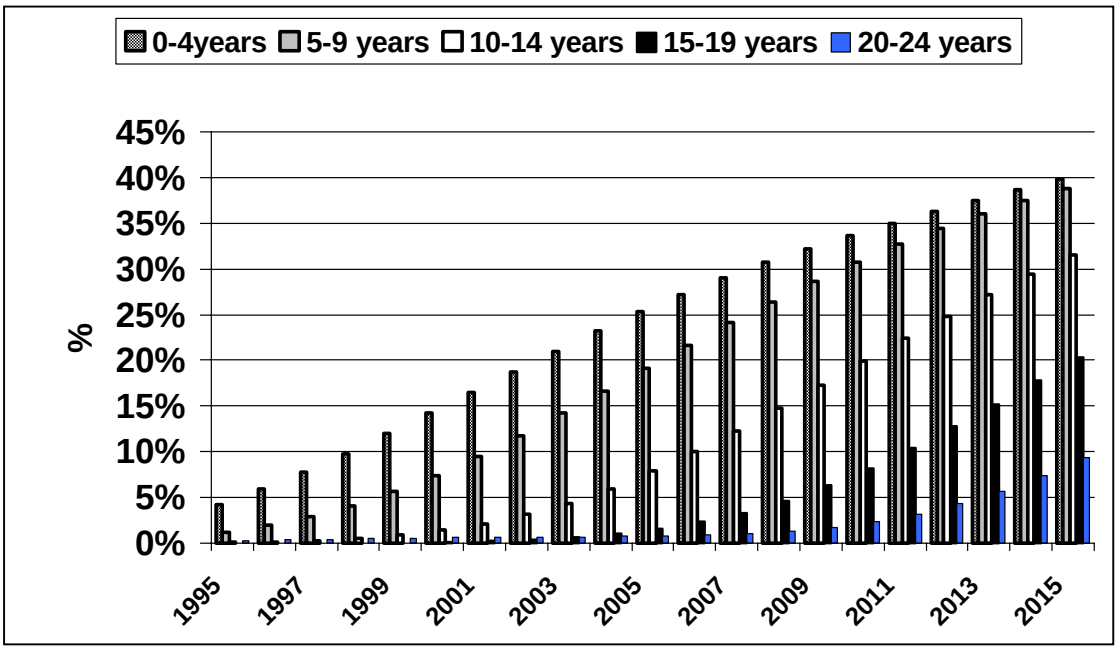


Figure 2.3 shows the extent that the population of children will decline compared to a situation of no AIDS in the population. By 2005 there will be almost 20% fewer 5-9 year olds than expected, and this may increase to almost 30% by 2010. Over time this effect will move along with this age cohort, so that there may be a discernable decrease of young adults from the middle to end of this decade.

Figure 2.3: Percentage reduction in population of children and young people due to HIV compared to a no-AIDS scenario



The projections indicate that enrollment into primary schools will slow down and then decline. This will however take some time. However, data from the MOE suggests that in 1998 the number of children entering primary school dropped for the first time in the last 5 years (Table 2.1). This is consistent with the projections produced above. However, there are obviously many other reasons that children may not enrol into school, especially in an environment of increasing hardship at a household level. This needs to be monitored to see if a trend emerges.

Table 2.1: Enrollment into Standard 1 1993 - 1998

	1993	1994	1995	1996	1997	1998
Boys	24,554	25,051	26,274	26,749	27,490	27,076
Girls	23,367	23,722	25,146	25,207	26,358	25,309
Total	47,921	48,773	51,420	51,956	53,848	52,385
% change		2%	5%	1%	4%	-3%

Source: Ministry of Education Data

2.1.2 Interpretation of projections

As with all models the projections produced in this report should be considered an estimate of what is likely to happen, as opposed to a guaranteed outcome. There is always some uncertainty about key demographic parameters, including fertility rates and trends. The HIV/AIDS epidemic may also change childbearing preferences among people and thus disrupt previous trends. Medical interventions and behaviour change could alter the course of the epidemic. However, a vaccine or cure are unlikely to be available within the next 10 years. These factors, and any changes in risk behaviour, seem unlikely to grossly affect projections of children in school-going ages before the end of the decade.

Nevertheless, the model used to make the projections used here uses some key assumptions of particular importance in projecting student numbers. These include assumptions that:

- Future trends in HIV infection levels among women attending antenatal clinics will peak at about and 40%.
- There is a reduction in the fertility of women infected with HIV, which is dependent on a woman's age and stage of disease.
- There is no widely accessible programme in place to reduce mother-to-child transmission of HIV.

Different scenarios were produced to test sensitivity of projections to these assumptions. Figure 2.4 shows the projected number of children aged 5 to 9 until 2015 using the Spectrum and Doyle models. The projected trends are broadly similar for at least the next 10 years. However, the "Spectrum best case" scenario, which assumes that rural communities will consistently have 20% lower infection rates than urban communities, does indicate the potential for the number of 5-9 year olds to be quite substantially higher than in other scenarios. This indicates the need for planners to accommodate a fairly wide range of uncertainty in their plans until clearer data on epidemic and demographic trends becomes available.

Figure 2.4: Sensitivity to epidemic severity: number of children aged 5-9 years

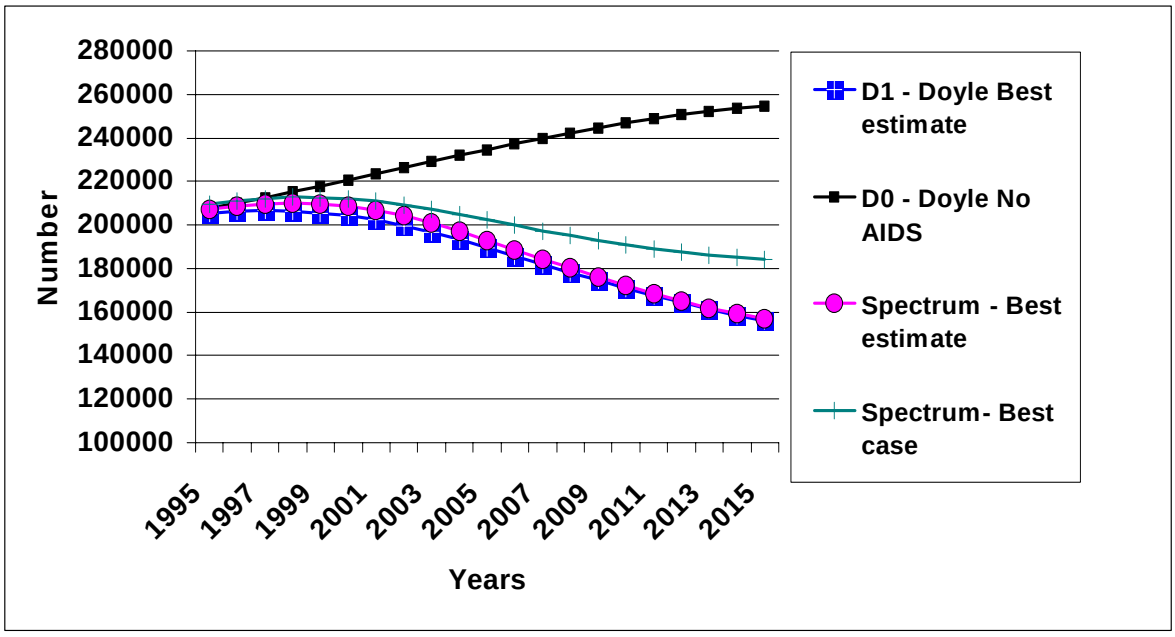
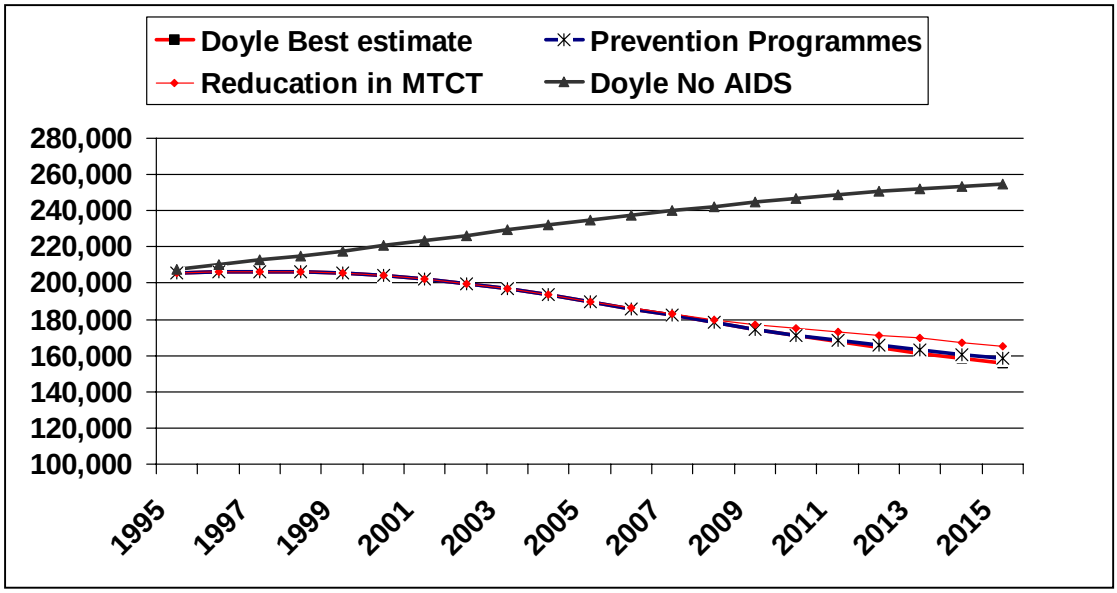


Figure 2.5 indicates the changes in population size that would occur if assumptions around mother-to-child interventions and fertility in HIV-infected women were changed within plausible limits. Changing some of the key assumptions does not substantially affect the general trends that can be expected to occur over the next decade. This is due to the overwhelming burden of HIV infection in the Botswana population. Even introducing MTCT programmes or the success of behaviour change campaigns will not to any large extent affect the demographic changes that can be expected.

Overall, the sensitivity analyses show that changing some of the key assumptions does make a difference to the number of potential students. The differences are relatively small when compared with the no-AIDS scenario, and the projected trends can therefore be considered to be relatively robust. However, planning decisions also need to include some margin for error, and new information on the course of the epidemic and demographic trends such as fertility need to be tracked carefully.

Figure 2.5: Percentage change from the mid-case projections for the 5 – 9 year old population under different assumptions



2.1.3 Other HIV/AIDS impacts on actual enrollment

The numbers of school age children shown in Section 2.2 represent the target population to be covered by the primary and secondary school system. However, HIV/AIDS may introduce other factors that affect enrollment across age groups.

Current primary school enrollment rates in Botswana are considered to be fairly high in comparison to other developing countries. Official data from the MOE and CSO suggest that enrollment in primary school was 98.4% in 1997, up from 42% in 1971 and 86% in 1981. However, enrollment into secondary school is considerably lower, with only 45% of children enrolled in community junior schools and 20% enrolled in Senior Secondary Schools in 1995.

HIV/AIDS impacts are likely to increase the numbers of children exposed to factors that predispose to lower enrollment, higher repetition rates and overage students. HIV/AIDS impacts on students that can affect enrollment, drop outs and repetition rates include the following:

- 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.

Increasing numbers of children may thus never enrol in school or drop out of school altogether, leading to lower than expected student numbers. Increasing numbers of children may also repeat grades, leading to higher than expected numbers in certain grades.

2.1.4 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 enrollments, 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. 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.

2.1.5 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.

2.2 Needs For Prevention Of HIV

The education sector is uniquely 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. Further, 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. At current rates of infection, around half of all students will die of AIDS before they reach the age of 40 or be condemned to a life of chronic disease.

An in-depth review of prevention related issues in the education sector is beyond the scope of this report.[29] However, several key perspectives are discussed below as critical issues in considering overall sectoral responses to HIV/AIDS.

2.2.1 Risk of HIV infection among students

Huge numbers of young Batswana become newly infected with HIV during or shortly after their school-going years. Antenatal survey data and other sources indicate that infection rates are close to zero in the early teens, and then rise rapidly from the mid-teens to peak at between 40%- 60% among women aged 25-29 in many communities.

In young men the peak in infection levels is estimated to be in the early to mid-30s. The difference in peak age groups is thought to be because of girls' partnerships with older men. This puts them very high risk of HIV although the average age of onset of sexual activity is 15 to 18 years for girls and around 14 years for boys. This is considered a priority issue to address in Botswana, and was a key theme in the 2000 Botswana Human Development Report.

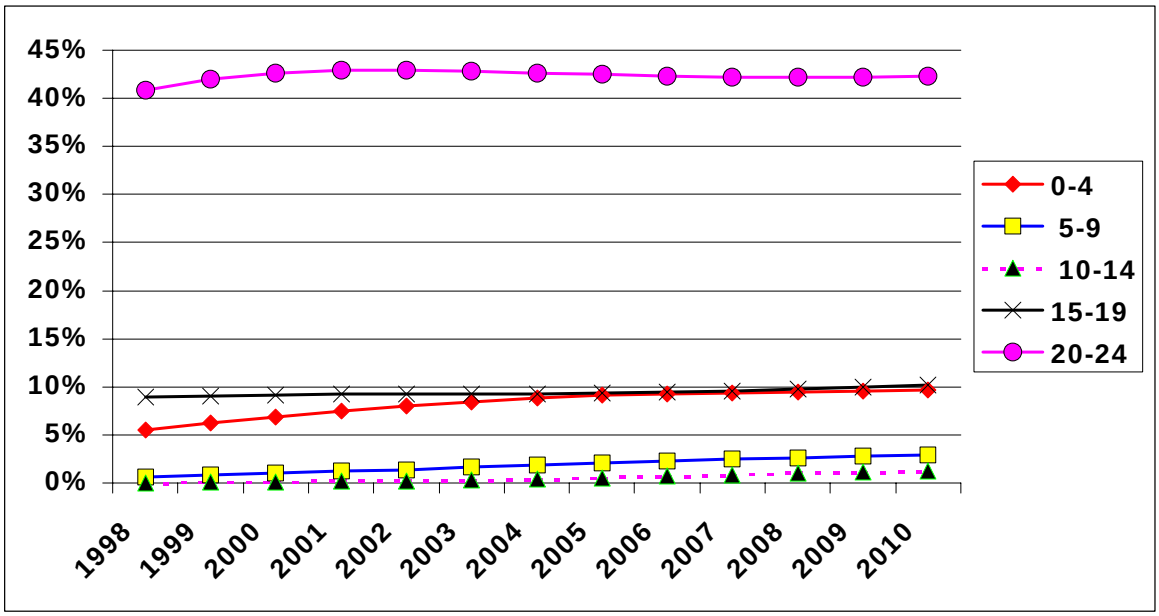
The massive increase in overall infection rates among young people during the ages at which they are in contact with the education system is illustrated in Figure 2.6. Rates are estimated to rise from less than one in 50 in ages 5-14, to around 1 in 10 in the 15-19 age group before leaping to almost 1 in 2 in the early 20s. It is estimated that over a third of all new HIV infections among females and 14% of all male infections occur between the ages of 15 and 19.

The figure also illustrates that without effective prevention programmes and behaviour change, these trends could continue for many years.

To reach these levels of infections, a very substantial proportion of students become newly infected with HIV/AIDS each year (Figure 2.7). Projections indicate that in 2001 alone, around 8 % of female 15-19 year olds will become newly infected, while around 6% of male 20-24 year olds may be newly infected. The education system is in a unique position to moderate their risk of infection.

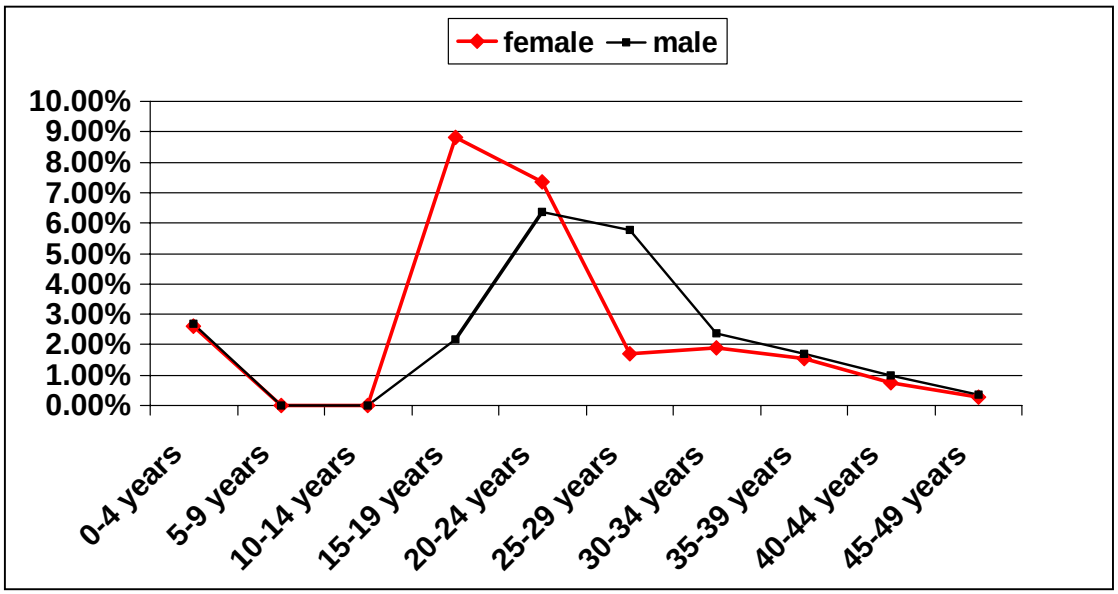
Figure 2.6: Projected HIV infection levels in age groups 0-24

[29] The HIV/AIDS in Education Study Group (2001) conducted an extensive review of prevention programmes.



Source: Scenario D1

Figure 2.7. Projected percentage of age group newly infected with HIV in 2001 by gender (HIV Incidence by Age)



2.2.2 Education sector initiatives in HIV prevention

Primary responsibility for HIV/AIDS prevention activities through most of the 1990s lay with the HIV/STD Unit in the Ministry of Health and its IEC programme. Less focused attention was paid to the role of the education sector in prevention and it developed its interventions with limited focused integration and support from other national programmes.

The approach of the MOE to HIV/AIDS education has been to infuse topics into other subjects. Biological issues related to HIV/AIDS are infused into science curricula, and other aspects of HIV/AIDS are covered mainly in Moral Education and Family Life Education. Topics cover transmission, prevention and aspects of dealing with consequences of illness and deaths. Infusion has

been done most intensively for CJSS curricula, with less attention in Senior Secondary curricula, where it is mainly technical aspects of HIV/AIDS that are covered. Some basic HIV/AIDS education has been provided to Standard 6 and 7 students. The MOE is currently piloting new school health materials in 30 CJSS and Primary schools, with the intention of rapid roll-out thereafter.

Other components of the Ministry prevention initiative run through Curriculum Development include Guidance and Counselling and Educational Broadcasting.

Important components of HIV prevention among youth have been provided through NGOs and voluntary organisations. The most pervasive is PACT, which has been in operation since the 1980s to promote peer-based education and training. This has been active in a large number of senior schools, but has been facing severe funding problems. Other services, predominantly youth friendly reproductive health service facilities, are being provided by NGOs although these are in a limited number of centers, with some outreach peer education programmes.[30] Condom distribution and social marketing has been undertaken by PSI, but has not been engaged by schools on a large scale. There are encouraging examples of groups of teachers such as Teachers Against AIDS Associations actively promoting HIV/AIDS awareness, knowledge and skills. However, these have been difficult to sustain.

Challenges identified – HIV prevention

As indicated in Section 1.3.2, current interventions to prevent HIV/AIDS among youth have proved inadequate to turn back the epidemic (see also results of the HIV/AIDS Study Group school survey). Focus groups and key informants indicated that current programmes are having limited success for a variety of reasons.

- *New and old myths about HIV/AIDS and risk of infection.*[31] Current approaches are not proving effective and flexible enough to respond to these.
- *Failure to address home and community environments that create risk.* Even if youth are well informed and motivated, safer sexual practices are undermined by adults in their families, lodgings and communities.
    - Activities targeted at adults have been planned in some areas (by PACT for example), but attempts have been very limited.
    - Involvement of parents is not easy. PTAs have not systematically been involved in HIV/AIDS activities. There is general agreement that parents are often unwilling to come into schools for open-days or for PTA or BOG meetings to discuss HIV-related matters – even when it is made clear that their children's lives are at risk. Some parents were reported to actively resist HIV education for their children. Many also live elsewhere. Parents who pay for private schooling seem to be more involved. One informant noted that *'perhaps it all really depends on the way the school relates to parents and the community as a whole.'*
- *Lack of an effective approach to dealing with cultural issues.* Culture plays a complex role in relation to risk of HIV infection in Botswana. Botswana youth are at risk because of certain cultural norms, and due to breakdown of other cultural norms without being replaced. Knowledge of the importance of various factors is limited and priorities are likely to differ from community to community. What s clear however is that if schools are serious about prevention, they have to create opportunities for open discussion of these issues to identify appropriate responses.[32] One

[30] Centres are provided by BOFWA, YWCA and BNYC.

[31] Among the myths encountered among learners, teachers and communities were " we have never seen a person sick with AIDS", "oral sex is safe", "circumcision makes you immune to HIV infection", "condoms cause infection and are part of a conspiracy to wipe us out", "condoms produce worms", "deaths are actually being caused by witchcraft", "condom availability makes more learners likely to start sexual activity", and "children can catch HIV from toilets".

[32] High risk norms identified in certain cultural groups included incest, taboos about explicit discussion of issues

teacher expressed the combined views of many in: *'All our customary beliefs are challenged by this disease in a period of rapid, profound cultural change. Our customary behaviours are deadly. We have no new beliefs or values or customs or systems or rites. We have no way to talk to our children about life and death, and anyway they will not listen.'*

- *Peer, social and economic pressures.* Informants very frequently noted that youth put themselves at risk to get access to the "5 C's" – cellphones, cars, cash, clothes and "chest". Others noted that many youth now have resources and money to access high risk situations associated with "bright lights, entertainment and alcohol". Other youth described pressure to get involved in "mainstreaming" where multiple boys would have sex with one girl in a night.
- *Relationships with older men (and women).* The importance of inter-age sex in driving the epidemic has been well described. Informants confirmed that 'sugar daddies' in relationships with young women is a widespread problem, but also that 'sugar mummies' are increasingly common. The relationships appear to be driven by many factors, including material benefits, cultural tradition, status and adults feeling that young people pose less HIV risk to them.
- *Abuse.* Reports of abuse – by children on young children, adults (including parents or near relatives) on children – were common.[33]. Many noted that traditional practices and men's attitudes were conducive to abuse. As one Kgotla member put it: *'Not long ago, it was 'normal' or 'customary' behaviour. Now, with the new laws, these things are considered 'bad', or 'wrong' or 'abuse of children'. Children now have rights even if we don't agree with them.'* Another informant noted: *'We are going through a process of political, legal, customary and social change. There is a human rights war: human rights may not match community interests or customary behaviours'*
- *Children at particularly high risk due to their environments.* Among these were:
    - *Orphaned girls* who are at particular risk of unsafe or abusive sexual relationships.
    - *Other children who live beyond parental control or without parental protection* for much of the year while their parents are at other homes.[34] Some children live with extended family members who do not discipline or socialise them adequately, or who sexually abuse abuse or harass them. Students who stay alone, or alternatively in shared, often crowded, accommodation in town,[35] may be less well supervised, clothed, nourished, and may engage in unsocial activities to get money.
    - *Children who walk long distances to school.* Some are reportedly "delayed" or abused on the way by men and boys.
    - *Students in schools near high risk environments.* In several schools, there was concern that female students were at high risk because of proximity to army bases or construction projects.[36] However, it was noted teachers had little expectation or inclination to follow up even when there is an 'outbreak of pregnancies'.
- *Alcohol and bars.* Alcohol abuse was widespread making youth less careful or able to avoid high risk sexual behaviour Many teachers indicated that student access to bars is uncontrolled, exposing them to high risk partners and being 'bought" with free drinks.

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related to sex and illness, limitations on youth participation in discussions in the household and particularly in fora such as Kgotla's, dry sex, norms of men having high numbers of sexual partners, men's dominant position in relationships and norms promoting childbearing. Other protective mechanisms such as traditional allocation of responsibilities for sex education, limitation of sexual relations to stable partners even within polygamous marriages, and discipline or other social constraints on behaviour are breaking down. The net effect of certain other traditional practices such as polygamy and early marriage on risk is not clear.

[33] School heads, teacher, college and university teachers, and officials reported that they were aware of widespread abuse. The extreme vulnerability of girls and women is underscored by evidence of rising trends in reports of rapes and physical violence against women. The Ministry of Home Affairs estimates that up to 60% of women in Botswana have been subject to physical assault, sexual harassment, sexual exploitation, beating, rape, incest, socio-economic abuse, murder or verbal and emotional abuse. (Govt. of Botswana/UNDP 2000)

[34] This problem was identified by parents, teachers, police and community workers.

[35] Some cases where 18-20 children would live together in a house or hut in town were described.

[36] The 1999 study on " HIV/AIDS and the mobile population groups in Botswana" strongly supports this view.

- *Fatalism.* Informants indicated that many youth felt that HIV infection was inevitable were "feeling that nothing can be done anyway".

Specific challenges in schools

> *"No one will judge us on how many of our pupils die of AIDS. They only focus on exam results"*
> *Secondary school teacher*

- *Basic knowledge of HIV transmission, the disease and pandemic* is inadequate among many pupils, teachers and managers at all levels. Many teachers raised concerns around issues such as children catching HIV from cleaning toilets, sharing utensils and casual contacts with infected and ill colleagues. Risks of accidental exposure are often exaggerated.
- *HIV/AIDS is not yet seen as a "core" learning area.* Managers do not feel accountable for ensuring implementation and students, teachers and managers tend to focus on traditional syllabus content. Effective non-examinability of aspects of HIV/AIDS and lifeskills education seems to be a significant contributor to this.
- *The mandate and obligations of teachers and schools in relation to discussing issues such as sexuality and condom promotion* and distribution is still not clear. This disempowers them when they encounter resistance to addressing lifeskills issues from parents or communities.
- *Staff attitudes, skills and confidence.* Many teachers responsible for implementing the infusion programme are unwilling or lack confidence to teach sexuality and lifeskills subjects. Several informants suggested that the majority of teachers were conservative or lacked the aptitude to facilitate effective discussion of these issues.
- *Staff as role models.* Informants indicated that a significant number of teachers provide neutral or negative role models for children.
- *Need for innovative approaches.* "Fatigue" and lack of receptivity to standard HIV/AIDS materials is widely reported. Materials and approaches do not adequately and flexibly address new issues that are prominent in students minds and environments, including culturally specific issues. HIV/AIDS topics are taught in a theoretical, didactic way, and do not provide practical lifeskills or have more immediacy, such as visiting "full-blown AIDS patients".
- *Scale and quality of training*. Only a small proportion of teachers have been trained in HIV/AIDS prevention. Cascade approaches to training are unreliable.[37]
- *School environments for discussing HIV/AIDS and teacher-pupil dynamics.* Many schools and classrooms are not a "safe" place for pupils to raise and confront issues around sexuality, including access to condoms. Confidentiality is a particular concern.
- *Harassment and abuse in schools.* A particular concern for the education system, are widespread reports of harassment and coercive sex in schools, hostels and higher education institutions. MOE policy prohibits sexual contact between students and teachers, and provides for severe punishment. However, there are many obstacles to schoolgirls reporting sexual advances by teachers, including difficulties of disciplinary processes and incentives to victims such as better school marks or other favours.[38] Sexual harassment by other students was also widely reported.[39]
    - *Condom availability.* A number of informants indicated that youth do to have good access to condoms in the community and that condoms needed to be provided in schools. However, they are vulnerable to censure by communities, parents and colleagues in the absence of a clear policy mandate.

[37] This is widely supported by experience in the region.

[38] WHO is currently working on this issue in Botswana.

[39] See also The HIV/AIDS Study Group (2001).

Recommendations

Despite significant attempts to address HIV prevention in schools, there should be no pretence that current initiatives are anywhere near what is required to ensure an AIDS free generation. A third or more of all investment in education will be wasted under current situations, and HIV prevention will remain critically important for many years. Prospects of ARV therapy increase the need for prevention programmes to avoid complacency about the threats of infection.

A much bolder vision of prevention programmes is required. *All components of the MOE and each school and teacher have to see prevention as part of their core business, not just a "soft subject" compared to "academic" subjects.* Key recommendations include the following,

- *Develop ways to ensure that students, teachers and managers see HIV/AIDS as a "core" learning area.* Key tools are likely to include more rigorous monitoring, evaluation and timetabling requirements. Greater emphasis on HIV/AIDS in examinations should be explored.
- *Reinforce implementation of the current infusion approach and extend it to more subjects*[40].
- *Develop a stand-alone HIV/AIDS and lifeskills programme to supplement the infusion programme.* Infusion approaches to HIV/AIDS awareness are likely to be of limited effectiveness, and cannot substitute for more ambitious lifeskills programmes.[41]
- *Aggressively support implementation of HIV/AIDS education at all levels in primary schools.* Programmes targeted at children before they become sexually active are likely to be more effective. Initiation of sexual activity begins in early teens in Botswana, and in 1998 23% of primary school enrollment was children over age 12.
- *Strengthen peer education approaches.* Evaluate and revitalise PACT and build on the foundations created by this programme and anti-AIDS clubs.
- *Aggressively increase training in co-ordination with staff prevention programmes.* Many of the above concerns can be addressed if staff knowledge, understanding, openness and skills improve. In primary schools, the lack of guidance and counselling staff requires a large programme simply to create basic capacity in each school. Recognition of the need for a workplace prevention programme for staff underlines the importance of more ambitious levels of training. Critically assess cascade approaches to training before using them further, as international experience indicates that reliance on cascades seldom is adequate.
- *Develop a strategy to engage parent and community members on prevention issues, and address inter-age sex.* Specific strategies to reach parents or guardians of students who do not live with their parents will need consideration.
- *Develop more flexible, innovative and participatory approaches in HIV/AIDS education*. These are needed to respond to pupils immediate concerns, including local cultural issues, new myths or questions and support needs.[42] Key components of are likely to include:
    - *Creation of opportunities for open, frank discussion and debates on HIV/AIDS-related issues* between students and staff.
    - *Culturally appropriate materials.*
    - *Creation of more opportunities for synergy between prevention with care and support initiatives.* These may include development of practical caring and coping skills, and interaction with community care programmes.[43]

[40] The HIV/AIDS in Education Study Group recommend examples of further infusion into new subjects.

[41] Recent reviews of approaches to HIV/AIDS education have indicated that, overall, infusion approaches are likely to be less effective than specific HIV/AIDS education and lifeskills programmes (Gachuhi 1999).

[42] Need for customization of approaches to specific cultural circumstances has been noted in several previous evaluations (see Abt Associates 2000)

[43] Some PACT and other groups have involved youth in care and counselling activities.

- *Develop capacity and systems for support, monitoring and management of prevention programmes.* Monitoring of implementation is limited and teachers need assistance to deal with gaps in knowledge, new challenges and stresses if they are to be flexible and creative in their approach.
- *Include positive information and perspectives in HIV/AIDS programmes*. This seems critical to combat fatalism among young people. Rates of infection among teenagers, particularly boys, are still relatively low (see Figures 2.6 and 2.7 above). Students need to be convinced that they should not assume that they are infected, even if they have sexual experience, and that they still have something to lose through unsafe sex.
- *Condom distribution.* Condoms should be available in every secondary school and higher standards in primary schools as part of a coordinated school prevention programme. Formal policy and guidelines on condom distribution in schools and hostels are needed to allay teacher fears of community responses. A minimum requirement should be that each school can clearly demonstrate that sexually active students face minimal barriers to condom access.
- *Ensure that schools are safe environments.* Children have the right to be safe and secure at school and these aspects of risk at least should be directly controllable by the education system.
    - *Consider developing a Code of Conduct for teachers.* This should cover issues such as abuse, obligations to be a role model and dealing with intimate concerns raised by pupils to ensure greater confidence and assurances of confidentiality.
    - *Disciplinary codes and mechanisms in relation to teacher-pupil relationships and harassment by pupils* should be streamlined and enforced at least as rigorously as eg codes on corruption.
- *Develop specific polices, plans, guidelines and partnerships to address particular high risk situations and ensure support in these processes.* Key issues for consideration include:
    - Addressing risks such as nearby construction projects, army bases and bars[44].
    - Risks that may be associated with hostels and community based lodgings, and provision of safe accommodation for susceptible and vulnerable children.
- *Facilitate access to NGOs and other sources of expertise at all levels of the system*. Capacity and capabilities within the system will be stretched, and access to expertise beyond it should be ensured through adequate, consistent funding, and informing schools of available resources.

2.3 Needs Of Infected Students

Schools and other education institutions face the prospect of a significant number of pupils and students who are HIV infected. Infection with HIV may have occurred from their mothers during pregnancy, delivery and breastfeeding (perinatal transmission), through child abuse and exploitation or through heterosexual transmission when adolescents become sexually active.

2.3.1 Projected numbers of infected and ill children

As indicated in Figure 2.1, although there will be significant numbers of infected children, the percentage of children and youth in school-going ages is relatively low until the late teens. This is because children who become infected through perinatal transmission have high death rates in the first 2 years of life with most dying of AIDS before the age of 5, leaving mainly uninfected children in school going ages. The bulk of HIV infection through sexual transmission occurs in students in their late teens. Around one in 10 people aged 15-19 will be infected, rising to almost one in two in the 20-24 year age band. This amounts to around three to four students per secondary school stream average although substantially higher rates can be expected in some older age classes, particular schools and higher education.

[44] Enforcement of age limits on bars seems to be an important issue to support at the highest level.

Projections give some indication of the number of pupils and students who will actually be ill or die while in school. Figure 2.8 indicates the number of young people nationwide who are expected to have AIDS in the given year, and Figure 2.9 shows the percentage of young people in each age band who are likely to die of AIDS each year. The burden of AIDS illness will fall mainly on 0-4 year olds. The proportion of children aged 5-9 who die of AIDS per annum is projected to increase from around one in 500 to one in 200 as a cohort of longer term surviving children moves into these primary school age groups.[45] For other age groups, the proportion is expected to remain fairly constant, at around one in 200 for the early 20s and less than one per thousand in the 10 –19 year age groups. This is because, while levels of HIV infection will climb among young people, most of their illness and death will occur once they have moved into older age groups.

The relatively low levels of *HIV related illness* among pupils and students seem to be confirmed by experience of schools and the University so far.[46] In the case of the University (Chilisa 2001), records indicate that in 1999/2000, 0.43% of students withdrew due to illness and 0.18% died, levels which seem broadly consistent with projected incidence of terminal AIDS illness of around 0.5%.[47]

Figure 2.8; Projected number of AIDS cases by age group (D1)

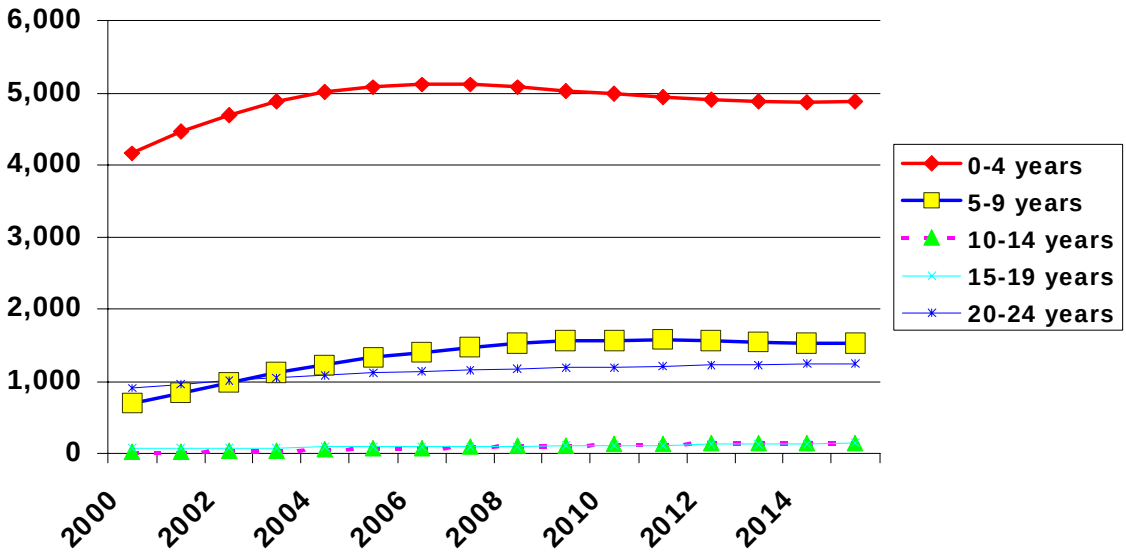
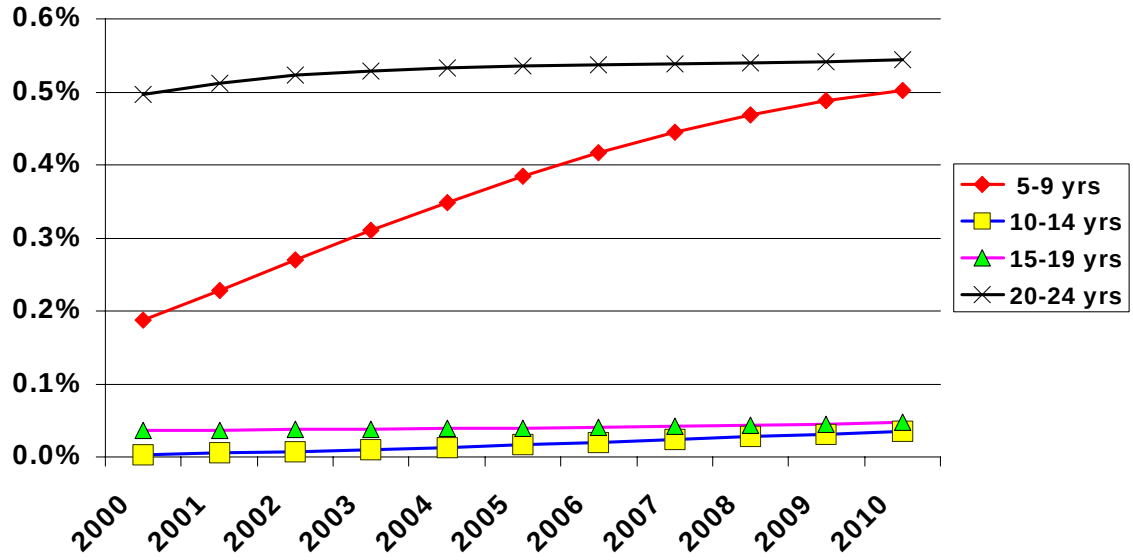


Figure 2.9: AIDS deaths as a percent of age group (D1)

[45] Programmes to reduce mother-to-child-transmission of HIV may reduce disease in the youngest age groups.

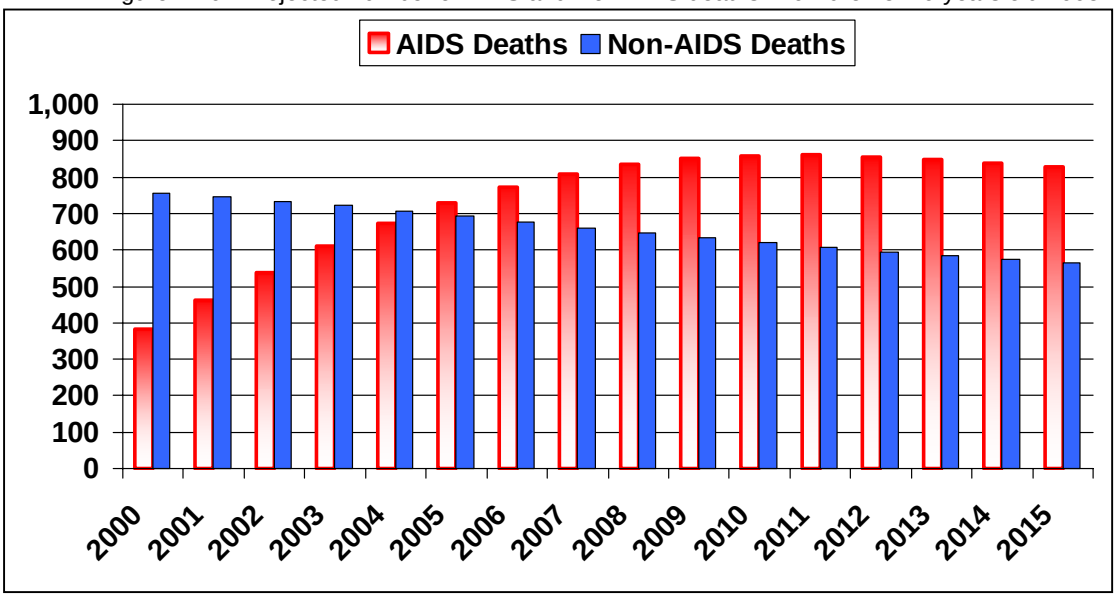
[46] The number of cases observed by schools may be further reduced because infected students may be more predisposed to never enrolling, or dropping out of education before they become seriously ill.

[47] Around three quarters of student deaths in the 1990s were due to illness.



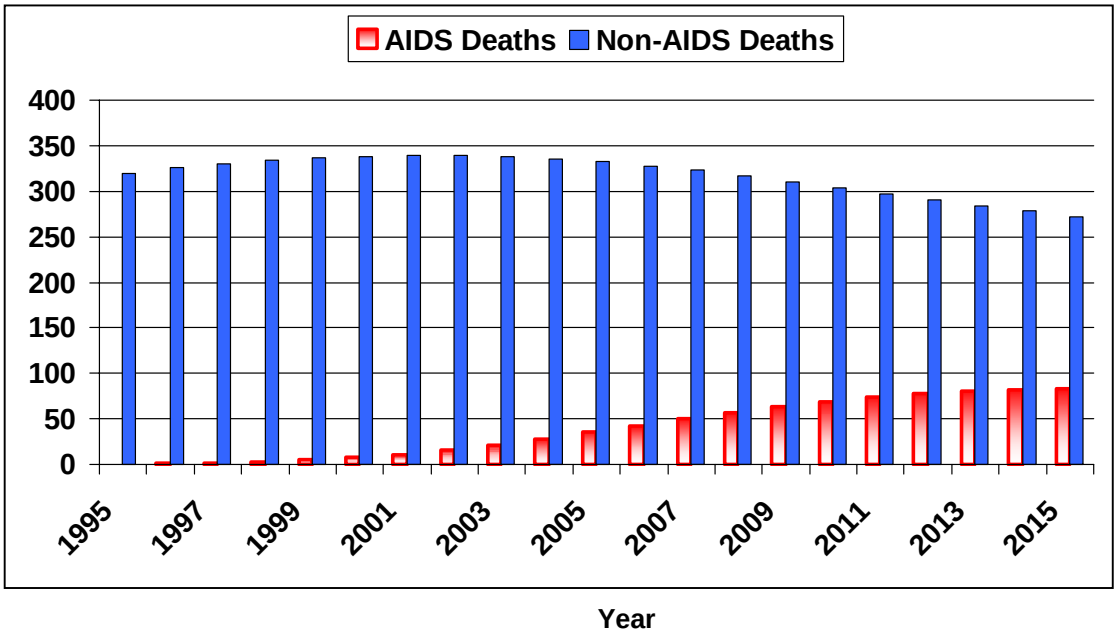
The number of AIDS deaths among school-going age children can be compared to expected deaths from other causes. Figure 2.10 demonstrates the projected annual number of children in the 5-9 age group that will die of AIDS. From about 2005 deaths from AIDS in this age group is expected to exceed deaths from all other causes, more than doubling death rates in the age group, though from a low level.[48] AIDS deaths contribute a smaller percentage of overall deaths among older children (Figure 2.11). Among 15-19 year olds, other causes of death are still expected to be dominant.

Figure 2.10: Projected number of AIDS and Non AIDS deaths in children 5 – 9 years old 1995-2015



[48] Projections of AIDS deaths in this age group reflect only children infected perinatally.

Figure 2.11: Projected numbers of AIDS and Non AIDS deaths in children 10-14 years old (D1)



- *AIDS illness and deaths among school goers are unlikely to reach levels that require large-scale mobilisation of care and support within the system.* However, each individual illness or death can impose significant stress and trauma within a school. Pre-school programmes may have to cater for relatively large numbers of ill children.
- *The number of students who are infected or fear that they are infected* is likely to be substantial.
- *Risk of accidental infection in schools is low*, particularly as risk of transmission through accidental contact is very low, even without gloves, if very basic precautions are taken.

Recommendations

- *Counselling strategies for schools should consider support for students who are HIV infected or who fear that they are infected.* These issues are likely to be greatest in secondary schools and in areas with more severe epidemics, but will also be important for older primary school pupils.
- *Develop policies and procedures for management of accidental exposure to HIV in school settings.* These policies should combat widespread, unnecessary anxiety that exists about accidental exposure through blood, saliva and toilets, and deal with issues such as skin rashes, TB and other opportunistic infections. Ensure wide dissemination of policy and ensure availability of basic protective equipment in all schools.
- *Actively combat stigmatisation of infected students to protect their right to education and well-being*. There are indications that anxiety and prejudice are creating stigmatisation of certain students known or suspected of being infected.
- *Develop codes of conduct, systems and guidelines to ensure appropriate management of confidentiality and non-discrimination around infected children.*
- *Develop efficient, feasible approaches to ensure medical and other support for children who are ill with HIV/AIDS in each school.* In most cases it is likely that this will mainly involve developing referral networks to skilled education staff and other providers such as counsellors, social workers and health services.
- *Consider ways to reduce practical obstacles to continued education of infected or ill children.* These may include flexibility to allow catch-up or out-of-school learning for children absent due

to illnesses; facilitating entry into new schools when families move infected children in search of better health care or due to a lack of family support for an ill child; and enhancing teacher skills and confidence to deal with ill children in the classroom.

- *Incorporate training and communication strategies to cultivate confidence of all staff in managing issues related to infected and ill students.*

2.4 Orphans And Vulnerable Children

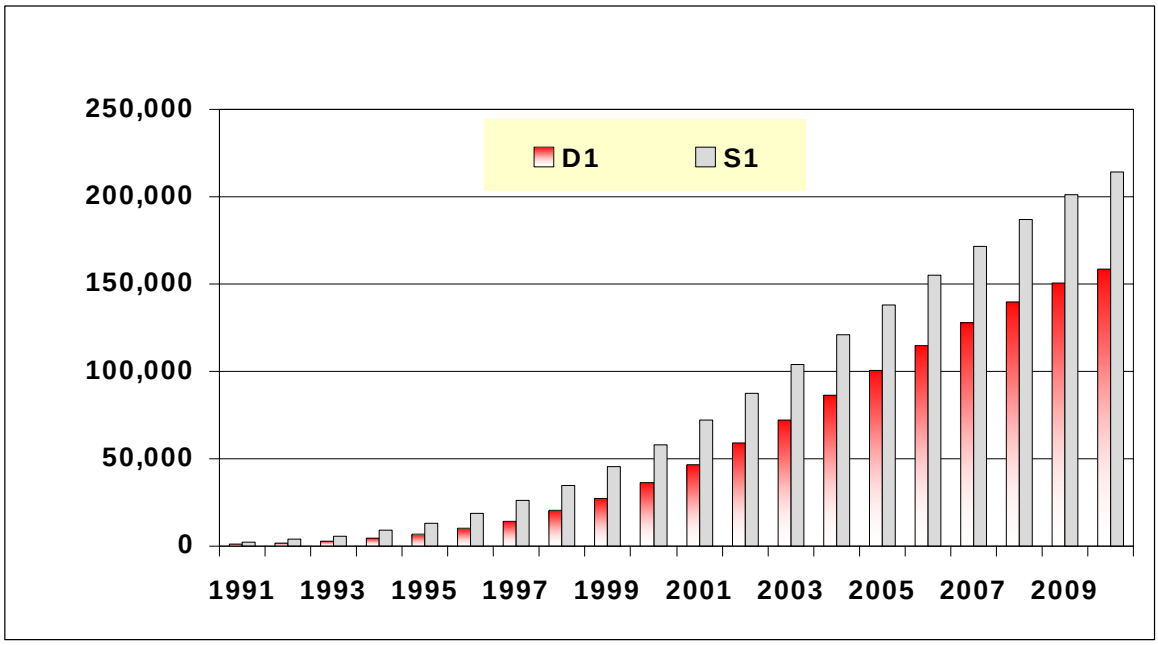
Orphans are perhaps the most serious and longest-lasting effects of the HIV/AIDS epidemic. Caring for them and ensuring that they can become fulfilled, productive members of society is recognised as one of the greatest challenges facing sub-Saharan African countries.

In most developing countries, before the advent of AIDS, 1 – 2% of children are orphans. In some African countries around 11% of children are already reported to be AIDS orphans and orphanhood rates of around 25% are reported in some communities (UNAIDS 2000; Shaw 2000; Foster 2001). UNAIDS estimates that by 2010, 30-35 per cent of all children in seriously affected SADC states (especially Botswana, Malawi, Zambia and Zimbabwe), will have lost one or both parents to AIDS.

2.4.1 Projected numbers of HIV/AIDS orphans

The best estimate projections used in this report (D1) suggest that the total number of orphans in Botswana will increase from around 38 000 in 2000 to 101 000 in 2005 and 161 000 in 2010 (Figure 2.12).[49]

Figure 2.12 : Projected numbers of AIDS orphans in Botswana*



* Ophans defined as children aged under 15 who have lost their mother to HIV/AIDS

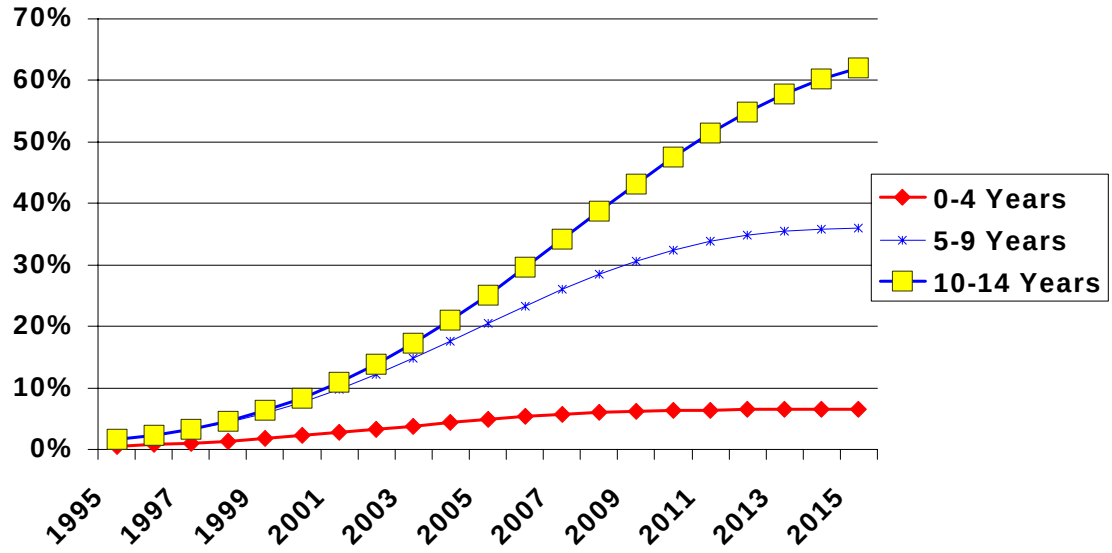
When the number of orphans is differentiated by age, it is clear that the majority of orphans will be in the 10-14 year age group, with fewer in the 5-9 band and much less in the 0-5 year age groups.[50]

[49] Spectrum model (S1) projections tend to be around 35% higher over most of the decade, but D1 projections tend to reach similar levels within 1-2 years.

[50] This is because infected women who are still able to bear children would be expected to live for several years after the birth, and in addition, they may have older children born before or soon after they were infected.

Figure 2.13 indicates projections of the percentage of children in each age band who will have lost at least their mother to AIDS orphans by age band in Botswana. They suggest that by the end of the decade, around one in two children aged 10-14 and around one in three aged 5-9 will be orphaned.

Figure 2.13: Projected total numbers of maternal orphans by age band



Data to validate projections is limited, and is complicated by differing definitions of orphanhood.[51] However, reports of rapidly increasing numbers of orphans in communities and the little available data suggests that, so far, projections provide a reasonable guide for planning. (See Annex C for discussion)

Key issues to consider in planning orphan support

- *The orphan epidemic in Botswana 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*. Even if quite ambitious targets of eg 40% coverage with ARVs are achieved, the number of orphans would be expected to more than double from current levels.
- *In many communities, schools and classrooms the levels of orphanhood will be much higher (or lower) than average* projected levels. In this study, several secondary school teachers indicated that between 20 and 30% of children in some classes were already orphans.
- *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 ophaning and set up sustainable support, the burden is more manageable.

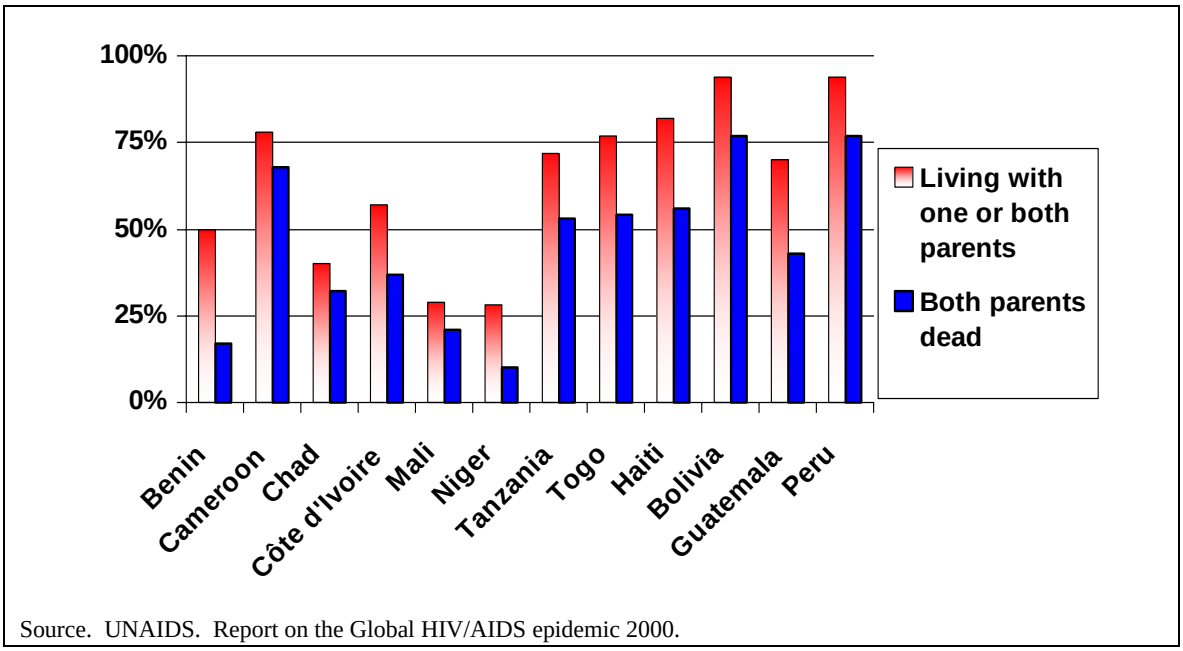
[51] *Projection models* in routine use define orphans as children aged under-15 who have lost their mother to AIDS. This measure has limitations but should give a fair estimate of the number of children who will effectively lose both parents. A high proportion of women are single mothers, and HIV/AIDS will tend to cause death of both partners in a union within a fairly short time. Many men also reportedly abandon their children after their mother dies. The *MLG definition* is a child under 18 who has lost one (single parent) or two (married couple) biological or adopted parents. Social orphans are defined as those children who are abandoned and their parents cannot be traced. The definition of marriage includes people married under customary law.

2.4.2 Vulnerability of orphans and other affected children

Throughout Africa, households and communities have shown remarkable capacity to cope with HIV/AIDS impacts, including orphan care. There is still limited understanding of effects of orphanhood on educational outcomes in various settings. However, previous studies in other countries indicate that orphans are particularly vulnerable to educational disadvantage such as drop out, delayed or intermittent enrollment, and poorer performance in school.

- A collation of studies in a number of countries consistently show that orphaned children's enrollment rates were a median of 37% lower than for children living with one or both parents (Figure 2.13).
- In Uganda, various studies have indicated that: children had 50% lower enrollment rates, and enrolled orphans have more erratic attendance after the death of one or more parent; school attendance dropped for 47 of male and 67% of female orphans; and that older children of PLHA reported a decline in school attendance (26%) and performance (28 %) (UNAIDS 2000; Konde-Lule *et al*. 1996; Horizons Project 2000).
- 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. School performance of AIDS orphans was also worse and their average absenteeism was 28 days in twelve months, compared to 9 days for non-orphans (Elmore-Meegan, 1999). Another Kenyan study of adolescent AIDS orphans reported a 76.9% drop out rate among boys due to inability to pay school fees. Among girls, 58% dropped out, mainly because of pregnancy or to marry. Almost 12 % of girls were withdrawn from school due to AIDS illness in the family (Johnson 1999).
- 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). In another 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).
- Cote d'Ivoire households' spending on schooling dropped by around 50% in HIV/AIDS affected households (UNAIDS 2000).
- 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).
- Another Tanzanian study found that primary and secondary school enrollment rates dropped by 22 and 14% respectively after adult deaths in households (Hunter, Williamson, 1997).
- In Zambia, impacts on school enrollment resulting from AIDS deaths were greater in girls and urban areas. In urban areas, 21% of girls and 17% of boys dropped out after an AIDS death, compared to only 8 and 6% respectively in rural areas (Nampanya-Serpell, 2000).
- In rural Thailand 15% of HIV/AIDS-affected households withdrew children from school.

Figure 2.13: Percentage of children who are still in school according to whether their parents are still alive



Source. UNAIDS. Report on the Global HIV/AIDS epidemic 2000.

While extrapolation from these studies should be done with caution, several key themes emerge.

- *Withdrawal from school or delayed schooling are common coping strategies* for households under stress
- *Orphan's expressed priorities and vulnerabilities to drop out or delayed enrollment seem most strongly related to inability to deal with basic needs* such as food, clothing and shelter, and necessity to work to meet these needs (Kalemba 1999; Danziger, 1994; Lyimo *et al*.1996). Other frequently reported priorities of orphaned children are inability to pay for school fees, school materials and uniforms; lack of access to health care; and lack of assistance with household tasks or care.[52]
- *Even strong support systems can break down as the levels of impacts increase and place more demands on family and community resources* (Booysen and Arntz 2001; Preble 1990; Danziger 1994; De Bruyn, 1995; Gillies 1996; Webb 1997; Loudon 1998; Okonmah 2000). There are also indications that factors such as urbanisation and migration in society disrupt traditional orphan support mechanisms. In some, families have indicated that they are more able and willing to care for orphans when support such as free education, health care and food supplements is given to caretaker households (McKerrow and Verbeek 1995).[53]
- *Stigmatisation, and lack of parenting and moral support are also prominent problems, though seldom mentioned in isolation of material issues in most studies (see eg* Segu and Wolde-Yohannes 2001; Monk 2001; Danziger 1994).
- *Impacts on school performance and attendance can start well before children are orphaned,* due to care and household demands, financial and psychological stresses of infection and illness in their households, or if they are sent to live with relatives (eg Ayieko 1998).
- *Many long-term effects can be reduced if relatively short-term support is provided to prevent or deal with crisis periods.* Many stresses causing drop out or poor performance can subside after

[52] The importance of school fees and uniforms is underlined by the frequency of reports that they are among the most common ways in which communities in other countries support orphaned children. (Mutangadura 1999)

[53] When asked what kind of assistance would be most beneficial Ethiopian orphans mentioned: payment of school fees; provision of educational materials and school uniforms; counselling and moral support; financial assistance; and vocational training and skills to enable them to support themselves (Segu 2001)

acute crises. Families should be assisted to plan ahead in anticipation of a death, including making wills and arrangements for particular family members to take on care of orphans.[54]

- *Girls seem particularly vulnerable* to withdrawal and stress as they are more likely to take over tasks of the mother when the latter cares for the sick person, or to be the primary caregiver (Ayieko 1998; Jackson *et al*. 1999; Rugalema 1998).
- *Short-term coping may hide long-term impacts on individuals and society* through factors such as reduced nurturing, socialisation, residual psychological effects and compromised education.
- *HIV/AIDS orphanhood can impact on non-orphans.* Where orphans are taken in, this can increasingly dilute the resources available to all children (and adults) in a household, and vulnerability can be expected to increase as the number of orphans rises (Loudon 1998).
- *Children in certain households tend to be more vulnerable.* These may include those which have: poorer and less educated members; a single parent or breadwinner; multiple infected members; reliance on agricultural work, subsistence farming or other activities where child labour can substitute for adults (Pitayanon *et al* 2000; Rugalema 1998; Sauerborn 1996).
- *Impacts on schooling can be similar for affected and non-affected households in poverty*. In Kagera, for example, children in poor households with recent adult deaths experienced similar levels of malnutrition and school drop-out to those in poor households with no adult death (Over 1998). In Zaire similar observations were argued to be largely due to strong extended family support (Ryder *et al*.1994).

2.4.3 Context in Botswana

Many children in Botswana already face significant obstacles to educational attainment Education statistics illustrate that rates of attrition among school children, particularly in secondary schools, and repetition rates remain significant challenges to education and skills development for the new economy. It is not completely clear what predisposes to termination of schooling at present. Anecdotally, it is reported that important factors include poverty, lack of perceived benefits of continued schooling, and limited access to schools. A recent report has already been critical of the effectiveness of the MOE and schools in addressing needs of vulnerable children (BIDPA 1997).

2.4.4 Impacts of parental illness and death on children's education in Botswana

" Orphans are a silent problem" HIV/AIDS Programme coordinator

"*A whole generation of children is growing up in the shadow of HIV and AIDS, a shadow consisting of equal measures of loss and sorrow, and denial and silence*." NGO staff member.

Data on the impact of HIV/AIDS on orphans and children is very limited. Of orphans who were registered with the MLG in 1999, around half were assessed as being in need of active support. However, all available data seems likely to be influenced by significant biases.[55] This makes it unlikely that any one source of data currently available captures all dimensions of impacts accurately, and somewhat difficult to interpret projections of orphans numbers and impacts on education outcomes. Nevertheless, certain key messages can be derived when all sources of data are looked at in a holistic context.

[54] A study in Kenya found that only 3.7 percent of orphans indicated that their sick parents made prior arrangements with friends and relatives (Ayieko, 1998).

[55] The label of "orphan" is in itself problematic. In traditional culture defining a child is seen as offensive, implying that a family is disowning that child. In addition, Social Welfare is associated with the previously stigmatised poverty and Destitute system stigma from the past. Some relatives also reportedly assume that disclosing that a child is an orphan may expose them to negative consequences.

Several sources of data provide some indication of the severity of HIV/AIDS impacts on education outcomes. The 1999 Rapid Appraisal of orphans in Botswana found that 30% had withdrawn from school (Muchiru 1999). It also indicated that "most" orphans surveyed had had to care for ill relatives, with likely implications for attendance, and with indications that it was generally older children and girls who were affected. The plan also noted that significant numbers of orphans were sent home due to lack of uniforms or various fees, were stigmatised and sometimes rejected by students and teachers. However, the assessment may have had some bias towards reporting on a particularly hard-hit group of children.[56]

The recent school survey by the HIV/AIDS and Education Study Group (2001) found no strong evidence that absenteeism, particularly absenteeism to look after sick relatives or siblings, was a major factor impeding school attendance. Primary school teachers estimated that one third to one half of orphans had special needs leading to educational problems. Around half of secondary school teachers thought that orphans had problems that could affect academic performance. Orphans in poorer communities seemed to be more vulnerable, suggesting that poverty might be a more dominant influence than orphanhood itself. Late entry into primary school by orphans and disruption caused when orphans were moved to other schools without prior preparation were also noted. Available data on drop out rates among registered orphans in survey districts suggested that rates were between 7 and 12%, and that these did not appear to diverge substantially from overall national drop out rates. There were indications that drop out rates among girls were a potential problem area. EMIS data indicated that until 1997 drop out of girls was twice as high as that for boys at Junior Secondary level, and more than 3 times that of boys in Senior Secondary level. Girls drop out at senior secondary level had increased each year since 1995, while that of boys had remained fairly constant.

Overall, the Education Study Group study seems to indicate quite strongly and plausibly that at this stage in the epidemic, schooling outcomes of affected children's are less severely damaged in Botswana than suggested by studies in other countries and the Rapid Assessment. However, the methodology and analysis used does leaves room for alternative interpretations and the possibility that there may have been a degree of under-estimation of current impacts.[57]

The report on visits to districts in 2000 indicated that in some schools and districts, increasing numbers of children were thought to be dropping out of school for no apparent reason and known orphans were thought to be leaving school to try to make a living (UNDP 2000).

As in certain other countries' surveys, it is not clear that orphans are more likely to drop out than vulnerable children who are not affected by HIV/AIDS in their households.

In this study, informants indicated several key issues in relation to orphan vulnerability.

- *Large-scale drop out due to orphanhood has not been identified so far.*
- *Declining performance before and after parental death is very common.* There were suggestions that for a significant proportion of children this tended to be a temporary crisis.

[56] The survey household sampling methodology should however have ensured that all types of households were captured.

[57] One limitation of school survey data may have been response biases. For example, over one half of secondary school teachers did not consider orphans to have any special problems that could affect performance. Rather than indicating that orphans do not have problems, this could suggest lack awareness of issues noted by other teachers, either through lack of sensitivity or because they had not yet been confronted by sufficient numbers of orphans in their own classes. Another influence may have been sampling bias. For example, analysis of orphan repetition and drop out experience among pupils currently in school may select for a group of less affected orphans. Statistical significance of certain associations (e.g. of associations between absenteeism and drop out vs. parenting and living conditions) was also not clear.

- *Many respondents noted that they had children coming to them traumatised or in tears due to HIV/AIDS issues.* These included parental death, parental illness and anxiety caused by illness and deaths in their broader families as well as among friends' parents. Some had noted stress of students who had to withdraw from school to care for ill family members or siblings.
- *Many orphans who remained in school showed evidence of neglect and ongoing stress.* Teachers reported that, even among orphans who had been taken in by relatives or were known to be receiving grants, some were clearly unwashed, hungry and poorly clothed. Many extended families were reported to provide low quality care to children, including refusal to register children for orphan grants even when they were clearly poorly fed and clothed.[58]
- *Stigma and discrimination.* Active stigmatization or discrimination against orphans by teachers was not reported. However, some examples of severe stigmatization by peers were given. Passive discrimination in terms of failure to address obstacles to orphan schooling also seemed far more pervasive. General stigma around HIV/AIDS in communities, as well as tendencies for orphans to feel "different" from other students and withdraw from certain social groups and situations, were also thought to be significant. Lack of disclosure of HIV status due to fear of stigma, also meant that family members are caring for patients without using precautions, leading to possible risk of infection, and high levels of fear and stress. Illustrations of effects of stigma extend to avoidance of getting special food packages (which include liver), which are considered to be a sure sign of a AIDS.
- *Transfers of children to new schools after a parent's death increase potential for adverse outcomes.* These children were seen as a group that might be particularly traumatized or lost to follow-up as receiving schools often did not know their circumstances.
- *Vulnerabilities of orphans (or other children staying away from their parents).* These included:
    - Money sent by parents to help a student staying with relatives, or orphan grants are sometimes diverted to other uses by carers;
    - People fostering or caring for orphaned children, or those who are looking after the children whose parents are at a cattle post may not bother to send children to school;
    - Some girls lodging with relatives are sexually abused or used as servants, and others living without adult supervision are at high risk;
    - Students cared for by extended family members often receive inadequate discipline or socialisation.
- *Many informants found it implausible to assume that orphans who were used to living away from their parents would not to experience significant psychological, social and economic effects.* They were also noted to be at increased risk of abuse once parental oversight was lost.
- *Student roles in the care of ill relative relatives was not frequently volunteered as a prominent factor* affecting school attendance and performance. It was noted that relatively large numbers of unemployed young people in many communities and families were available to take on caring roles.
- *Parental deaths can affect non-orphaned peers.* Some were reported to now be in much larger households with "diluted" parenting and other resources, while others were traumatized to the point of refusing to go to school because they feared that their own parents would die.
- *Many parents are reported to not care for or supervise their children even when they were alive or living together.* Thus children living apart from parents or in disadvantaged circumstances were often vulnerable independent of HIV/AIDS.

What may be protecting school performance and outcomes of OVC?

Current indications are that Botswana's orphans may be less vulnerable to damaging impacts on education than might be assumed. Key factors that may explain this which were identified are given below.

[58] Reasons cited for this included pride, as well as traditional taboos about defining a siblings child as an orphan.

Botswana's strengths in ensuring effective education of OVC

- Formal welfare system to support OVC and their households
- School feeding schemes
- Free schooling apart from contributions for eg meals
- Established culture of schooling for children
- High pre-existing female enrollment
- Limited household reliance on child labour for subsistence and other tasks
- Home based care systems that can relieve children of some care for the sick
- Relatively good prospects of future employment and advancement after successful schooling
- Robust economic growth and availability of system and household financial resources to meet basic needs

Is there less urgency than previously assumed in dealing with OVC issues?

Even if gross manifestations of impacts on educational outcomes are not yet clear, and protective factors exist, there is significant potential for negative impacts to increase for several reasons.

- *Current effects may be under-estimated.*
    - *Many teachers and principals may simply not be sensitized and not recognize the extent and effects* of orphanhood. In this study it was apparent that many have no systematic way to identify orphans, very limited interest or knowledge of students home circumstances, and limited appreciation of their psychosocial and economic needs.
    - *Students also clearly had difficulty in talking about orphanhood* and may thus be less likely to volunteer information on impacts.[59]
    - *Current relatively low rates of orphanhood may make it difficult to pick up impacts on education outcomes.* With rates of orphanhood below one in ten, even if 10 - 20% of orphans do have their education performance severely compromised, it may be difficult for schools and the system to identify trends as yet.
- *Botswana's AIDS epidemic is at an early stage and will potentially be around twice as severe as in other countries with more advanced epidemics.*
    - Even if impacts are severe for a smaller proportion of orphans than in other settings, they will affect a large number of children over time.
- *Capacity of traditional and other support systems will become much more stretched in the near future as orphan numbers increase.*
    - Extended families, which assume most responsibility for care for the ill and orphans, are already reported to be 'close to the breaking point' in many cases.
    - The capacity of Botswana's extended family and community systems may prove to be more limited than in some other African societies, as the system is already disrupted by general social change. The implications of having a high proportion of households headed by women and high levels of single parenthood may be particular vulnerabilities. Female-headed households already are more likely to live in poverty and they may have less extensive support networks.[60] There are indications from several sources, including the Education Study Group (2001), that maternal orphans may be more vulnerable to schooling and other impacts than paternal orphans.

[59] The HIV/AIDS and Education study group (2001) also noted that students had very little to say about orphanhood.

[60] Female-headed households tend to have higher numbers of dependents as well as lower incomes. Women constituted only around 38% of cash earners in the mid-1990s.

  - Key role players such as home-based care programmes and social welfare services are also under major stress in many communities.
- *Increasing numbers of children can be expected to be re-orphaned* when new carers die, with extra economic and psychosocial implications.
- *Secondary schooling may be protected to some extent* because existing pupils may already be a select, more highly motivated and better supported group. However, impacts may limit expansion of secondary education to those who are currently vulnerable to drop-out.
- *The overall impact of HIV/AIDS on society, and high cumulative numbers of traumatized orphans, may affect social norms in negative ways that cannot fully be anticipated.*[61] These norms may include those affecting schooling.
- *Orphans and other affected children will be exposed to higher risk of HIV infection* themselves, as they are may be more likely resort to unsafe sex for material or psychological reasons and are at high risk of abuse.
- *Many aspects of a response to orphan needs will build systems and capacity of relevance to other vulnerable students.*

2.4.5 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. Botswana 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.

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

Informants and other sources suggest that orphans and other vulnerable children face a number of obstacles to their well-being and education potential. These obstacles, and potential functions required to address them in a Botswana context are presented in Table 2.2.

[61] A number of informants and groups suggested that softer issues affecting schooling, such as discipline, were already an important issue in Botswana.

Table 2.2: 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 wellbeing* • 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[62]	**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[63] • Behavioural disturbances • Abuse	**3. Ensuring psychological stability** • *Counselling* • *Peer support* • *Reducing stigma* • *Recognise abuse* • *Managing behavioural disturbances* • Legal protection
4. Greater HIV risk • Abuse • Commercial or other high risk sex by children under economic or other • Substance abuse	**4. Reducing HIV risk** • *Assertiveness and life-skills* • *Counselling* • Ensuring and *monitoring* economic, legal or other support • Regulating liquor and bars

[62] 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.

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

2.6 Current Responses To Needs Created By HIV/AIDS

The 1999 Short Term Plan of Action for Orphans (STPA) is the main guide to strategy on responding to needs of orphans in Botswana. The MLG has primary responsibility for support of orphaned and other needy children. The plan prioritises six main areas: policy development; institutional capacity building at national through to community level; provision of social welfare and other support services, including review of relevant legislation; development and support for community based initiatives; co-ordination and management; and monitoring and evaluation. The STPA has a strong multi-sectoral focus in many of its components, including the National, District and Village Child Welfare Multi-sectoral Committees.

The Destitute Grant system has previously provided some protection for children in poor material circumstances. Orphans now qualify for an Orphan Grant disbursed in the form of rations, clothing and uniforms, and other school-related needs. Legislation is currently under consideration for a formal fostering and Foster Grant system.

Education sector responses

The education sector response to needs of orphaned students has only recently begun to take shape. It receives little guidance from the STPA which does not give schools and the education system a prominent or well-defined role. The plan does however include the education sector and schools in various committees, stresses the need to ensure access to education, and mentions the potential for teachers to be important counsellors in and out of school.

The initial response to needs of OVC has been very focused on the role of Guidance and Counselling teachers, with particular focus on counselling skills. Lack of counselling skills to deal with children in distress emerged as a major source of anxiety among teachers when asked about needs of orphans.

At school level, however, it was clear that a range of responses to pressures on OVC (see Table 2.2) has emerged that clearly had a large impact on orphan's well-being and educational prospects. In some districts, active roles for schools and teachers have been encouraged by DMSACs. But even in the absence of skills development, or support and clear direction from DMSACs and the MOE, a significant number of teachers are showing determination and imagination in responding to OVC. Some schools are developing a strong caring a ethos as institutions.[64] Among the responses to needs which were noted were the following.

- *Roles in recognition of OVC.* Both class and G&C teachers were in many cases actively involved in recognizing children under stress. In some schools, an "audit" of all children was conducted regularly, inquiring about home circumstances. This was used as a tool to identify children at risk and initiate responses.
- *Initiation of registration for grants and other supportive responses.* A number of schools were actively referring children to social workers and some schools were systematically building up lists of orphans which were then sent to social workers for attention.
- *Provision of supplies to orphans.* At least one church school was ordering and distributing school uniforms to overcome blockages in the social welfare system. The school had a budget that allowed for this, and then claimed back expenses from Social Welfare. Anecdotal cases of teachers providing interim material support directly or connecting with community resources to do this were given. One student group had raised funds for orphan support.
- *Monitoring of orphan wellbeing.* Some class and G&C teachers picked up registered or other orphans who were still clearly neglected (hungry, unwashed, poorly clothed) and liaised with social workers to deal with this.

[64] Examples include Maikano School and The Rainbow School in Gaborone.

- *Interacting with households to address stresses on children.* In some cases, teachers had visited sick parents or other children's households and provided support, including liaison with HBC groups, Family Welfare Teachers and social workers to deal with problems. Some teachers were noted to take an active role in supporting children in child-headed households and dealing with issues ranging from housing to organizing logistics of school attendance at distant schools.
- *Addressing psychological needs and behavioural disturbances.* G&C and teachers were providing psychological support to children, even if many felt unconfident in the role. Some schools have used other locally available assistance, including NGOs such as PACT and BOFWA to provide counselling services. In some cases PACT or other student groups had engaged in support and solidarity activities, including peer counselling. As part of their role in school discipline, G&C staff were having to engage with OVC who had behavioural disturbances.
- *Dealing with abuse.* Some teachers were identifying children who they suspected were being abused, and in some cases had initiated remedial action. In several districts, liaison with other key role players such as the police and social workers had occurred to make them aware of and assist in responses to the issues. In Lobatse, attempts to establish formal systems and structures to deal with cases of abuse had been initiated with a range of stakeholders including the police, schools, health workers and churches.
- *School/ district HIV/AIDS plans.* Some DMSACs required District education staff and schools to develop HIV/AIDS plans. This seemed to be a major factor in mobilizing more systematic approaches to dealing with OVC needs involving education.

The determination of many staff to respond to the needs of vulnerable children were expressed by teachers in statements such as the following:

> *'Teachers must report and refer children in difficulty, or they will be lost. Yes, families may be insulted; yes, it may make extra work for the teachers – but that's life! There must be a caring environment for all children in school.'*

Several overall themes emerged from discussions and field visits, as reflected in the following box.

Key themes - OVC responses

- *There is a clear need for schools to take an active role* in OVC support.
- *Teachers and schools can, and do, play a critical role in addressing a wide range of functions.* They address a large number of the functions indicated in italics in Table 2.2 as potential areas in which schools have a role.
- *The functions performed by various schools extended well beyond a psychological counselling role.* This has been the focus of much of the initial thinking around the education response, but other needs such as material and logistical support are often more urgent than counselling.
- *An inter-sectoral and team approach is critical.* Teachers and G&C teachers can inherently not deal alone with a number of the key needs of OVC. Within schools, G&C teachers rely on other teachers to alert them to problems. As importantly, other sectors cannot identify and deal with OVC needs without active partnership by schools. The 'circle of support' is key.
- *Staff and principals who have a particular passion and determination* to deal with OVC issues are central to effective responses. Many, if not most, schools seem to have such people. Many of the key drivers of responses are not necessarily G&C teachers or HODs.
- *The level of response varies significantly across schools and districts* in the absence of clear guidance and role definition from the MOE.

2.6.1 Obstacles to effective, sustainable OVC support

Despite inspiring evidence of effective action by schools in responding to OVC needs, it is clear that overall, the response by schools is grossly under developed to respond to the current and anticipated burden of orphans and vulnerable children. A number of obstacles exist which undermine the effectiveness, scale and sustainability of responses. These are summarized in Table 2.3. Several areas pose particular challenges to be addressed in policy and strategy development.

1. Guidance and counselling systems and capacity

Guidance and Counselling teachers are a critical resource in responding to needs of OVC. G&C has existed in the school system for several decades. However, it has only received focused attention and capacity building since the 1990s. Incorporation of Guidance and Counselling into the primary and secondary curricula has been identified as one of the key goals of the Department of Curriculum Development and Evaluation (Ministry of Education 1999).

Several important issues have to be addressed for G&C to play the required role in protecting OVC.

- *Teacher skills and aptitude.* Traditionally, G&C teachers have focused on guidance and discipline issues for much of their time. Most G&C teachers indicate that their counselling and other skills are inadequate and that they are not confident in dealing with OVC issues. In so far as counselling is included in training it is largely theoretical rather than practical. There is as yet no systematic plan for upgrading the pastoral and other skills of those appointed to or already in pastoral posts although some appointees and teachers have been trained on an ad hoc basis.[65]
  Several informants suggested that many G&C teachers have fundamental personal and professional limitations that make them inappropriate to deal with sensitive personal problems of OVC.
- *Role definition and mandates.* The precise responsibilities of G&C teachers in relation to OVC support are not well defined. This may lead to G&C teachers being over-extended and unsupported, or to failure to respond. Regulations are not clear about the mandate and procedures for G&C and other teachers to follow-up on children's home circumstances or suspected abuse. Many feel very vulnerable to opposition from families and communities and thus do not intervene even when no social worker is available to do this.
- *Referral systems.* In many schools and districts, referral systems are not well defined or efficient, particularly with Social Welfare. Secondary schools face challenges of catering for pupils from other districts.
- *Prioritisation and timetabling of G&C in schools.* G&C has limited allocation of time in timetables, with one period per class per week in secondary schools. Teachers are also expected to provide pastoral care to students, and these duties are difficult to confine to school hours and are thus not recognised. G&C teachers often also teach other, examinable subjects and are used for these at the expense of ongoing G&C function.
- *Capacity, particularly in primary schools.* Current policy is to ensure that every school has its own G&C teaching staff and committee[66] and all secondary schools now have a half-time G&C post, but capacity is severely limited. In primary schools, dedicated capacity is a particular problem. Guidance principles are supposed to be infused throughout the curriculum. While G&C teachers have been designated, they still have their own classes with a full teaching load.
- *Career paths and appointment policies.* Current career paths in G&C are not adequately defined. Appointment of G&C staff and particularly HODs is often not based on skills and motivation in G&C. HOD posts are often used simply as promotion posts.

[65] CDE conducts in-service training workshops for G&C teachers but these have had limited impact so far in building the skills and confidence required.

[66] A Head of Department (HOD) post for G&C and other pastoral activities has been established in most schools.

- *Curriculum revision.*[67] Current guidelines are strongly focused on career guidance rather than counselling or other issues related to OVC needs.
- *Leadership and support for G&C staff.* Support for G&C teachers from school heads, HODs, class teachers, district/regions and the MOE is very limited for dealing with OVC issues, stress and facilitating interaction with other sectors. The G&C system has been highly centralised with little intervening capacity to bridge the gap between schools and Gaborone.
- *Trust and stigma.* Students often do not trust G&C teachers enough to be open about problems. Students seem to frequently assume that anything they say will be spread through the staff room and even the community. In several cases students indicated a preference for speaking to "outsider" teachers who were less likely to break confidences. Being seen to consult G&C teachers can also expose children to stigmatization by peers.
- *Reimbursement of expenses and reward.* Many staff expressed frustration due to not being reimbursed for travel involved in outreach pastoral care and are also resistant to taking on extra follow-up duties, particularly out of school hours, without compensation.[68]

2. Class teachers and other staff

Teachers and staff such as school heads and other managers indicated in a variety of ways that many are not aware of students' home circumstances, their physical and psychosocial needs, difficulties which ensue at school, and how to respond effectively. Even when they become aware of possible problems, there is a tendency to "pass the buck". Several problems seem to contribute to this lack of awareness and effective responses to OVC.

- *Lack of defined roles and responsibilities or guidelines for class teachers and other education staff* in relation to OVC. There are not well-established expectations or traditions promoting an active role for teachers in identifying and assisting vulnerable [69]
- *Limited skills.* Most teachers feel unconfident in key areas such as early recognition of vulnerability and counselling to help children in distress cope with issues such as HIV-related deaths and illness, orphaning, traumatic abuse and violence.
- *Fear of over-extension and limited motivation.* Many teachers fear that if they engage OVC in their classes they may face major new demands on their time. A significant minority feel that if teachers are expected to take on new roles they should get extra reimbursement or recognition.
- *Limited support capacity or systems.* This makes it difficult to overcome feelings of inadequacy or fear of over-extension in the absence of ability refer to others for guidance or to take on more complex problems.
- *Trust by students.* Students clearly do not have trust or confidence in many class teachers and managers. Reasons range from confidentiality issues to abuse by certain teachers.
- *Limited HIV/AIDS knowledge and misconceptions.* This makes teachers more reluctant to get involved or which may make their interventions ineffective or inappropriate.

> *" The spirit to help is there but the knowledge and skills are inadequate"*

[67] G&C curricula have been developed for CJSS and Senior Secondary Schools. Guidelines for primary schools are being developed.

[68] Formally, the Code of Regulations and the Education Act do create responsibilities on teachers and school Heads to address broader needs of children and require them to put all of their time at the disposal of schools and follow "co-curricular activities and any other activities commensurate with membership of the teaching profession". However, obligations are only stated in broad terms and are clearly not resulting in sufficient action

[69] Informants indicated that teachers do not generally follow up on girls who leave school, girls who may be pregnant or ill, those who may leave because they are caring for others who are ill or younger siblings.

"Teachers need to see themselves as part of the solution. They try to leave it to others to do everything. If a child is dying or hungry, it is a parent problem, or a health problem or a social welfare problem. It is not their problem. But all teachers must feel part of this."

"Schools should be giving children an appropriate set of values. Instead, children are just left hanging. There is little in the way of counselling skill among teachers. They have no time to establish a culture of care in schools because they are already too loaded and overworked'.

3. Social Welfare services

Social workers were identified are a key link in support of OVC. They have much more training in counselling than most G&C teachers and are the gatekeepers for provision of orphan grants and other support. However, social welfare faces rapidly increasing demands due to roles in HBC as well as destitute and orphan support. New legislation on fostering will probably increase demands on them due to expected requirements for extensive assessments and monitoring.

With few exceptions, schools reported major delays in social welfare responses to referrals for OVC support. Schools commonly reported that this led to children not having uniforms for several months into the year, which greatly increased the chances that they would feel stigmatised and drop out. Social workers were also reported to spend little of their time providing counselling and other highly skilled input. Services were also reported to not be coping with the demands of monitoring OVC well-being. Many teachers said they had picked up continued abuse or neglect of children that had not come to the attention of their social workers.

Several aspects of social welfare services contribute to unnecessary inefficiencies and inadequate performance of the system.

- *Reactive rather than pro-active relationships with schools.* With some exceptions, social workers tended to, at best, respond to referrals rather than setting up strong relationships and systems with schools to address OVC needs.
- *Performance of low skilled tasks by professionals.* Many social workers are reported to spend half or more of their time ordering and delivering material goods to affected families. These tasks could be performed adequately, and at much lower cost, by stores officers or clerks. Involvement of schools in certain tasks also has potential to increase efficiency within resource constraints.
- *Other basic inefficiencies.* Inadequate transport and poor time management by many social workers were mentioned.
- *Complexity of assessments and limited flexibility* to triage and focus capacity on the most complex cases, predisposes to unmanageable workloads for social workers.
- *Status and structure of social welfare services.* Social work is a new profession in Botswana. Several informants indicated that the "system" still did not truly understand what social workers do and how to facilitate this. Social welfare has until recently had low status as a division in MLG, and there are few social workers in senior positions to influence management perceptions.[70]
- *Capacity.* Districts tend to have had no increase in the number of social worker posts to match increasing needs. In some cases, posts for social workers had not been filled despite reports of significant numbers of trained social work professionals.
- *Morale and motivation.* Social workers are under severe work and emotional pressure. Many graduates are reported to rapidly lose their professional enthusiasm due to the constraints of their work environment and bureaucracy.

[70] Recent proposals are expected to elevate Social Welfare to Department status.

4.Home Based Care and other Health Workers

Capacity of health workers and home based care systems are clearly stretched in responding to HIV/AIDS related needs. However, there is limited awareness and leadership from Ministry of Health and health sector in promoting health workers awareness and roles for in responding to OVC issues. Such roles include early identification of vulnerable children (e.g. with sick parents) and alerting schools to their situation, as well as ensuring that children are relieved of home care responsibilities to facilitate schooling. Counselling services also appear to generally have limited focus on, or capacity to facilitate, planning by infected parents to limit disruption to their children's lives in the event of illness and death. Overall, the health system has not established strong networking with education and social welfare on OVC issues at all relevant levels.

5.Other Community and NGO/CBO resources

Parents and families were identified as a key potential resource for effective responses to OVC. They could have roles both in specific support activities and in influencing broader community attitudes. However, it was made clear by many schools that PTAs and parent bodies cannot be widely relied on to provide substantial inputs.

- *Many have very limited capacity and resources.*
- *Parent bodies and PTAs tend to be easiest to mobilize around "bricks and mortar" issues.* They often seem disinterested or inhibited in working with schools on HIV/AIDS issues in particular. However, the potential for easier mobilisation on OVC issues has not been fully explored, and may be easier than around sensitive HIV prevention issues.
- *Involvement of families of the most vulnerable children was often noted to be the most difficult*. In some cases, family attitudes in key target groups had actually obstructed or abused support. For example, many families are reluctant for cultural or other reasons to apply for welfare support for children they take in, even when the children's material needs cannot be met by the family.
- *A range of underlying obstacles to parent/ guardian mobilisation were noted.* mentioned included limited tradition of involvement in their children's education; tendencies for parents to feel intimidated by teachers and heads; general discomfort in confronting HIV/AIDS issues; and particular problems in engaging families of children who come from other districts.[71]

Traditional leaders and fora such as kgotla's were noted as a further potential resource to mobilize responses to OVC. However, even in cases where they are sensitised to the issues, it appears that they cannot generally be assumed to have great influence over community members, or to have systems for reliable, routine functions in OVC identification and support.[72]

NGOs and CBOs (such as church, women's, PLWA and other community groups) are a major source of expertise and services in many Botswana communities. However, several factors limit the reliance that can be placed on them in responses to OVC needs.

- *Over-extension of available capacity.* CBOs and NGOs have limited capacity to meet the scale of HIV/AIDS-related needs. Volunteerism at community level in particular often places extremely high demands on people with limited financial and other support.
- *High variability in the organizational and technical strength of NGOs and CBOs.*
- *Unreliable funding.* Prominent NGOs such as PACT have had difficulty in maintaining their capacity and services due to unreliable funding flows.

[71] In primary schools where most children come from the area around the school, there may be greater potential to work with parents directly or through the PTA. In Senior Secondary Schools in particular, often with hostels, many students come from far away. Parents tend to be more difficult to liaise with, and situations are less easy for schools to address without partnerships with social workers or others in the children's areas of origin.

[72] An official remarked that *'People don't come to kgotla meetings on AIDS, so health workers and district committees are trying to work with smaller groups, through politicians and PTAs for example.'*

- *Unequal distribution across communities.* NGOs in particular tend to be based in the larger centres.
- *Limited focus and awareness of OVC issues and potential roles of schools thus far*.
- *Limited systematic integration and support of NGOs and CBOs by government* in its HIV/AIDS response. NACA has been alerted to the need to increase the sustainability and effectiveness of NGO/CBO roles, inter-alia by ensuring more reliable mechanisms for funding and to improve co-ordination. However, challenges remain substantial. These include developing more systematic local level co-ordination and resolving inefficient use of available resources due to certain statutory barriers, such as those restricting the roles of qualified social workers employed by NGOs.
- *Tendencies to focus on service delivery rather than training and support roles.* Several NGOs' key expertise and experience appeared not to be used optimally as it tended to be consumed by direct service delivery (or other organisational) activities rather than being leveraged through training and support of others such as school staff.

> *"NGOs are too understaffed and overworked to move closer to children: there are too many children and not enough time".*

6.Police and Legal systems

In several districts police and officials such as magistrates are taking an active role in networks around child abuse and dealing with issues such as children's inheritance. However, awareness of the increasing importance of efficient, effective responses to OVC needs is not high in many Districts. Systems for reporting, referral and support are not well developed and limitations of legislation, regulations, capacity and training to deal with sensitive children's issues were felt to result in delays, unsuccessful action and unnecessary trauma.[73] This makes it difficult for schools to deal effectively with some extremely distressing cases and ensure credible deterrence to abuse.

7.District and higher level co-ordination

District level leadership and co-ordination of role players to ensure responses to OVC was noted to face challenges in several respects.

- *Local inter-sectoral co-ordination involving education.*
    - *Inter-sectoral co-ordination is to a large extent dependent on DMSACs,* These are increasingly successful in many districts but have so far made very variable progress.
    - *DMSAC development of education related responses and roles is very limited*. Education sector involvement in OVC programmes is seldom mentioned in plans and reports, even in districts that report good inter-sectoral co-ordination between other sectors (see also UNDP 2000).
    - *Senior education (and other sector) managers have been erratic in their attendance* and involvement in DMSAC meetings and activities.
    - *Reducing emphasis on the District level in education management structures,* in favour of Regions, was seen as a potential impediment to successful co-ordination with other sectors concentrated at District level.
- *Intra-sectoral leadership and co-ordination*.
    - *Education officers often have a very limited sense of what education responses should be and how they should be implemented*. This seems partly due to limited MOE direction and leadership in defining education roles and approaches for OVC support.

[73] In some cases, perpetrators of child abuse are released on bail when they were extremely likely to intimidate victims, for example.

- *No structures or systems exist to coordinate and support school, cluster and District level responses* in more than an *ad hoc* fashion. In some Districts, schools reported that no District or cluster meetings had ever been held to discuss HIV/AIDS issues.
- *Vocational and non-formal education* are not integrated with formal school responses to maximize synergies.

- *Vulnerable districts.* There were indications that remote areas may tend to be less informed and mobilized, and have more limited capacity and resources

8. Policy frameworks and guidance

> *'HIV/AIDS is difficult to act on. We wouldn't know where to point the gun, even if we had a gun.'*[74]

Lack of clear policies, mandates or traditions to guide school and higher level responses is a major impediment to effective action in response to OVC. Key national and District level HIV/AIDS policies and strategies seldom mention roles of schools in impact mitigation. More specific policy and guidance on OVC responses is limited in two main areas.

Intra-sectoral

- There has been no clear policy, guidelines or scope of work for teachers to define responsibilities, obligations and basic approaches to managing children in difficulty and dealing with specific issues such as identifying and investigating vulnerable children, accessing support and care, home visits, and approaches to dealing with emotionally traumatised children.[75]
- In the absence of systematic policy and guideline development, Heads and teachers are learning through trial and error how to deal with OVC issues. There is a high level of reliance on individual initiative and leadership for any action to occur.
- At an operational level, lack of clear guidance results in neglect of HIV prevention and support of vulnerable children in favour of conventional subjects. These are clearly defined as "core" responsibilities of schools and teachers and where staff have clearer ideas of what should and can be done.

Inter-sectoral

- Education policy making has given little consideration to needs to developing initiatives on new challenges that require action beyond traditional education areas of competence and mechanisms.
- Lack of a clearly stated policy position from the MOE on roles of education in OVC limits ability to coordinate with other sectors. Limited success of DMSACs in mobilising education responses is in a large part ascribed to lack of clarity from the MOE on what they should and can expect from education role players.
- In certain areas lack of joint policy development and co-ordination with key sectors such as social welfare impedes ability to resolve inefficiencies due to specific regulations and traditional allocation of tasks and responsibilities. Examples include roles in grant application processes, counselling and monitoring of vulnerable children, distribution of orphan packages or uniforms and required budget allocations to facilitate new roles, and mandates of school staff in acting on cases of abuse and neglect.[76]

[74] Similar problems such as " sectors do not act, not because they do not want to, but because they don't know where to go" have been noted previously in relation to a range of sectors (UNDP 2000)

[75] The Education Act and Teaching Service Regulations deal with responses to vulnerable children only in very broad terms.

[76] Teachers reported that they can only actively investigate cases of abuse or neglect if a child's parent or guardian agrees, even if that the parent or guardian may be the abuser or be protecting an abuser. If the parent refuses the school cannot act beyond referral to a potentially over-burdened SWO.

Table 2.3 Obstacles to effective, efficient support of OVC

1.Guidance and Counselling Teachers
- Limited skills and training – theory vs practical; guidance vs counselling
- Career paths and appointment/ distribution – promotion posts vs skills; other subject roles
- Role definition and referral systems
- Limited time tabled, teach other subjects – prioritise examinable subjects
- Limited support from school head, HoDs, class teachers, district/ MOE
- Unclear mandate and potential opposition from families/ communities
- Particular shortages of G&C capacity in primary schools.
- 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. PACT, 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 from MLG; status and capacity of division in MLG
- Grant systems- stigma, design and implementation

5.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

6.Other Community and NGO/CBO
- PTAs limited strength and parents in many cases seem disinterested or inhibited in working with schools on HIV/AIDS issues
- Vary 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

7.Police and Legal system
- Awareness; guidelines, legislation, regulations; capacity; training with respect to psychosocial issue and interviewing; delays

8.District co-ordination
- DMSACs - 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

9. Policy framework
- Lack of clear policies, traditions, guidelines or mandates or to ensure effective, coordinated responses

2.7 Recommendations On Protecting Educational And Developmental Prospects Of OVC

Many OVC clearly need systematic responses to their broader developmental and welfare needs to ensure that the country's younger generation and human development potential are protected from HIV/AIDS impacts. Social Welfare is battling to cope with the number of orphans and other vulnerable citizens, and all other stakeholders have significant limitations. Effective responses will have ongoing relevance well beyond 2010.

The education sector has a direct interest in ensuring that OVC are supported. Schools also have particular strengths in responding to the nation's need to protect children.
- Daily contact with the majority of children of school-going age.
- The largest single group of skilled professionals in the country.
- An established nationwide organisational structure and systems to support responses.
- An accepted role of schools in HIV prevention, creating potential synergies with OVC support.

Based on experience of HIV/AIDS impacts on education and children in countries with more advanced epidemics, some call for the redefinition of schools as *"multi-purpose development and welfare institutions"* (Kelly 2000). This represents a major shift in understanding of the role of schools and teachers from their traditional focus on academic learning.

How should this challenge be interpreted in a Botswana context? What is a realistic and feasible in the short and longer term?

The following sections look at ways to prioritise roles to be played by education, and core systems to be developed for a realistic and feasible response in the school sector. Further, specific recommendations are then made.

2.7.1 Prioritising critical and feasible interventions

To date, many teachers, staff and planners tend to feel overwhelmed at suggestions that education take a significant role in responses to OVC. There has been little systematic attempt 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.

Priority functions to be performed by education institutions

Priority functions suggested for the MOE are shown in the box below. They are based on the critical strengths of the education system mentioned above, emerging understanding of pressures on OVC and Botswana's key advantages in protecting their education outcomes (Section XXX), responses observed in certain schools and identification of situations where interventions seem most likely to preserve education outcomes.

An underlying principle is the need to *focus on preventing and managing OVC's crises*.

- Preventing events such as drop out or severe behavioural disturbance is likely to be far more feasible and effective than trying to reverse these.
- Many orphans will not need sustained intensive input from teachers if they and their families are helped at critical moments to avoid or manage crises, and set up mechanisms for ongoing key aspects of support. This makes the projected numbers of orphans less daunting.

Priority education sector functions to preserve education outcomes

1. *Early recognition of children who are vulnerable*, in the course of regular contact with large numbers of children and youth.

2. *Mobilising timely responses to prevent drop-out or performance problems.* Responses may be directly by teachers or through referral if necessary.

3. *Monitoring of OVC well-being*. Identifying problems will often be easier for schools due to daily contact and access than for social workers.

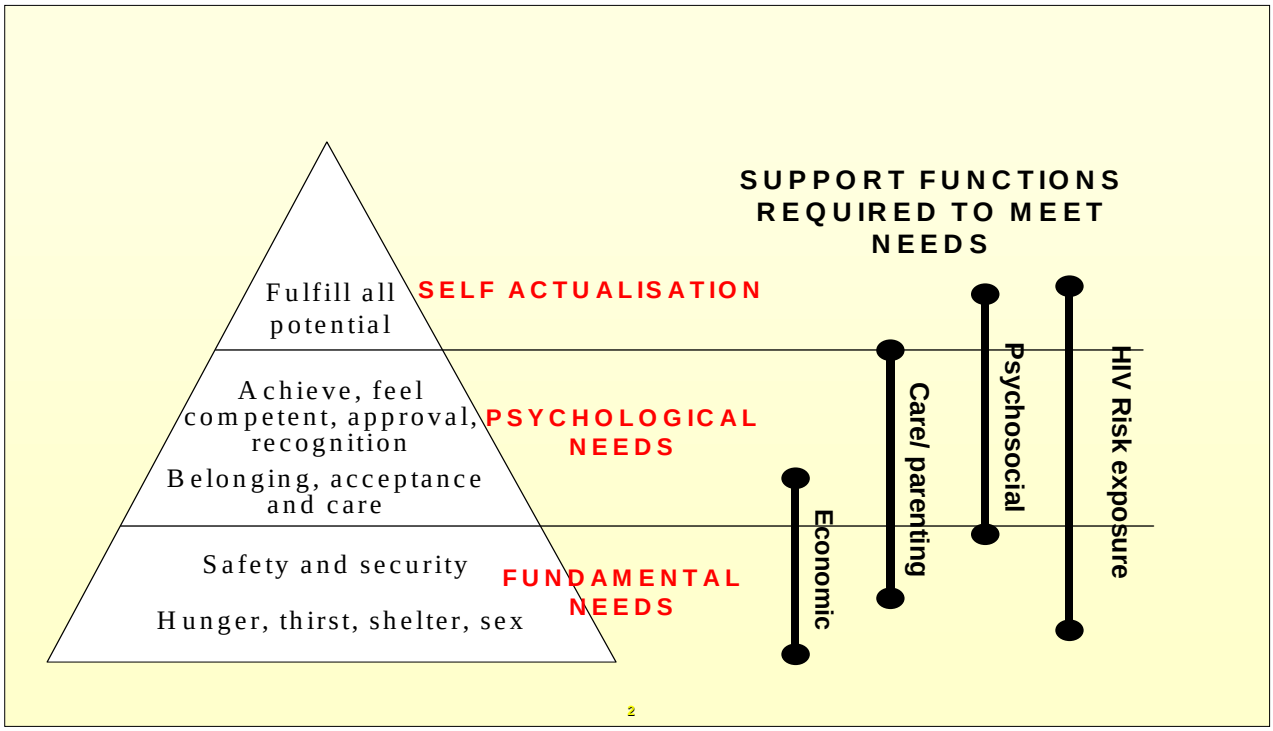
4. *Enable drop-outs to re-access education.* Prevention of drop out should however be the main objective. This role requires responses by schools and other partners, including ABET and DVET.

5. *Focus on basic needs and assistance* while ability to respond to more complex needs is developed.

Initial focus on meeting basic needs

Needs of OVC can be categorised according to Maslow's hierarchy of needs (Figure 2.14).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 2.2).

Figure 2.14: A hierarchy of OVC needs to guide prioritisation.



Source: Adapted from Maslow and functions identified in Table 2.2

An initial focus on ensuring that basic needs of OVC, such as food, clothing and shelter is proposed for several reasons.

- *Children whose basic needs are not met are at extremely high risk of adverse education outcomes even if services to address higher level needs are provided.* Satisfaction of basic needs (including school uniforms) was frequently raised as the most pressing problems of orphans and reasons for poor attendance, drop out and added psychological problems.
- *Basic needs interventions are relatively easy to operationalise.* They can, in particular, build on Botswana's relatively strong systems and commitment to welfare grants and school feeding.
- *Teachers currently seem most intimidated by possible open-ended demands on them for more complex interventions* such as counselling and dealing with higher level psychological needs. Focus on basic needs, as an initial set of requirements for school actions seems likely to be an effective and empowering initial approach.

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 2.14, 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.

2.7.2 Developing "Circle of Support" networks

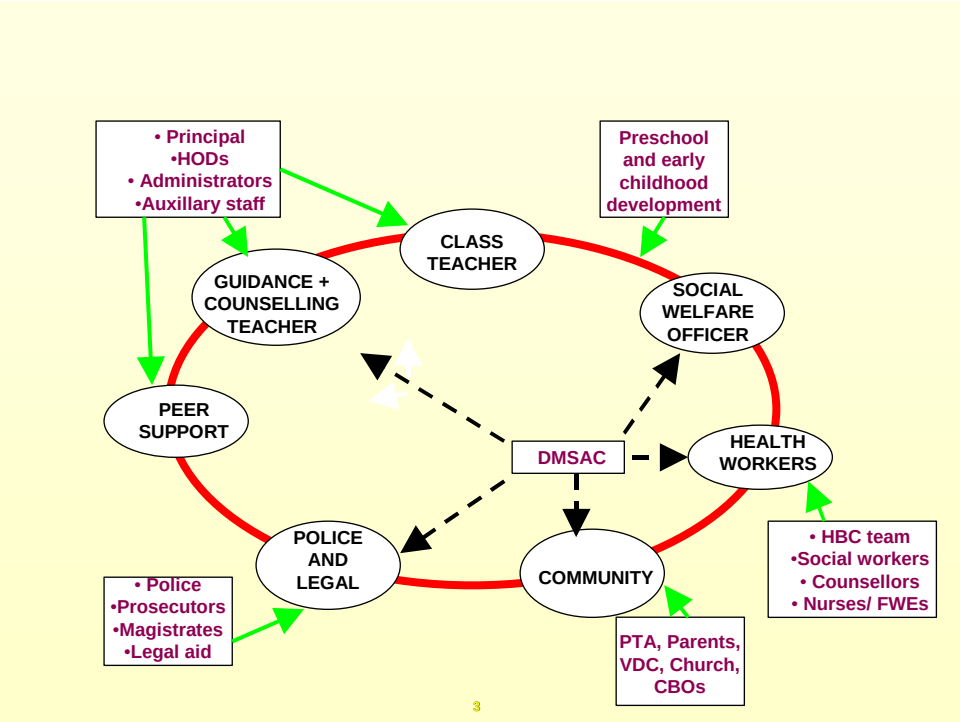
" We have learned that structures must abandon old ways of doing things and create new linkages if they are to respond to the new needs" HIV/AIDS Programme Coordinator

Limits on capacity, skills and mandates of schools, and of individual teachers, make it unrealistic to expect them to be able to address all-important aspects of OVC support alone. However, from discussions with key stakeholders, it was apparent that:

- In most schools and districts there are already individuals and organisations who are motivated and possess skills to play many or most of the key roles required for OVC support.
- In several cases there had been notable progress in establishing linkages with some or all of the role players shown in Figure 2.15 to form various types of "Circles of Support". In these circles, role players can either address needs of OVC directly or access capacity and skills through referral systems if needed.

The Circles seem to provide a viable mechanism to ensure effective of support of OVC. By improving networking to identify and make use of available capacities, the systems developed in the Circles can provide support even when ability to develop new capacity through training and new posts is limited in the short to medium term.

Figure 2.15: Circle of support for OVC



Several features of the existing and proposed Circles of Support are likely to be important.

- *No single model is likely to be appropriate in all schools.* The membership and division of tasks and responsibilities will depend on available resources and skills of particular stakeholders in different schools and communities.
- *In practice, Circles may sometimes exist mainly as a list of individuals and contact details, with fairly infrequent meetings of the overall group after initial planning stages*. The individuals and their superiors must however understand the OVC support strategy, agree to their role, know their obligations and where to refer within the network, and communicate effectively to resolve specific problems.
- *Within schools, there are likely to be several key components of Circles*. Involvement of class teachers will be critical to ensure identification and monitoring of OVC. G&C teachers are likely to be able to provide special skills and basic co-ordination and referral roles. HODs and school heads may provide leadership, accountability and facilitation of co-ordination, particularly with other government role players, and some may have more direct roles in addressing needs of OVC. Peer counsellors and clubs may also provide key inputs.
- *Outside schools, social welfare officers, education officers, inspectors, and DMSACs* are likely to be particularly important role players in most Circles.
- *New structures such as Child Welfare Multi-sectoral Committees, Orphan Desks and Child Welfare Units* may also *de facto* be important components of schools' Circles and unnecessary duplication should be avoided.
- *A key success factor for wider application of Circles is likely to be ability to enforce accountability for performance on key role players.* Within schools, the school head should be made accountable for school performance in OVC responses, even if they delegate responsibilities for overall co-ordination or other functions to other staff. At higher levels, relevant Chief and other Education Officers should be held accountable for ensuring effective action within the sector and facilitating inter-sectoral co-ordination. Accountability for performance across sectors should probably be enforced by DMSACs, with appropriate reinforcement from national Ministries.

2.7.3 Specific recommendations – responding to OVC

Proposed themes to guide the education sector response to OVC.

- ***Reinforcing understanding of expected roles and responsibilities*** of all levels of the education system, as well as providing practical guidance, is central to an effective response.
- ***Use of networks, Circles of Support, and enhanced systems*** to maximise efficient use of available resources and capacity. Development of better systems is likely to be more feasible and effective, at least in the short run, than approaches dependent on large scale capacity development and training.
- ***The need for inter-sectoral co-ordination,*** to bridge traditional divides and challenge traditional ways of functioning that obstruct effective responses to the range of needs of OVC.
- ***Prioritising key vulnerabilities and basic needs, and reinforcing key strengths*** while new capacity and systems are developed to meet higher level needs.
- ***Facilitating flexible, decentralised responses*** that accommodate the particular circumstances, skills and resources of districts and schools, rather than imposing rigid models. Decentralised action is already working in many schools and districts. Delays and impediments due to centralised MOE processes and systems should be minimised.
- ***Initially, prioritise building capacity at regional, district and cluster levels for co-ordination, mentoring and support roles.*** The task of building capacity in each school will take more time and resources.
- ***Increasing focus on all vulnerable children, rather than just orphans.*** The OVC support programme is relevant to many children who are vulnerable independent of HIV/AIDS, and not all orphans are very vulnerable.

Within the above guiding framework, the following recommendations are proposed.

1. Develop inter-sectoral co-ordination

- *Engage other sectors, particularly Social Welfare, to obtain their commitment on definition of roles and efficient co-ordination* with education in OVC responses. This will require liaison at both national and district level.
- *Support Social Welfare initiatives to improve effectiveness of social welfare systems*. Issues for consideration include:
    - Reinforcing Social Welfare capacity and influence within MLG and councils;
    - New staffing models, systems and allocation of roles to use social worker capacity more efficiently. A key issue is ensuring that less skilled staff are used for less skilled functions currently performed by social workers;
    - Review of social worker training to ensure that it is efficient and cost effective in meeting major new needs;[77]
    - Review of particular regulations that obstruct appropriate, flexible role allocation between Social Welfare, schools and other partners.
- *Engage with MOH and health services* to define and promote effective roles of health workers and HBC teams in relation to OVC.

[77] Consideration should be given to whether shorter course or modular training should be promoted or modified, rather than downscaled.

- *Engage with the police, Department of Justice, Social Welfare and NGOs such as Childline at national and district level to streamline systems* to deal with children who are neglected or abused in and out of schools.
- *Develop NGO policy and systems for more effective co-ordination with them at all levels* to increase their sustainability and define appropriate roles to increase their effectiveness in addressing education sector priorities.[78]
- *Promote parent/guardian and community involvement in schools.* Continue initiatives to increase their roles and explore ways to enhance participation around OVC issues in particular. Mothers and traditional leaders may be important target groups in many communities.
- *Engage legislative and regulatory review and reforms with other sectors* to provide education sector perspectives and increase flexibility and efficiency in OVC responses.[79]

2. Policy, procedure and guideline development

- *Develop and disseminate policies defining roles, responsibilities, accountabilities and mandates of schools, heads and teachers* in relation to identification and support of OVC.
  - *Define and enforce accountability* for effective responses of school heads, district/region education officers, inspectors and key Departmental officials in particular.
  - *Facilitate flexibility in precise allocation of roles and tasks* to respond to local circumstances, subject to defined outcomes being achieved.
  - *Resolve specific obstacles such as teacher and school mandates* in home follow-up of vulnerable children.
- *Require each school to define its "Circle of Support"* and relevant roles and responsibilities in consultation with relevant stakeholders.
- *Develop HIV/AIDS plans* in each school, cluster/district and regional level.
- *Develop and disseminate practical guidelines, procedures and tools for various aspects of school responses*. Issues which are likely to require guidelines and tools are listed in Annex D.

3. Guidance and Counselling

- *Avoid over-reliance on G&C teachers and systems* and any tendency to abdicate responsibilities to them. Many G&C teachers and HODs have limited skills and aptitude and there is an inherent need for active roles of other teachers, school management and higher level line management.
- *Strengthen dedicated G&C capacity in all schools.*
  - A minimum of one full-time equivalent post per school on average, or one per 15 streams, is recommended.
  - Schools should probably have flexibility in deciding whether to have one full time G&C staff member or to share the post time allocation across more staff members to maximize efficient use of motivated skilled staff for G&C.
  - Prioritise strengthening of primary schools' G&C systems and capacity.
- *Review G&C career paths, and selection processes and practices,* particularly in relation to pastoral HOD appointments. Give consideration to student participation in selection of G&C staff to overcome issues such as lack of trust or rapport.
- *Strengthen support and mentoring systems for G&C staff in schools.* Ensure capacity at District/cluster and regional level to bridge the gap below CDE in Gaborone.
- *Review G&C curricula* to incorporate greater emphasis on HIV/AIDS and managing problems of vulnerable children within a framework for overall responses.
- *Strengthen in- and pre-service training of G&C teachers.*

[78] In addition to specific education sector initiatives, coordinate with NACA and other Ministerial strategy development on NGO relationships.

[79] A Committee established by Ministry of Health has been reviewing legislation and regulations relating to HIV responses, and other initiatives have been under way in Social Welfare.

  - Pay particular attention to counselling, and greater emphasis on practical rather than theoretical training.
  - Ensure that training course design can cope with large numbers of candidates and is effective and cost effective.
- *Consider building social work skills into the G&C system,* through training and possibilities of employing social workers in the system.
- *Review timetabling of G&C.*
  - Ensure that adequate time is allocated and actually used for G&C.
  - Consider ways to ensure that periods are long enough to allow for example, use of participatory methods and processes, and to recognise use of G&C teacher time in pastoral and counselling activities or networking that do not fit into the conventional timetable.

4. Improving information -identifying needs, and monitoring impacts and responses

- *Develop systems for a school "Census" each term and associated registers* to identify OVC and inform proactive responses for those who are vulnerable.
- *Develop a "District EMIS"* to track trends in OVC numbers, impacts and outcomes and provide management information to guide responses at local level.
- *Consider further research into circumstances and needs of representative samples of orphans* to enhance understanding of their circumstances and related planning.
- *Develop mechanisms to share experiences and best practices across districts and schools.*
  - Currently, many schools are at a loss on how to proceed. Systematic ways to enable them to share their successes, problems and learning should be set up, including conferences, networking activities and publication of case studies.
  - Review the experience of AIDS Committees and AIDS plans that have recently been developed in some Districts under DMSAC direction.
- *Define systems to monitor implementation of responses, obstacles and best practices.*
  - Give strong consideration to participatory and qualitative approaches involving students and staff, rather than complete reliance on quantitative measures and formal reports.
- *Explore ways to integrate OVC programme performance into evaluation of teachers, heads and schools*.

5. School meals and hostel accommodation

- *Reinforce school meal systems.* These are a key incentive for vulnerable children to stay in school and to enhance performance of hungry children.
  - Consider removing requirements for pot fees in junior schools if these are a barrier to attendance by OVC.
  - Monitor needs to provide more meals (e.g. breakfast) to enhance performance more effectively.
- *Review hostel policy, planning and management.* The role of hostel accommodation in responding to OVC needs focused investigation and strategy development.[80]

6. Infrastructure and material resources

- *Counselling rooms.* Consider providing adequate counselling rooms in schools to facilitate confidentiality and privacy, a prominent concern of staff and students.

[80] Institutional care for OVC is not generally considered the most desirable or affordable option. However, hostels could play an important role for increasing numbers of OVC who can otherwise not access schooling, whose new home circumstance are poor and overcrowded, or who are at high risk of HIV infection while lodging in the community (see e.g. Ryder *et al*., 1994). At the same time, it is critical to manage hostels well to prevent them being environments with HIV infection risk.

- *Budgets for OVC activities.*
    - Consider budgets and improved reimbursement mechanisms (e.g. for transport) to facilitate school staff involvement in activities such as pastoral outreach and networking.
    - Consider desirability of budgets to allow schools to meet urgent needs of OVC (e.g. uniforms), Costs can potentially be reimbursed by social welfare.

7. Enhancing flexibility and accessibility of education

Increasing numbers of affected and infected children may have erratic attendance, inability to remain in formal schooling or difficulties in conforming to normal hours. The likely scale and priority of such needs in Botswana is uncertain at this stage. Pro-active interventions should be considered especially where they are likely to be beneficial independent of the scale of HIV/AIDS related needs. Important responses for consideration are the following.

- *Monitoring of needs for more flexible schooling*, Trends in enrollment, transition rates and drop out will be important to identify and understand.[81]
- *Strategic options to enhance flexibility in schooling.* Options may include more flexible hours or starting times, curriculum reform to allow more rapid preparation for the world of work, distance and non-formal learning, vocational training, platooning, transport for children who are late due to home responsibilities, catch-up lessons, and creating special streams to be more responsive to vulnerable children's circumstances.
- *Compulsory schooling.* Botswana is in a better position than most other sub-Saharan nations to make schooling compulsory, although there would be short-term difficulties in enforcement. Compulsory schooling (with clear criteria for exemption) may however be a powerful tool to protect children from short-term emotional decisions and neglect or exploitation by adults. It may also help to induce schools to identify and be more effective identifiers of children under stress, and force mobilization of alternative support to families where necessary
- *Cost recovery strategies*. Cost-recovery initiatives (e.g. in Senior Secondary Schools for books and stationery) should be reviewed as they could be a significant barrier to education given the likelihood that increasing numbers of children will face temporary or permanent economic hardship.

[81] A formal needs assessment may be warranted to identify mechanisms in schools, VET and non-formal education that are most likely to address needs of current out of school youth and orphans.

3. IMPACTS ON ABILITY TO SUPPLY EDUCATION

3.1 Existing human resource capacity and challenges

Botswana's education sector accounts for almost 45% of government employees and the largest single group of professional, skilled staff in government and the country.

The teaching service employed 20, 794 teaching staff in mid-2001, around 84% of all education sector employees. The majority of teachers are employed in primary schools (57%), with 33% in CJSS and 10% in Senior Secondary Schools. A further 7% of education staff, mainly in the central MOE, regions and districts, are permanent and pensionable and fall under the Department of Public Service Management (DPSM). Of these, around 45% are senior managers, professionals and technical staff. Six percent of employees are "industrial class", relatively unskilled employees.

Botswana has made considerable progress in developing skilled human teaching resources to allow it to achieve its aims of increasing effectiveness and accessibility of education. Minimum qualifications for teachers have been raised several times since independence while at the same time, as pupil-teacher ratios have improved.

Nevertheless, a number of challenges remain, independent of HIV/AIDS impacts, which include the following:

- Residual shortages of trained teachers, particularly in certain remote areas, and ongoing requirements for expatriate teachers. [82] [83]
- Generally low levels of experience among teachers, largely due to the rapid expansion of secondary schooling.
- Shortages of teachers and service staff in certain specialised areas, including guidance and counselling, and special education (psychologists, speech and language therapists, occupational therapists) (MoE 1999).
- Limited management capacity, also in largely due to rapid expansion of the system. This includes shortages of qualified and experienced candidates for posts such as Education Officer and higher managerial and administrative levels; personnel managers in Teaching Service Management; and specialised areas such as curriculum development. Implementation of decentralisation has raised new requirements for adequate managerial capacity at levels below the MOE.

Recent responses to these challenges of particular relevance to HIV/AIDS include:

- Initiatives to continue to enhance the number and skills available to the system, including ongoing in service training programmes and the phasing in of the Diploma in Primary Education (DPE).
- Development of a teachers' handbook.
- Provision through the DPSM for redesignation of posts and external recruitment.

[82] The proportion of teachers who are untrained is now under 10% in first level and around 20% in second level schools. Almost one in five untrained secondary teachers do however have a degree or diploma.

[83] Botswana currently employs over 1700 expatriate teachers.

- Attempts by TSM to develop better selection procedures to promotion posts by creating Promotion Interview Boards.
- Stengthening human resource management through, for example, improving sensitivity in re-deployment; enhancing flexibility in dealing with teachers' problems and consideration of proposals to improve communication between TSM, teachers and MoE (MoE, 1999).
- Ongoing management skills development. Initiatives have included management manuals and upgrading of senior institutional staff to take on greater responsibility.

3.2 Impacts Of HIV/AIDS On Employees In Other Education Systems

Data on the impacts of HIV on education sector employees is relatively scarce, and the quality of data and interpretation of findings is often unclear.[84] However, the susceptibility and vulnerability of teachers and other education sector employees to HIV/AIDS is increasingly recognised.

- Studies in other African countries suggest that teachers in many communities seem to have a risk of HIV infection that is higher than the average within the community (Kelly 2000). Reasons for this are not completely understood, but may include the particular demographic profile of teachers (e.g. age and gender), as well as greater exposure to opportunities for high-risk sex.
- 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 over 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).
- It has been estimated that in Namibia, by 2010, at least 3500 serving teachers will have died however this figure could rise to as high as 6500. Annual attrition directly attributable to HIV/AIDS was estimated to be in the order of 3 % per annum during the next ten years (Coombe 1999).

3.3 Levels Of Impacts Of HIV/AIDS On Botswana Education Personnel

3.3.1 Evidence of HIV/AIDS risk among education sector personnel

In Botswana, no studies have tested HIV infection levels among education sector staff. In general, it would be expected that education sector staff would have similar risk of HIV infection to other people in the same gender and age groups in the general population. However, several factors may alter the risk of teachers and education sector employees.

[84] 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 tend to be young women one would, for example, expect them to have higher prevalence rates than other groups even if their risk exposure is similar to other young women.

- *Prevention programmes.* Prevention programmes in the general population and in schools may have had some influence on employees' risk. However, employees themselves have not been targeted with prevention programmes and visits to districts indicated that levels of understanding were limited and denial may be relatively high.
- *Socio-economic factors.* Teachers and other people with higher social status and income may be above risk of HIV infection as they tend to have more opportunities for high risk sexual behaviour due to their status, mobility and resources. However, it is also possible that the social and economic circumstances of teachers in Botswana, particularly women, may have tended to be more stable and empowered, reducing frequency of exposure high risk sexual situations. In addition, as teachers have relatively good access to information on HIV/AIDS, and are more empowered to protect themselves, this risk may have reduced earlier and more rapidly than in the general population.[85]
- *Structural factors related to employment.* Skilled education staff have been subject to transfer away from their regular sexual partners, hence increasing potential for high risk sexual relations.[86] There were also indications from some informants that teachers in remote areas have relatively high likelihood of having sex with highly mobile senior officials who visit these areas.

Data on deaths among education sector and government employees also provide some indications of risk that is of relevance to planning scenarios. It is evident that the AIDS epidemic has already caused an increase in mortality among teachers in Botswana, although from a very low baseline. Mortality rates among primary school teachers rose most dramatically between 1994 and 1999 from less than 1per thousand to 7 per thousand, almost certainly a result of the AIDS pandemic.

Interpretation of more detailed data provided by the HIV/AIDS and Education Study Group (2001) for 1999-2000 is complicated by several factors.[87] However, examination of the data provides indications that, in particular, mortality rates among higher skilled education sector staff appear to be lower than among low skilled staff, and that mortality rates among teachers are lower than previously projected for the general population. Furthermore, mortality rates are markedly higher in primary school teachers than CJSS and Senior Secondary teachers. There are also preliminary indications that mortality rates among teachers may have reached a plateau or are beginning to decline,[88] and that this may be due at least in part to increasing use of ARVs. [89]

Overall, therefore, it seems plausible that risk among teachers and other skilled staff may be lower than for the general adult population.

[85] Comparison of education staff with employees of Debswana, the only source of HIV prevalence information, provides some indication that higher skilled people may be at lower risk overall (HIV/AIDS and Education Study Group 2001). However, lack of detail on the possible biases introduced by age, gender, geographical location and sampling limit ability to draw any firm conclusions about overall risk.

[86] Current systems attempt to keep married couples together in transfer decisions and provide certain benefits to them, but single teachers' relationships are not recognised, meaning that they are particularly likely to leave partners. This is a significant difficulty in a teaching service where about 2/3 of teachers are single.

[87] These factors include availability of data for only one year which limits ability to identify trends or interpret point estimates, and difficulty in making comparisons between groups due to relatively small numbers in many groups and lack of standardization for factors such as age, sex and geographic location.

[88] More recent data, but still for a short time series, also suggests that teachers' death rates are not increasing.

[89] The number of education sector employees known to be on ARV treatment has increased markedly to over 250 by the end of 2000. There are indications that significant numbers of employees on ARV's may not be recognised by PSMAS.

3.4 Projections Of HIV/AIDS Impacts On Education Sector Employees

Current data has given us very limited information on current levels of infection and mortality. It also gives no indication of what levels of illness and death should be expected in future. For planning purposes therefore, it is necessary to use projection modelling to identify possible scenarios that should be considered in system responses.

3.4.1 Methods and data sources

For this study, projections of HIV infection, AIDS illness and deaths were made using the Metropolitan Life/ Doyle model for projecting demographic impacts of the HIV/AIDS epidemic, as calibrated for the Ministry of Finance and Development Planning. The D1 scenario was used as the basis for projections as it seems to fit the latest available general population data most closely (see Annex C for a full explanation of the educator projections).

Data on the socio-demographic data of educators was taken from the Infinium database. The information collected included the age, gender, and job category, grade, school level and district. This data was then cross-mapped with the projections from the Doyle model.[90] A "worst case" scenario was produced that assumes that educators have the same risk of infection and AIDS death as people in the general community of the same demographic characteristics, in the absence of antiretrovirals. As there are indications from mortality data that risk of educators is below that predicted for general population, a second more optimistic scenario was produced which assumes that teachers had 50% lower levels of HIV infection due to early behaviour change. This significantly reduces the number of deaths due to AIDS. Every year from 1991 it was assumed that educators had a 5% decreased risk of infection compared to the general population each year, cumulating up to a maximum of 50% decreased risk in 2001. On top of each scenario, an assumption was built in that an increasing number of teachers who developed AIDS would access ARVs, until around 85% of those who had reached the AIDS stage of disease would be treated by 2002.[91]

3.4.2 Demographic profile of teachers

Tables 3.1, 3.2, and 3.3 show the profile of employees for whom sufficient data were available, by job category and division, and the age and gender of employees. All projections presented are based on the data supplied for these employees. Of note, around 68% of teachers are women, and around three-quarters of teachers are below the age of 40, both suggesting relatively high risk.

Table 3.1. Numbers of education sector employees included in analysis by job category and division

Division	Deputies	Heads	HODs	Teachers	Grand Total
PR*	620	673	642	9838	11773
CJ*	174	232	219	6227	6852
SS*	23	29	70	2047	2169
Total	817	934	931	18112	20794

* CJ= Community Junior Secondary School, PR = Primary School, SS = Senior secondary School

[90] Expatriate teachers were assumed to have minimal risk of HIV/AIDS death as they are tested for HIV before employment.

[91] The projections assumed that 80% of primary school staff and 90% of other staff would ultimately have access to antiretrovirals. Primary school staff at present have less cover with medical insurance compared to other levels of the education sector and many teach in more isolated areas.

Table 3.2. Number of education sector employees by age and sex and division

Division	Gender	18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61+	Grand Total
CJ	Female	24	549	1380	942	263	163	77	27	14	6	3445
	Male	19	398	1220	864	396	289	131	55	20	15	3407
PR	Female	38	469	1620	2500	1801	1451	841	460	240	112	9532
	Male	16	257	573	466	312	187	160	127	85	58	2241
SS	female	4	62	252	272	156	80	55	18	14	8	921
	male	4	49	305	301	215	161	99	71	29	14	1248
Grand Total		105	1784	5350	5345	3143	2331	1363	758	402	213	20794

Table 3.3. Percentage of education sector employees by age and sex and division

Division	Gender	18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61+	Grand Total
CJ	Female	0.12%	2.64%	6.64%	4.53%	1.26%	0.78%	0.37%	0.13%	0.07%	0.03%	16.57%
	Male	0.09%	1.91%	5.87%	4.16%	1.90%	1.39%	0.63%	0.26%	0.10%	0.07%	16.38%
PR	Female	0.18%	2.26%	7.79%	12.02%	8.66%	6.98%	4.04%	2.21%	1.15%	0.54%	45.84%
	Male	0.08%	1.24%	2.76%	2.24%	1.50%	0.90%	0.77%	0.61%	0.41%	0.28%	10.78%
SS	female	0.02%	0.30%	1.21%	1.31%	0.75%	0.38%	0.26%	0.09%	0.07%	0.04%	4.43%
	male	0.02%	0.24%	1.47%	1.45%	1.03%	0.77%	0.48%	0.34%	0.14%	0.07%	6.00%
Grand Total		0.50%	8.58%	25.73%	25.70%	15.11%	11.21%	6.55%	3.65%	1.93%	1.02%	**20794**

3.4.3 Results of projections

In this section the key features of projections of HIV/AIDS for education sector employees overall are presented. A full electronic database of disaggregated projections is available to planners. While these projections can be argued to be consistent with various data, they should be considered with caution (see below). Nevertheless, they provide some useful perspectives for planning.

3.4.3.1 HIV infection levels

Figures 3.1 (a) and (b) indicate the projected percentage of education sector employees infected with HIV (HIV seroprevalence) for each year to 2010 on the assumption that all staff have the same risk as other adult Batswana with the same gender and age profile, and access to ARVs. It is possible that as many as half of all teachers and one in eight school heads are infected in 2001.

An important finding is that there are substantial differences in the expected level of infection in different job categories due to differences in the demographic profile among the job categories. Teachers are predominantly young women, which make them vulnerable to infection. Certain categories of non-teaching staff are also shown to be at particularly high risk. Despite these facts, the level of infection is high in all job categories, and makes prevention programmes and employee impact management important at all levels of the education system.

Furthermore, infection rates have the potential to rise further from current levels if prevention is not effective. It must be remembered however, that HIV prevalence will increase due to increasing access to antiretroviral drugs. This is because ARVs reduce mortality, and there will therefore be an increasing number of people who are living longer with HIV infection, resulting in an higher HIV prevalence rate.

Figure 3.1(a). Projected HIV infection levels in education sector employees 1995-2010. (Assumes population risk with 80% to 90% access to ARVs)

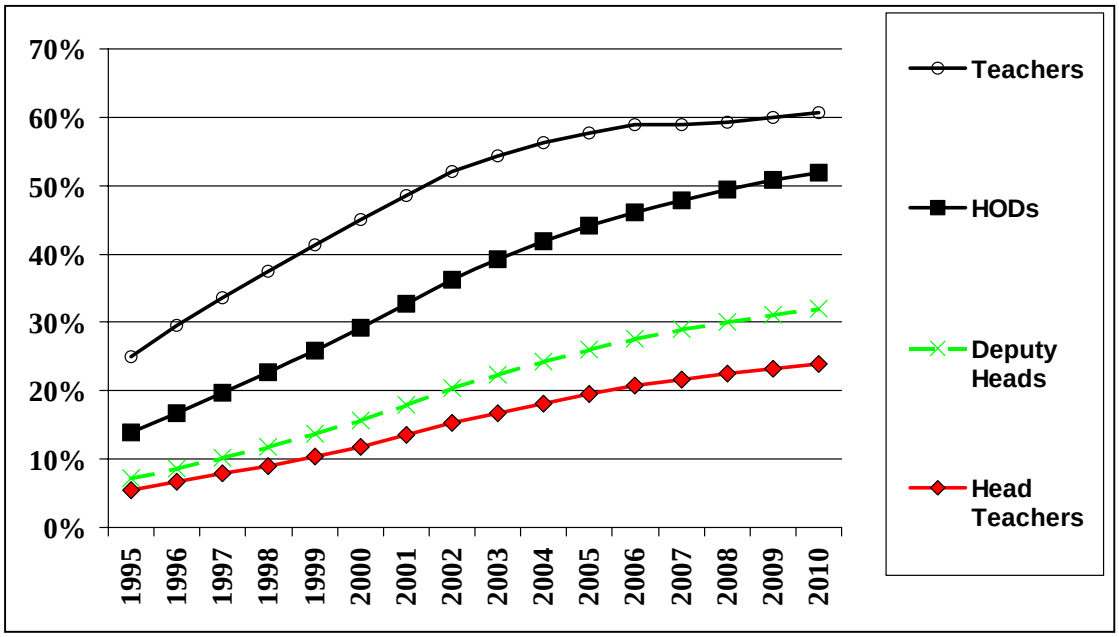
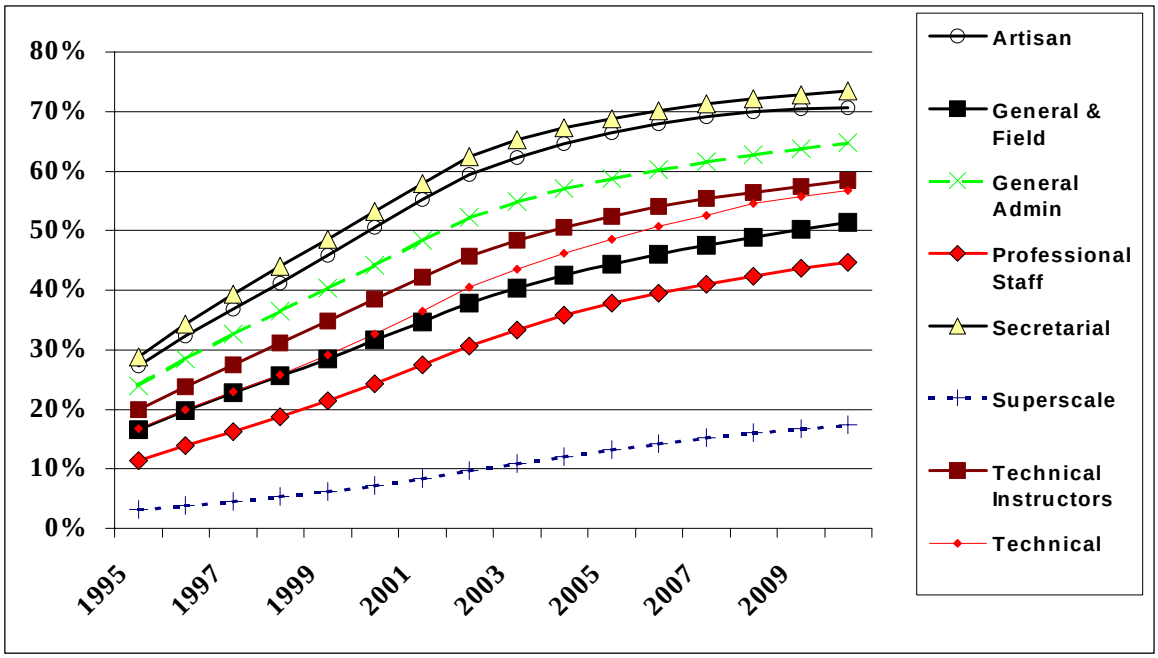
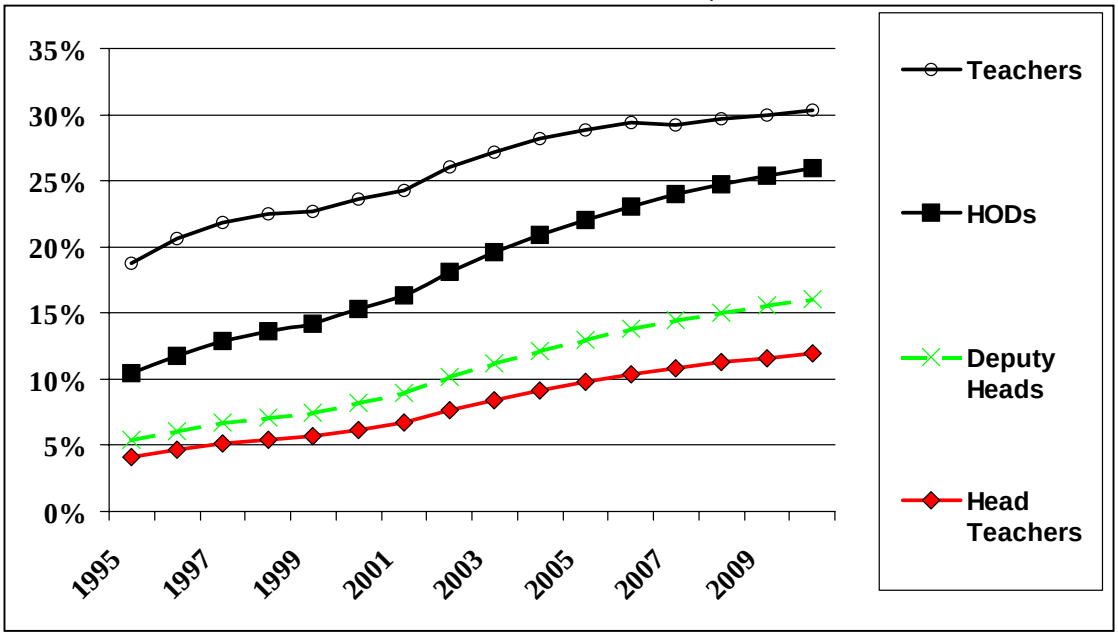


Figure 3.1(b). Projected HIV infection levels in education employees falling under DPSM 1995-2010. (Assumes population risk with 80% to 90% access to ARVs)



If teachers have the lower risk of infection, as a result of pre-existing behaviour patterns, or greater access to information and ability to respond to it, then the rate of infection among them would currently be around one in four (Figure 3.2). Even in this optimistic scenario, HIV prevalence has potential to continue increasing over the decade to about 30% in teachers by the end of the decade, unless there is successful prevention among existing staff and new entrants. Thus, even under optimistic scenarios, existing and new infection rates are high, and a considerable challenge to the MOE.

Figure 3.2. Projected HIV infection levels in education sector employees 1995-2010. (Assumes decreased HIV risk with 80% to 90% access to antiretrovirals)

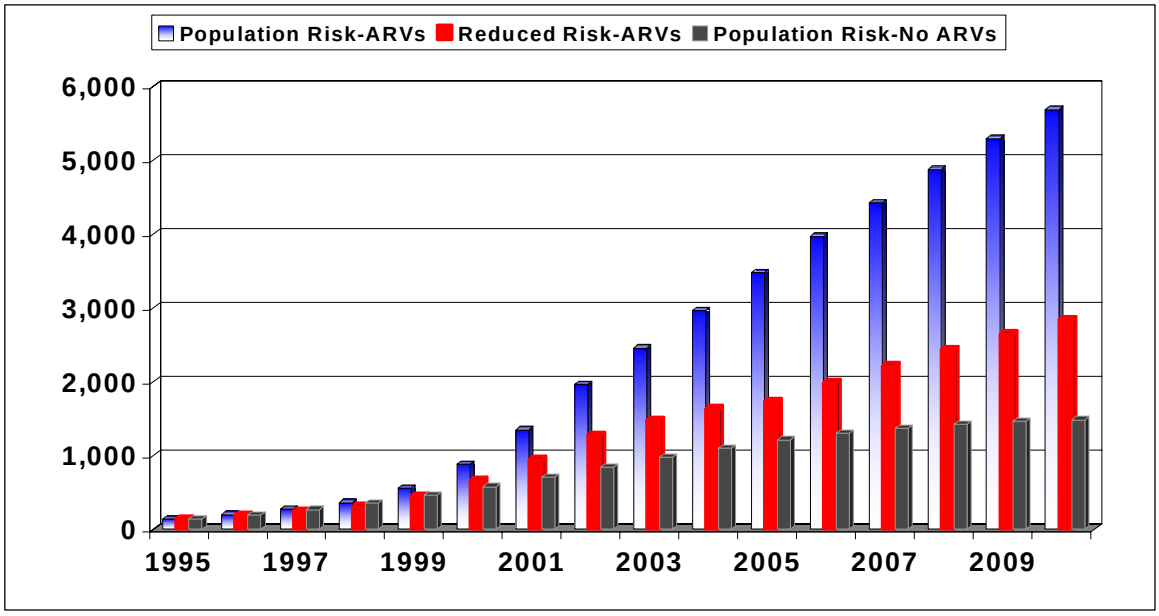


3.4.3.2 AIDS illness

The number of teachers who are sick with AIDS *each year* is expected to climb dramatically from 2000 onwards under all scenarios, as shown in Figure 3.3. *It must be noted here that even if a person is on ARV therapy, they are still classified as being an AIDS case.* An increasing proportion of employees will not die of AIDS and these employees on ARVs explain why the number of people with AIDS is higher in ARV scenarios that non-ARV scenarios. These employees will therefore be on chronic medication, with some of them still being ill or requiring frequent check-ups.

In the year 2001, around 1000 teachers in the education sector are likely to be ill with AIDS or on ARVs, but this is going to rise to around between 3 000 and 5000 teachers in 2010. In a 2000 survey, it was found that all schools had at least one teacher who was chronically ill, which seems consistent with the projections (HIV/AIDS and Education Study Group 2001).

Figure 3.3. Projected annual AIDS cases in the education sector 1995-2010



3.4.3.3 AIDS deaths

The predicted number of education sector staff that will die of AIDS each year under different scenarios is shown in Figure 3.4. As can be seen, the number of teachers dying of AIDS in 2002 could be within a range from around 200 to over 500, depending on whether teachers have population level risk of HIV infection, whether they are at less risk, and to what extent educators have access to ARVs. These numbers could rise to between 300 and 1000 teachers a year by 2010.

The graph illustrates three important features of increasing access to highly active antiretroviral therapy (HAART).

- There would be a large positive influence on teacher mortality, with potential for as many as 80% more teachers would survive over the course of the decade.
- Mortality due to AIDS is still likely be substantial.
- ARVs can considerably narrow the range of uncertainty about levels of mortality that should be assumed in human resource planning and management.

Figure 3.4: Projected AIDS deaths among teachers 1995-2015

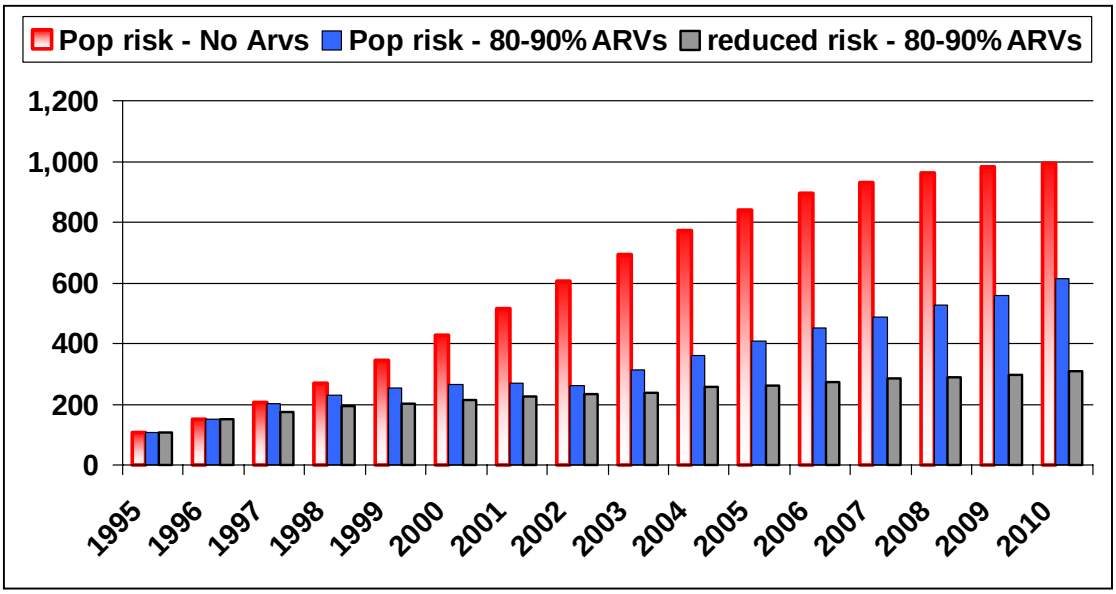
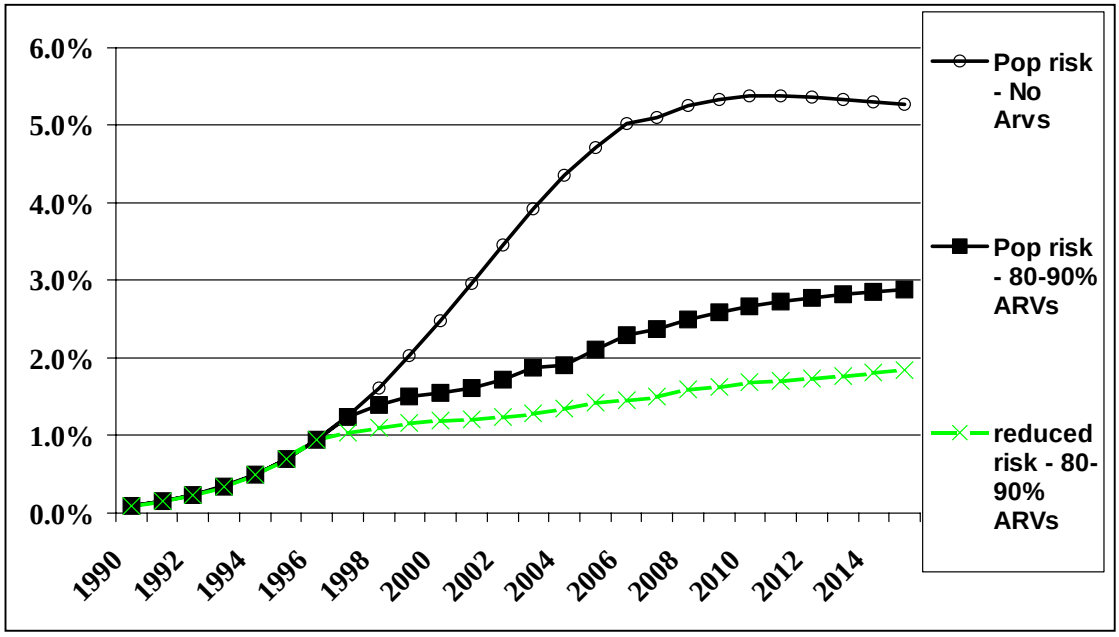


Figure 3.5 shows projected AIDS deaths as a percentage of teachers using the same scenarios as above. By 2010, between 1.7% and 5.4 % of teachers are projected to die of AIDS per year, depending on the level of HIV among teachers, and their access to effective ARV drug treatments to prolong life. Other projections indicate that death rates for industrial staff fall around 2% for 2000, and have potential to rise to over 7% per annum for certain categories of DPSM education sector employees by around 2010 in the absence of ARV therapy.

Figure 3.5. Projected AIDS deaths as a percentage of teachers 1995-2015

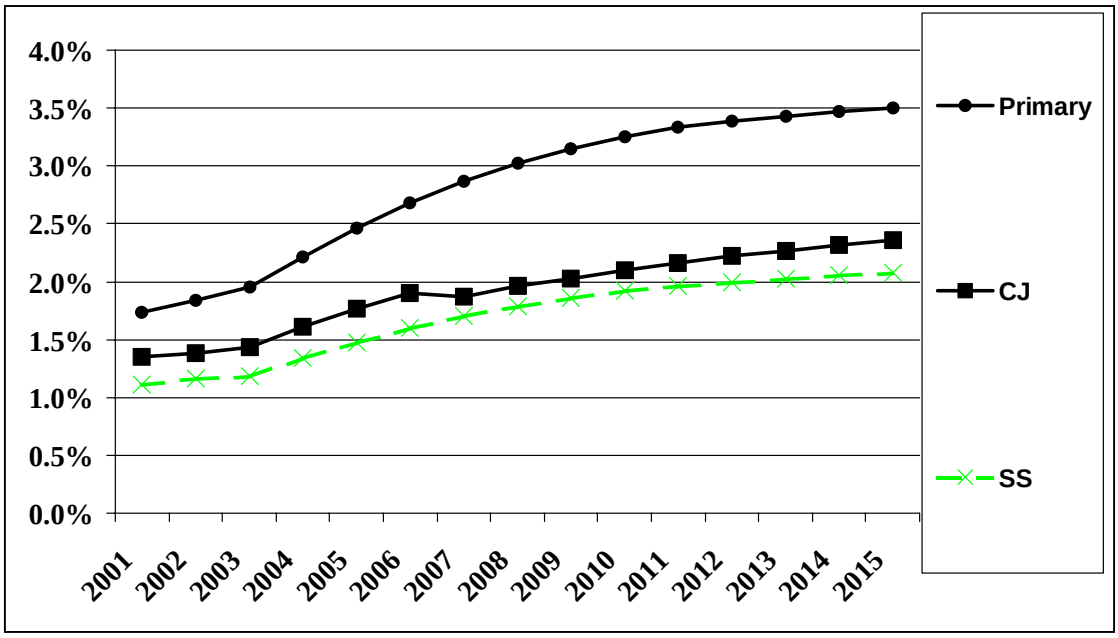


Among teachers the impact of the epidemic will vary across different levels of the education sector. As illustrated in Figure 3.6, primary school teachers are expected to be at high risk due to their age and gender profile, and as suggested by empirical mortality data.[92]

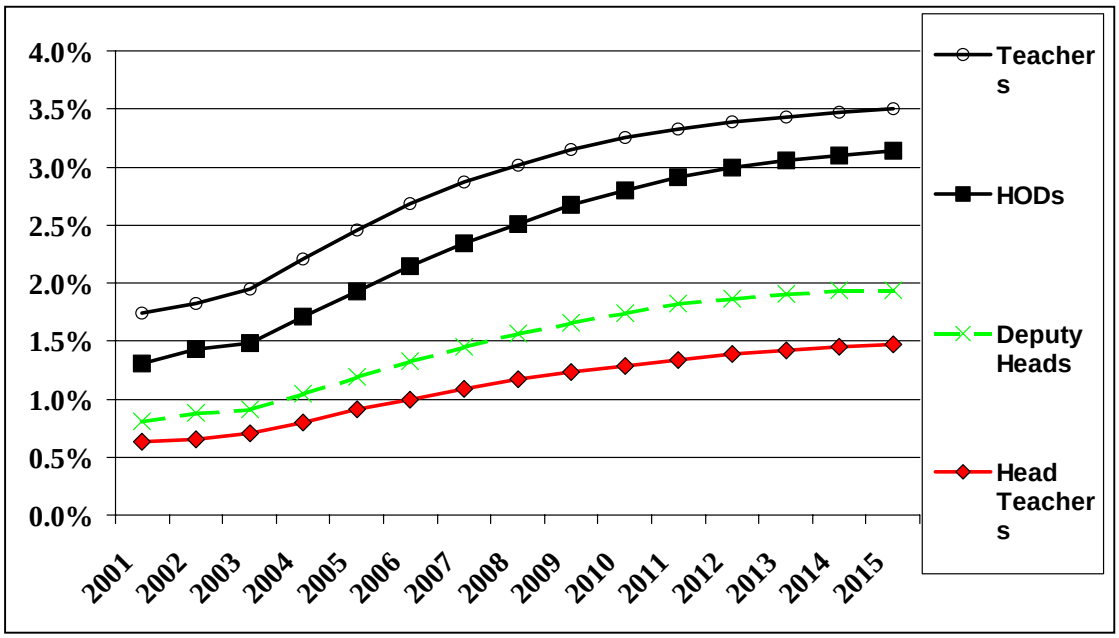
[92] Primary level staff are also less likely to have medical insurance, and may live further from large medical centers, which may make access to sophisticated health care more difficult. This could potentially increase differentials in death rates between levels of school.

While the mortality rates among teachers at a primary school level could be as high as 3.5% a year by 2015 despite ARVs, the levels at a secondary level would be over 2 %, still a significant attrition rate.

Figure 3.6. AIDS related deaths among teachers as a percentage of teachers in different school types. (Population risk, with 80-90% antiretroviral access)



Primary school teachers are at greater risk of infection, because they tend to be comprised of a greater

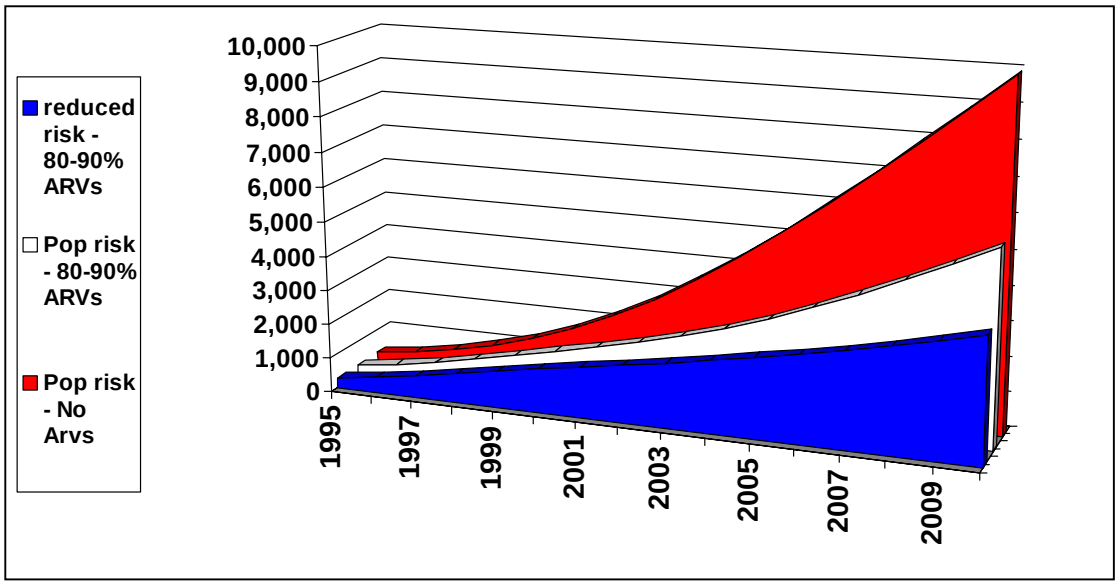


proportion of young females. A similar effect is seen when we look at different categories of staff within any division of the education sector (Figure 3.7).

Figure 3.7. AIDS related deaths among primary school staff by job categories. (Population risk, with 80-90% antiretroviral access)

The cumulative death toll among teachers as a result of the epidemic, under different scenarios is shown in Figure 3.8. Again, using population risk profiles would suggest the MoE losing almost 10 000 teachers by the end of the decade. This is unlikely to happen, assuming a combination of lower levels of HIV infection among teachers and access to antiretroviral drugs. However, even in the best case scenario it is likely that over 3000 teachers will die from AIDS up to 2010, and most of these deaths will occur later in the decade.

Figure 3.8. Cumulative AIDS deaths among teachers 1995 to 2010.



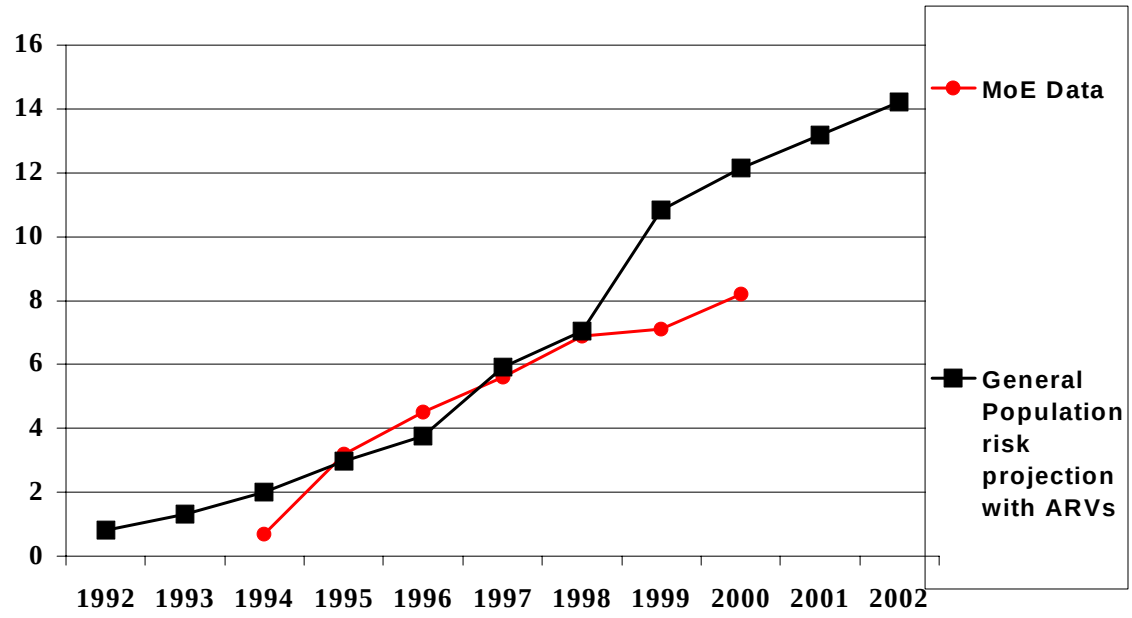
3.4.4 Comparing projected and actual mortality

Ideally the projections of teacher mortality as a result of AIDS should be compared to actual data. This is possible to some extent in the Botswana context. Figure 7.9 compares deaths among primary teachers between 1994 and 1999 with the projections.[93] The projection seems to fit well with primary school teacher mortality experience, although there is preliminary evidence of lower levels of mortality since 1999 than would be projected.[94] Point estimates for 2000 of mortality of around 1.5% for education sector industrial staff and up to 2% in general government industrial staff, seem to be lower, but not necessarily inconsistent with projected rates for general and field staff of 1.7-2% for 1999 and 2000, assuming population risk and no ARV access.

Figure 7.9. Recorded AIDS deaths per thousand primary teachers vs projected deaths assuming population level risk but access to antiretroviral drugs.

93 Source: Botswana Human Development Report 2000 and Infinium database

94 It should be noted that ARVs are expected in the modeling to have had limited effect on mortality before 1998, when HAART triple therapy first became widely used.



Data on SJSS and senior secondary teacher mortality is available from the Infinium database, but only since 1997. These figures show a relatively low level of mortality in these schools. This can to some extent be explained by the age and gender profile of educators and other staff in these institutions. However, there are other several possible explanations for the recorded mortality rates that could be contributing to mortality among education staff overall being lower than projected.

- Time lags assumed in projections may be inaccurate, with low mortality mainly reflecting a delay rather than fundamentally different risk.[95]
- Botswana teachers may have a lower risk of infection than the general population or may have changed behaviour more quickly than the general population in response to HIV/AIDS.
- Educators may have the same risk of HIV infection, but are surviving longer. This could be a result of general improved access to health care, and more specifically as a result of the use of antiretroviral drugs. Some 50 -60% of education sector staff have access to medical insurance, and therefore high access to ARVs. This could certainly explain some of the lower mortality, as well as indications that mortality may be plateauing.
- The information on mortality rates is not reliable. While there is difficulty interpreting relatively short time series of data, there is no indication that Infinium is significantly under-reporting the real number of deaths.
- There is a "healthy worker" effect. People with relatively advanced HIV/AIDS disease may not complete training or take up positions, reducing the observed impact.[96] Alternatively, employees who are ill may drop out of service before death. However, this seems an unlikely explanation, as the reported number of retirements on the basis of ill health is very low.

A combination of several of these factors is likely to account for the discrepancies that are seen between the recorded overall mortality rates for education staff and those produced by the projection model.

[95] If this is the case, primary school teachers would potentially have a higher average risk of infection than for the general population

[96] Secondary Department has noted cases of teachers not taking up their posts after training.

3.4.5 Interpretation of results

The above projections provide a range of estimates of the risk of HIV/AIDS impacts on the education sector that are reasonable given available data, and which provide a range of scenarios that should be a useful guide to many planning decisions. However, assumptions described above and in Annex D should be considered in interpreting projections. Several issues in particular should be noted:

- *As long as the level of HIV infection among educator sector staff remains unclear, predicting illness and death rates will be subject to significant uncertainty*.
- *There are still uncertainties involved in projections for the general population* on which the education employee projections are based.
- *The employee population profile may change from that of 2001* on which projections were based. This could affect HIV risk and could influence estimates of cumulative mortality over time in particular.
- *Projections further into the future can be made with less certainty.* However, the number of AIDS cases and deaths for the next 8-10 years is largely determined by the number of HIV infected people currently and can be expected to be more reliable than projections of prevalence over that time which may be altered by behaviour change.
- *Modelling of the likely effects of ARV treatment on projections is a relatively new field.* Lack of data on treatment uptake and failure rates in a Botswana context is a particular limitation. As ARVs potentially have a very greatly influence on the number of deaths among education sector employees, this introduces an important uncertainty. However, the projections presented here should give planners a reasonable indication of the potential effectiveness of ARVs in reducing mortality to inform key policy choices.
- *Within projections for any group there may be substantial variations between different sub-groups*, e.g. teachers of a particular age or with particular experience or area of specialisation.

3.4.6 Conclusions – projections of impacts on employees

Implications of projections for human resource planning, management and development are discussed in later sections of this report. However, several key issues can be highlighted.

- *HIV prevention for education sector employees will remain important for many years to come.* Reducing HIV infection now will have a significant effect on future illness and mortality.
- *All levels of employees will be affected.* Even under "best case" scenarios impacts will be substantial across the sector. Senior school and management staff have lower projected impacts but these are still significant. Their lower risk is mainly due to their age and does not reflect impacts on promising future managers and leaders who are in junior posts.
- *Antiretroviral treatment is a critical strategy to reduce impacts and limit levels of uncertainty to be considered in planning.* However, it poses major challenges, including the high proportion of teachers who will be on chronic medication.
- *Projected levels of impacts for the near future indicate that it will be easy not to be aware of many AIDS cases and deaths* or associated impacts among education sector employees. However, illness, deaths and impacts will continue to rise over the next 8-10 years.
- Impacts seem *unlikely to be devastating in any one year at a system-wide level.* However, *cumulative impacts* on the sector, and human and social costs are likely to be substantial.
- *Average levels of impacts shown in projections do not reflect many workplaces where levels may be much higher (or lower) in a given year*. The impacts in particular workplaces and institutions may thus be much more severe than suggested by aggregated projections.
- *Targeted efforts to reduce infections and manage impacts in heavily affected or critical skills groups* are important. Particularly important target groups are teachers and trainees. Other staff categories with key functions or skills should also receive particular attention.

Given various uncertainties, monitoring of the appropriateness of assumptions used in projections and validation of projections will be important to refine planning. HIV seroprevalence surveys should be considered, and reporting of deaths, ill health retirements and ARV utilisation among teachers and other employees should be tracked. However, ongoing monitoring should not stand in the way of planning and action to prevent new infections and mitigate impacts of existing infections.

3.5 Direct costs of HIV/AIDS – employee benefits

Employee benefits are a critical issue to consider in the context of the HIV/AIDS epidemic.

- *Direct cost implications of HIV/AIDS for benefits can be substantial*, due to higher claims on benefits such as medical aid, pension, life and disability cover by employees. This creates pressure to increase employer and/or employee contributions to a benefit fund.[97] Direct costs are relatively easy to identify because they are manifest as explicit financial or payroll costs.
- *Employee benefits are a key support for infected and affected employees, their dependents,* and their capacity to deal with HIV/AIDS impacts. Given the size of the education workforce, adequacy of employee benefits has implications for a substantial part of the Botswana population who are dependent on its employees.
- *Indirect costs can be affected by benefit structures and attempts to manage their direct costs*. Indirect costs (see below) to the sector or employees are often "hidden costs" that are not easy to quantify in Pula terms, but may be very significant. Benefits available to education sector personnel will have major implications for the ability of the sector to manage workplace impacts of HIV/AIDS and ensure ongoing quality education.

The following discussion presents key issues in areas of particular relevance to the education sector and implications for service delivery in the sector.

3.5.1 Medical benefits

Medical cover for education sector employees has particular importance due to the increased burden of disease created by HIV/AIDS.

- Widespread access to ARV treatment as promoted by current government policy, will have a major impact on ability to manage loss of staff and skills.
- Independent of ARVs, access to other health care, even if basic, can have a large impact on employee well-being, morale and ability to remain productive.[98]
- Health care for HIV/AIDS has large potential cost implications.

The major emphasis of the following discussion is on private medical scheme coverage. Specific focus is placed on the issue of ARV treatment due to their importance and current Botswana government policy. It is not certain as yet how private medical schemes and providers will interface with the national ARV programme, however it is assumed that they will be an important delivery mechanism for government employees.

3.5.1.1 Current status of medical benefits

Education sector permanent and pensionable staff are entitled to membership of the Botswana Public Officers' Medical Aid Scheme (BPOMAS). Membership is encouraged by government payment of half of its employees' medical aid contributions. Staff who retire on ill health grounds before age 65,

[97] Other subsidies may also become more or less costly due to death and illness.

[98] Basic interventions include primary health care for early and effective treatment of TB and other opportunistic infections, certain basic prevention treatments and psychological or nutritional support.

continue to have half their medical aid contribution paid by government. Proposals to extend eligibility to industrial class employees are currently being discussed.

Just over 61% of secondary school teachers and almost 50% of primary school teachers are members of BPOMAS.[99] A total of 57% of eligible MOE employees are members, although coverage may be somewhat higher if some employees are covered by a spouse's medical aid. Important reasons for limited coverage, among primary teachers in particular, are thought to include perceived affordability of medical aid,[100] and inaccessibility of private sector services in many remote areas.

Medical scheme HIV/AIDS impacts and responses

BPOMAS has noted significant and growing impacts of HIV/AIDS on members and costs in recent years (K Ebineng personal communication). Rapid increases in membership in recent years are thought to partly be due to HIV/AIDS. Just over one percent of members were known to be on antiretroviral drugs in mid-2001 with numbers rising although a significant number of beneficiaries still seem to not reveal their HIV status. Funeral benefit claims have increased markedly and 63% of deaths are thought to be HIV/AIDS related. Teachers, particularly primary teachers, have been noted to contribute a high proportion of claims, and often request *ex gratia* payments to cope with costs. ARV treatment failures have been noted to occur particularly among young members, who are thought to perhaps have greater financial constraints or other adherence problems.

HIV/AIDS related costs are seen as an important contributor to the current deterioration in the financial position of the scheme which has run at a loss for the last two years and faces dwindling reserves. Other important contributing factors are increasing numbers of private health care providers and lack of an increase in contribution rates.

For several years BPOMAS has been attempting to consolidate its strategy and delivery mechanisms for HIV/AIDS care. There are several important features of the current situation in relation to HIV/AIDS.

- *BPOMAS does not have any specific exclusion of care for people with HIV/AIDS:* Over 90% of beneficiaries are eligible for HIV/AIDS benefits under their scheme option.
- *The scheme has relatively low limits on HIV/AIDS care of P 10 000 per family.* This does not cover all costs of many members or beneficiaries on ARV or other high cost treatments, hence some end up destitute in terminal stages of illness. Many members' limits on ordinary medications are also noted to be under pressure due to claims for non-ARV medications for HIV/AIDS –related conditions
- *The scheme is initiating a HIV/AIDS benefit management programme, but has previously had very limited ability to manage HIV/AIDS care.* Active management of HIV/AIDS care is widely recognised as a key to successful treatment and cost-effectiveness. The scheme has already noted significant compliance and cost containment problems with HIV/AIDS care.
- *Scheme viability may be threatened by "free-rider" problems.* Currently people can opt to join the scheme only once they know they are infected or ill.[101] This limits cross subsidy between healthy and ill members and puts extra upward pressure on the contributions of members.
- *Government is seen as having a critical role to ensure effective HIV/AIDS care by BPOMAS.* There has been extremely limited systematic engagement by government on the issue so far. Coordination is likely to be particularly important in areas such as use of government laboratory

[99] Over 75% of college and other MOE eligible staff are members.

[100] Current contribution structures mean that member contributions are a substantially higher proportion of salary for lower income employees (HIV/AIDS and Education Study Group 2001).

[101] This has been noted particularly with the funeral benefit where the average time from joining to death has decreased dramatically.

services, use of public service infrastructure to deliver ARV drugs, and potential access to lower cost drugs.

Projected costs of ARV care

The likely costs of ARV care for education sector employees is subject to a number of uncertainties such as ARV drug and laboratory costs, costs of public or private delivery mechanisms, and the proportion of costs employees will be expected to pay out of pocket. Nevertheless, the following projections (Table 3.4) provide some indication of the magnitude of potential costs of an ARV programme to the MOE and its employees. They assume that ARV treatment will be available at a substantial discount of P 5000 per year, and that education sector employees are at a lower than population risk with 80-90% ARV uptake.

The projections indicate that even under fairly conservative risk and cost assumptions, government policy to provide wide access to ARVs for MOE employees would have substantial cost implications that justify focused strategy development by the Ministry.

Table3.4: Potential costs of ARV therapy for education sector employees

	No of employees on ARVs	**Total costs***	**ARV treatment as a % of total MOE basic salaries**
2005	2 490	12 458 000	1.8
2010	5080	25 399 000	3.6

* Pula at constant 2001 prices

3.5.1.2 Recommendations – medical care

Successful and affordable medical cover, particularly for ARVs, are a critical component of MOE HIV/AIDS strategy. The MOE has so far not given systematic attention to this issue. The following recommendations should be considered.

- *Highlight the importance of HIV/AIDS care, and particularly ARV therapy, for education employees*, to staff and other stakeholders. Encourage increasing membership of medical aid and early diagnosis of HIV status to optimise therapy.
- *Actively engage with the MOH, NACA, the HIV/AIDS care and ARV programmes, and BPOMAS to ensure prioritisation of education staff in developing effective, well managed ARV access.* A lead role by the MOE seems appropriate as it is the largest employing Ministry, and its staff have good prospects of successful therapy. Widespread ARV access is critical to plans to ensure sustained education delivery (see also projected teacher training requirements below).
- *Consider options around cost sharing to ensure sustainability and affordability of medical aid benefits.* Options for investigation may include restructuring contribution rates to enhance access of lower paid staff and compulsory membership of medical aid.
- *Encourage direct liaison at District and school level with health care providers* to ensure systems enable effective access of staff to basic and ARV treatment. Even for employees where ARVs may not be an option for any reason, good communication and access will be beneficial to them and their institutions.
- *Create workplace environments and policies that facilitate effective compliance particularly for staff on ARV and TB treatment.* Workplace health services are unlikely to be cost effective or feasible in most education workplaces, but consider providing supervised daily treatment of staff for TB and ARVs in workplaces where appropriate.

3.5.2 Pension And Death Benefits

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 these benefits help to manage impacts of HIV/AIDS on the function of education? The following sections review current pension benefits in relation to these issues.

3.5.2.1 Current benefits for education sector employees

All permanent and pensionable education sector employees are covered either by the Government Pension Scheme under the Pensions Act (Cap 27:01) (the Old Scheme) or the Botswana Public Officers Pension Fund (the New Fund) which was established with effect from 1 April 2001. All new Public Officers will become members or of the new scheme, and existing public officers can apply to transfer to the new scheme. Neither scheme has specific measures to screen new applicants either for HIV infection or other medical problems. Industrial class employees do not have a pension fund.[102]

The old scheme is a *defined benefit* scheme, which guarantees benefits based mainly on length of service and salary. Government undertakes to provide all necessary contributions to ensure that the defined benefits are funded. The new fund is a *defined contribution* fund that provides benefits based primarily on previous contributions to the fund by a member and investment returns on these contributions. The employer contributes 15% of salary, and the employee contributes a minimum of 5% of salary to the fund. The new fund provides for greater member involvement in scheme management through elected trustees, and places emphasis on improved communication. In regards to the old scheme, members have no input into scheme decisions.

Both schemes provide for benefits in the event of retirement due to ill health, death in service or death in retirement. Annex F provides more details of benefits .

3.5.2.2 How will HIV/AIDS affect pension costs?

HIV/AIDS death and illness among members will result in increasing claims on benefits for death in service, ill-health retirement and death in retirement by members who would otherwise have been relatively young and healthy. However, the actuary to both funds indicates that under current benefit structures *HIV/AIDS is not expected to significantly increase or decrease the cost of either fund to the public service and members*. This is, broadly, because increased payouts in the shorter term will be offset by reduced longer term liabilities for normal retirement benefits in the case of the old scheme. For the new fund, payouts are largely limited to previous contributions, except in the case of staff with very short periods of service who may qualify for a death benefit of one year's salary, more than the value of their contributions.

The new fund rules stipulate that actuarial valuations must occur at least every three years, which should limit potential for the fund to become unsustainable. However, new cost pressures may emerge over time even in the new fund due to the following factors.

- Employee pressure on government to increase its contribution to allow for greater payouts to employees affected by HIV/AIDS.
- Increased costs of benefits if people with AIDS have to be replaced with people hired at higher salaries due to skills shortages in the Southern African labour market.

[102] Industrial class employees qualify for a gratuity every five years, but no specific death or ill-health benefits.

3.5.2.3 How will pension arrangements affect staff and society?

Pension benefits will be an important determinant of the well-being of infected staff, as well as their dependents. A particular feature of HIV/AIDS is that it tends to affect younger employees with younger dependents, who at the same time have less years of service and have accumulated less pension entitlements. In addition, their spouse and/or children may also be infected, with extra implications for financial needs. As the education sector is Botswana's largest single employer and HIV/AIDS will have substantial impacts on society, "adequacy" of ill-health retirement benefits and death benefits to dependants have broader social impacts.

Judgements of the "adequacy" of benefits are necessarily subjective. They depend on the intentions and objectives of the pension scheme and fund, the employer and employees. [103] They also need to consider equity when compared to other employers' schemes and between benefits for different fund members (including targeting of benefits to long serving participants members who are not infected with HIV/AIDS). Other government or non-governmental mechanisms available to support employees and their dependents (eg medical care and orphan grants) may also influence judgements.

The following section considers the equity and adequacy of key benefits mainly in terms of whether they are likely to provide adequate finances to control negative impacts of HIV/AIDS on a member or their surviving dependants. To a lesser extent, the performance of benefits in relation to other criteria is also considered.

- *No distinction is made between criteria applied to HIV/AIDS and other life-limiting illnesses*. If benefits are considered to be fair for conditions such as cancer, then it could be argued that there is no reason to deem them inadequate for HIV/AIDS.
- *The current funds can broadly be characterised as focused mainly on adequacy of normal age-related retirement* rather than needs of relatively young individuals and their families in event of death and illness from HIV/AIDS.[104]
- *Levels of benefits and employer contribution are likely to compare quite favourably in comparison to other employers' schemes.*[105]
- *Nevertheless, the value of ill-health and death benefits are very limited when compared to earnings of employees under both schemes, particularly for employees with short periods of service.* Although the gratuity or fund payout for people with less than 10 years service is a minimum of one times annual salary, this is unlikely to provide financial security to survivors beyond the short term. Even after 20 years of service, the pension payable by the old scheme would be only just over 50% of the employee's final average salary. Under the old scheme, pensions do not continue for a surviving spouse or dependents, who only receives a lump sum payment. No additional benefits are payable for children, so a large family which looses a breadwinner may face more financial insecurity.
- *These features are of particular concern.* Death of both parents or a single parent, leaving relatively young children, will be increasingly common. Alternative support from the state or relatives may be considered inadequate to preserve the prospects and well-being of orphans. However, the pension fund may also be a relatively efficient mechanism to support orphans of education sector employees.
- *Both schemes have a relatively broad definition of children and other dependents* who may be entitled to benefits for customary or other reasons. This has advantages from the perspective of social impacts, particularly as employees' dependents may increase in number due to

[103] Objectives of the public officers pension scheme and fund are not described comprehensively, and thus provide little guidance. The stated objective of the new fund is to "provide retirement benefits for beneficiaries".

[104] It should be noted that many employees who retire at normal retirement age may have increasing numbers of dependents due to deaths of young adults in their families.

[105] Most employers contribute 6-7% of salary, compared to 15% by the government for the new fund. However, rigorous comparison is beyond the scope of this study.

greater responsibility of other orphans and elderly relatives in the family. In addition, the new fund strongly *encourages members to nominate their beneficiaries*, which should limit risks that dependent children lose their inheritances.

- *Other complementary benefits and needs may also be relevant.* For example, ability to pay for medical aid or health care out of pension income may be important.

Other specific considerations in assessing benefits include the following.

- *Differences in entitlements between the old and new funds may be significant for employees who become ill or die of HIV/AIDS relatively soon,* depending on their particular circumstances.
  - *Investment risk under the new fund* may be relatively high for employees who may have to access benefits in the near future, depending on stock market performance.
  - *Flexibility to respond to extreme cases of hardship or unforeseen circumstances* may potentially be dealt with through e*x gratia* payments by either the old or new pension schemes. However, this approach is unlikely to be a satisfactory way to deal with frequent or systematic problems that may occur on a large scale due to HIV/AIDS.

3.5.2.4 How do pension arrangements affect education sector function?

Education sector function can be adversely affected by pension arrangements in several ways. If retirement is delayed beyond the point when an employee is too ill to perform adequately this can damage education delivery, increase direct costs of hiring substitutes, and place unnecessary stress on the employee, colleagues and family. On the other hand, arrangements that allow infected employees leave service too early can lead to premature loss of skills, less succession planning, expenditure on recruitment and training, and unnecessary claims on funds. Employees may also be deprived of potential psychological, social and health benefits of work.

A number of informants indicated that aspects of the ill-health retirement and death benefit system lead to significant disruption of education and lower morale in schools. Managers find it difficult to get staff to retire, even when illness has a major impact on work performance and their wellbeing.[106]

Informants observations and a review of pension arrangements suggest that the following difficulties should be considered.

1. *Financial incentives for incapacitated employees not to take medical retirement.* Ill health pensions and death in retirement benefits are likely to provide only a small payout for many people, particularly those with shorter periods of service or low basic income. For some employees under both funds, death in service benefits may also be larger than for ill-health and death in retirement.[107] They are therefore more likely to:
   - Try to stay in their jobs to earn full salary for as long as possible or maximise the payout to dependents, even when they become incapacitated.
   - Delay disclosure of HIV/AIDS or other terminal illness to managers in case this will accelerate their retirement. This makes it more difficult to plan ahead to manage other impacts on workplace function.

   Lower morale and performance of infected employees, managers and colleagues is also likely to occur when they cannot be sure that ill staff and their dependants will be financially secure.

[106] This is reported to be having particular implications in schools close to Gaborone and Francistown, as people with compromised work performance are arranging transfers there to be closer to medical services

[107] The precise benefits and their comparative values under different circumstances vary substantially depending on factors such as the length of service, life expectancy and require customized calculations.

2. *Ill health claims processes are of uncertain efficiency*. Efficient systems and procedures for ill health retirement are key to ensuring that premature or delayed retirement does not impact unnecessarily on employee well-being, workplace function and fund costs. Efficiency is determined firstly by three main processes:
   - Employer administrative procedures that ensure correct, timely filling-out of forms by managers.
   - Processing of applications by the fund.
   - Appropriate classification of people as unable to work due to ill health. C*lassification of work incapacity is often particularly difficult in the case of employees with HIV/AIDS, even for experienced doctors.* This is due to the variable course of HIV/AIDS illness: a person who appears terminally ill or with laboratory indicators of advanced disease may have months or years of productive life ahead of them. ARV therapy may further complicate assessments.

Efficiency of administration of the ill-health retirement system, particularly in relation to the new fund, is not clear. Under both funds, the employer makes the decision on whether an employee should be retired due to ill health.[108] Reliance is made on doctors nominated by the MOH to judge incapacity. No specific criteria for assessing disability due to ill health or HIV/AIDS appear to exist.

Several focus groups and informants specifically indicated that school managers and staff have little confidence in managing issues around ill health retirement, or that processes will be managed efficiently and with fairness.

3. *Other features of pension entitlements for consideration.*
   - *Ability to deal with skills shortages may be reduced by limited incentives for key staff to stay in service after normal retirement age*. New pension contributions and entitlements at age 60 for non-teaching staff are terminated under both funds. Retired teachers over age 45 will normally be rehired on temporary terms.
   - *Alignment of benefits with those offered by other employers may affect workplace function.* If public service benefits are generous, this may systematically attract people with HIV/AIDS into the public service, increasing the likelihood of workplace impacts. If benefits for infected and/or uninfected employees are too limited this may reduce ability to compete for skilled staff in the labour market.

3.5.2.5 Recommendations - Pension benefits

The scale and nature of HIV/AIDS impacts on employees will fundamentally change the demands that will be made on pension benefits. They will become a much more prominent concern to the sector, employees and country. The adequacy of the current benefits to address HIV/AIDS-related social objectives and priority needs of employees is uncertain. Government may wish to serve as a "best practice" model for other employers.

The following recommendations are made based on the above assessment.

- *Actively support current initiatives by the new Fund to encourage employees to assess their cover and options.* Considerations for infected and affected employees may include:
  - Enhancing their cover for ill health or death by increasing their contributions to the new fund or other investments;
  - Accessing expert advice, if they know or suspect that they are HIV infected, on key decisions such as whether to change from the old scheme to the new fund,[109] options for use of benefits that are disbursed, and when to take ill health retirement.

[108] The new fund's Trustees also have some say.

[109] Current documentation provides only limited guidance for employees with HIV/AIDS on choices between the

  - Ensuring that they nominate beneficiaries and update nominations reliably.
- *Provide support and/or training* to *managers at school and other levels* to ensure that they can confidently handle staff queries, claims processes or operational problems related to pensions.
- *The MOE should take an active interest in monitoring and ensuring that benefits adequately serve the priority needs of employees, needs for workplace performance and social objectives.*
  - The sector should ensure that its stakeholders are adequately represented on the board of Trustees for the new fund, and that Trustees maintain good communication with their constituencies, including operational managers and employees.
  - Fund Trustees and actuaries should, where necessary, be requested to evaluate possible alternative benefit structures that balance financial constraints and other objectives. A number of different options may be financially viable.
- *Pay particular attention to monitoring and ensuring the appropriateness of benefits in relation to:*
  - *Orphans and other dependents* of public officers who die relatively young.
  - *Incentives to employees* to take ill-health retirement once they are incapacitated.[110]
  - *Maintaining reasonable consistency with other employers.*
  - *Incentives to staff above normal retirement age* whose services may be needed to cope with skills shortages.
- *Monitor and increase the efficiency of claims processes.* TSM should conduct systematic, regular review and monitoring of the efficiency of ill health retirement processes and motivate for responses where necessary.[111] In particular, clear medical and functional criteria and procedures should be encouraged to define HIV/AIDS related ill health. Expert disability management programmes may be required. Other responses may include improving information and guidelines for use by all stakeholders.
- *Monitor and review functional and human implications of lack of death or ill-health benefits for industrial class employees.* Increased levels of ill health and death of industrial class employees, are particularly difficult to manage under current entitlements.

3.5.3 Housing benefits

Official housing is provided for many education sector employees although teachers are not officially entitled to housing in terms of Regulations. Unavailability of adequate housing or need share houses, in certain areas is an ongoing, prominent source of teacher dissatisfaction. Primary school teachers have tended to be more disadvantaged in housing availability. Current reports indicate that shortages often seem to a large extent to result from lack of coordination between Directorates and Divisions within the Ministry which results in unexpectedly large staff establishments in certain areas.

Members of the new pension Fund may be granted housing loans by the fund, and final benefits may be reduced to pay off loans. Government has also provides guarantees for loans from approved financial institutions to purchase construct and improve residential property, up to a maximum of 25% of basic salary times the loan period. The extent of uptake of this benefit by education staff was not established. However, obstacles to using it, such as high mortgage rates and property prices, seem significant.

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schemes (Trustees of the Botswana Public Officers Pension Fund. “Its your choice!” . April 2001).

[110] As survival of people with AIDS who retire is likely to be relatively short it may, for example, be worth considering an extra gratuity to maintain closer to their full income for a given time after ill health retirement if adverse incentives and impacts of current benefits are seen to be significant problems.

[111] Efficiency of *death benefit claims processes* should also be monitored to ensure that dependents do not suffer unnecessarily due to delays.

Implications of HIV/AIDS

- *Housing shortages in areas such as Gaborone and Francistown have already been noted as staff with HIV/AIDS tend to try to move to major centres* to access treatment, while at the same time having lower work capacity which requires larger staff establishments. Such trends seem likely to continue.
- *Adequate housing which allows teachers to live with spouses or avoid disrupting stable partnerships is likely to be important to reduce risk of HIV infection.* While causal relationships are not completely clear, several studies in Southern Africa have suggested that stable housing is associated with lower risk of HIV infection (see eg Williams et al. 1999)
- *Official housing or subsidies may be increasingly important to attract and retain staff in certain areas* when key positions are vacated by staff deaths or illness.
- *Sharing accommodation with colleagues with HIV/AIDS was a major area of concern expressed in focus groups for teachers*. While worries about risk of infection are unjustified unless sexual relations occur between sharers, stress resulting from such situations may be a significant consideration.
- *Current exposure of government to HIV/AIDS impacts related to housing through the loan guarantee scheme may be significant.* Loans are quite long term, and beneficiaries may become unable to pay them off if they become ill or die, or face extra costs when family members become sick or die.[112] In addition, granting of housing loans to employees who cannot repay the loans due to illness or death, may impose undesirable burdens on them or their dependants, although they may see provision of housing for dependents as a priority.
- *Equity of current provisions may be called into question if many education sector employees are no longer be able to access mortgages.* These are generally conditional on taking out life insurance policies, which require an HIV test.

Recommendations

- *Housing policy and practice should consider that housing may be an increasingly important incentive for education staff* to work particularly in remote areas. In addition, inadequate housing may predispose to HIV infection through partner separation, or be an increasingly severe stress in infected or affected staff.
- *Coordination between relevant Departments and divisions in the Ministry should be improved* to ensure that staff allocation and planning of official housing are coordinated to avoid inappropriate or unforeseen housing shortages.
- *Housing planning should recognise the likelihood that increasing numbers of staff will request transfer to major centres* to access to HIV/AIDS treatment.
- *Implications of HIV/AIDS for housing loan and guarantee provisions should be reviewed and monitored* to assess equity, cost implications and any adverse consequences for beneficiaries and their dependents.

3.6 Indirect Costs And Impacts On Education Delivery

Indirect impacts of HIV/AIDS include impacts resulting from factors such as absenteeism, increased costs of recruitment and training, skills losses and shortages, reduced morale and labour relations conflict. Studies consistently show that these indirect costs can contribute a substantial proportion of costs associated with the HIV/AIDS epidemic. Understanding the types and significance of costs

[112] The degree of government exposure, and implications for beneficiaries and their dependents, will depend on conditions of repayment in the event of death or default, including the degree to which beneficiaries have life assurance, and ability to sell properties to enforce repayment.

related to HIV/AIDS is important in assessing the appropriateness of existing policies and systems and developing appropriate responses

Some indirect costs may be experienced as increases in budgets or expenditure, but many will be expressed through declining efficiency and education quality. This is particularly likely where there is limited ability to increase budgets in response to impacts.

Importantly, many indirect impacts on quality and accessibility of education delivery occur gradually. As the epidemic unfolds, staff and planners may become used to new, lower standards or not recognise the impacts until they have become gross and more difficult to reverse.

In interpreting impacts reported in subsequent sections on indirect impacts on delivery and quality of education, it is important to recognise three important limitations that may affect both quantitative and qualitative results of this or other studies.

- *Many staff clearly found it difficult to discuss impacts of illness, death and HIV/AIDS on colleagues*. This would in general be expected to lead to under-representation of the level of impacts reported by school and district staff. This difficulty in discussing staff impact issues seems to be due to factors such as personal insecurity and denial, uncertainty about the diagnosis of sick colleagues, and also the sensitivities of discussing impacts in the presence of colleagues or implying that even a deceased person might have had AIDS.
- *Botswana's epidemic is at a relatively early stage.* Thus important types and scale of impacts may not yet be evident.
- *It was not possible to rigorously compare the significance of impacts of illness, deaths and HIV/AIDS with other challenges*. Results may thus be in danger of either over or understating the priority of impacts in school function.

3.6.1 Morale and stress

Staff at all levels of the system indicated that HIV/AIDS was having an important impact on morale and stress which reduced performance. These impacts were not only among staff who were infected, but also among those feared that they were infected or who were affected due to HIV/AIDS impacts on colleagues and family members. Many teachers are taking care of sick family members, have orphans in their own homes, and are distributing money to needy relatives. These stresses compounded by significant frustration and demoralisation expressed by a number of education staff at all levels due to pre-existing inefficiencies and difficulties of working in the sector.

"If Botswana were an individual, it might be described as paralysed by grief… some kind of therapy is needed to help us move forward and deal with the epidemic more effectively"
HIV/AIDS workshop participant.

3.6.2 Absenteeism and reduced work performance

Work performance is reported to be down on account of AIDS sickness and absenteeism.teachers are attending more and more funerals, and in some places Friday is a day lost to teaching

Potential costs of absenteeism if covered by relief teachers are estimated at 0.1-0.5% of total basic salaries by 2005 and 0.1-0.7% in 2010.

3.6.2.1 Leave benefits

3.6.2.2 Current and projected impacts

3.6.2.3 Absenteeism monitoring and management

3.6.2.4 Retirement on medical grounds

3.6.2.5 Temporary cover for absent staff

Cover for staff and teachers who are absent due to illness, compassionate leave, funerals or before permanent replacements can be appointed is important to ensure continuity of education for learners and limit stress to colleagues.

In most Botswana schools, temporary teachers (mostly Form 5 leavers) are available for most schools. In 2001, about XX% of teachers are temporary appointments. Nevertheless, many school informants indicated it is often difficult to find relief cover for increasing numbers of teachers who are absent from class, for short or long spells. So teachers who are not ill are having to cover for those who are.

Provision is made for acting appointments and appointments with a responsibility allowance in more senior positions where required. Secondments are also provided for and may attract extra compensation and benefits in line with the new position. From District through to Ministry level, cover has to be provided by colleagues. Public and Pensionable officers are expected to be available for service at all times. They do not receive overtime pay or other compensation if they have to take on extra responsibilities to cover for a colleague.

Problems identified with the current cover system include:

- Compromise of quality of education through:
    - Limited qualifications and experience of temporary teachers.
    - Disrupted continuity of teaching
- *Difficulty managing costs of temporary appointments.* These costs are reported to already be an important reason for budget over-runs for the sector.
- Staff dissatisfaction with taking on extra duties.
- Difficulty in finding effective cover for more senior staff in the Ministry, Regions, Districts, and schools such as Heads of Department and Deputy Principals.
- Certain functions and work processes may be more vulnerable to absence of a key staff member, particularly at certain times in the educational year. Examples include the absence of a teacher around examination preparation time or of a key manager at the time that budgets are prepared.

Recommendations

Even if ARV therapy is widely and effectively introduced for teachers and other staff, absenteeism and deaths can be expected to increase from current levels both among infected and affected staff. Streamlining of cover mechanisms is therefore likely to remain relevant.

- Monitor costs, efficiency and quality impacts of temporary appointments.

- *Identify work situations or processes that are particularly vulnerable to absence or loss of staff* and consider giving them specific attention.
- *Create supportive environments in schools and other workplaces* to enable HIV positive employees to keep managers informed about their health problems and allow for more effective planning to accommodate periods of absenteeism.
- *Monitor performance of systems* such as informal cover, secondments, temporary appointments and use of relief components to ensure effective and equitable systems and application in practice.
- *Consider exploring mechanisms to increase flexibility to reduce service delivery impacts of absenteeism.* These may include:
    - Developing guidelines and systems to ensure optimal learning and orientation occurs in situations of temporary relief or informal cover.
    - Developing ways to enhance quality of relief teachers in areas which are likely to have significant reliance on them.[113]
    - Mechanisms to share available managerial and other support capacity more effectively across schools within districts.[114] For more skilled or scarce staff, who cannot easily be covered by relief staff. Consideration may need to be given to developing school clusters to facilitate sharing of scarce skills across schools in times of absence.
    - Specific measures to create incentives to attract teachers to rural and remote schools. Needs and potential for creating community service or strengthening bursary-linked obligations that allow for allocation of sufficient teachers to schools in crisis should be considered and monitored.
    - Multi-skilling, succession planning and teamwork.[115] This may enhance flexibility in certain functions.
- *Monitor and address increased workload of employees who provide informal cover*, both at individual and system-wide levels. Monitor the adequacy of current acting, responsibility allowance and overtime pay arrangements.
- *Initiate dialogue with unions and training institutions* to explore ways to increase ability to respond to absenteeism and skills shortages.
- *Consider needs to enhance ability to deal with large classes.* May include needs for large class teching skills if pupil teacher ratios increase temporarily or in the longer term, as well as innovations such as teaching aids and distance learning techniques.

3.6.3 Loss of skills

Specific implications for teacher training are discussed in a later section.

Skills shortages and higher costs of labour due to HIV/AIDS in wider society in the medium to longer term will affect the ability of the education sector to replace and retain personnel.

Countries with more advanced epidemics are finding that cumulative loss of skilled personnel is having substantial implications for capacity to deliver quality services. Loss of skilled staff results in:

- Increasing difficulty in finding suitably qualified and experienced candidates
- Loss of institutional memory and less tangible skills acquired through practical experience
- Temporary disruption while a new candidate is found and a post filled.

[113] It is recognised that that this issue is somewhat contentious in view of union concerns and intentions to increase professionalism of the teaching service.

[114] These types of approaches have been used in some Provinces in South Africa.

[115] This has value independent of HIV/AIDS impacts in promoting career development of staff and

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

- Preventing skills loss through effective prevention among staff, trainees and future trainees;
- Reducing skills loss through effective treatment;
- 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;[116]
- Changing work organisation (eg through sharing capacity across clusters of schools; specific job design and redistribution of less skilled tasks to less skilled staff; teamwork; and multi-skilling; and developing other systems, for example to reduce the load of routine, unproductive work, that increase overall efficiency and reduce need for the same volume of skilled staff)
- Career development and succession planning (Flint Taylor 2001).[117] Career development involves identifying and supporting staff with particular promise of being able to develop and provide the relevant skills.[118] 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.

Replacement strategies can involve substantial cost and, unlike some of the other strategies 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. Botswana is likely to have to consider a mix of these strategies..

3.6.3.1 Recommendations – Skills losses

- *Develop a specific capacity development strategy for teaching, management and other skilled staff in the education sector* which considers HIV/AIDS issues.
- *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.
- *Consider ways to create practices and incentives for existing skilled staff to disseminate practical knowledge* gained from experience and institutional memory.
- *Reinforce current initiatives to streamline the promotion and appointment system* to ensure that they promote an environment which recognises skills, rather than seniority, and encourages skills acquisition.
- *Define key competencies and skills sets, including essential knowledge and "soft skills" required to maintain various functions.* Then focus on these, rather than assuming that previous training and skills transfer approaches are appropriate and efficient.
- *Consider multi-skilling approaches* to ensuring resilience of delivery.[119] 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.

[116] 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 fo 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.

[117] See Flint-Taylor (2001) for a discussion of some of these strategies.

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

[119] Multi-skilling may not always be appropriate. Certain work groups may involve very different skills sets increasing difficulty of multiskilling approaches. In addition, multi-skilling may not be cost-effective if

- *Consider using the "cluster approach" to enhance sharing of key capacity and skills transfer and development within districts, particularly in relation to management skills*[120].
- *Consider which systems other than training may enhance efficient use of any available capacity and reinforce knowledge transfer.* This may include eg email systems, or systems to reduce unnecessary bureaucratic procedures and routines.
- Develop a research agenda to increase understanding of key types of skills requirements and the effectiveness of various strategies to combat skills loss.

3.6.4 Staff Turnover

In recent years attrition among teachers has been noted to be around 4.5% for first level and 8% in second level schools. Turnover (including transfers) has been in the region of 14%. These levels are fairly low compared to many education systems. However headquarters managers already report what they consider to be a relatively high level of staff turnover due to turnover of expatriates and staff leaving for "greener pastures". This leads to important discontinuities and loss of key expertise in certain areas. In schools, turnover is noted to be particularly high among staff in skills shortages areas such as design, technology and humanities is reported to be higher than average. Highly skilled professionals such as systems analysts and financial managers are reported to be particularly difficult to replace.

Overall, the expected additional rate of attrition due to HIV/AIDS will be a significant but probably not crippling addition to current rates. However, as the HIV/AIDS related attrition and turnover is likely to be less predictable than for routine turnover, it could be relatively disruptive.

3.6.4.1 Allocation of teachers, transfers and redeployment

3.6.4.2 Recruitment and appointments

3.6.5 Managing impacts on education system function

3.6.5.1 Performance appraisal and management

Performance management is already seen as an important way to improve efficiency and effectiveness of the education system. The Ministry of Education is in the process of implementing a Performance Management System (PMS). Initial steps include development of a Ministry Strategic Plan which has integrated HIV/AIDS awareness as a key performance area, building on the HIV/AIDS strategy. The intention is to refine performance management systems for individual employees and institutions. Individual performance appraisal for teachers and other officers does occur, but is orientated to annual appraisal and has not been adapted to pay greater attention performance issues related to ill health.

[120] Recent experience with use of clusters withint he education system in countries such as South Africa and Malawi should be monitored.

Performance management can be an important component of actively managing HIV/AIDS impacts on individuals and function of the system. Employees with HIV/AIDS will often be highly productive for many years before they experience serious incapacitation. However, performance at work may be affected by psychological, economic and social factors in addition to physical impacts. Without adequate performance assessment and management most public service employees with HIV/AIDS can be expected to continue working for as long as possible, even when their work performance is poor, to obtain the financial, social and psychological benefits of work, if ill-health retirement packages are not attractive. Performance of affected employees may also become a workplace issue. Failure or delays in recognising performance problems can negatively affect costs, service delivery, ill employees and their dependants, and work colleagues.

Performance appraisal and management can have several contributions to reduce some negative impacts on employees and performance.

- *Facilitating planning.* Frequent performance appraisal of individuals, combined with appropriate care and support, can help in early recognition of performance problems and their causes. This allows planning to reduce impacts on workplace function and individuals.
- *Providing more objective grounds for hard decisions* around ill health retirement.
- *Formal recognition increased responsibilities and workload of colleagues* who cover for ill or under-performing employees, which helps to maintain morale.
- *Recognising and creating incentives for HIV/AIDS related work* such as support of traumatise children, follow-up of frequently absent children, forging community linkages in care and support and supporting prevention activities.

Current informal and formal performance appraisal focuses on "traditional" issues such as pass rates. This devalues HIV/AIDS activities and may even create incentives for teachers not to resist drop-out of "problem students" who may have bad results, rather than trying to assist them. Performance of School Heads and Guidance and Counselling teachers in addressing HIV/AIDS issues is not well defined or monitored". Traditional performance management systems also tend to focus on training or motivational problems, rather than ill health and incapacity issues.

Some key features that performance management tools need to consider to be useful tools in response to HIV/AIDS are summarised in the box below.

Key features to be considered for performance management in the context of HIV/AIDS

General

- Managers have a clear understanding of HIV/AIDS and its impacts and can raise these confidently with employees.
- Supportive rather than punitive philosophy.

Individual

- Frequent or ongoing appraisal to respond to fluctuating severity of HIV/AIDS related conditions or rapid declines in physical state.
- Guidelines and targets to define work incapacity for particular occupational categories, and documentation of performance to provide objective grounds for responses.
- Active facilitation of care and support to preserve or improve function.
- Early consideration of opportunities for redeployment to accommodate disability.
- Specific guidelines on how to assess and manage poor performance related to HIV/AIDS.[121]
- Recognise additional responsibilities and increased workloads on affected people and link these to incentives and/or recognition.

Institutional

[121] These should cover issues such as whether the employee has disclosed their status, confidentiality concerns, stage of illness and definition of work incapacity

- Sensitivity of performance criteria to new, important demands of HIV/AIDS activities

Capacity for effective implementation of systems is reported to be very limited in many workplaces.

Recommendations

Performance appraisal and management will be increasingly important to manage psychological and physical ill health in workplaces due to HIV/AIDS, give institutions and individuals appropriate ways to respond to HIV/AIDS needs, and to make the overall system more efficient. There is an important opportunity to introduce HIV/AIDS-related refinements to new performance management and appraisal systems.

- *New performance management systems should be evaluated and monitored* to ensure they adequately integrate HIV/AIDS issues including HIV/AIDS programme implementation, HIV/AIDS support actvities, performance of infected and affected staff .
- *If HIV/AIDS is to be seen as a core function in schools, consideration should be given to inclusion of relevant HIV/AIDS targets in performance appraisal and workload agreements*

3.6.6 Discipline and grievance procedures

Disciplinary offences and procedures are laid out in the relevant staff codes. Of note, sexual harassment and issues relating to confidentiality, discrimination or compromise of sector function for any reason are not specifically noted in the 1976 UTS Regulations. ***Codes of conduct*** are being reviewed, but HIV is a side issue. Informants indicated that disciplinary procedures are very seldom used and are inefficient, particularly in cases of sexual harassment. Cases of ***harassment or abuse*** – by teacher on teacher, teacher on child, or child on child – continue to be handled administratively at a time when sexual abuse may constitute statutory murder.[122] Grievance procedures are not clearly defined.

Recommendations – grievance and discipline

Institute zero tolerance of sexual harassment and sexual relations between staff and students.

Clearly define sexual harassment in codes of conduct and define mechanisms that allow for efficient fair management of abuse cases.

3.7 Conclusions - Impact of HIV/AIDS on Quality and Access

3.8 The Sector's responses

A presidential directive requires all government ministries to define an HIV/AIDS response that includes consideration of impacts on staff. However, reponses to HIV/AIDS impacts on staff are a huge gap in the education sector thus far. Schools and individual managers are trying to respond compassionately and in a manner that preserves system function. However, they have minimal guidance from headquarters or regional staff on dealing with the difficult issues raised by HIV/AIDS. In the absence of effective strategy and guidance to allow for active responses, compassion and caring

[122] Police informants in some districts indicated that there is no law which covers those public servants who interfere with a young person, even in school, and perhaps especially in school

is translating into silence and de facto stigmatisation of infected staff, and inability to control impacts on the system.

- 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 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.
- The outcome of prevention programmes may be disappointing if they do not build on the understanding of successful and failed prevention programmes in other settings. *Key issues that need to be considered in programme development include*: targeting of employees exposed to particularly high risk as shown by projections; customisation and ongoing evolution of programmes, including integration with care and support strategies; sustained leadership of programmes at all levels; addressing structural work factors that increase exposure to risk such as frequent or prolonged travel and separation from primary partners; and outreach into employee families and communities, who will often determine employees ability to avoid high risk sex.

3.8.1 Workplace HIV/AIDS policy and programmes

Previous sections have indicated key vulnerabilities of the education system to HIV/AIDS among employees. In addition to responses in these areas, the need for specific HIV/AIDS polices and programmes for the more than 1,000 education workplaces in Botswana to is generally recognised as a critical issue.

3.8.1.1 Prevention

"Teachers are well educated, and of course they should have read the paper or heard about the disease on the news'. (Head Teacher)

"How do teachers cope with the disease in their own lives? They watch the children learning, and we hope they absorb something for themselves'. (Head teacher)

"I know of teachers who have been exposed to peer education among students [by NGOs] who have changed their own behaviours" (Guidance and counselling teacher???)

No systematic programme has addressed HIV prevention among teachers and other education sector employees. There are no systematic strategies for ***HIV/AIDS prevention, training or education initiatives*** for the education service. Discussions with teachers and managers indicated that:

3.8.1.2 Care and support

3.8.1.3 Voluntary counselling and Testing

VCT can benefit both staff and support the national effort to promote VCT with its potential value in prevention, reducing stigma and wellness management of infected individuals.

3.8.1.4 Recommendations

3.9 Conclusions – preparedness to manage impacts of HIV/AIDS on staff and education delivery

The Ministry's Strategic Response Framework includes plans for important action on care, support and prevention issues. However, there is very limited focus on how to develop and drive coordinated workplace programmes outside of the Departments and Divisions themselves.[123] The plans for initiatives of different Departments and Divisions are have been developed in isolation from each other and there are likely to be opportunities to increase efficiency and feasibility through coordination.

A major gap is in the area of building effectiveness of overall human resource management and reviewing overall human resource-related policies, regulations and other systems in order to protect the education system function and address employee needs more effectively.In particular TSM, a critical role player, has systematically engaged with issues relating to management of the education service in the era of AIDS, at a time when increasing losses of trained personnel, urgent employee needs and disruption of education function can be expected.

3.10 Recommendations – managing impacts on staff and capacity to deliver

HIV/AIDS impacts on education sector staff who are infected and affected will be substantial. There is a need to protect employees as well as function of the education system from these impacts.

The education sector is Botswana's largest single employer. Successful responses of the sector are therefore critical to the national response to the epidemic.

- Inadequate responses will have implications for thousands of staff and many more thousands of their dependents.
- Skills of teachers and other staff in relation to HIV/AIDS prevention, impact management and life skills in relation to their own lives is also a fundamental determinant of the success of prevention and impact management programmes for students.

> *"We are asking teachers to deal with issues in prevention and support of children which touch deep insecurities in the teachers themselves. They have their own fears that they could be infected, and difficulties in dealing with the effects of illness and death in their own lives and families. We have to address this if we want to have an effective sector response to the needs of young people."*
> *- Education Manager*

The responses to HIV/AIDS impacts among staff is arguably the least developed of the areas of the current MOE HIV/AIDS Strategic Plan.

The following recommendations are made for responses to HIV/AIDS among staff. They fall into two broad areas of creating a supportive environment for infected and affected employees, and managing impacts on education. These areas are intimately connected and success of responses in one will be a key determinant of success in the other.

A. Creating a supportive environment for infected and affected staff.

1. Develop an overall education HIV/AIDS policy and workplace programme

[123] The overall Plan contains key components of the response, but no clear structure and definition of responsibilities is presented, as for other aspects of the strategy. Secondary Education does propose workplace policy and programme development for Regions, which could define a way forward for school level interventions.

- *Integrate issues around prevention and managing impacts on employees and the system.*
- *Define structures and roles* for coordinated programme development and implementation.

2. Develop a systematic staff HIV prevention programme and strategy

- *Aim at universal coverage* of teachers.
- *Ensure inclusion of opportunities for open discussion of HIV/AIDS issues, life-skills and impact management issues,* not just information.
- *Emphasise prevention among College of Education and UB students* to prevent infection before staff join the workforce.
- *Address structural and regulatory risk factors* such as transfer away from partners, recognition only of married partners and adequacy of housing.

3. Prioritise ensuring effective ARV access, and other medical care, for teachers to reduce human costs and education system risk

- *Ensure that the national ARV programme recognises teachers as a key target group* and explicitly considers them in strategy.
- *Coordinate with BPOMAS and other Ministries, particularly Health,* to ensure that medical aid roles and systems are effective in HIV/AIDS care.
- *Workplaces should facilitate employees' ability to successfully access and adhere to treatment,* particularly for ARVs and TB.

4. Develop a Wellness Programme or employee assistance programme (EAP) for infected and affected staff

- Ensure that the programme is designed in a way that avoids stigma and tackles issues such as needs for anonymity, providing essential information on positive living, dealing with particular workplace issues and systems around ill health, and networking with other key resources.

5. Review pension benefits

- Liaise with the Ministry of Finance, Pension Scheme and Fund and other sectors to review options for fund design to balance the needs of infected and uninfected members; social goals including support of dependents; and financial sustainability.
- Assess options for avoiding disincentives for sick employees to work once they are incapacitated by illness.

6. Promote VCT in the context of the support provided by wellness, ARV and other support programmes.

B. Managing impacts on staff and education

7. Ensure effective management of ill health and absenteeism

- *Review sick leave entitlements and sick leave management*
  - *Consider changes to entitlements* to enable sick leave to be managed actively
  - *Develop guidelines and systems to ensure management skills and confidence* in ill helath management.
  - *Consider integration of more effective individual performance appraisal* and management into the performance management system

  - *Streamline the ill health retirement process* in consultation with the Pension Scheme and Fund, DPSM and other sectors, including dealing with financial disincentives to take ill health retirement.
- *Relief teachers and other staff:*
  - Strengthen efficiency and monitoring of the system, especially for remote areas
  - Consider ways to improve the quality of relief teachers, including development of formal registers and pools of relief staff and in-service training or other ways to enhance skills.
- *Staff allocation*
  - Improve coordination between TSM, Primary, Secondary and Planning to enhance monitoring and active management of staff movements due to ill health, care for relatives.
  - Address incentives (eg housing) for easier reallocation to needy areas, and review housing implications of concentration of ill teachers in major centers.

8. Manage skills loss

- *Review efficiency of training* for teachers and other skilled staff
- *Ensure efficiency of recruitment and appointment systems*,
  - *Include review of plans and systems for international recruitment* to retain and enhance flexibility
- *Enhance systems for in service skills development.*
  - Consider options such as career development, succession planning, multi-skilling, team work and knowledge dissemination
- *Identify opportunities to re-organise work processes to avoid vulnerability to staff loss or absence*
- *Strengthen structures and systems to share scarce skills and capacity*
  - Consider systems to share resources at school cluster, district and regional level.
  - Appraise decentralization strategies to limit vulnerability to skills loss.

9.Identify and manage key vulnerabilities

Targeting of key vulnerabilities such as those shown in the following box is key to efficient, manageable strategy

Key vulnerabilities to HIV/AIDS absenteeism and skills losses

- Small schools and workplaces within limited capacity for internal cover
- Remote areas and disadvantaged communities with limited attractiveness and local skills for temporary cover
- High workloads and small classrooms limiting options to cover for absent staff
- Inflexible work processes, including limited delegations and teamwork
- Scarce and specialised skills or professional barriers limiting flexible responses
- Key "seasonal" activities eg budget preparation, examination preparation
- Workplaces with weak general management and problem solving
- Organisational culture and low morale of workplaces limiting responsiveness

10. Improve information

Recognise the uncertainty about various impacts and ensure scenario planning to allow flexibly to lower or higher than expected impacts at local or system level.

- *Consider unlinked anonymous HIV surveys among staff.* Objectives of surveys would include: improving data for planning; validation of projections; advocacy for prevention and wellness management; reducing stigmatisation; and setting targets for prevention and care.

- *Ensure adequate tracking of information on illness, absenteeism, ARV uptake, deaths and functional implications*
- *Consider appropriate methodologies in research and monitoring*.
    - *Consider greater use of qualitative methodologies* to enhance understanding of issues
    - *Review the standard analyses provided in eg the Education statistics report*, to enhance routine tracking of HIV/AIDS related trends (see Annex E).
    - Consider needs to routinely track trends at school, circuit or regional levels where aggregated statistics will provide limited information

11. Management skills development

- *Reinforce and modify initiatives to develop management skills among managers and other teachers.* Objectives will be to:
    - Reduce impacts of loss of current and potential managers due to HIV/AIDS
    - Ensure that managers are capable, motivated and confident in managing HIV/AIDS issues in the workplace.[124]

12. Coordination and consultation

- *Consolidate structures and roles for driving development and implementation* of programmes for prevention and impact management among employees, including dealing with HR policy, regulation and system reviews.
    - *Key role payers* include TSM, Primary, Secondary and Planning, Statistics and Research
    - *Strong technical capacity and leadership is required in* TSM to address many of the HR management and planning issues.
- *Coordinate with DPSM* to deal with issues around the employment framework, particularly for non-teaching service staff, and specific issues such as medical aid and pensions.
- *Unions.* Appropriate involvement of teacher and other unions should be assured around changes to the employment framework and benefits, as well as identify union roles in areas such as employee support.

[124] As impacts on primary school staff are likely to be particularly heavy, the primary head teachers school management programme is likely to be a particularly important vehicle for the response.

4. HIV/AIDS IMPLICATIONS FOR TEACHER, VOCATIONAL, ADULT, HIGHER AND OTHER COMPONENTS OF EDUCATION AND TRAINING

4.1 Implications for teacher training and skills development

"HIV/AIDS has created worry and fear; it has made people lose value of the future. There is a lot of fear about AIDS … it has reduced commitment to study as people waste time worrying about their health status." (Teacher training college staff member)

The recognition that HIV/AIDS is an important issue for teacher training has only recently been approaciated in TTCs. Several teacher training colleges have noted illness and deaths among students, as well as among recent graduates. As indicated by the above quote, HIV/AIDS is also seems ot be having subtle negative influences on teacher training.

Some teacher training colleges, such as Molepole and Lobatse, an Education Centres[125], have made notable efforts in beginning to integrate HIV/AIDS prevention and other initiatives such as training in counseling skills into existing programmes.

Despite intentions to infuse HIV/AIDS into all teacher training this has however been noted to be slow and its effectiveness is uncertain so far. There is very limited action on all the ramifications of HIV/AIDS among staff and trainees, and ensuring truly effective adaptations to training to ensure that graduates are well enough equipped to deal with prevention and mitigation issues in their personal and professional lives. As in other components of the education system, HIV/AIDS has clearly not been internalized as a "core" issue by many senior managers and lecturers.

4.2 Assumptions

The total teacher requirement for each type of schooling is equal to projected total annual enrolments divided by the target student/teacher ratio. The target levels of recruitment that are needed in order to ensure that projected teacher requirements are met will depend on the following factors:

Growth in teacher requirements. Where enrolments are decreasing, this growth is obviously negative. Primary school enrolment is expected to decline earlier than secondary schools, as mentioned in section XXX. Therefore these schools can be expected to have negative growth in teacher requirements fairly soon.

[125] The Education Centre establishment of counselling training for G&C teachers was in response to needs expressed by teachers.

Replacement of teachers as a result of attrition. This attrition can be due to many factors, including deaths due to AIDS. For this section we have used two of the scenarios discussed above:

- Educators are assigned the population risk of HIV infection, but 80 – 90% are assumed to have access to HAART.
- Educators are given a reduced risk of infection, which is introduced gradually throughout the 1990s, up to a maximum of 50% reduced risk in 1997. This is then translated into a similar reduction in mortality.

Baseline attrition was kept the same as in the previous report. However, it is likely that non-AIDS attrition will increase, as teachers are pulled into the private sector as AIDS deaths cause a shortage of skills. As this is difficult to quantify, it was not included in the modeling.

Cover for sick teaching staff. Although cover for sick staff may require new educators, it seems likely that this cover will be drawn from the existing pool of educators. There are therefore no assumptions about training more educators for this purpose in the tables below.

Two basic scenarios are modeled:

- A scenario in which RNPE enrolment targets are met. These include 10 years of basic education, and a 50% transition rate from community junior secondary school to senior secondary school. In order to achieve this there would need to be 100 percent intake rate into Standard 1 by 2004/05, and the RNPE transition rate targets (100 percent from primary to CJSS and 50 percent from CJSS to senior secondary) are also achieved in 2004/05.

- As a result of the rapidly expanding orphan population many children may find it difficult to complete their schooling. Therefor the second scenario assumes that the intake rate into primary school could fall to 95 percent, repetition and drop out rates right across primary and junior secondary schools could double, and the transition rate from primary school to CJSS could fall to 90 percent. Under this scenario, total enrolments in all three schooling cycles would be significantly lower in 2009/10 than they are now: primary minus 19.1 percent, CJSS minus 1.3 percent, and senior secondary minus 5.9 percent.

4.3 Primary education

Table XXX shows the calculations for educator requirements for primary schools over the next decade.

Table XXX: Primary school teacher requirements 2000-2009

SCENARIO 1: RNPE TARGETS											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
GROWTH	215	138	62	34	-52	-105	-267	-331	-367	-400	-1073
ATTRITION											
AIDS DEATHS											
Population Risk, 80% ARV coverage	184	189	185	220	255	287	317	344	367	387	2734
Reduced Risk, 80% ARV coverage	147	141	129	143	153	158	159	172	183	193	1579
OTHER ATTRITION	220	223	224	224	223	221	216	209	202	194	2156
RECRUITMENT TARGETS											
Population Risk	**619**	**550**	**471**	**478**	**426**	**403**	**266**	**222**	**202**	**181**	**3817**
Reduced Risk	**582**	**502**	**415**	**401**	**324**	**274**	**108**	**50**	**18**	**-13**	**2959**

SCENARIO 2: LOWER INTAKE-HIGHER DROP-OUT AND REPETITION											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
GROWTH	129	-18	-137	-155	-219	-233	-319	-341	-380	-390	-2063
ATTRITION											
AIDS DEATH											
Population Risk, 80% ARV coverage	184	189	185	220	255	287	317	344	367	387	2734
Reduced Risk, 80% ARV coverage	147	141	129	143	153	158	159	172	183	193	1579
OTHER ATTRITION	218	218	215	212	207	203	196	190	182	174	2015
RECRUITMENT TARGETS											
Population Risk	**531**	**389**	**263**	**277**	**243**	**257**	**194**	**193**	**169**	**171**	**2686**
Reduced Risk	**494**	**341**	**207**	**200**	**141**	**128**	**36**	**21**	**-15**	**-23**	**2959**

The table demonstrates the declining enrolment into primary school over time, which accounts for the negative growth of the number of teachers required for this level. Assuming that Botswana continues to improve access to schooling, and that the RNPE targets are met, then around 3000 – 4000 teachers will be required to be trained over the next 10 years. Should pupil numbers decline, as a result of increasing drop-outs and declining enrolments, then the number of teachers required to be trained will be somewhat less, in the region of 2 700 to 3000 teachers over the next decade.

4.4 Secondary education

4.4.1 Community junior secondary schools

The number of teachers required to be trained at the level of the CJSS is shown in table XXX. At this level the number of children expected to grow for most of the decade, and therefore the number of teachers required will also grow.

Table XXX. Community Junior secondary teacher requirements 2000-2009

SCENARIO 1: RNPE TARGETS											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
GROWTH	-3	109	148	149	174	77	223	129	102	-85	1023
AIDS DEATHS											
ATTRITION											
Population Risk, 90% ARV coverage	84	84	79	95	111	126	140	152	165	177	1212
Reduced Risk, 90% ARV coverage	67	63	56	62	66	69	70	76	82	88	700
OTHER ATTRITION	119	121	124	127	130	132	136	139	141	139	1308
RECRUITMENT TARGETS											
Population Risk, 90% ARV coverage	**200**	**314**	**351**	**371**	**415**	**335**	**499**	**420**	**408**	**231**	**3543**
Reduced Risk, 90% ARV coverage	**183**	**293**	**328**	**338**	**370**	**278**	**429**	**344**	**325**	**142**	**3031**

SCENARIO 2: LOWER INTAKE-HIGHER DROP-OUT AND REPETITION											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
GROWTH	-69	-10	-21	-108	-114	-170	-26	-56	-16	-108	-698
ATTRITION											
AIDS DEATHS											
Population Risk, 90% ARV coverage	84	84	79	95	111	126	140	152	165	177	1212
Reduced Risk, 90% ARV coverage	67	63	56	62	66	69	70	76	82	88	700
OTHER ATTRITION	117	117	117	114	112	109	108	107	107	105	1113
RECRUITMENT TARGETS											
Population Risk, 90% ARV coverage	**132**	**191**	**175**	**101**	**109**	**65**	**222**	**203**	**256**	**174**	**1627**
Reduced Risk, 90% ARV coverage	**115**	**170**	**152**	**68**	**64**	**8**	**152**	**127**	**173**	**85**	**1115**

This table shows that the number of teachers required to be trained at the CJSS level will be about 3000 to 3 500 to meet the RNPE target over the next 10 years. In the lower enrolment and higher drop-out scenario this number will decline to around 1100 to 1600 teachers.

4.4.2 Senior secondary schools

Once again the table below demonstrates the training needs for educators at the level of senior secondary schools.

Table XXX. Senior secondary teacher requirements 2000-2009

SCENARIO 1: RNPE TARGETS											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
GROWTH	29	6	25	44	63	89	41	51	37	66	451
ATTRITION											
Population Risk, 90% ARV coverage	24	24	23	28	32	37	41	45	49	52	354
Reduced Risk, 90% ARV coverage	20	18	16	18	19	20	20	22	24	26	204
OTHER ATTRITION	39	39	39	40	41	43	44	45	46	47	423
RECRUITMENT TARGETS											
Population Risk, 90% ARV coverage	**92**	**69**	**87**	**112**	**136**	**169**	**126**	**141**	**132**	**165**	**1228**
Reduced Risk, 90% ARV coverage	**88**	**63**	**80**	**102**	**123**	**152**	**105**	**118**	**107**	**139**	**1078**
SCENARIO 2: LOWER INTAKE-HIGHER DROP-OUT AND REPETITION											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
GROWTH	22	-5	0	-9	-10	7	-53	-55	-35	-8	-146
ATTRITION											

Population Risk, 90% ARV coverage	24	24	23	28	32	37	41	45	49	52	354
Reduced Risk, 90% ARV coverage	20	18	16	18	19	20	20	22	24	26	204
OTHER ATTRITION	38	38	38	38	38	38	37	36	35	35	373
RECRUITMENT TARGETS											
Population Risk, 90% ARV coverage	**84**	**57**	**61**	**57**	**60**	**82**	**25**	**26**	**49**	**79**	**579**
Reduced Risk, 90% ARV coverage	**80**	**51**	**54**	**47**	**47**	**65**	**4**	**3**	**24**	**53**	**429**

To supply SSSS the education sector will need to train about 1100 to 1200 teachers. In an increased dropout and decreased enrolment scenario the number declined to between 500 and 600. This scenario is unlikely at this level, as the limiting factor at present is places in SSSS, which are in demand. This will probably continue to be the case, even in the context of an increased orphan number. It is probably more accurate to consider the RNPE scenario for this level.

	Number required (Low estimate)*	Number required (High estimate)**	Approximate current output capacity to 2010
Primary school teachers	2 900	3 800	4 500
Junior Secondary	3 000	3 500	5 200
Senior Secondary***	1 000	1 200	> 2000

4.5 Interpretation of teacher requirement projections

The numbers presented above give some idea of the scale of training of educators required, considering both the decline in the number of children, and the attrition of educators as a result of AIDS. However, there are some limitations to this type of modeling exercise:

- The base census data may not be accurate. Botswana is in the process of conducting a new census. If estimates of the number of children are inaccurate this could increase or decrease the number of teachers required.

- The exact impact of AIDS impacts on learner numbers can be difficult to predict. The introduction of MTCT programmes may also lead to a decrease in mortality, and increase in the number of children, although the overall impact of this is likley to be small.

- As discussed above, the extent of AIDS mortality among teachers is unclear. There is clearly expanding access to antiretrovirals, and this will reduce mortality, at least in the short-term.
- The extent to which increasing poverty will affect enrolment, drop-out and repetition rates is unknown. Botswana has greater resources to direct to vulnerable children than other countries, although this is not inexhaustible.
- Needs for different types of educators may change over time. This could include teachers to serve as cover for absent collegues, or teachers with specific training and roles in counseling.

4.6 Conclusions

At present Botswana seems to have enough capacity to train educators in the context of the AIDS epidemic. However, given the uncertainties around many of the parameters in the models, it seems appropriate to opt for a "least risk". This would entail maintaining existing trainiing facilities, until some of the trends in the education sector become clearer.

1. Caution around training output in view of uncertainty
–Increase focus on In Service and Temporary teacher pool
–Consider mix of specialist skills
Develop flexibilities to adjust output if actual needs do not fit expected
2. Consider new needs
–Prevention and life-skills of trainees
–Primary vs secondary vs Out of school / non-formal vs pre-school focus?
–Competencies and content (incl. eg prevention, counselling, large class skills)
–Management skills
–Skills-shortages and limitations of specialisation
–Selection and motivation?
3. Monitoring of impacts and responses

4.7 Vocational education and training

More relevant, available vocational education and training (VET) is identified as a key objective of the Revised National Policy on Education, to ensure a skilled workforce to drive economic development. The Vocational training Act 1998 creates a new VET framework including a Botswana Training Authority with jurisdiction over the employer-based and private sector training, which expanded rapidly over the 1990s. Developments under NDP 8 have included expansion and upgrading of the six Vocational Training Colleges and construction of new facilities including a Vocational Teacher Training College. Other priority measures are being implemented to increase the number and skills of teacher and instructor, and to review and reinforce the 40 Brigades situated at community level. A new college-based programme of competency-based, modular training to is being introduced to provide preparation for employment, life-long learning and self-employment. This is intended to provide broad pre-employment training which is not job-specific and which has potential for flexible delivery. Other strategies include short, evening and vacation courses and distance education.

The transition rate from secondary to vocational training was around 5% in 2000, with targets of around 15% by 2003. Vocational training enrollment has risen rapidly in recent years as availability

and attractiveness of VET has increased. Traditionally, women have been under-represented in VET although correcting this is already a goal of DVET.

Implications of HIV/AIDS

- Skills losses due to HIV/AIDS will make previous motivations for strengthening VET even more relevant.
- Vocational training may provide a more accessible and flexible path for education to many young people whose conventional schooling has been affected by HIV/AIDS impacts on their households.
- As baseline enrollment in VET is relatively small, even if a fairly limited proportion of affected students are best served by VET, this could substantially increase demands on the sector.
- Anecdotal evidence suggests that many employers may reduce their investment in training due to perceived loss of trainees.
- Modular, less specialized and more flexible training may have potential to be more accessible and cost effective for many disadvantaged learners.
- Impacts of HIV/AIDS on VET staff may prove even more problematic than impacts on other education staff. In 2000, an estimated 24% of posts in the establishment could not be filled due to shortages of trained personnel.[126] High private sector demand for the skills of good teaching staff may further exacerbate problems of direct losses.

Current responses

Until recently, DVET has paid limited sytemeatic attention to HIV/AIDS prevention and impact mitigation activities among students and staff. Brigades in certain districts were noted to have minimal focsed attempts at prevention programmes beyond un-integrated condom distribution.

- **DVET strat plan>>>>>>**
- At District level, Brigades and Vocational Training colleges tend to have little integration with other District Education initiatives, and this is reflected in limited collaboration on HIV/AIDS responses so far. This creates potential for inefficiency and risks VET students and staff not benefiting from innovations elsewhere in the system, and vice versa.
- DVET staff responsible for HIV/AIDS initiatives have these responsibilities in addition to others. They are thus unlikely to be able to respond adequately to requests for support by VET institutions struggling to develop new initiatives somewhat in isolation of HIV/AIDS in other components of the education system.

Recommendations

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.

- Coordinate with other Ministry components and develop specific DVET initiatives to address HIV/AIDS impacts on staff and learners at all levels, particularly 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.

[126] NDP8 Mid-term Review.

- 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 (eg 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 due to infections among trainees.[127]

4.8 Adult and non-formal Education

Life-long education is a priority objective of National Policy on Education. Out of School youth not a major focus either of mainstream education initiatives or of prevention programmes thus far.[128]

Particular challenges faced by non-formal education in relation to HIV/AIDS are:
- A highly susceptible and vulnerable target group of youth
- Limited or no integration with other education components or other sectors to maximize synergy in HIV/AIDS activities and capacity.

Out-of-school education
The primary objective of the education sector response should be to prevent HIV affected and infected children from dropping out of school. However, out-of-school youth are already a challenge to Botswana. Initiatives such as the Botswana College of Distance and Open Learning, new facilities, Radio Botswana and the Centre for Continuing Education reflect this.

- Current initiatives to enhance capacity and effectiveness of distance and out of school (OOS) education should be reinforced.
- Strategies should be reviewed to consider changes in the profile of people needing out of school education. Likely considerations include: greater volume of need; proportionately larger increases in needs among younger people affected by HIV/AIDS relative to older adults who have traditionally been the target of non-formal education; greater potential and need to use OOS programmes to actively promote reentry into formal education; need for active interaction with formal schooling to prevent drop-out and develop effective plans for individual children who cannot avoid drop out due to home circumstances.
- Innovative approaches to reaching out-of-school youth in prevention and support programmes, such as peer-based programmes should be explored.

4.9 Special education

[127] 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.

[128] There are examples of initiatives to target out of school youth in some Districts such as Lobatse.

Anecdotal evidence suggests that mentally and physically disabled children are likely to be particularly vulnerable to sexual and other abuse when they are orphaned. In addition, children with borderline special needs may be vulnerable to increasing drop out after orphanhood due to less parental support and motivation. Although most HIV-infected able children should ideally be catered for in normal schooling, a minority of them may be candidates for special education services. Rates of HIV infection and illness among children participating in special education may also be relatively high.

- Special Education planning should consider its potential role in creating systems and capacity to respond efficiently in early identification of vulnerable disabled children and provision of community-based or institutional environments.
- Research the role of Special Education in catering for needs of ill infected children and for catering for infected disabled children.

4.10 Pre-primary education

Development of Pre-primary Education, including greater partnership with NGOs is already seen as a key policy area.[129]Expansion of pre-primary education can be expected to play an increasingly important role in preserving the educational prospects of children. Many older children will benefit if their younger siblings can be cared for in pre-school services while they are at school. Further investigation is required to assess the most efficient and effective responses to needs of young children who may have lost the stimulation and support of parents or who are now in much larger households. to play

4.11 Curriculum development and evaluation

4.12 Higher education

[129] In 1996, only 8.7% of pre-schoolers were enrolled in pre-primary education.

5. Links with civil society

'NGOs are doing Government's work as part of national policy, and their work should be recognised and supported'. Education manager.

The education sector is unlikely for the foreseeable future to provide all necessary aspects of training, services and support needed at school level. NGOs and CBOs often have substantial expertise or service delivery capacity in many key areas, including counselling, training, IEC and care and support. At school level, a number for teachers felt that they were a critical resource but that had to be more effectively supported by government to ensure that it could play its potential role. The declaration that there is "no shortage of funding for HIV/AIDS activities" was often heard. However, it is clear that this funding is not reaching NGOs and CBOs in a systematic way. Many functional initiatives are clearly running into financial trouble due to inefficient coordination by government, civil society and donors. There also appears to be dislocation between national level coalitions and activities, and grassroots CBOs and NGOs.

- Policy and system development at national level has been identified as a key issue in NACA, but remains to be finalized and operationalised
- In general, coordination mechanisms with NGOs and CBOs at district and school level is very ad hoc and has little guidance and systematic facilitation.
- Government must work with NGOs, CBOs, voluntary groups within a common framework for action, and to ensure that human, material and financial resources are used to best effect. While some initiatives under the STPAO, NACA and Ministry of Health have been attempting to develop more effective partnerships with NGOs and CBOs, progress thus far has been slow. There will also be needs to inject specific education agendas, and possibly resources, into relationships at all levels. THUS need for coordination function in MOE secretatiat.

Recommendations

The education sector, as with government in general, needs to harness all existing and potential resources in responding to the HIV/AIDS epidemic. There is a need to pay focused attention to roles of NGOs and CBOs in supplementing or substituting for internal sectoral capacity. At present, relationships are ad hoc, and this compromises sustainability or NGO/CBOs, as well as their ability to consolidate and provide key expertise for the sector's response. Specific issues for consideration include:

- Coordinating with NACA and other role players to ensure that specific roles of civil society organisations in the education sector response are considered in planning
- Ensuring that specific NGOs that provide key inputs at national, district and school level are actively supported where necessary to ensure their financial sustainability.
- *Explore specific mechanisms to strengthen relationships with NGOs/CBOs and sustainability of key NGO/CBO partners.* These may include, for example, establishing fora to enable the MOE, District staff and CBOs/NGOs to discuss opportunities and problems; facilitating applications for financial support to donors and government; and developing ability of the Ministry or schools to contract with and formalise relationships.

6. EDUCATION MANAGEMENT INFORMATION AND MONITORING

6.1 Planning and Research Division

The AIDS epidemic results in many new challenges for the education sector, but primarily exacerbates existing problems. From a management perspective the key to managing the impact of the epidemic will be the collection and analysis of relevant data, that are reported in a timely way to various levels of the education sector. The responsibility for this will be placed with the Planning and Research Division of the MOE.

Much of the information that is required is already being collected, and most of it is not AIDS-specific. There are 2 major questions to ask in considering how the AIDS epidemic affects research and data collection:

1. What information is required to be collected?
2. How is this information going to be collected?

6.2 HIV/AIDS Indicators

The list of potential indicators that can be collected is large. As mentioned already, much information is already being collected. A comprehensive list of data needs is presented in Annex E. However, some of key AIDS impacts that will need to be monitored include:

- Declining enrolment
- Increasing pupil/teacher ratios
- Reducing viability/closure of small schools
- Increasing drop-out/drop-in rates
- Decreasing retention, transition and school revenue
- Increasing number of orphans and other vulnerable children.
- Morbidity in the classroom
- Teacher absenteeism and attrition
- Loss of experience, quality and contact
- Reduced school graduation, tertiary entrance and skills in the workplace

While some of this is captured in the Annual Return, there is a long turn-around time for the analysis and release of this information (IS THIS CORRECT??), and the information does not make its way to district level. This limits the ability of education managers at a more local level to act decisively on the basis of good information.

6.3 Methods of Data Collection

Understanding the many and complex issues that result from the epidemic requires a variety of research methods. It is unlikely that the Planning and Research Division will be able to undertake all of these alone, and this will therefore require partnerships with other groups like UB, donors and consultants.

Some of the ways that information on AIDS impacts could be collected include:

- Routinely collected data analysed at a national level, including the Annual Return and other national surveys. Instruments that are used for these surveys should be scrutinised to ensure that they are capturing HIV/AIDS appropriate information. This is discussed at greater length in Annex E.
- Routinely collected information analysed at other levels. There is increasing recognition that data collected at school level but analysed and used at a district level is crucial for developing timely and appropriate responses to the AIDS epidemic. Initiatives are underway to establish and Pilot District Level EMIS and these should be supported and expanded. A regular audit of orphans may also fit in this category.
- Analyses of secondary data. In some cases other organisations may have collected information that is of relevance to the MOE. Examples of this are illness and deaths collected by medical insurers and pension fund managers. The MOE may want to keep track of these sources, to complement its own information
- The use of sentinel sites. These are sites at which more intensive research is done. This is 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 is important to understand AIDS impacts that may not be uncovered through quantitative data. This research tame found that local lkgotla's and focus group discussion were often as useful to understanding issues as the data or the projections. This type of research is useful in considering responses to the epidemic, both before and during implementation.
- Documenting best practices. Often this epidemic can feel overwhelming to many in the sector. The careful documentation of best practices can assist by sharing ideas, but also motivation people.

6.4 Key Issues

The Planning and Research Division has to play an increasingly complex role in guiding policy and planning in view of changes and uncertainties created by HIV/AIDS.

- Information collection systems, which are already being adapted to track HIV/AIDS impacts and responses, are likely to need more support capacity. This is required to ensure more rapid processing of information and to track emerging trends. Systems also need to be in place to support decentralised analysis and use of data for routine management of HIV/AIDS impacts in schools and districts. Finally, there will be new data needs, such as the impact of ARVs on absenteeism and mortality, and the cost-effectiveness of ARVs among educators.
- There needs to be more disaggregated analyses of data, as aggregated analysis may hide significant problems in certain locations.
- Consideration should be given to piloting a District/Regional Management Information system that collects and regularly analyses richer HIV/AIDS related and other data to inform local and regional management decisions. Enabling management at a local level to make informed decisions is vital to ensuring a comprehensive response to challenges that arise. However, the data to be collected must be simple, and relevant to the people at this level, or this exercise will not be sustainable.
- Greater co-ordination with other Departments, particularly TSM, the Primary and Secondary Education is likely to be needed to co-ordinate planning related to staff allocation and issues such as housing.

7. Driving the education sector response

7.1 Recommendations - minimum capacity requirements for the education HIV/AIDS programme

The following structure of the HIV/AIDS programme is proposed as a minimum requirement for it to function effectively.

1.National level
1 Coordinator, 1 Prevention specialist, 1 Workplace programme specialist, 1 OVC specialist, secretarial support

2.Regional level
1 Coordinator per region

3.District level
1 coordinator in all 24 districts. Although education districts are falling away in the general MOE structure, it seems imperative to have coordination at this level to liaise with other sectors located at local authority/ district level, and to provide support at

4. School level
1 G&C post per school on average (or one post per 15 streams). For smaller schools, the posts may be shared while in larger schools there may be more than one post.

Functions and implementation strategy

The principal roles of the national, regional and district coordinators would leadership, coordination, networking of resources and planning including inter-sectoral and inter-level coordination. The technical specialists would be primarily responsible for technical inputs and support to the coordinator and lower levels. Regional and district officers should ideally have technical skills on issues such as life skills and counselling to support lower levels but would initially be focused on coordinating available resources in their areas.

Appointment of staff to the above posts should prioritise higher level appointments first, to allow for system development and development of support capacity ahead of large scale new appointments at school level.

Costs

The total salary costs of the above structure are estimated to be P 42 651 900, equivalent to 6.1% of total education sector salaries.[130] Of this amount, 94% is contributed by G&C teachers, to which there is already policy commitment.

[130] The grading of the posts is assumed to be: National coordinator D 1 / 2; technical specialists D 2 / 3; Regional coordinators D 3; District officers D 4; and G&C teachers C3.

8. IMPLICATIONS FOR RESOURCE ALLOCATION

Botswana confronts the HIV/AIDS epidemic with an economic and fiscal background that is much stronger than that of most countries, and thus with greater flexibility to respond to new needs. However, the need for the education system to ensure efficient, sustainable responses to HIV/AIDS is important. Government spending on HIV/AIDS responses is constrained by the need to ensure longer term economic sustainability, and the competing demands for resources from other sectors, particularly health and welfare. [131] As important as identifying the costs of various options for intervention, will be identifying which responses are likely to have the greatest effect and feasibility.

8.1.1 Capital planning

A major focus of development expenditure tends to be on infrastructure development at all levels of the system. Backlogs in the number of classrooms has been a significant consideration in recent years. At primary level in 1998, there was a shortage of 2929 classrooms in local government and aided schools. In secondary schools there was no backlog in existing government schools but 806 in aided schools.

HIV/AIDS is a significant consideration in longer term infrastructure planning. Declining growth rates in the number of children in school going ages can be expected to reduce projected needs for classroom building in primary schools over time. Secondary school enrollment and classroom requirements are likely to be affected only later. In the short term however, large backlogs may well still need to be addressed. However, other implications for infrastructure planning are not immediately clear and require more in depth investigation. Considerations include uncertainty about levels of impacts in particular communities, migration, student mobility and desired minimum classroom sizes. For Senior Secondary Schools in particular, lower population growth due to HIV/AIDS may be offset if transition rates. Are increased successfully.

HIV/AIDS may influence which types of classrooms and school infrastructure are appropriate. Considerations include:

- *Counselling rooms*. These are needed in many schools to allow for confidentiality and a reasonable level of comfort. They were identified as a key priority by many teachers.
- *Hostels*. Numbers of hostel places may need to increase to accommodate a certain proportion of OVC without other home or lodging options, or who may be at higher risk of HIV infection through abuse or other high risk situations if they cannot live in hostels.[132]
- *School size and location*. Larger schools and those in communities with more temporary teachers are likely to be less vulnerable to teacher absenteeism and deaths. However, this vulnerability may be better managed through deployment and leave management than changes in infrastructure plannig. Logistics of students reaching schools and accommodation

[131] The NDP8 Mid-term Review illustrates the challenges of staying within economically sustainable levels of government spending even in the absence of high levels of HIV/AIDS spending.

[132] There are around 800 hostels in all secondary schools accommodating around 27 500 or 19% of secondary students nationwide.

options may also become more substantial considerations as number of vulnerable children increase.

- *Appropriate size of classrooms*. This may decline but there may also be need for a certain number of larger classrooms if staff absenteeism and death may sometimes warrant combining of streams.
- *School safety*. Due to the life-and-death nature of HIV/AIDS, infrastructure planners may need to pay more attention to school safety in development of facilities.
- *Staff housing*. As mentioned above, needs or desires of infected or affected staff to be located particularly in larger centers, and greater need to facilitate transfers to needy areas, may significantly influence staff housing capacity requirements.

9. Conclusions and recommendations

9.1 Conclusions

The education sector in Botswana is in a position where it strives for the high levels of access, excellence and quality required to support a successful economy and society. HIV/AIDS threatens to undermine or reverse many of the key objectives of the RNPE and other initiatives to achieve these goals.

- *HIV/AIDS is "core business' of the Botswana education sector.* HIV/AIDS has implications for all components of the system and affects all learners and employees. Furthermore, success in the response to HIV/AIDS in terms of prevention and impact management will be the single biggest determinant of the contribution of the sector to human, social and economic development. Failure to protect young people from HIV infection is the single greatest inefficiency in Botswana's investment in education. This will be compounded if impacts on education delivery are allowed to result in declining accessibility and quality.
- *Thus far, attempts to address HIV/AIDS by the education system cannot be considered to reflect anything approaching the prioritization and dedication that is required.* Many individuals and schools have made remarkable contributions to reducing HIV/AIDS impacts but they have had very limited systematic support from the education system.

Gross impacts in terms of drop out, performance and capacity to deliver education are not yet apparent. However, this is no cause for complacency for several reasons:

- *The AIDS epidemic is a slow wave event.* Impacts on quality and outcomes of education are difficult to quantify. Impacts will be easy to overlook as people become used to gradual deterioration. At the same time capacity to remedy problems will be diminished, and systems that do not respond efficiently will be at risk of being overwhelmed. The system is already stressed by pre-existing challenges
- *In many schools and classrooms, impacts are already severe,* though hidden at system level. Each school and classroom involves a large number of teachers and staff.
- *Botswana's AIDS and orphan epidemics are at an early stage.* The full impacts will become much more severe than at present, even with introduction of ARVs.
- *High levels of preventable new infections will occur for the foreseeable future,* and it may be increasingly difficult to prevent infections in a substantial proportion youth unless educational and life opportunities counteract social and economic pressures on affected young people.

The impacts of HIV/AIDS on the education system and outcomes can be reduced by effective impact management strategies. The country has many advantages over many other Southern African countries in its ability to counteract impacts of HIV/AIDS on education. These include factors such as a social welfare system that are likely to support OVC and protect against drop outs, as well as availability of financial resources and leadership commitment that, *inter alia*, create the possibility of ARV treatment for key players in the education sector. It is critical to capitalize on these advantages before impacts mount, capacity is eroded and opportunities are lost.

Many key policy objectives and initiatives are highly relevant to managing the impact of the epidemic and will need to be reinforced, with some adaptation of plans to explicitly consider HIV/AIDS needs and impacts. Examples include:

- Prioritising basic education and greater equity in access for the full school age population.
- Raising educational standards, teacher performance and status

- Make further education and training more relevant and available
- Improving partnerships between school and community
- Creating systems for life long education to all sections of the population
- Customising curricula to realities faced in Botswana
- Achieve efficiency in educational development
- Effective preparation of learners for life, citizenship and the world of work
- Effective management and cost effectiveness of the education service

HIV/AIDS makes these initiatives both more urgent but also threatens ability to achieve them.

What is the role of the education system in confronting the epidemic? At what point can the education sector's responsibility be considered to end, in view of capacity and other constraints? The sector needs to embrace its strategically critical role in confronting the epidemic for a number of reasons.

- Many key challenges inherently require inputs from other sectors, particularly Local Government and Health, and stakeholders such as communities and NGOs. However, it is clear that these sectors have limited capacity themselves, and will probably face even bigger new needs than education. In addition, their efforts are likely to be much less effective without active partnership of education staff and institutions.
- The sector has the single largest professional capacity in the country to address the epidemic, and is strategically placed to interface with those most at risk of long term impacts of the epidemic through being infected or affected. It can play a unique role in activating, coordinating and assessing performance of networks of capacity within communities to prevent infection and support affected children. As such, education is a key player in the overall societal response to HIV/AIDS, education
- As the nations largest employer if the MOE does not address prevention, care and support among employees, this will be a major setback to national HIV/AIDS policy.

Thus, while there should be caution in making unrealistic short term demands on the sector and its employees, it is critical that education commits itself to a process of addressing the challenges posed by HIV/AIDS. Foundations of the response which are created in the short term will be relevant for decades.

9.2 Overall recommendations

1. Leadership

Effective responses to HIV/AIDS require well informed, committed political, managerial and professional leadership across all components and levels of the education system. Leadership should play a sustained and active role in advocacy, support and monitoring of responses at all opportunities. An important component of leadership will be to inspire positive attitudes to HIV/AIDS and combat fatalism, as well as fatigue among key staff as they take on difficult and long term challenges.

2. Directly address stigma, misconceptions and life-skills

The majority of managers, teachers, other staff and learners clearly still have major difficulties in discussing many aspects of HIV/AIDS openly, particularly in relation to peers or their own lives. A sense of secrecy, fear, stigma, misconceptions and uncertainty about HIV/AIDS pervades much of the sector. Failure to address this and move on effective prevention and impact management can in large part be ascribed to difficulties of many staff in confronting HIV/AIDS issues in their personal lives. Key approaches that should be considered to remedy this include lifeskills programmes for staff, particularly at school level, as well as systematically creating opportunities for open discussion of HIV/AIDS issues in schools and workplaces.[133]

[133] The qualitative methodology used in this study seemed to create important "space" for people to openly

3. Clarify the roles of the MOE, education staff and other partners

HIV/AIDS is creating roles for education and other partners that they have not traditionally played. Much of the limitation on practical responses to HIV/AIDS is due to lack of clarity on what is expected of various role players, priorities and clear accountabilities for action. This also inhibits mainstreaming of HIV/AIDS at all levels and coordination to ensure efficient use of resources.

- *Develop an overall statement of policy to clarify the priorities and role of the education sector, its various components and other players* in prevention, care and support and vulnerable children, as well as workplace responses. These are not clearly enough defined in the current strategic framework or the 1998 policy defining education's responsibilities to guide government, educators and communities. Clear definition is needed to avoid shifting of responsibility and inefficiencies.
- *Develop and advocacy programme to disseminate key aspects of refined strategy and policy* to districts, schools and parents
- *Accountabilities of school Heads, Inspectors, CEOs, other education officers and MOE Departmental heads* in particular should be defined and enforced for effective mainstreaming. Definition of roles should allow flexibility in implementation, as no single model for effective implementation is likely to be appropriate in al situations.
- *More specific guidelines and procedures are needed for action at lower levels.* There is a clear failure of many teachers and managers to recognise or systematize thinking around what is happening in their schools and classrooms, and many that are motivated do not know how to respond without specific guidance.
- *Undertake a systematically review all legislation, polices and regulations to identify appropriate modifications and clarify practice and guidelines.* Some of the areas requiring attention are highlighted in this report but the analysis should not be considered to be complete. AIDS needs to be factored into the planning process, and targets of RNPE, which needs to be reviewed in the context and anticipated effects of AIDS on sector staff, systems and institutions.

4. Facilitate and stimulate flexible and decentralised approaches

- *The scale of responses required and the diversity and unpredictability of HIV/AIDS impacts, will tend to be beyond the capacity and capabilities of centralised education responses.* Decentralised action is already working in many schools and communities, ahead of any guidance for the MOE. The MOE should focus on facilitating decentralised action as a primary objective, while developing the many responses to HIV/AIDS that inherently require solutions planned or led from the central or regional levels.[134]
- *Improved communication with, and input from, lower levels in the education sector which are responsible for implementation should be prioritised.* The MOE has begun to address this in the HIV/AIDS programme through consultation with regions and districts on its draft strategic plan. This approach should be consolidated to ensure that initiatives and targets are realistic and have buy-in.
- *Limited understanding of impacts and significant uncertainties require flexible strategies.* These should accommodate local variations in circumstances and capacity and limit risk if projections or expectations prove inaccurate.

5.Develop partnerships and inter-sectoral coordination

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discuss issues with potential for them both to confront issues and start developing group responses to them in school and district settings.

[134] Examples include negotiating on policy issues with other sectors, reform of the education employment framework, teacher training strategies and curriculum reform.

The challenge of HIV/AIDS to the capacity and expertise of the education sector and its component is lessened by the many partners at all levels who are able and often actively seeking to work with it in a more coordinated, efficient response.

- *Success of responses will be critically dependent on the education sector and its components being able to think beyond their traditional "silos" and engage with other partners*. Old definitions of areas of activity cannot be assumed to be appropriate and new linkages are needed.
- *Key partnerships should be formed with the MLG and Social Welfare in particular, but also with other players* including the health sector at all levels, and DEMSAC's.
- *NGOs and CBOs are a critical resource.* Policy and specific mechanisms are needed to optimise relationships, coordinate roles and strengthen their capacity and sustainability.
- *Teachers' professional associations should be actively engaged on HIV/AIDS issues*. Development and implementation of MOE programmes to combat impacts on staff, system function and OVC will depend to a large extent on the will and performance of teachers, and a shared vision with their representatives. Unions can also bring capacity and systems to facilitate effective responses to staff needs.

6. Ensure effective planning and implementation

- *Review and refine MOE Strategic and Implementation plans.* This process is already under way, and should be consolidated to ensure that all priorities are addressed.
    - Workplace policy and programmes are a particular priority for refinement.
    - More focus should be placed on system development to use existing capacity more efficiently, in addition to capacity development.
- *School, District and Region HIV/AIDS plans should be developed.* A system and capacity requirement to facilitate and monitor this initiative should be defined.

7. Address organisational culture issues

- *Key role players at all levels should be motivated to address HIV/AIDS issues actively*. The success of the education sector response will depend to a large extent on cultivating a culture of caring and willingness of individuals and interest groups at all levels to embrace the challenge to the system and respond to the needs of colleagues and learners. Motivation is a key issue as morale at school and Ministry level is already compromised by general frustrations of working in the sector. HIV/AIDS related stresses could increase frustrations and demoralisation if they are not actively managed.
- *Bureaucratic approaches to the HIV/AIDS response should be combated.* Bureaucratic traditions already lead to frustration and inaction, particularly in inter-sectoral or inter-area collaboration and will fundamentally undermine the innovation required to address HIV/AIDS.

8. Improving information

- Current understanding of many key issues around HIV/AIDS impacts is limited. Although information is adequate to define key policies and initiatives which should not be delayed, improved information is needed to refine policies and planning.
- Priority initiatives include development of systems of OVC audits in schools, refining EMIS analyses to track HIV/AIDS related trends and integrating HIV/AIDS issues into new District EMIS systems to inform local planning and management.
- *Further quantitative and qualitative studies* will be required to understand impacts. Partnerships with University of Botswana should be explored.
- *A specific initiative to facilitate networking to share experience and best practices* and experience between schools and districts should be started.

- *Specific attention should be given to improved monitoring of HIV/AIDS response implementation.* Reliance on management reports at any level is clearly inadequate. Strategic plan performance indicators and targets reflecting longer term objectives, rather than activities, should be considered.

9. Reinforce existing relevant initiatives

HIV/AIDS tends to make pre-existing weaknesses of systems become more pressing. These have to be addressed, as "fixing AIDS" itself will not necessarily overcome major system deficiencies that undermine performance and access.

- All existing initiatives to enhance sector performance and access to education which are of relevance to HIV/AIDS, should be strengthened but should also consider needs for modification to incorporate new HIV/AIDS challenges.

10. Invest in capacity to drive the education sector response.

- Planning and implementation of an effective HIV/AIDS response will require significant new capacity and expertise in the MOE HIV/AIDS programme.

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