



REPUBLIC OF KENYA  
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

## HIV and AIDS

### Its Impact on Education and an Analysis of the Implementation of the Kenyan Education Sector Policy on HIV and AIDS 2013

In Partnership with:



United Nations  
Educational, Scientific and  
Cultural Organization

Nairobi Office







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## **Foreword**



The Government of Kenya is committed towards attainment of equal opportunities in access to quality education for all citizens as a basic human right. The Ministry of Education, Science and Technology (MoEST) is committed to achieving the targets stipulated in international conventions to which the Government is a signatory and has ratified. This include: the Universal Declaration on Human Rights (1948); the Convention on the Rights of the Child (CRC) (1989); the Education for All (EFA) Jomtien Declaration (1990); the EFA Dakar Framework of Action (2000); and the Millennium Development Goals (2000). These conventions and agreements provide a broad framework to ensure the right to education for all citizens and eliminate all forms of discrimination. In addition the Government is committed to transforming the country to a middle income country through Vision 2030 in which education plays an integral role.

As part of our commitment, MoEST has designed and instituted various evidenced-based policy interventions in partnership with our development partners to provide holistic quality education for all school age children. Despite these efforts, HIV and AIDS continues to pose considerable challenges to the education sector. The HIV pandemic continues to affect educational participation, retention, progression and achievement of our children particularly children infected and affected by HIV and AIDS. It also impacts our teachers and education personnel on which quality education is dependent.

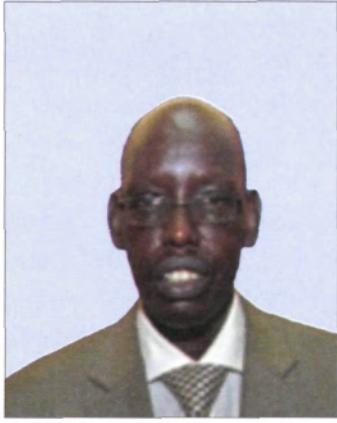
This impact assessment of HIV and AIDS in the education sector undertaken by MoEST in partnership with UNESCO/IIEP revealed gaps in programme interventions including the need for revising the 2004 Education Sector Policy on HIV and AIDS.

I urge all the education sector personnel, our partners and Kenyans in general to utilize the findings of this study on impact of the HIV and AIDS in the education sector to make our policy formulation and revision, programming and interventions more effective.

A handwritten signature in black ink, appearing to read "Jacob T. Kaimenyi".

**Prof. Jacob T. Kaimenyi PhD, FICD, EBS  
Cabinet Secretary for Education, Science & Technology**

## Acknowledgements by Principal Secretary



This study was commissioned by the Ministry of Education, Science and Technology (MoEST) with the support of the UNESCO Office Nairobi. The Ministry wishes to recognize the support provided by UNESCO Nairobi under the guidance of the Director, Mr. Mohamed Djelid. We would also like to thank Mr. Kiragu wa Magochi, Ag, Education Secretary for his instrumental role in ensuring that the study was successfully undertaken.

The report was produced by UNESCO and the International Institute for Educational Planning (IIEP). The research team was led by Ousmane Diouf, Programme Specialist, IIEP-UNESCO with Eileen Nkwanga, Education and Development Specialist and Lead Consultant; Lynne Sergeant, HIV and AIDS Clearinghouse Manager, IIEP-UNESCO; and Ciara Goldstein, Health and Development Specialist. Additional field research for the report was carried out by a team from the UNESCO Nairobi Office (Jane Kamau, EDUCAIDS Country Coordinator, and Ann Kioko, Education Unit) and the Department of Education (Onesmus Kiminza, Deputy Director of Policy, Partnerships and East African Community Affairs; John Kiunjuri HIV and AIDS Focal Point, Deputy Head AIDS Control Unit; Mary Kangethe, Senior Education Officer; and Jane Theuri, Senior Education Officer).

The Ministry would also like to thank the following UNESCO staff for their guidance and field work facilitation: Yayoi Segi-Vltchek, Programme Specialist; Vick Ikobwa, National Professional Officer; Elizabeth Mwakeleme-Tole, Public Information Assistant; and Lilian Siwolo-Piquet (formerly of IIEP-UNESCO) for her support in development of the report.

The report also benefited from invaluable inputs from individuals representing a wide range of organizations through a closed online forum, a consultative meeting, individual interviews, and personal communications. A list of these individuals can be found in Annex 11.

A handwritten signature in black ink, appearing to read "Belio R. Kipsang".

*Dr. Belio R. Kipsang  
Principal Secretary,  
Department of Education*

## Remarks by UNESCO-IIEP



To achieve the EFA goals, education-related MDGs and Vision 2030, the impact of HIV and AIDS on the education sector cannot be ignored. The education sector is paramount in helping prevent the spread of HIV. At the same time, it is also essential to protect the core functions of the education sector from the worst effects of the epidemic. This requires a thorough understanding of the impacts of HIV and AIDS on the sector in a given situation, well-designed policies to govern the education sector's response and careful planning to ensure that the policies and their recommendations are implemented.

Since the development of the Education Sector Policy on HIV and AIDS in 2004 by the Ministry of Education, Science and Technology with technical support from USAID and UNESCO, new challenges such as the needs of positive learners have emerged. Measures must be taken to ensure that children infected with or affected by HIV continue to access basic education. Teachers infected with HIV must be given the necessary support to continue their mission to impart quality education to all learners. Programmes to enhance access to treatment and psycho-social support to all members of the education community are therefore essential.

UNESCO-IIEP would like to thank the Ministry of Education for this partnership that has resulted in the successful completion of the impact assessment of HIV and AIDS in the education sector that commenced in 2011. We hope its findings will assist the Ministry of Education and its partners' redefine their policies based on current data and needs, and include these and other emerging issues to strengthen the education sector's response to HIV and AIDS.

Finally, UNESCO-IIEP wishes to reiterate our continued technical support to the Ministry of Education in order to enhance the provision of quality education to propel the country to the middle level income as stipulated in the Kenya Vision 2030.

A handwritten signature in black ink, appearing to read "M. Djelid".

*Mr. Mohame Djelid  
Director  
UNESCO Regional Office for Eastern Africa  
IIEP Director  
Nairobi*

## Table of Contents

List of Tables, Figures, and Boxes .....	vii
List of Acronyms .....	viii
Executive Summary .....	x
Introduction .....	1
1. Country context .....	3
2. The HIV and AIDS epidemic in Kenya.....	4
3. Overview of the education sector in Kenya and progress towards the EFA goals .....	6
4. Conceptual framework .....	7
5. The epidemic's impact on children and youth.....	9
6. The impact of HIV and AIDS on Kenya's education sector .....	11
7. Impact of HIV and AIDS on sector indicators and attainment of EFA .....	20
8. Policy response .....	31
9. Impact of policy implementation on different beneficiaries .....	43
10. Options for an intensified mainstreamed education sector approach .....	50
11. Facing the challenges: Policy and programme recommendations.....	54
Bibliography .....	60
Annexes.....	69

## List of Tables, Figures, and Boxes

### Tables

- Table 1 National level education indicators
- Table 2 Reported under-expenditures in the education development budget, 2002/2003–2005/2006
- Table 3 MoEST headquarters staff changes, 2002/2003–2006/2007
- Table 4 Primary and post-primary teacher attrition, 1996–2011
- Table 5 Estimates of HIV prevalence in teachers
- Table 6 Teacher replacement needs, actual replacements, and cumulative shortfall, 2001–2010
- Table 7 Primary GPI by province, 2002–2007
- Table 8 Districts with NERs below and marginally above 70 per cent, 2008
- Table 9 Primary schools dropout rates by gender and province, 2003–2007
- Table 10 Survival rates to class 5
- Table 11 Primary school enrolment rates by class and gender, 2004–2008
- Table 12 Secondary school enrolment rates by class and gender, 2004–2008
- Table 13 KCPE raw mean score by gender and subject, 2003–2005
- Table 14 Percentage of children receiving private tuition
- Table 15 Examples of primary school fees and levies collected under FPE

### Figures

- Figure 1 Map of Kenya
- Figure 2 Trends in HIV prevalence by age group, 2003–2008/2009
- Figure 3 Trends in women's HIV prevalence by age group, 2003–2008/2009
- Figure 4 Trends in men's HIV prevalence by age group, 2003–2008/2009
- Figure 5 Youth's knowledge about AIDS and where to obtain condoms
- Figure 6 Percentage of women and men aged 15–24 who had sexual intercourse before age 15 and 18
- Figure 7 Primary and post-primary teachers' attrition, 1996–2011
- Figure 8 Machakos district teacher deaths, 2003–2010
- Figure 9 Machakos district teacher attrition due to illness, 2003–2010
- Figure 10 Impact of affected teachers on Kenyan schools
- Figure 11 Net enrolments by gender, 2002–2008
- Figure 12 Net enrolment rates by province, 2002–2008
- Figure 13 Primary school completion rates by gender and year, 2002–2008
- Figure 14 Primary school completion rates by province and gender, 2008
- Figure 15 Percentage of out-of-school children by province, minimum and maximum within-province rates by district, and 2009
- Figure 16 Relationship between HIV prevalence, OVC, out-of-school children, completion rates, and NERs, 2008/2009
- Figure 17 Boys' primary school survival rates to class 5, 2003–2007
- Figure 18 Girls' primary school survival rates to class 5, 2003–2007

### Boxes

- Box 1 The cumulative effect of poverty and orphan hood on learning
- Box 2 A college policy in action
- Box 3 Responding to the needs of a pastoral community
- Box 4 Community business participation in the response to HIV and AIDS
- Box 5 Collaboration on prevention in primary schools
- Box 6 A school in Rift Valley has family groups to discuss important issues
- Box 7 Reducing stigma in schools
- Box 8 Academic model for the prevention and treatment of HIV (AMPATH)
- Box 9 The importance of focused teacher education

## List of Acronyms

ACU	AIDS Control Unit
AIDS	Acquired Immune Deficiency Syndrome
AIM	AIDS Impact Model
ALA	Annual Learning Assessment
AMPATH	Academic Model for the Prevention and Treatment of HIV
ART	Antiretroviral treatment
ASAL	Arid and semi-arid lands
CACCs	Constituency AIDS Control Committees
CAG	Controller and Auditor General
CBO	Community-based organization
CCT	Conditional cash transfer
CfBT	Centre for British Teachers
CUE	Commission for University Education
CIA	Central Intelligence Agency
DEMMIS	District Education Monitoring and Management Information System
DEO	District Education Office
DfID	Department for International Development
ECD	Early childhood development
EFA	Education for All
EMIS	Educational Management Information System
FBO	Faith-based organization
FPE	Free primary education
FSE	Free secondary education
GDP	Gross domestic product
GER	Gross enrolment rate
GoK	Government of Kenya
GPA	General purpose account
GPI	Gender parity index
HIV	Human Immunodeficiency Virus
IDA	International Development Association of the World Bank
IIEP	International Institute for Educational Planning
IMF	International Monetary Fund
IPAR	Institute of Policy Analysis and Research
KAIS	Kenya AIDS Indicator Survey
KARPH	Kenya Adolescent Reproductive Health Project
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KDHS	Kenya Demographic and Health Survey
KENEPOTE	Kenya Network of Positive Teachers
KESSP	Kenya Education Sector Support Programme
KICD	Kenya Institute of Curriculum Development
KNEC	Kenya National Examination Council
KNUT	Kenya National Union of Teachers
SSABH	Secondary School Action for Better Health
Ksh	Kenya Shilling
MDG	Millennium Development Goal
MIS	Management Information System
MoEST	Ministry of Education, Science and Technology

MPER	Ministerial Public Expenditure Review
NACC	National AIDS Control Council
NASCOP	Kenya National AIDS & STI Control Programme
NER	Net enrolment rate
NGO	Non-governmental organization
OOS	Out of school
OVC	Orphans and vulnerable children
PCR	Primary school completion rate
PFM	Public financial management
PSABH	Primary School Action for Better Health
PSC	Public Service Commission
PTR	Pupil-teacher ratio
SACMEQ	Southern Africa Consortium for Monitoring Education Quality
SIMBA	School Instructional Materials Bank Account
SSABH	Secondary School Action for Better Health
STI	Sexually transmitted infection
TOR	Terms of reference
TSC	Teachers' Service Commission
TTC	Teachers' Training College
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGASS	United Nations General Assembly Special Session on HIV and AIDS
UNICEF	United Nations Children's Fund
UPE	Universal primary education
USAID	United States Agency for International Development
VCT	Voluntary counselling and testing
WERK	Women Educational Researchers of Kenya
WFP	World Food Programme

# Executive Summary

## Objectives of the Study

The aim of this study, undertaken at the request of the Kenyan Ministry of Education, Science and Technology (MoEST), was to describe and analyse the impact of HIV and AIDS on the education sector in Kenya, and provide a situational analysis of the implementation of the Kenyan Education Sector Policy on HIV and AIDS (2004). It aimed to provide empirical evidence on how HIV and AIDS have affected the education sector in Kenya, and to identify gaps in research and programme interventions. This report documents the implementation and dissemination of the Education Sector Policy on HIV and AIDS 2004, including lessons learnt and challenges encountered, as well as identify gaps in the policy. Finally, it provides recommendations on issues that need to be addressed for any future HIV and AIDS responsive policies and programmes, and proposes a roadmap towards strengthening the mainstreaming of HIV and AIDS within the education sector. It is anticipated that the study will inform the education sector's basis for short- and medium-term planning and programming through a costed action plan, and long-term planning through the Kenya Vision 2030 initiative.

## Study Methods

Qualitative and quantitative information was collected from several sources. These include literature review; MoEST statistics; Teachers' Service Commission (TSC) data on teacher recruitment and attrition; and a field survey in 32 primary schools, 15 secondary schools, and six teacher training colleges in 18 districts in five provinces. Interviews with MoEST staff at headquarters, provincial and district levels, staff from the Teachers' Service Commission, the Kenya Network of Positive Teachers (KENEPOTE), the Kenya National Union of Teachers (KNUT), non-governmental organizations (NGOs), community-based organizations (CBOs), international agencies, and education sector specialists were also conducted. A closed online forum was organized in order to collect the views of a maximum number of stakeholders dealing with HIV and AIDS in the education sector. The draft report was discussed at a consultative meeting attended by a broad range of stakeholders for their further inputs.

## Conceptual Framework

The terms of reference for this study required the findings to be evidence-based. There were several gaps in the sector's statistical data bases that hampered the researcher's ability to confidently draw unqualified conclusions. Any existing evidence on the impact of HIV and AIDS was often obscured by the many factors that influence access, efficiency, quality, and equity. Several quantitative models were available to analyse the epidemic's impact on the sector, such as Ed-SIDA and AIMS<sup>1</sup>, but these required statistics that were not readily available, mainly because HIV-sensitive data was not included in the Education Management Information System (EMIS). Some researchers advocate the use of a variety of methods to gather information and assess the epidemic's impact on education; with this in mind, the research team engaged in the current study used a variety of sources to gather and process information, as described earlier.

## Findings

### The epidemic's impact on children and youth

Children and youth constitute particularly vulnerable groups on a number of counts. Some may be infected at birth, while others are infected later in life, either through abuse or early sexual experiences. Others are vulnerable due to the loss of parents, abuse, or having to live in impoverished conditions. Girls and women are especially at higher risks of HIV infection. Young people's HIV status is related to gender, socio-economic status, area in which they live, and level of education.

The information presented in demographic and health surveys poses considerable challenges to the education sector's ability to provide (i) quality basic education (i.e. primary and secondary) for all, and (ii) prevention and mitigation programmes that improve young people's knowledge of HIV and AIDS and of modes of protection, in addition to addressing the impact of the epidemic on the school-age population. Indicators show that programmes should be more targeted at girls and youth, and scarce resources should be better utilized. Since girls and women bear the brunt of the epidemic, efforts to empower them in

<sup>1</sup> The Ed-SIDA model is a spreadsheet based tool to estimate the impact of HIV and AIDS on the supply of and demand for education. The AIDS Impact Model (AIMS) is used to project the future number of HIV infections, AIDS cases and AIDS deaths in a given population.~

decision-making should be intensified. In most cases this requires a reorientation of gender roles, and, because these roles are inculcated early, the inclusion of life skills education, with a focus on gender equality, in early childhood development (ECD) programmes. Improvements in the duration, quality, and equity of educational provision are important measures to counteract the effect of the epidemic and to prevent further incidence of HIV, thereby protecting the sector from further deterioration.

## The impact of HIV and AIDS on Kenya's education sector

The literature reviewed suggests that the impact of HIV and AIDS on the education sector has been profound. It has resulted in an estimated 2.4 million orphans and vulnerable children (OVC), many of whom are of school-going age, and has thereby changed the profile of the school-age population. These children may be mourning the loss of their parents, facing stigma and discrimination, living in poverty, suffering from malnourishment, acting as caregivers, or heading households. Unless measures are taken, infected and affected learners may have lower levels of schooling and progress more slowly through school than their non-affected counterparts. Girls and young women tend to be more affected by the epidemic, since they may be required to act as caregivers or be denied schooling in favour of boys' education when household resources are scarce. The sector's capacity to deliver quality services is also seriously incapacitated by morbidity and mortality among staff; high rates of teacher attrition and absenteeism; reduced morale due to stigma, discrimination and fatigue; and high stress levels as extra burden falls on administrators and other school staff. The net result is deterioration of the learning environment and lower achievement levels.

## Education sector indicators, the impact of HIV and AIDS, and the attainment of EFA

The HIV epidemic has tended to highlight and exacerbate existing inequities in society in general and in the education sector in particular. The epidemic tends to restrict educational participation, retention, progression, and achievement of the poor, women, and other disadvantaged groups. The groups most affected are orphans, children infected with and affected by HIV, girls, and children from impoverished backgrounds and regions of high HIV prevalence.

Most national EFA goals on school participation may be met by 2015, but progress towards improving parity among girls and boys and addressing regional imbalances in enrolment and retention is less promising. There are serious concerns about the quality of service delivery and learning outcomes. Paradoxically, measures intended to increase educational access for the poor, girls, and marginalized groups in the pursuit of EFA may have worsened the situation for these groups and resulted in a loss of quality. This may in turn intensify poverty, reduce the level of education and achievement, and thereby potentially contribute to higher HIV incidence levels among the young people.

## The policy response

Some activities to address the epidemic through the education sector had begun prior to the development of a formal policy in 2004, but these were largely uncoordinated. A comprehensive policy aimed at systematizing the education sector response was finally produced, together with supporting research and costed plans for policy dissemination, implementation, and monitoring. When aspects of the policy were included in the Kenya Education Sector Support Programme (KESSP), the prepared dissemination plans had not been fully implemented and, consequently, the policy document was not widely distributed. The Primary School Action for Better Health (PSABH) and Secondary School Action for Better Health (SSABH) prevention programme were rolled out to over 11,000 public schools, and 175,000 OVC were provided with support for school requirements. Some training was provided in developing workplace policies and in curriculum delivery. Several post-primary institutions developed workplace policies, but primary schools did not. Stigma and discrimination in the workplace were addressed by KENEPOTE, KNUT, and the TSC. School health and nutrition programmes targeting OVC were intensified, and local level initiatives augmented the formal education sector response.

Impediments to implementation of the Education Sector Policy on HIV and AIDS (2004) were: poor dissemination, limited human resource capacity to plan and manage the response, and teacher shortages. The policy had been developed before the KEPPS, of which it later became a part off. Its incorporation into KEPPS meant it was subjected to all the challenges that any complex sector-wide programme is likely to face including the need to coordinate activities within the education sector and among partners. The proposed groups to coordinate project components were not constituted.

Discomfort with curriculum content and inadequate training in delivery presented a major challenge to the success of the prevention programme. The content was based on concepts that were not discussed in traditional culture, and the teachers were not used to interactive teaching techniques required to discuss sensitive personal issues.

Among the gaps in the policy and its implementation were failure to address the issue of condoms as a protective measure, the absence of guidance on developing workplace guidelines, the limitation of most activities to public sector institutions, the absence of clear statements on accountability, and the inadequacy of record-keeping and monitoring of activities.

### Impact of policy implementation on different beneficiaries

Although there have been some new interventions since 2004 in response to the Education Sector Policy on HIV and AIDS, most are continuations of previous activities. The magnitude of the impact of these activities is largely unknown since there were neither baseline surveys nor monitoring and evaluation reports. Generally, there has been a reduction in stigma and discrimination in schools, although this varies across regions, but teachers are still reluctant to disclose their status. There has been an increase in life skills education, but this is often ad hoc; the schools visited during the survey were not uniformly teaching any life skills curriculum.

Support for OVC also has been extended. School feeding programmes targeting many OVC in Kenya have resulted in positive nutritional and schooling outcomes. These programmes are consistent with government priorities on education and health; however, the benefits of school feeding are limited if separated from the larger context of learning, health, and livelihoods. School feeding programmes, if not accompanied by an appropriate learning environment and family or community support, are insufficient to achieve the objective of developing healthy, educated children. To justify investments and meet objectives, the school feeding programme must take better account of social, economic, and cultural constraints. Cooperation between institutions across sectors maximizes the gains achieved through school meals and increases the value of the food provided. The Government of Kenya (GoK) has taken important steps in this direction by integrating improved health practices into schools and introducing home-grown school feeding. De-worming is considered to be the most cost-effective of all interventions because it is an activity that provides maximum benefit at a modest per capita cost. Other programmes that have contributed to enrolment and retention are conditional cash transfers (CCTs) and the provision of OVC's schooling needs.

The impact of prevention education in reducing risky sexual behaviour in the long term is still under debate. There is some evidence that interactive teaching, more schooling, and the empowerment of women, coupled with poverty-reduction strategies such as entrepreneurial training, may reduce the incidence of risk behaviours and limit HIV transmission among young people. There is a perceived need to ensure that life skills are made more relevant to emerging societal issues and appropriate to the local community. Those that impinge on general cultural and societal norms, such as respect and gender equity, should be introduced in early childhood development and education (ECDE) and at primary level. Pre- and in-service education of teachers and level of staffing in schools are inadequate to deliver curriculum content effectively and require attention, as does the level of support given to teachers.

### Options for an intensified mainstreamed education sector response

The main components of an effective education sector response are prevention, care and support for staff and students; work environments that are safe and free from stigma and fear; and the on-going monitoring of activities with accompanying adjustments to improve their impact. A major focus of the education sector response should be on social support for OVC to ensure their wellbeing and full participation in schooling; this concerns all public and private education institutions at all administrative levels. The HIV response needs to be planned within a comprehensive sector programme that will extend education to all children, particularly girls, and improve the quality of the education provided. There are, however, major impediments to success. These are: (i) planning and management capacity at all levels; (ii) gaps in HIV-related information; and (iii) the financing of education, including HIV programmes.

It is anticipated that enhanced mainstreaming of the response may (i) reduce the effects of morbidity and mortality on education sector staff, thereby reducing absenteeism, improving teaching and learning, and reducing costs; (ii) improve the enrolment,

attendance, and completion rates of OVC, as well as their achievement; (iii) reduce stigma and fear, and improve the psycho-social state of affected learners and staff; and (iv) reduce HIV incidence among youth. In the longer term, it may reduce national HIV prevalence and improve the coverage, efficiency, quality, and equity of the education sector.

### Facing the challenges: Policy and programme recommendations

The effectiveness of policies and programmes designed to address the impact of the epidemic on education depend to a large extent on the information available to the decision-maker. The recommendations that follow assume the need to establish and sustain a rigorous comprehensive evidence base to inform future initiatives.

The many challenges facing future HIV and AIDS activities may be classified as epidemic-specific and general. The specific challenges are to: (i) ensure the health and well-being of education sector staff; (ii) address the needs of a growing population of OVC; (iii) improve the capacity to deliver, monitor and evaluate, and improve the relevance of the life skills curriculum; (iv) ensure sustainability of resource provision in the eventuality of a fall in development partner support, but without further disadvantaging the poor; and (v) ensure coordination between and within MoEST departments, across ministries, and between cooperating partners. The general challenges are: (i) developing capacity at all levels for data gathering and processing, planning, and project and programme management; (ii) pre- and in-service training of teachers in interactive teaching and classroom management; (iii) on-going and constructive teacher support; (iv) sustained provision of relevant teaching and learning materials; (v) developing a results-based culture that will assess sector performance through monitoring and evaluation; and (vi) upgrading of the statistical and research base for educational planning in response to the challenges posed by the epidemic.

Recommendations are made to revise the Education Sector Policy on HIV and AIDS (2004) to provide the basis for a more effective response to the epidemic, including addressing gaps in the existing policy and guidelines for effective dissemination and implementation. This is seen as a necessary pre-requisite to mainstreaming the sector's response to HIV and AIDS.

Further recommendations are the development of policies on the professionalization of teachers, sustainable support for HIV and AIDS initiatives, primary education improvement, and collaboration between the education sector and other development partners.

It is recommended that current mainstreaming of response activities be intensified, and that institutions other than public ones be included. Particular importance should be given to addressing staff mortality and morbidity through the early identification of health issues, including HIV, and the provision of treatment to staff. In addition to this being cost-effective, it would contribute to continuity in service delivery and relieve some of the stress placed on school staff due to absenteeism and illness. The close monitoring and evaluation of all prevention and mitigation activities should be an integral part of mainstreaming, thus providing results-based reports to inform current and future initiatives.

Capacity building is crucial to the success of all mainstreaming activities, especially the development of the necessary skills at district and institutional levels. Pre- and in-service education of teachers is critical, as is their continual monitoring and support. Improvements in databases and action-oriented research should form a platform to support education sector activities, as should efforts to improve the quality of education provision.

The following activities are included in a proposed action plan:

- Strengthen the information base on HIV and AIDS in the education sector.
- Maintain the supply of teachers, management, and support staff through the identification of health issues and provision of treatment.
- Respond to the epidemic's internal and external impact by abridging, disseminating, and implementing the HIV and AIDS policy; disseminating and implementing the revised life skills curriculum; improving pre-service and in-service teacher education; and upgrading the institutional capacity to deliver the HIV and AIDS curriculum and monitor and evaluate the impact of prevention and mitigation activities.

- Support the most vulnerable children by intensifying existing nutritional and financial activities, and by gathering and tracking information for results-based assessments.
- Improve data and on-going initiatives by extending the research evidence through investigations at school, district, and national levels

## Introduction

### Scope and Key Research Questions

The scope of this study is to:

- Provide clear evidence on the magnitude of the impact of HIV and AIDS on the education sector in Kenya and propose feasible programmatic interventions;
- Establish the extent to which the Education Sector Policy on HIV and AIDS (2004) has been disseminated and implemented;
- Document the lessons learnt and the challenges encountered in the implementation of the Education Sector Policy on HIV and AIDS; and,
- Identify possible gaps related to HIV and AIDS in the 2004 education sector policy and make recommendations for consideration in the revised revision.

In terms of the impact of HIV and AIDS on the education sector, the study aims to provide information on:

- Disparities in net enrolment rates between boys and girls in primary education, and especially between regions.
- School completion rate.
- Number of school-age potential learners who are out of school largely due to HIV and AIDS.
- Orphans and vulnerable children (OVC) accessing education.
- Impact of HIV and AIDS on the quality of education.
- Irregular pupil attendance and drop-out rates partially attributed to HIV and AIDS.
- HIV morbidity and mortality among pupils, teachers, managers, and support staff.
- Concerns about the absenteeism of teachers, managers, and support staff due to stigma and discrimination and/or sick household/homestead member(s).
- Education management, institutional memory, and capacity at all levels.
- Effects of school meals, and health and nutrition interventions, and how they have been and can be used to mitigate the impact of HIV and AIDS.
- Extent to which the life skills curriculum has contributed to behaviour change.

### Challenges

The study was constrained by the non-availability of primary data on managerial and support staff, pupil attrition and absenteeism, and OVC, as well as the limited number of assessments of on-going interventions aimed at preventing and mitigating the impact of HIV and AIDS. Information that was collected and collated was done by several different institutions, and reported in different formats as such, the data sets did not always correspond. In addition, particular difficulty lay in the complex context in which the education sector operates, where the impact of HIV and AIDS may be obscured by the effects of the drive for EFA coupled with free primary education (FPE) and free secondary education (FSE), the latter two of which present their own problems (Oketch and Somerset, 2010).

### Study Design and Data Collection

The project relied on information/data collected from the following:

- A review of existing literature on the education sector and HIV and AIDS in Kenya since 2000, collected via UNESCO's HIV and AIDS Education Clearinghouse, personal communications, and web searches.
- Data input forms.
- Consultations with key stakeholders.
- Field research in 32 primary schools, 15 secondary schools, and six teacher training colleges across five regions in 18 counties.
- A closed web forum, facilitated by the International Institute for Educational Planning (IIEP), involving 35 participants with expertise in HIV and education.
- A consultative meeting in Nairobi involving 41 stakeholders to discuss the findings of the draft report.

Where primary data were available, they were analysed for trends, and qualitative explanations were inferred from the other data sources. Projections were made using these data to provide a further basis for recommendations. Where primary data were not available, information was taken from field surveys, the online forum, and studies, from which inferences could be drawn and recommendations made.

## 1. Country context

### Geography

Kenya is located in Eastern Africa on the Indian Ocean. The country's total area is 580,367 square kilometres, of which 98.07 per cent is land and the rest is water. Its land boundary is 3,477 kilometres long and bordered by five countries – Ethiopia (861km) the north, Somalia (682km) in the east, Sudan (232km) the north west, Tanzania (769km) in the south west, and Uganda (933km) in the west. Its climate varies from tropical along the coast to arid and semi-arid in the interior. The terrain includes low plains in the east rising to the central highlands bisected by the Great Rift Valley with a fertile plateau in the west. The climate is modified by the altitude that ranges from 0 metres at sea level to 5,199 metres at the peak of Mount Kenya. Temperatures range from 10°C to 27°C depending on altitude and season.<sup>2</sup>

Map of Kenya



### Population

Kenya's population is estimated at 40,046,566. The age structure of the population is as follows: 42.3 per cent aged 0–14 years; 55.1 per cent aged 15–64; and 2.6 per cent aged 65 and above. The population growth rate is estimated at

2.60 per cent, with annual births at 35.14 per 1,000 of the population and deaths at 9.26 per 1,000 of the population. Life expectancy at birth is 58.83 years (58.33 years for men and 59.32 years for women). The fertility rate is 4.38 children born per woman.<sup>3</sup> Total fertility rates measured through the five-yearly Demographic and Health Surveys declined from 8.26 in 1977/1978 to 4.6 in 2008; the steepest increase was in the late 1970s and the sharpest occurred in the 1980s. It continued to decline through the 1990s, but seems to have stabilized since then. Reasons for the decline are many: Improved economic conditions and education are among the non-HIV-related possibilities. But HIV can affect fertility in two ways: Total fertility rates may decline because women with AIDS tend to refrain from childbearing and may be less fertile than other women. Fertility rates may rise because of increased child and infant mortality (to replace lost children) and reduced duration of breast feeding.

### Economy

In 2010, Kenya's Gross Domestic Product (GDP) was US\$31.41, with an estimated per capita GDP of US\$1,600 (World Development Indicator database, World Bank, 1 July 2011). The estimated annual growth rate for 2008 was 1.8 per cent, and inflation was 9.3 per cent (Economist Intelligence Unit, 2009). In March 2010, the Kenyan Shilling (KSh) was valued at 76.74 to US\$1.

Major industries include the production of small-scale consumer goods, agricultural and horticultural products, the processing of agricultural products, and tourism. Kenya's major trading partners are Africa (46.2 per cent) – mainly Uganda and Tanzania – and the European Union (28.5 per cent), with the UK being the leading partner while the Far East tops the European Union for imports.

Kenya is one of the most industrialized countries in East Africa, yet industry represents only 10 per cent of its GDP. Agriculture employs 80 per cent of the population and accounts for 50 per cent of all exports and 25 per cent of the GDP. The Kenyan economy remains dependant on agriculture, and periodic drought is a threat to production. Traditionally, tourism, tea, and coffee have been the largest foreign exchange earners, but horticultural and industrial exports, such as refined petroleum products, are also becoming important.

The post-election violence in the first quarter of 2008, coupled with the effects of the global financial crisis on remittance and exports, reduced GDP growth to below 2 per cent in 2008

<sup>2</sup> Taken from the Central Intelligence Agency World Factbook website: <https://www.cia.gov/>

<sup>3</sup> All figures cited here were taken from the Central Intelligence Agency World Factbook website: <https://www.cia.gov/>

and 2009. The Kenya Private Sector Alliance (representing most major businesses) estimated that 400,000 jobs were lost following the 2008 post-election violence, and economic growth was expected to slow to 4 per cent in 2009 from rates of 5.1 to 7.1 per cent between 2004 and 2007. The tourism industry was severely damaged. The agriculture sector was adversely affected, which implied long-term effects on Kenya's economy.<sup>4</sup>

### Culture and religion

The composition of the population is 99 per cent African, and 1 per cent Asian, European and Arab. The African population is made up of seven main tribes with over 62 languages: Kikuyu (22 per cent), Luhya (14 per cent), Luo (13 per cent), Kalenjin (12 per cent), Kamba (11 per cent), Kisii (6 per cent), and Meru (6 per cent)<sup>5</sup>. Each tribe has its own language and customs. Customary practices are stronger in some tribes than in others and are mostly practised in rural areas. Among the common practices is the payment of dowry, which was paid in kind, such as in cattle or goats, but nowadays mostly involves exchange of money. This was used to seal an agreement between two families on the marriage of their children. Traditional herbal and psychological medicine is widely practised in both rural and urban areas. These practices are occasionally used in preference to clinics and hospitals since they may be considered more effective.

### Health and nutrition

According to the CIA World Factbook, there is a high risk of contracting infectious diseases in Kenya. These include food and waterborne diseases such as bacterial and protozoan diarrhoea, hepatitis A and typhoid fever; vector-borne diseases like malaria and plague; water borne diseases such as schistosomiasis; and animal contact diseases like rabies. These diseases undermine the immune system and make individuals more susceptible to infection. Nationally, only 59 per cent of the population has access to potable water. According to UNICEF (2011), the health status of many children is low. Among under-five-year-olds, 20 per cent of children are underweight, 7 per cent suffer from wasting, and 35 per cent from moderate and severe stunted growth. This is due to nutritional problems resulting from poor local agricultural production and inadequate food security.

### Political and administrative structure and developments affecting the education sector

The main administrative divisions in Kenya, until 2010, consisted of several levels – central government, provincial and district administrations, divisions, locations, and sub-locations. There are 108 districts, 37 of which were only added in 2007. However, a legal ruling in 2010 deemed all districts created after 1992 illegal, having been created with a 'complete disregard for the law' (The Standard, 4 September 2009). The new constitution, enacted on 27 August 2010, rationalized the administration and devolved certain functions, including aspects of education, to 47 counties. This transferred responsibility for pre-primary education, village polytechnics, home-craft centres, and childcare facilities to these counties. Education policy, standards, curricula, examinations, and the granting of university charters remain national government responsibilities, as do universities, tertiary education institutions and other institutions of research and higher learning, primary schools, special education, and secondary schools (Fourth Schedule [Article 185(2), 186(1) and 187(2)] of the Constitution of the Republic of Kenya 2010). The ministries of education are currently considering the implications of these administrative changes for the sector.

The post-election violence reportedly resulted in students being displaced and schools being burnt down and looted. Teachers were forced to flee, resulting in learning being seriously disrupted in Nyanza and Rift Valley provinces. The first phase of education sector investments under the Vision 2030 Medium Term Plan (2008–2012) concentrated on rehabilitating, equipping, and staffing schools in the cited provinces.

### Factors impacting on the HIV and AIDS epidemic

The links between a country's health risks, the health and nutrition status of its population, overall economic status, and agricultural productivity are important factors determining the population's susceptibility to HIV infection. According to the UNICEF (Kenya) website,<sup>6</sup> 'years of drought have had a serious impact on the well-being of Kenya's children through increased malnutrition rates, morbidity and mortality'. In addition, socio-cultural norms, beliefs, and behaviours, as well as the status of women, tend to increase susceptibility.

4 Foreign and Commonwealth Office (FCO) website [www.fco.gov.uk/.../travel-advice-by-country/country-profile/sub-saharan-africa/kenya](http://www.fco.gov.uk/.../travel-advice-by-country/country-profile/sub-saharan-africa/kenya)

5 All figures cited here are taken from the Central Intelligence Agency World Factbook website: <https://www.cia.gov/>

6 [http://www.unicef.org/infobycountry/kenya\\_2621.html](http://www.unicef.org/infobycountry/kenya_2621.html)

## 2. The HIV and AIDS epidemic in Kenya

### The overall impact of the epidemic

Kenya is experiencing a generalized HIV epidemic, with prevalence that peaked at 13.4 per cent in 2000. Prevalence has stabilized at just above 6 per cent. This may be attributed to an aggressive campaign to prevent transmission and promote the use of condoms. The drop could also be linked to the number of HIV-related deaths, since this reduces the number of infected people. The Kenya National AIDS Strategic Plan 2009/2010–2012/2013 (NACC, 2009a) reported that, in 2008, an estimated 1.49 million people were living with HIV, of which 1.38 million were aged 15 and above. In the same year, the estimated annual number of new adult infections was between 129,000 and 136,000, with the number of deaths due to AIDS standing at between 52,000 and 89,000, or an average of 71,000. The number of adults in need of ART was 368,000, of which about 48 per cent were receiving it.

Until 2003, estimates of HIV prevalence were based on sentinel surveillance of women attending antenatal clinics, and therefore did not necessarily reflect the true situation. The Kenya Demographic and Health Survey (KDHS) of 2003 (Central Bureau of Statistics, MoH, ORC Macro, 2004) was the first nationally-representative, population-based survey to include HIV testing. The subsequent KDHS (2008/2009) (National Council for Population and Development; Central Bureau of Statistics; Ministry of Planning and National Development; Macro International Inc., 1999; KNBS and ICF Macro, 2010) and the Kenya AIDS Indicator Survey (KAIS) of 2007 (GoK, 2009) included HIV testing, the former based on dried blood samples taken from women aged 15–49 and men aged 15–54, and the latter using venous blood samples from women and men age 15–64 (NASCOP, 2009). Sentinel surveillance among pregnant women attending ante-natal clinics showed an increasing HIV prevalence from 1990, which peaked in 2000 at 13.4 per cent but declined thereafter.

The KDHS of 1998 was the first to report on HIV prevalence levels. Not only did the subsequent surveys (KDHS 2003 and 2008/2009 and KAIS 2007) report HIV prevalence, they also included indicators that have substantial implications for the education sector and how it might respond to HIV and AIDS. Among these are the disaggregation of prevalence by age group, gender, socio-economic status, urban/rural location, and level of education. Other issues discussed are changes in knowledge about HIV and AIDS and attitudes towards infected and affected persons; percentage and living arrangements of children from 0 to 18 years of age (thereby

identifying orphans); the age of sexual debut among young people; groups identified as being most at risk of infection; and the use of condoms.

### Prevalence

Prevalence has declined overall, as shown in Figure 2; however, it appears to increase with age, a reflection of both more people becoming infected and more people growing older with HIV due to treatment.

### The feminization of the epidemic

Figures 3 and 4 illustrate the differences in prevalence between men and women. Prevalence among women peaks in the 40–44 age group (14 per cent), while among men is at its highest among 35–39 year olds (10 per cent). Women are at greater risk of infection than men, particularly in the 20–24 age range, where HIV prevalence is about four times greater than among men of the same age (Kenya Demographic and Health Survey 2008–2009 [KNBS and ICF Macro, 2010]). The disproportionate impact of HIV and other sexually transmitted infections (STIs) on women is due to biological, socio-cultural, and economic factors. Physiologically, girls and women are more likely than men to contract HIV at one single exposure. Socially, women may have no control of sex over men in societies where there is gender-stereotyping, and younger women are at the greatest risk. Economic inequality and inheritance laws that discriminate against women may drive them into sex work to support their families. Inter-generational sex and concurrent sexual relationships are common and present an additional risk.

### Regional and other disparities

The HIV epidemic shows considerable regional heterogeneity. Nyanza province had an overall prevalence of 14 per cent, i.e. double the level of the next highest provinces – Nairobi and Western at 7 per cent each. All other provinces had levels between 3 and 5 per cent overall, except North Eastern province where the prevalence was about 1 per cent. Prevalence was highest among widowed women (43 per cent), and relatively high among both women and men who were divorced or separated (17 and 10 per cent respectively). Survey findings indicated that there was a strong relationship between HIV prevalence and male circumcision; 13 per cent of uncircumcised men were HIV infected, compared with 3 per cent of those who were circumcised. Among couples who were married or living together, 6 per cent were discordant in that one partner only was HIV positive. The surveys also pinpointed the differences in prevalence based on socio-

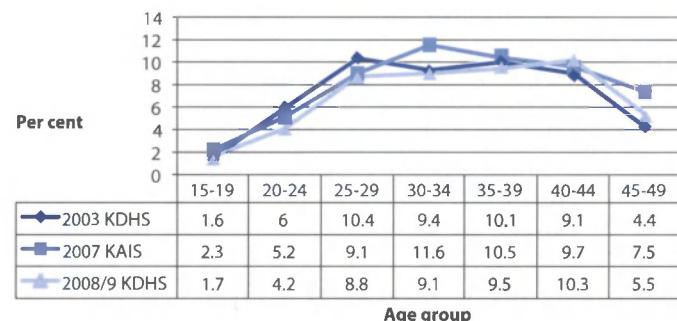
economic groups, level of education, and urban-rural residence, with less educated and poorer groups being most at risk. Knowledge about HIV and AIDS and attitudes towards infected people have improved over time, and misconceptions are less common. Groups identified as being especially vulnerable were sex workers, men who have sex with men, and migrant workers including lorry drivers and fishermen.

### Responses to the epidemic

Significant progress has been made in relation to HIV prevention since the magnitude of the impact of the epidemic on the country was recognized. In 1999, AIDS was declared a national disaster by the President. Nine ministries were identified as key in the HIV and AIDS response. This included the then Ministry of Education, Science and Technology (MoEST), which formed an AIDS Control Unit (ACU) in 2001 and established two sub-units within the Teachers' Service Commission (TSC) and the Commission for university Education (CUE). With the launch in March 2003 of a 'Total War against AIDS' by the President, a Cabinet Committee on HIV and AIDS was formed to coordinate the national response to the epidemic, which included the then Minister of Education, Science and Technology and the Permanent Secretary. The MoEST was required to introduce HIV and AIDS education in all institutions of learning. ACUs were established in the District Education Offices (DEO) and the Kenya National Union of Teachers (KNUT). Although the ACUs carry out an important function, they are generally under-resourced.

The launch in December 2003 of Constituency AIDS Control Committees (CACCs) provided 'a strong coordination mechanism to tap the full potential and participation of all sectors and all stakeholders in the entire country'.<sup>7</sup> At the same time, the Pamoja Campaign (Pamoja Tuangamize Ukimwi - 'Together we can defeat AIDS') was launched by the President. It encouraged ministries, civil society organizations, faith-based organizations (FBOs), the private sector, and development partners to work together towards prevention education, treatment of persons infected by HIV, and mitigation of the effects of HIV and AIDS. This formalized and extended efforts already initiated to address the epidemic. December 2003 saw the first of the annual Joint HIV and AIDS Programme reviews, which brought together major stakeholders, including ministries and development partners, to review the national response, identify challenges, and build consensus on the way forward. Measures to address HIV and AIDS were incorporated into national development plans.

Figure 2: Trends in HIV prevalence by age group 2003–2008/2009



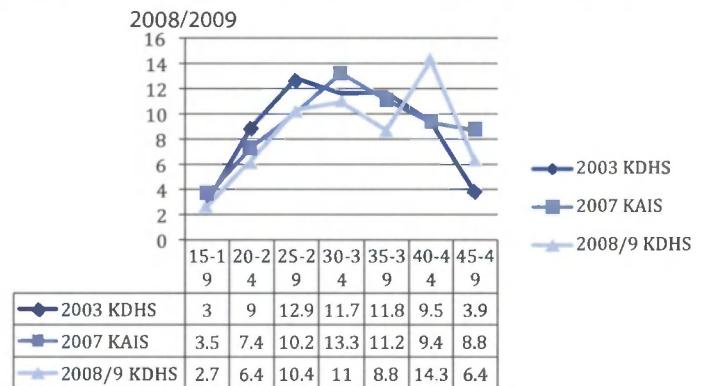
Source: Transparency International, 2010.

### National legislation

Overall planning, monitoring, and evaluation were led by the National AIDS Control Council (NACC) through a series of five-year plans. The ministries of health, education, and medical services, through the National AIDS Control Programme, produced a substantial number of policies, strategic plans, and guidelines from about 2002 through 2010. They mainly addressed the medical aspects of prevention, testing, counselling, treatment and home-based and palliative care. Concentration shifted to workplace safety and mitigation of the stigma and discrimination that surround the epidemic. The Directorate of Personnel Management issued a Public Sector Workplace Policy on HIV and AIDS in 2005, which was updated in 2010, and the Ministry of Labour issued a national code of practice on HIV and AIDS in the workplace in 2009.

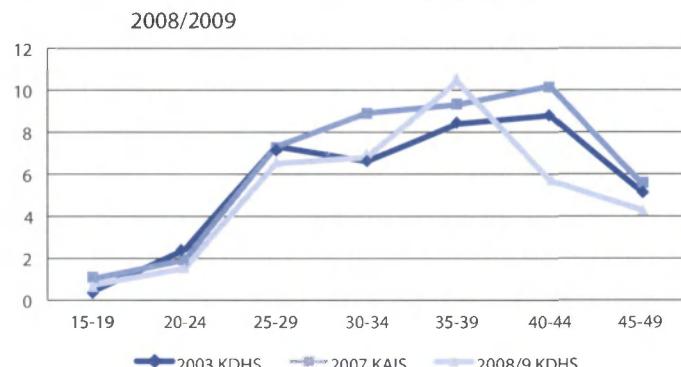
Several policies apply to education. The Children's Act of 2001 guarantees primary education to every child. Under this Act, a

Figure 3: Trends in women's HIV prevalence by age group 2003–2008/2009



Source: KNBS and ICF Macro, 2010.

<sup>7</sup> Speech by his excellency Hon. Mwai Kibaki, CGH., M.P. President and Commander in Chief of the armed forces of the Republic of Kenya on the occasion of the launching of constituency aids control committees on 1 December 2003.

**Figure 4: Trends in men's HIV prevalence by age group 2003–2008/2009**

**Source:** National Council for Population and Development; Central Bureau of Statistics; Ministry of Planning and National Development; Macro International Inc., 1999; KNBS, ICF Macro, 2010.

child is 'entitled to protection from physical and psychological abuse, neglect and other forms of exploitation including sale, trafficking, or abduction by any person'. Other policies that have a direct bearing on education are the National Early Childhood Development Policy Framework (MoEST, 2006) and the National Plan of Action for Orphans and Vulnerable Children (Kenya, 2007–2010) (Ministry of Gender, Children and Social Development, 2008). The former stressed provision of ECDE for all children aged 4–7. The latter emphasizes the problems that orphans face, such as poverty, psychosocial trauma, abuse, and exploitation, and sets out a plan to make provisions to support them in their schooling, health, and nutrition needs. A programme was put in place to provide cash support in the form of grants to families with orphans, and another programme provides disadvantaged children with funds for their schooling needs. The Education Sector Policy on HIV and AIDS (2004) emphasizes the need to cater for OVC and has been the overarching document guiding the sector's HIV prevention and mitigation programmes.

Other legislation related to HIV and AIDS includes the following:

Section 82 of the Constitution, which refers to the need to refrain from discrimination on any grounds.

- The HIV Prevention and Control Act No 14 of 2006, which provides a 15-year minimum sentence for wilful transmission of HIV and allows compulsory testing of those accused of sexual offences. It underlines a person's right to health care and reproductive health, and bars mandatory HIV testing in employment, marriage, and admission to educational institutions.

- The Sexual Offences Act 3 of 2006, which renders deliberate transmission of HIV a criminal offence and provides rape victims with free medical care and counselling.

### 3. Overview of the education sector in Kenya and progress towards the EFA goals

Kenya has an 8-4-4 system of education, which comprises eight years of primary education, four years of secondary education, and four years of university education (and varying periods in post-secondary education). Provision is also made for three years of pre-primary education. In 2009 there were 38,247 pre-primary schools catering for 1.9 million children who were taught by 92,955 teachers. An additional 8.8 million children were enrolled in 18,543 public and 8,124 private primary schools, and a further 163,340 pupils were enrolled in 1,345 alternative education programme schools, which mainly offer the official primary school curriculum. There were 171,301 primary teachers, but an estimated 44,000 more were required to reduce the pupil-teacher ratio to 45:1 across the nation. There were about 6,500 secondary schools catering for 1.18 million students taught by 43,000 teachers.

Substantial progress has been made in increasing access and improving efficiency and equity since the early 2000s, as is shown in Table 1. However, gender and regional disparities in education indicators persist. Access is often determined by socio-economic status as well as the lack of sufficient provision in sparsely populated regions and among nomadic groups, despite good efforts by GoK to cater for these areas. The problem of providing education facilities in the arid and semi-arid lands (ASAL)<sup>8</sup> was recognized as early as 1964 by the Omende Commission, which recommended a higher grant allocation, boarding schools, and mobile schools as immediate strategies to raise school participation. Although measures were taken to abolish school fees for these areas, and more resources were provided for boarding facilities, educational indicators for most of them remain low. Progress may be attributed to the drive towards attaining the EFA goals and the introduction of FPE (in 2003) and FSE (in 2008), coupled with a concerted effort to provide additional physical facilities under the Kenya Education Sector Support Programme (KESSP, 2005–2010). Enrolment rates have increased substantially thanks to these efforts.

While access, efficiency, and equity indicators have improved, there was concern about the quality of education, especially in the wake of the HIV epidemic, which results in disruptions

<sup>8</sup> Tana River, Garissa, Wajir, Mandera, Silo, Marsabit, Narok, Kajiado, Turkana, Samburu and West Pokot Districts

to teaching and learning (Bold, Kimenyi, Mwabu and Sandefur, 2010). The decline in quality may also be due to inadequate teacher preparation and experience, and a relative lack of teaching materials. A diversified curriculum (the 8-4-4 system) was introduced in the mid-1980s. This included a range of teaching subjects – 13 at primary level, of which seven were examinable for the Kenya Certificate of Primary Education (KCPE); and 32 at secondary level, of which eight were examinable at the Kenya Certificate of Secondary Education (KCSE). The non-examinable subjects were electives. In 2002, the curriculum was revised to improve its relevance, and the number of examinable subjects was reduced to five and seven subjects for KCPE and KCSE respectively. At the time of the study, results on the KCPE and KCSE examinations were reportedly below expectations, but Kenyan students were performing better than those from other sub-Saharan Africa countries on regional tests such as the 2007 Southern Africa Consortium for Monitoring Education Quality (SACMEQ) Assessments. However, class repetition, gender gaps in learning and school administration positions, and low textbook provision in standard six persisted (IIEP, 2010). A high percentage of pupils were receiving paid tuition, a practice that benefits children from more affluent communities, thus undermining the underlying philosophy of a quality education for all irrespective of socio-economic background. An annual assessment of learning by Uwezo (2010a) reported the status of acquisition of basic numeracy and literacy skills in a large representative sample of primary schools in seven provinces and described the situation as 'grim'. The performance of pupils in numeracy within the ASAL was reportedly 18 percentage points lower than the national average.

## 4. Conceptual framework

### Methods of assessing the impact of HIV and AIDS on education systems

Several methods were available to measure the effect of HIV and AIDS on the education sector. Where possible, researchers used reliable statistics and/or rigorous studies based on empirical evidence. In their absence, more qualitative approaches were used, in which case, as Kelly (2000: 23) pointed out, 'examples are largely illustrative, the evidence is not rigorously based and some is anecdotal'. Among the psychometric models for estimating impact, the Ed-SIDA model (2000) was used mainly to estimate the impact of HIV on the supply of education, as were the AIDS Impact Model and the Resource Needs Model (USAID, 2010). Primary data were used to estimate the effects of the epidemic. Kinghorn (2007) described a model that amalgamates a series of methods – new or existing projections, surveys, behavioural surveillance, biological surveillance (HIV zero-prevalence testing), qualitative research, costing, and economic evaluations. Kelly (2000) pointed out the multi-faceted impact that HIV may have on education systems. Researchers concur that the methodology used is dependent on the purpose and goals of the research, the availability of necessary and sufficient reliable information, and the resources available to the researcher(s). The purpose may be to improve resource planning for the education sector, or it may be to create awareness of the challenges and to advocate for improvement. Kinghorn (2007) maintained that the goal of such assessments is to understand how HIV and AIDS are impacting on systems – internally on the health and vulnerability of employees, and externally on the learners.

As Kelly (2003) pointed out, unless measures are taken to identify potential areas of impact and to design appropriate

**Table 1:** National level education indicators

<b>Year</b>	<b>Primary gross enrolment rates</b>		<b>Primary net enrolment rates</b>		<b>Primary completion rates</b>		<b>Primary to secondary transition rates</b>		<b>Secondary gross enrolment rates</b>		<b>Secondary net enrolment rates</b>	
	M	F	M	F	M	F	M	F	M	F	M	F
2002	92.9	89.6	76.5	78	66.2	63.1	43.6	49.8	29.8	26.4	N/A	N/A
Overall		91.25		77.25		64.65		46.7		28.1		18.2
2009	112.8	107.2	94.5	90.5	88.3	78.2	61.3	67.3	46.3	38.8	N/A	N/A
Overall		110.0		92.5*		83.25		64.1		* 42.5		* 28.9

Source: MoEST EMIS, various years, \* = 2008 data

responses, the epidemic may impact school systems in a way similar to that in which the virus impacts the human body: It weakens and disrupts the system, resulting in opportunistic problems that produce reactive changes, putting the system in danger of collapse. The conditions that existed prior to the outbreak of the epidemic are exacerbated by HIV and AIDS, and these pre-existing conditions need to be considered when examining the internal and external impact of HIV on education. The importance of including the above issues in impact analyses is stressed by Kinghorn (2007), who maintained that: (i) HIV and AIDS-related needs compete with other needs for resources and, as a result, prioritization and resource allocation must be based on a sound understanding of the types and size of challenges facing education; and (ii) responses can be designed with a more holistic approach that takes advantage of potential synergies between responses to HIV and AIDS and other challenges.

### The nature of the evidence and the approach used in this study

The terms of reference for this study required that the findings be evidence-based. There were several gaps in the sector's statistical databases that hampered the researcher's ability to confidently draw unqualified conclusions. Any existing evidence on the impact of HIV and AIDS is often obscured by the many factors that influence access, efficiency, quality, and equity. For example, in this present study, EFA, tuition-free education, HIV incidence, regional variations, and socio-economic conditions contributed to changes in educational indicators, but the magnitude of each effect at any time was hard to measure.

A determination of what works and what does not in HIV and AIDS education is even more problematic. The term 'evidence based' is not well defined in the professional literature, and there is no consensus on what constitutes evidence. No single study is sufficient to demonstrate that an intervention is effective. Generally, science depends on both direct observation and systematic replication. There is no consensus on the quality or quantity of evidence necessary to establish that an educational intervention is evidenced based. Van de Ven and Aggleton (1999) discussed the many sources of evidence used over a period of time to investigate the effectiveness of interventions in health and the social sciences, and their application to HIV and AIDS education. They argued against a 'hard' line position that the only useful evidence comes from experimental research, and advocated broad and diverse

evaluation strategies. They concluded that the strongest evidence is that which produces consistent results emanating from a variety of investigators 'employing dissimilar methods and taking different theoretical perspectives' (Van de Ven and Aggleton, 1999: 469).

The research team engaged in the current study employed a variety of methods to gather data. These comprised a survey of educational institutions that included interviews, questionnaires, and focus groups; an online forum comprising Kenyan personnel active in HIV prevention and mitigation; statistical data gathering and analysis; and a literature survey among which were quantitative analyses of achievement and other measures of education policy effectiveness. Finally, the draft report was discussed by participants in a consultative meeting and their comments incorporated into the revised report. See Annexes 1 to 3 for reports on the survey, forum, and consultative meeting.

### Characterization of the literature

There are few evidence-based studies of the epidemic's effect on the overall education sector in Kenya, although there are some regional and district-based studies on aspects of the impact. Many of the reports that do exist are based on anecdotes and inferences. There are some multi-national studies using demographic and health survey data that include information from Kenya.

### Privacy laws, stigma, and denial impede the researcher

There are two separate but interrelated factors that make it particularly difficult to determine the epidemic's impact on the education sector. The first is the existence of privacy laws that preclude the disclosure of a person's HIV status and the practice of registering the proximate cause of death and not the underlying problem, even when there is a post-mortem or the patient is undergoing treatment. In this case, HIV infection can only be inferred from diagnosis of the cause of death or illness. The second is the stigma and fear that still accompany the epidemic, although there is a growing understanding of cause and effect relationships among the general population of Kenya and a wider acceptance of people who are infected or affected by HIV, as indicated in demographic and health surveys. Stigma and denial have their basis in traditional cultural beliefs and in many churches' attitudes towards sexuality. The absence of any clear information leads to speculation, and the researcher may sometimes make inferences from conjecture, assumptions, and projections of education staff mortality and morbidity when no rigorous evidence-based studies exist.

## 5. The epidemic's impact on children and youth

Any consideration of the impact of HIV on education in Kenya must be in the context of the epidemic's impact on the nation, the education system's structure and development in general, and the drive to meet the Millennium Development Goals (MDGs) in particular. A brief description of the education sector and progress in meeting the EFA goals was presented earlier. The challenge posed by the epidemic's impact on children and youth is detailed in this section, since this is the age range most affected and where the education sector could have most influence.

Regular demographic and health surveys provide information on how children and youth are affected by the epidemic. They provide data on knowledge acquisition, sexual behaviour, and associated factors. They also report on the magnitude of the challenge of dealing with the growing number of vulnerable children and youth. All this information is important because of its implications for the education sector's prevention and mitigation programmes.

Young people under 15 years of age constitute 43 per cent of Kenya's population (Central Bureau of Statistics, MoH and ORC Macro, 2004). The economic survey of 2009 indicated that the 2005/2006 Kenyan Integrated Household Budget Survey reported that the 5–17 year old population was 12.8 million (35 per cent of the total population), of which 10.3 million lived in rural areas. These populations comprise the ECD, primary and secondary school age groups, and represent over half of Kenya's total population. Since these children and youth may be in school, it is important to consider their sexual health, HIV status, the determinants of their knowledge and sexual choices, and their family status. This provides information for prevention and mitigation interventions.

### Overall impact on children and youth

Young people may be infected with or affected by HIV and AIDS. Kenya's demographic and health surveys of 2003 and 2008/2009 and the Kenya AIDS indicator survey of 2007 provided invaluable information on the extent to which children and youth are infected, addressing vulnerability and risk factors. The surveys also assessed the impact of adult mortality and morbidity on households and children.

It is estimated that 110,000 children aged 0–15 live with HIV (NACC, 2009a). Of these, 45,000 are in need of ART, and 32

per cent of these are receiving the treatment. The number of new child infections is estimated at 34,000 annually, and this number may continue to rise since many pregnant women are HIV positive, and between 54,000 and 147,000 of them are estimated to be in need of ART prophylaxis for the prevention of mother-to-child transmission. These children require constant care and good nutrition, and will be on ART for life.

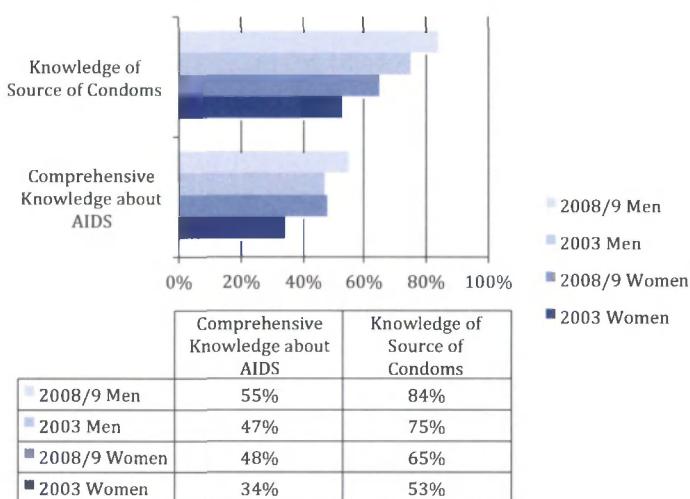
There is increasing concern about the incidence of HIV in the 15–25 year old population. The KAIS 2007 (GoK, 2009) indicated that 2 per cent of young people aged 15–17, 6 per cent of 23–24 year olds, and 8 per cent of women (almost four times greater than HIV prevalence among men) were HIV positive. Young pregnant women had a prevalence of 6 per cent compared with 4 per cent among non-pregnant women. HIV prevalence is higher among youth with no education and in the middle wealth quintile. Regional variations mirror the national survey findings, with youth in Nyanza having a prevalence of 7 per cent (11 per cent female and 3 per cent male), followed by Nairobi with 3 per cent. Central, North Eastern and Coast registered 1 per cent each. The 2008/2009 KDHS reported that 17.7 per cent of young women aged 15 to 19 were either pregnant or had a child. The number of abortions in Kenya was estimated at 29 for every 100 live births, 16 per cent of which were exercised on teenage girls.

### HIV and AIDS knowledge and sexual behaviour among youth

Condom use among young adults plays an important role in preventing the transmission of HIV and other STIs, as well as unintended pregnancy. Knowledge of where to get condoms is an important prerequisite to their use. Information on the level of knowledge of major methods of avoiding HIV and on the rejection of major misconceptions was collected from young people. The data show that only about half of youths aged 15–24 years in Kenya (48 per cent of young women and 55 per cent of young men) have comprehensive knowledge about AIDS. The data further show that 65 per cent of young women and 84 per cent of young men know of at least one place where they can get condoms (Figure 5).

More women and men aged 20–24 than in the 15–19 age group had comprehensive knowledge about AIDS and knew where they could procure condoms, but this varied according to whether they lived in urban or rural areas, their education level, and economic status. Women and men living in urban areas or having a higher educational level and wealth quintile were more likely to have comprehensive knowledge about AIDS and know where they could procure condoms.

**Figure 5:** Youth's knowledge about AIDS and where to obtain condoms



**Source:** National Council for Population and Development; Central Bureau of Statistics; Ministry of Planning and National Development; Macro International Inc., 1999; KNBS and ICF Macro, 2010.

### Sexual debut among youth

The median age for sexual debut was 17.5 for men and women aged 15–24. Figure 6 shows the percentage of young women and men from this age group who had their sexual debut before the age of 15 or 18 respectively. Figures suggest that young men are twice as likely as young women to engage in sexual intercourse before the age of 15. By age 18, about half of Kenyan women and slightly more than half of Kenyan men have had sexual intercourse.

Young men and women in rural areas tend to initiate sexual activity earlier than their urban counterparts. Young women in Nyanza and Coast provinces are more likely than those in other provinces to have initiated sexual intercourse before age 18. For young men, Western province leads with 69 per cent having had their sexual debut before age 18, followed by Nyanza province, where 63 per cent initiated sex before age 18.

Education is strongly related to the age at which youth engage in their first sexual experiences, especially for women. Early sexual debut also seems to be associated with poverty levels. Sixty-two per cent of young women in the lowest wealth quintile had their first sexual relations by age 18, compared with 36 per cent in the highest wealth quintile.

### The impact of HIV on households and the challenge of orphans

The growing numbers of vulnerable children, including orphans due to AIDS, pose a significant social problem in Kenya. At the time of the 2008/9 demographic and health survey, nationally 11.1 per cent of children 0–17 years of age were orphans, or an estimated 1.78 million children. There were no significant differences by sex of the child, but the percentage of children orphaned varied significantly with age, residence, and province. The percentage of children orphaned increased with age, from 7.8 per cent among 0–4 year olds to 21.5 per cent among 15–17 year olds. In rural areas, 11.5 per cent of children were orphaned compared to 8.6 per cent of children in urban areas. Nyanza province had nearly twice as many children orphaned (20.9 per cent) as other provinces.

Among all children aged 0–17 years, 12.1 per cent lived without either parent; 8.5 per cent were living without either parent, even though both parents were alive. Of the orphaned children, 8.6 per cent had lost their fathers, 4.0 per cent had lost their mothers, and 1.7 per cent had lost both parents. Living arrangements for orphans varied, although for some years an increasing burden has been placed upon older members of the extended family to care for orphans. However, research by Evans and Miguel (2007) indicated a change in trend away from orphans being cared for by their grandmothers to being looked after by younger adult family members.

### Vulnerable children

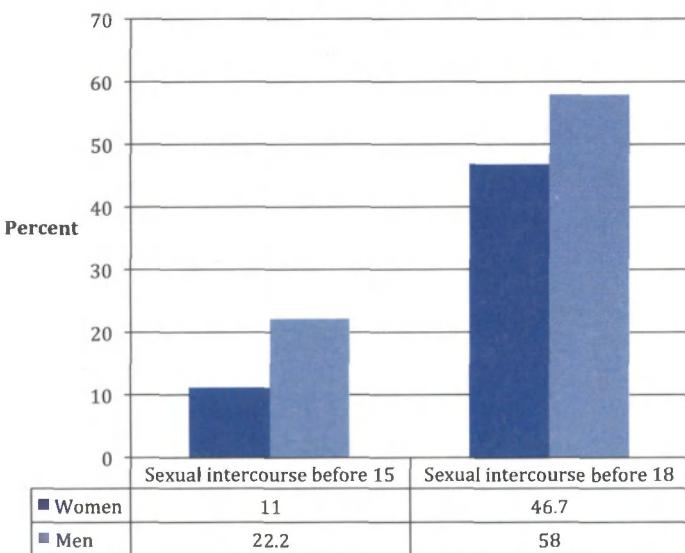
The term 'vulnerable children' has a variety of definitions. In addition to orphans due to AIDS, an estimated 4 per cent of children under the age of 18 had a chronically ill parent living in another household; 1.8 per cent had experienced a death in the household in the 12 months prior to the survey, and 5.5 per cent had a chronically ill adult in the household. The National Policy of Action for Orphans and Vulnerable Children (2008) states that 'besides children who are orphaned, an even greater number of children are made vulnerable due to factors such as poverty, diseases, abandonment, disasters and recently, the 2007 post-election violence, among others causes. While it is estimated that between 30–45 per cent of the said orphans have ended in charitable children institutions, between 200,000–300,000 children are estimated to be on the streets of major cities in the country'. Rural children are more likely to be OVC than children in urban areas. The percentage of OVC differed greatly across age groups, from 9.7 per cent among the 0–4 age group to 28.4 per cent among the 15–17 age group.

## Summary of the situation of children and youth and the multiple challenges to education

Children and youth constitute particularly vulnerable groups on a number of counts. Some may be infected at birth, while others are infected later either through abuse or early sexual experiences. Others are vulnerable due to the loss of parents, abuse, or living in impoverished conditions. Girls and women are especially at risk. Young people's HIV status is related to gender, socio-economic status, urban or rural residence, and level of education.

The information presented in demographic and health surveys poses considerable challenges to the education sector's ability to provide (i) a quality basic education (that is, primary and secondary) for all, and (ii) prevention and mitigation programmes that improve young people's knowledge of HIV and AIDS and of modes of protection, in addition to addressing the impact of the epidemic on the school-age population. Indicators suggest that programmes should be more targeted toward girls and youth, and scarce resources better utilized. Since girls and women bear the brunt of the epidemic, efforts to empower them in decision-making should be intensified. In most cases this requires a reorientation of gender roles and, because these roles are inculcated early, the inclusion of life skills education in early ECD courses. Improvements in the duration, quality, and equity of educational provision are

**Figure 6:** Percentage of women and men aged 15–24 who had sexual intercourse before age 15 and 18



**Source:** National Council for Population and Development; Central Bureau of Statistics; Ministry of Planning and National Development; Macro International Inc., 1999; KNBS and ICF Macro, 2010.

important measures to counteract the effect of the epidemic and to prevent further incidence of HIV, thereby protecting the sector from further deterioration.

## 6. The impact of HIV and AIDS on Kenya's education sector

The literature reflects the complex nature of the epidemic's impact on the education sector. It reports on changes in the clientele for educational services, impaired capacity to deliver education, reduction in educational outcomes, and alterations to the teaching and learning environment. The survey, online forum, and interviews with appropriate organizations and personnel confirmed these changes.

### Changes in the student population and their schooling needs

Goliber (2000) investigated the impact of HIV and AIDS on the demographics of education in Kenya, taking supply and demand into consideration. He considered the long gestation period between initial infection to AIDS and, using the AIMS model, estimated that Kenya's school-age population would be reduced by 13.8 per cent by 2010. This slowdown in the growth rate is due to the complex interactions of the infection where adult mortality results in fewer births and fewer children to educate. In addition, some children are infected at birth through mother-to-child transmission and many do not survive to school-going age.

### Changes in the profile of the school-age population and their school participation

Goliber (2000) also examined how the characteristics of the school-age clientele would be affected by HIV and AIDS and finds that 'a staggering number are being orphaned' with the number of double and maternal orphans projected to reach 16.5 per cent of all 0–14 year olds by 2010. According to the 2007 KAIS, this proved to be an overestimation since it found that 11.1 per cent of 0–17 year olds (1.78 million) were orphaned as compared to 9 per cent in 1998 (KDHS 1998 – see National Council for Population and Development; Central Bureau of Statistics; Ministry of Planning and National Development; Macro International Inc., 1999). The difference may be explained by the fact that in 2000, the estimated number of HIV infections was very high; however, it fell again in 2007. If other vulnerable children are added to the number of orphans, they represent 15.8 per cent of all children under

18, amounting to approximately 2.4 million children (KAIS 2007 – see GoK, 2009).

Children who are affected by the epidemic face a number of challenges of a magnitude unknown prior to the HIV and AIDS era. They may suffer psychological trauma as a result of mourning and/or stigma and discrimination. A death in the family may result in increased household poverty, an inability to meet schooling costs, and lower nutritional status. Many of these children may be heading households and supporting families. Others, especially girls and young women, may be caring for sick relatives. These challenges can result in lower levels of completed schooling and slower progress through school.

Jukes, Drake and Bundy (2008) maintained that disease and poor nutrition have the biggest educational impact on the poorest children who – already struggling with their schooling in the face of poverty, delayed development, and general poor health – do not have the financial, physical, or mental resources to cope. Generally, poor, unhealthy, and undernourished school children cannot derive as much benefit from education as their non-poor, healthy, and well-nourished counterparts. Poor health and nutrition may result in low enrolment and high absenteeism and dropout rates; children may become less sociable, more apathetic, and less likely to interact with the environment, thereby impairing learning; may suffer retarded brain and mental development; and may show reduced cognitive abilities.

Ruto, Chege and Wawire (2009a) investigated the living conditions and schooling needs of orphans in Nairobi and in Bondo and Garissa districts. They reported on the extremely adverse conditions under which orphans lived and the maltreatment they experienced in many homes. They commented on the magnitude of orphan hood in Bondo (Nyanza province). Added to the orphans are those children and youth living in households where at least one adult member is ill, often as a result of AIDS. Overall, 5.7 per cent of children below 18 years of age were vulnerable.

An investigation by Mishra, Arnold, Otieno, Cross and Hong (2007), which analysed the data on 2,756 Kenyan children aged 0–4 and 4,172 children aged 6–14 years included in the 2003 KDHS, concluded that orphans, fostered children, and children of HIV-infected parents were less likely to attend school than their non-orphaned and non-fostered counterparts. Children of HIV-infected parents were more likely to be underweight and wasted, but less likely to receive medical care for acute respiratory infection and diarrhoea.

According to the Second Report on Poverty in Kenya based on the Welfare Monitoring Survey in 1997, primary school-age children were not attending school for a variety of reasons. For poor and non-poor households, the four main reasons were insufficient financial resources, early marriage, failure in examinations, and lack of interest. Even after the introduction of FPE, Otieno and Colclough (2008) reported that the major constraints to primary education enrolment were financial, which affected the poor and the non-poor alike. The cost of FPE to households is discussed in the next section. In secondary education, prior to the introduction of FSE, financial barriers affected the poor significantly more than the non-poor. An early study by Juma (2001), prior to universal primary education (UPE), reported similar findings in Bondo district, Nyanza province, and Nairobi:

*The effects of a prime-age death also lead to a fall in enrolment among children in the household due to the reduction in the ability of families to pay for schooling; raising the demands for children's labour; and children being withdrawn from school to work outside the home, help with chores and farming, or care for an ailing family member (Juma, 2001: 32)*

According to Oyugi and Muita (2002), Kenyan households affected by HIV and AIDS reportedly adopt unsustainable coping strategies, including the sale of assets, in order to support the family and children's schooling; this only serves to intensify their poverty.

The effects of illness or death in a family often fall disproportionately on the shoulders of the girl child, although this appears to be changing as male dropout rates are higher than those of girls in six out of eight provinces (Uwezo, 2011). In a study of school participation in Muranga in Central province and Homa Bay, Odiwuor (2000) reported that girls from AIDS-affected families were found to carry more responsibilities than boys, leading to lower enrolment and completion rates than boys. He cited evidence of girls being forced into marriage or 'lured into the illegal sex trade' (Odiwuor, 2000: 127). The latter was prevalent among those who had been involved in 'trial' marriages<sup>9</sup>.

Akunga, Kwamboka and Muia (2002) looked at the epidemic from the child's perspective and found that generally HIV and AIDS have a significant impact on children's learning experiences. They are traumatized by the illness and death of family members. This leads to insecurity, enhances poverty,

<sup>9</sup> This term refers to a type of co-habitation practiced in some tribal contexts, when a man and woman (often an older man and a younger woman) would live together and marry officially if she became pregnant – although this was not always obligatory. The trial marriage could end if the outcome was not favourable.

and affects their school attendance and performance. Stigma and fear surround the epidemic, and, among other indications, are manifested in children's fear of being taught by an HIV-positive teacher. Observations from the school survey indicate substantial progress in addressing stigma, which is reportedly lower in many schools but high in the community.

### Effect on the capacity to deliver services

The epidemic's impact on the personnel responsible for the management of the education sector and on the teachers who deliver the curriculum has been profound. The management of the system nationwide has become less effective, and the teaching and learning environment in all institutions has deteriorated, thereby jeopardizing learning outcomes. Losses among managerial, teaching, and support staff have reduced the capacity to plan, finance, and deliver services. Staff morbidity and mortality are often accompanied by a reduction in institutional memory, and remaining or new staff will fall back on long-established, familiar bureaucratic procedures with which they feel comfortable. This may inhibit the sector's flexibility and effectiveness in responding to challenges such as the HIV epidemic.

### Teacher absences

Absenteeism of educators, managers, and support staff can be due to stigma and discrimination and/or sickness of household/homestead members. According to Mbwika, Syokau and Thuita (2004), teacher absences were recorded manually, and the information was not summarized or kept in a format where it could be retrieved and used for management and planning purposes. Similarly, data on manager and support staff absenteeism was not accessible. In all cases, reliance must be placed on estimates and anecdotal information. Risley's (2009) estimates suggested that, at any one time, 1.5 per cent of all Kenyan teachers were sick due to AIDS-related illness. Goliber (2000) estimated that time lost by education staff amounted to 2.1 per cent of all time available. These estimates have serious implications for the management and delivery of educational services. Uwezo (2011) reported that on any single day, 13 per cent of teachers were reportedly absent. This was in schools where teacher shortages were reportedly acute with every school having, on average, four teachers. Information from the field surveys indicate that in some provinces, teacher absenteeism presents serious problems and adds to the stress of already overworked colleagues. There are often no support structures in place.

### Stigma and discrimination

A major reaction to the epidemic is the stigma and discrimination that infected individuals and their families face due to inadequate knowledge about the causes of HIV and AIDS, and the consequent superstition and fear. There remains an air of secrecy surrounding the epidemic. In many educational institutions there is speculation concerning people's HIV status. Several references were made to the effects of stigma and fear inhibiting access to voluntary counselling and testing (VCT), for example. The schools' survey points to instances of head teachers not knowing which teachers were HIV positive and which children were affected by HIV and AIDS. In such cases, staff and students who might lend support to those affected cannot do so. There are also issues of privacy and sensitivity, as illustrated in the following anecdote from an online forum participant:

*When and when not to disclose the status of a child or individual is a very delicate issue. A boy in one of the schools I taught in was always being punished for coming to school late. The truth of the matter was that the two siblings, a brother and sister were taking turns in preparing their bed-ridden mother before they both left for school. The single parent was the sole breadwinner and they had to hold on to her life. It is one time when a friend could not contain it any more to see the boy being punished severely that he screamed to the teacher to stop 'the mama yake anakufa kwa ukimwi' (his mother is dying of AIDS). And this was in front of the other students. The content in the school curriculum assumes that the students are not infected and so related life skills and techniques like breaking the news have to be highly emphasized.*

### Education management, institutional memory, and capacity at all levels

Several reports express concern over management at all levels of the education sector, including financial management, planning, human resource capacity development and management, management of education service delivery, monitoring and evaluation, and coordination and communication both within the sector and with outside ministries and agencies. Mbwika *et al.* (2004) reported on the planning and management capacity of the sector in the context of HIV and AIDS. They found a lack of capacity at all levels to plan, implement, and monitor HIV prevention and mitigation programmes.

## Financial management

Financial management is discussed here at length because research reports and the schools' survey point to the inadequate provision of infrastructure and a lack of teaching and learning resources, especially for the HIV and AIDS curriculum, even though budgetary provision is made for these items. Some schools are imposing levies for a variety of purposes, and learners are paying for out-of-school tuition. The need for schools to raise additional revenue implies that budgetary allocations are insufficient, are not received in a timely manner, or are being mismanaged. An additional concern is the weak financial management capacity throughout the system.

The Ministerial Public Expenditure Review (MoEST, 2007) reported that although substantial progress has been made in budget reforms through, *inter alia*, the introduction of the Medium Term Economic Framework (MTEF) budgetary process included in reformed Public Financial Management (PFM), various challenges remain. At the central level, these include: (i) inadequate qualified personnel and capacity building to implement projects; (ii) difficulties in capturing expenditure trends for development partners' appropriations in aid; (iii) the delayed flow of resources, particularly from development partners; (iv) the lack of established monitoring and evaluation systems; and (v) the clustering together of teacher personnel emoluments, making analysis by sub-sector difficult.

Specific concerns were raised by Transparency International (2010) about the integrity risks in the management of government funds at both central and local levels. The report cited the under-expenditure of the development budget at central level (see Table 2). Reasons advanced for the under-expenditure are: (i) failure by donors to release funds that had been entered as appropriations in aid; (ii) delays by Treasury in releasing funds; (iii) delays in signing project documents, which result in late release of funds; and (iv) non-submission of expenditure reports by donors.

This underlines delays and capacity issues in financial management at central level. They may result in controversial payments to contractors in the form of penalties, carry-over of funds from one year to the next, thus distorting financial accounting, and irregular payments to contractors with no proof of execution of the contract. Additional accounting issues at national level include over payment to contractors and delays in retiring money advances (imprests).

There are concerns about district level capacity. Controller and Auditor General (CAG) reports point out the mismanagement of funds in the districts where the DEO is the accounting officer. Common misuses of funds include failure to surrender imprests, irregular payments for goods that were not delivered, and irregular payments of allowances. Fuel purchases were the most common items that were purchased irregularly. These cases at the local level may indicate a lack of accountability, but they may also be a result of poorly trained staff. An education capacity assessment (USAID, 2008) singled out financial skills as a key constraint to effective management of resources.

There are capacity issues at the school level also. Primary schools have been receiving FPE funds directly into their bank accounts. There are two dedicated accounts, namely the School Instructional Material Bank Account (SIMBA) for the purchase of instructional materials, and a General Purpose Account (GPA) for meeting operational expenses. Official records show that donors and the government, between 2003 and 2008, paid KSh28.3 billion into one account and KSh19.2 billion into the other. Treasury records show that the government paid more than required in 2003 – KSh1,094 per capita instead of KSh1,020. From 2004 to 2008, there was an annual shortfall of KSh622 million for 2004, KSh1.16 billion for 2005, KSh2.95 billion for 2006, and KSh830 million for 2007 and 2008 combined. The requirement that all schools open these bank accounts was part of the changing roles of school heads and their management committees from traditional curriculum delivery to the prudent management of school resources.

**Table 2:** Reported under-expenditures in the education development budget, 2002/2003–2005/2006

Financial year	Under expenditure (KSh)	As % of total budget
2002/2003	617,707,037.80	41%
2003/2004	2,984,288,857.75	35%
2004/2005	2,141,369,096.40	36%
2005/2006	3,295,000,000.00	33.8%

Source: KNBS and ICF Macro, 2010.

A number of governance issues were identified in schools' financial management. Most schools visited kept no records of funds received other than through the SIMBA and GPA. Uwezo (2010a) reported the disbursement of funds as being erratic. This forces head teachers to incur debts on behalf of school management committees who only sit to approve debt repayments. There are no specific guidelines regarding debts incurred by schools or on the number of bank accounts to be opened, leaving the system open to abuse.

The purchase of learning materials through SIMBA is controversial. A total of KSh45 billion was disbursed between 2003 and 2008. A report by the Department for International Development (DfID) indicated that 5.8 million books have been lost since FPE began, at an average cost of KSh226 a book. Some of the loss has been attributed to the post-election violence, but this is questionable as very little looting was reported. There has been some concern that head teachers may have colluded with 'brief-case' booksellers to de-fraud the government.

Financial management in secondary schools raises similar concerns. Additional issues are the 'perennial school development projects' that are carried out without consultation between school administrators and school communities. Some schools are constantly requesting money from parents for such projects, and there is minimal financial oversight of funds. Some suppliers have monopolized services in institutions. Accounts in some schools are rarely monitored, and there is room for over-withdrawals and for undisclosed income.

### **Human resources development and management**

The MPER of 2007 (MoEST, 2007) pointed out that officers in the education sector are under pressure due to acute staff shortages, especially at the field services level. Data from the same report show that MoEST headquarters has been substantially under-staffed since 2002/2003 compared to the approved establishment. Attrition due to deaths, scheduled retirements, early retirements, and resignations represents a very small proportion of personnel in post. However, it must be acknowledged that it is not the number of staff that determines the efficiency and effectiveness of an organization, but rather how they are deployed and utilized. In this regard, concern must be expressed about the level of staffing in the TSC secretariat, where the ratio of teachers to TSC staff is approximately 100:1.

In its management training component, KESSP referred to the challenges the MoEST faces with respect to the available

human resources. These challenges result from past practices of deploying officers without consideration of their abilities, skills, and past performance. As a consequence, some personnel in senior roles are not in a position to provide quality service. For this reason, a capacity-building component was included in KESSP. The study on education management capacity by USAID (2008) reported that there seemed to be a lack of skills in project management, such as the ability to write scopes of work for other staff. Managers reportedly rated themselves as having a general lack of planning, budgeting, and data-handling skills.

Sessional paper No 1 of 2005 on the *Policy Framework for Education Training and Research* stipulated that education services would be improved through the decentralization of educational management and financing to district and school levels. However, there is considerable concern about management capacity at these levels. USAID (2008) observed that district level personnel were unclear on the procedures for replacing retired teachers and on the clarity of regulations in areas such as tendering, contract performance, and tender evaluation. Project management skills were low and computer skills 'drastically poor', and 42 per cent of district managers did not use a performance appraisal system.

Similar gaps existed in school level administration. These include poor planning skills and inadequate record-keeping. Head teachers were more concerned about infrastructure development and generic issues than pedagogical issues, indicating a lack of focus on human resource and service delivery management. They rated the training they had received as very poor, financial management training as the weakest. They had problems understanding and filling out data sheets from TSC and the Kenya Institute of Education (KICD). However, data forms from MoEST headquarters were easier to deal with: 70–85 per cent of head teachers gave the lack of computers and their computer skills the lowest possible rating of all; and school management committees and boards of governors were unable to deal with pedagogical and staffing issues.

This capacity assessment leaves no doubt that systemic capacity to plan and manage service delivery is weak and that there is an urgent need for concentrated capacity building if the quality of education is to improve.

### **Institutional memory**

It is not known how attrition due to HIV and AIDS or other causes has affected the sector's institutional memory. Obviously, it has resulted in the loss of experienced staff

members who were very familiar with the system and may have been trained for the positions they occupied. In this sense institutional memory may have been reduced. However, it must be questioned whether this is a substantial loss in an education system that is undergoing modernization and where there is a need to learn new procedures and skills that are, at times, different from deeply entrenched bureaucratic regulations.

### The impact of HIV and AIDS

HIV has impacted and weakened all aspects of the system placing an additional burden on all the actors within it, be they managers, teachers, support staff, or students. The working and learning environment is complicated because people are facing enormous pressures – personal, societal, financial, and professional – due to the epidemic. This leaves them debilitated and discouraged, which in turn affects their performance. Although the institutional memory may have declined, the bureaucracy remains. It seems that where there is uncertainty in people's personal lives, they tend to fall back on what makes them feel secure – in this case, the traditional bureaucratic procedures. These procedures differ from modern management practices.

### Mortality and morbidity among learners, educators, managers, and support staff

#### Learners

No reports were available on the level of morbidity and mortality among learners. The field survey teams were told of isolated cases of HIV infection, but there were no specific numbers. One TTC estimated that there were between four and seven HIV-positive students who were often absent from lectures. No student deaths were reported to the survey teams.

#### Managers and support staff attrition

No figures were available for AIDS-related mortality and morbidity among managers and support staff. The MPER 2007 (MoEST, 2007) reported that the education sector was seriously under-established and that there were staff changes at headquarters from 2002/2003–2006/2007 as shown in Table 3. There is no way of verifying how many of the deaths, voluntary early retirements, or transfers to other organizations were HIV-related, but it is likely that several of them were. One of the study team was informed that HIV-positive personnel at MoEST headquarters were transferred laterally within the Ministry.

#### National and district level attrition among teaching staff

As of 2010, there were 192,421 registered primary teachers and 66,037 registered secondary teachers (Annex 4). National statistics on attrition among serving teachers provided by the TCS's pensions department revealed that total teacher attrition over the 16-year period was at least 91,350; an average of 5,800 annually (Figure 7 and Table 4). There is no information on the cause of death or on the reason for retirement and resignation. Although teacher statistics for 1995 disaggregated attrition into nine categories, more recent reports have not done so, making it impossible to determine how many teachers died or were transferred within the system (on health grounds among other reasons). The data for 2011 are incomplete, but it is informative to note that 97 deaths, 492 retirements, and 37 resignations were recorded in the first four months of the year.

It is possible that a percentage of the attrition was due to HIV and AIDS. If so, the two peaks observed in death rates in 1998 and 2007 may correspond to two waves of the epidemic.

The field survey data obtained from DEOs on teacher attrition included those from Machakos district in Eastern province for 2003–2010. The number of deaths is illustrated in Figure 8. Results indicate substantial but declining death rates over the first decade of 2000. No information was available on the causes of death, although it may be assumed that some deaths were HIV-related, since a study by Riechi and Otieno (2007) in the same district reported that of the deaths in their schools, 40.5 per cent were considered by teachers to be AIDS-related.

The survey asked for data to be broken down by death and other causes, among which was illness. Illnesses accounted for over half the attrition among men and 85 per cent of the attrition among women (Figure 9). If it is assumed that much of the illness was HIV-related, and the teachers are not receiving ART, a substantial number of deaths may result over the next decade.

#### Morbidity and mortality attributable to HIV and AIDS

Mbwika *et al.* (2004) reported that some KNUT district offices had started to collect data on the deaths of their members on a monthly basis. Some offices used the information to create awareness among members at annual general meetings, but others preferred not to release it. The only firm data available were a TSC ACU report that in March 2006 there were 1,781 teachers who were known to be HIV positive. Of these, 1,252 were primary school teachers, 472 were secondary teachers, and 57 were teachers' college staff. Six hundred of the cases

**Table 3:** MoEST headquarters staff changes, 2002/2003–2006/2007

Year	In post	Approved establishment	Early retirements	Normally retired	Died	Transfer to other organizations
2002/2003	4,228	6,910	—	170	22	30
2003/2004	3,963	6,963	—	215	16	6
2004/2005	3,845	6,952	—	174	16	1
2005/2006	3,778	6,952	40	113	3	12
2006/2007	3,586	6,952	42	64	8	42

Source: MoEST, various years.

were in Nyanza province, 430 in Western province, and two cases in North Eastern province. KENEPOTE estimated that, in 2011, they had 3,500 members who are employed by the TSC. If teachers who are not TSC employees are included, this number increases to 4,000.

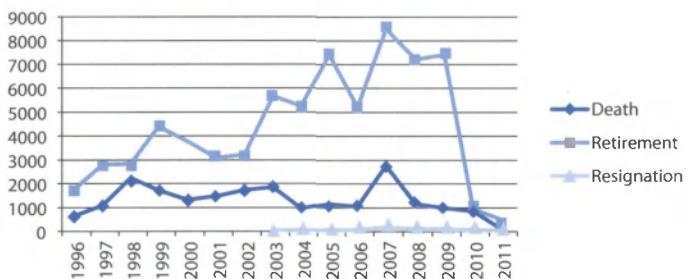
In the absence of sufficient data on the extent of HIV and AIDS among teachers, one has had to rely on estimates. Goliber (2000) estimated that the average annual percentage of Kenyan teachers who would die of AIDS-related diseases would be 1.4 per cent from 2000–2010. The loss of labour to the sector resulting from illness among teachers, education officers, and their families would be 2.1 per cent of the time available. At least through 2010 the epidemic would affect demand marginally more than supply.

Risley (2009) carried out an analysis to indirectly estimate the impact of HIV on the education sector in Kenyan provinces using the Ed-SIDA model, which combines teacher demographic information with epidemiological projections to determine the number of teachers who are living with HIV, teacher absenteeism due to AIDS, and associated mortality. The main results were that HIV prevalence among Kenyan

**Table 4:** Primary and post-primary teacher attrition, 1996–2011

Year	Deaths	Retirements	Resignations	Total
1996	636	1,741		2,377
1997	1,062	2,787		3,849
1998	2,233	2,826		5,059
1999	1,706	4,373		6,079
2000	1,305	3,764		5,069
2001	1,468	3,069		4,537
2002	1,715	3,212		4,927
2003	1,834	5,657	44	7,535
2004	951	5,240	46	6,237
2005	1,145	7,401	56	8,602
2006	1,030	5,211	63	6,304
2007	2,746	8,477	179	11,1402
2008	1,144	7,200	101	8,445
2009	970	7,400	97	8,467
2010	839	933	63	1,835
2011	97	492	37	626
TOTAL	20,881	69,783	686	91,350

Source: TSC 2011 unpublished data (personal communication)

**Figure 7:** Primary and post-primary teachers' attrition, 1996–2011

Source: TSC 2011 unpublished data (personal communication)

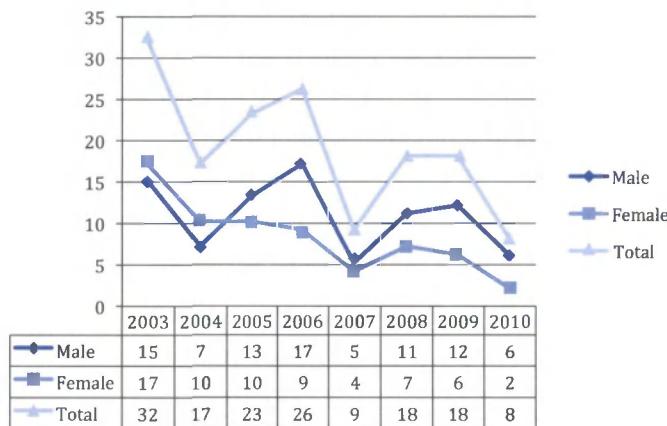
teachers could be expected to be high – 15 per cent – due to teachers belonging to vulnerable age groups, with AIDS mortality currently estimated to equal around 2 per cent of all teachers annually. She used KAIS (2007) prevalence for each age profile, and comparing teachers' age profiles with these was able to estimate prevalence among teachers for each province. The results are given in Table 5.

## The impact of teacher replacement policies and HIV and AIDS on school staffing and education financing

Taken together, teacher replacement policies and HIV and AIDS have had a serious impact on the number and distribution of teaching staff and on education financing. Historically, Kenya has had enough teachers to maintain reasonably low pupil-teacher ratios (PTRs). In 1999, an agreement with the International Monetary Fund to downsize the civil service by 15.2 per cent and to put a ceiling on additional social sector spending of 0.5 per cent of GDP resulted in a freeze on teacher recruitment. The supply-driven staffing policy was replaced with a demand-driven replacement of teachers who were hired to fill existing gaps in the establishment only. This was intended to improve education sector efficiency and rectify any uneven distribution. Under a demand-driven policy, replacements should keep pace with vacant posts, but as may be seen from Table 6, this is not so. No new teachers were recruited until 2007. This resulted in an estimated 40,000 qualified teachers being unemployed (Education International, 2007). The TSC reported that there was a shortfall of 29,750 post primary teachers (personal communication). Some head teachers said it could take up to two years to fill a vacancy. When FPE was introduced and enrolments increased, there were insufficient teachers to sustain a PTR of 40:1 in primary schools as recommended for EFA, and the PTR target was raised to 45:1.

The number of public primary and secondary school teachers by qualifications and sex for 2004–2008 are shown in Annexes 5 and 6. These numbers exclude teachers on study leave, those in disciplinary cases, and those performing non-teaching duties. At primary level, teachers with lower qualifications are being phased out. Gender parity has almost

**Figure 8: Machakos district teacher deaths, 2003–2010**

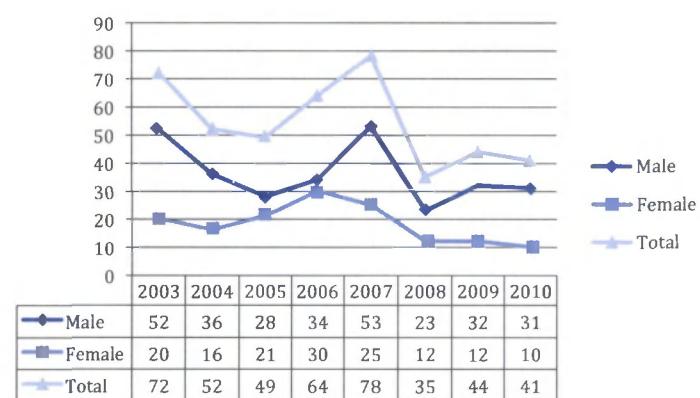


*Source:* Schools' survey 2011.

been achieved in primary education, but women teachers are under-represented in secondary schools. Data from Annex 4 indicates that teacher replacement will be a critical challenge for some time. Over the next 10 years, 59.4 per cent of primary teachers and 51 per cent of post-primary teachers who are over 40 years of age will retire and replacements will be required for them and for teachers who resign or die.

A World Bank study (2004) reported the existence of an unbalanced distribution of teachers across the country, especially between rural and urban areas. This was due, in

**Figure 9: Machakos district teacher attrition due to illness, 2003–2010**



*Source:* Schools' survey 2011.

part, to teachers' preference for postings to urban areas where facilities were readily available. It was also due to teachers infected with and affected by HIV requesting transfers to be near relatives and treatment facilities. The TSC estimated that 15 per cent of teachers are estimated to be HIV-positive. Treatment facilities are mostly found in urban areas, and relocation of teachers to these areas thereby depletes the rural teaching stock. This adds to personnel costs, which already represent 64 per cent of the education budget and are further inflated by the costs of funerals and pension payments. Additional expenditures in these areas result in reduced funding for qualitative inputs (Otieno and Colclough, 2008).

In addition to the reduction of the work force through infirmity and mortality, the sector is faced with reduced productivity. There are direct financial implications caused by the costs arising from medical claims, the cost of funding substitute teachers often borne by the parents and school committees, and the increased burden in the form of financial contributions to the staff and officers made by individuals.

The draft Education Sector Report of 2006 puts the number of weekly deaths at 10 and emphasizes the need to address the epidemic because of the financial burden it places on the

*The number of teachers dying is increasing rapidly while others are too sick to work thus denying the sector of vital skilled human resources. HIV/AIDS is weakening the quality of education directly because of teaching time lost due to sickness and death. Sickly teachers lose teaching time and their healthier colleagues will be called upon to compensate thereby increasing the latter's workload and consequently compromising quality (MoEST, 2007: 93–94).*

**Table 5:** Estimates of HIV prevalence in teachers

Province	Population prevalence	Projected teacher prevalence
Kenya	7.8%	14.72%
Central	3.8%	7.32%
Coast	7.9%	15.51%
Eastern	4.7%	9.39%
Nairobi	9%	20.12%
North eastern	1%	1.56%
Nyanza	15.3%	30.49%
Rift Valley	7%	14.12%
Western	5.1%	10.26%

Source: Risley, 2009.

sector through the 'escalating cost of training teachers' and 'competition for resources with other sectoral programmes'.

#### The effects of teacher morbidity and mortality on schools

The MPER (2007) (MoEST, 2007) stressed the impact of teachers' morbidity and mortality on schools:

Akunga et al. (2002) observed that the illness and community obligations of teachers who may be either infected or affected by HIV result in absenteeism, reduced competence, and gaps in staffing when a teacher is absent or dies. According to teachers in Riechi and Otieno's study (2007), the most serious impact of the epidemic on schools was the workload that teachers experience due to colleagues' illness or absence. Since they were overburdened, teachers considered that this reduced their effectiveness in delivering the curriculum and carrying out other duties. Several teachers who participated in focus groups during the field survey maintained that the changing role of the teacher to include guidance and counselling had added a further burden to an already heavy work schedule. Supporting evidence for the stress placed on teachers is provided by data on pupil-teacher ratios for 2008. These indicate that 8,976 schools had PTRs greater than 50, and 4,494 had more than 75 (Annex 7). The impact of HIV and AIDS on teachers produces a cascade effect within the school as illustrated in Figure 10.

**Table 6:** Teacher replacement needs, actual replacements, and cumulative shortfall, 2001–2010

Year	Attrition in primary and post-primary*	Primary replacements**	Post-primary replacements	Cumulative shortfall***
2000	5,069	n/a	n/a	
2001	4,537	n/a	4,548	5,058
2002	4,927	Not done	2,083	7,902
2003	7,535	Not done	2,454	12,983
2004	6,237	5,000	1,200	13,020
2005	8,602	6,200	1,700	13,722
2006	6,304	5,641	1,691	12,694
2007	11,402	Not done	2,370	21,726
2008	8,445	10,307	3,957	15,907
2009	8,467	Not done	Not done	24,374
2010	1,835	1,480	1,300	23,429
<b>TOTAL</b>	<b>73,360</b>	<b>28,628</b>	<b>21,303</b>	<b>23,429</b>

Source: TSC 2011 unpublished data (personal communication).

\* Pensions Attrition Rate

\*\* Vacancies caused by natural attrition

\*\*\* Cumulative shortfall assumes replacements are based on previous year's attrition and there are no cumulative shortfalls prior to 2000.

## Summary of the impact of HIV and AIDS on education

The literature suggests that the impact of HIV and AIDS on the Kenyan education sector has been profound. It has resulted in an estimated 2.4 million OVC, many of whom are of school-going age, and has thereby changed the profile of the school-age population. These children may be mourning the loss of their parents, facing stigma and discrimination, living in poverty, suffering malnutrition, acting as caregivers, or heading households. Unless measures are taken, affected learners may have lower levels of schooling and progress more slowly through school than their non-affected counterparts. Girls and young women tend to bear the brunt of the epidemic since they may be required to act as caregivers or, when resources are scarce, be forced to forfeit their schooling to favour boys' education. The planning and management of education sector programmes, projects, and human and financial resources that were initially weak have been further undermined by the epidemic. The sector's capacity to deliver quality services is seriously incapacitated by morbidity and mortality among staff; high rates of teacher attrition and absenteeism; reduced morale due to stigma, discrimination, and fatigue; and high stress levels as extra burden falls on administrators and other school staff. The net result is that the learning environment deteriorates and achievement levels fall.

## 7. Impact of HIV and AIDS on sector indicators and attainment of EFA

The major goal of EFA is to provide a good quality primary education for all. This section discusses the progress in improving access, efficiency, quality, and equity in primary education in relation to gender and regional differences and the HIV epidemic.

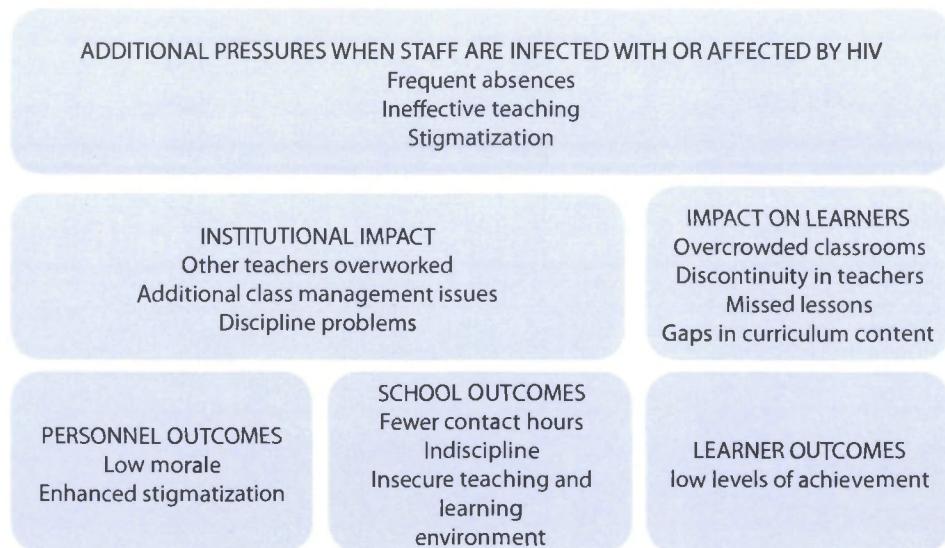
### Disparities in enrolment rates between boys and girls in primary education and especially between regions

Overall enrolment in primary schools rose by 41 per cent between 2002 and 2008, from 6,062,763 to 8,563,821 (Annex 8). For all years the gross enrolment rate (GER) was 100 per cent and above in all regions except Nairobi and North Eastern province (Annex S2). GERs of over 100 per cent indicate that a substantial number of under-age and over-age pupils were enrolled, as was the case in Western, Nyanza, and Eastern provinces. The low GERs in Nairobi and North Eastern province indicate that a number of children are out of school due to either lack of facilities or choice.

### National NER and gender-parity index

The national net enrolment rate (NER) has improved from 77.3 per cent of the eligible age group in 2002 to 92.5 per cent in

**Figure 10:** Impact of affected teachers on Kenyan schools



2008. Boys seem to have benefitted more from FPE than girls, whose NER was marginally higher in relation to boys' prior to FPE than it has been since (Figure 11).

Regional differences in NERs persist, as observed in Figure 12, and in the gender parity index (GPI) from 2002 to 2007, as seen in Table 7.

**Table 7:** Primary GPI by province, 2002–2007

Province	2002	2003	2004	2005	2006	2007
Coast	0.91	0.90	0.93	0.98	0.98	0.91
Central	1.05	1.01	1.00	0.99	1.00	0.96
Eastern	1.04	1.04	1.00	0.99	0.99	0.99
Nairobi	1.16	1.14	1.14	1.04	1.11	1.02
Rift Valley	1.00	0.98	0.97	0.97	0.98	0.96
Western	0.96	0.96	0.98	0.95	0.95	1.00
Nyanza	1.01	0.99	0.99	0.99	0.99	1.00
North Eastern	0.72	0.62	0.63	0.71	0.73	0.63
National	0.98	0.96	0.96	0.95	0.97	0.93

Source: MoEST EMIS 2010

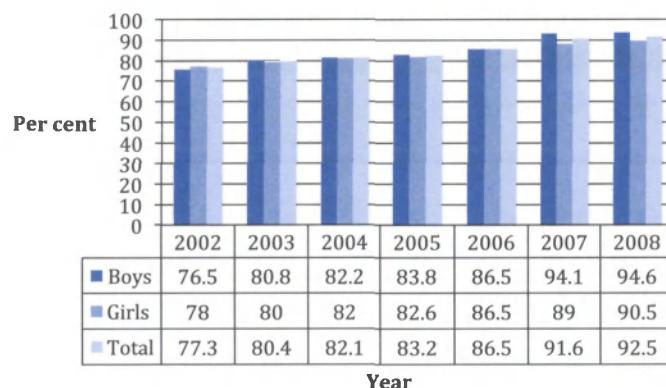
#### Gender differences across regions and districts

In 2008 in all regions, girls' NERs were lower than boys', with the North Eastern region being significantly lower at 20.8:33.1 per cent; Nairobi was substantially lower at 42.1:50.1 per cent; and the Coast was lower at 77:84.6 per cent. Some factors in girls' access to primary education in the North East included: the long distance to schools, which tends to negatively impact more on girls than boys; cultural bias; early marriages and associated parental responsibilities leading to dropouts; a heavy workload at household level; high poverty incidence; and an unfavourable schooling environment, especially at adolescence and puberty. The gender disparities in Nairobi province can be attributed to the poor socio-economic and environmental conditions, especially in the informal settlements (slum areas), where close to 60 per cent of the urban population live. Among poor households, difficult schooling decisions must be made because of the opportunity costs of schooling to the household where children are required for household chores in the case of girls, or to assist in marketing in the case of boys, and the non-tuition costs of school participation that include school uniforms and possibly also instructional materials.

The North East continues to have a NER of 27.5 per cent, thus perpetuating a historical pattern of low enrolment among

both boys and girls. The NER possibly reflects the fact that the North East is an arid area with a nomadic, pastoral, and scattered population for which it has been difficult to provide educational resources. GoK has, over the years, provided boarding facilities, abolished fees, and set up mobile and temporary schools. A study by Uwezo (2010a) reported that up to 42 per cent of primary school age children in one district are not enrolled in any school. One-fifth of the children in the arid regions are out of school. Less than 2 per cent attend private schools, and about the same proportion attend duqsi<sup>10</sup> and mobile schools.

**Figure 11:** Net enrolment by gender, 2002–2008

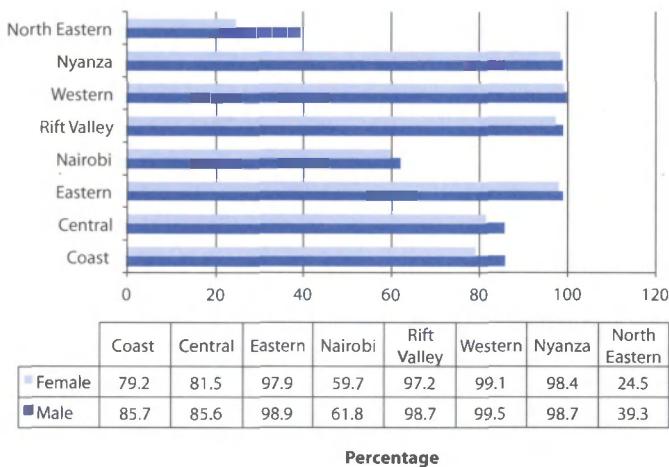


Source: MoEST EMIS 2010.

The North East, together with other arid regions, is reported as being historically educationally disadvantaged. The National Development Plan 1970–1974 specifically championed low-cost boarding schools, leading to increased funding that enabled their establishment across Northern Kenya. In 1971, a presidential decree was issued abolishing tuition fees for districts with unfavourable geographic conditions, such as the ASAL districts. These strategies did not have a significant impact on overall school participation in the North. Instead, a trend emerged where children from other districts enrolled and took advantage of educational provision targeting pastoral communities; thus, the main reasons for the low participation in the ASAL areas – particularly the North East province – is not the distance to school but the perception that education is not relevant to the lives of a mainly pastoral people, as it is inconsistent with their economic practices and the curriculum content is not coherent with their traditional and cultural beliefs (Ruto, Ogwenyi and Mugo, 2009b).

The NER in Nairobi Municipality is 46.2 per cent. This may be a reflection of the educational disadvantage experienced by

<sup>10</sup> Duqsi schools are Qu'ranic (Koranic) schools that provide Islamic education for children.

**Figure 12:** Net enrolment rates by province, 2002–2008

Source: MoEST EMIS 2010.

children in slum areas in and around the city. Much educational provision is delivered through non-formal and community schools. However, the low enrolment and associated NER for Nairobi were disputed by Epari, Ezeh, Mugiska and Ogollah (2008) on the grounds of under-reporting. They studied children from four sites who were enrolled in public, private, community, and non-formal schools spread across Nairobi's eight districts. The results showed that there was under-reporting for 2005. The study found that the NER for the four sites stood at 84.0 per cent for both reporting and non-reporting primary schools within Nairobi province. However, this figure dropped to 60.7 per cent if only primary schools that filed returns with the City Council of Nairobi Education Department were taken into consideration. This suggests an under-reporting of up to 23.3 per cent of the NER for the four sites in 2005.

Coast province, with a NER of 80.8 per cent, is an interesting example in that the overall NER is influenced by two outliers – Tana River district that is within the ASAL to which similar conditions apply as in the North East, and the Municipality of Mombasa where it is conceivable that children and youth are not enrolled because they are participating in the local economy.

Variations among districts in provinces with overall high NERs have been observed, as shown in Table 8.

Seven of the 13 districts listed in Table 8 are situated within the ASAL where, according to Uwezo, on average 20 per cent of children were enrolled in schools. A unique feature of

enrolment within the ASAL identified by Uwezo is that class/age patterns showed that children started school at an early age and completed at a late age. This suggests that schools are being used as day-care centres for young children who are later withdrawn from school to participate in local socio-economic activities. They return to school at an older age. However, there are other determining factors such as drought, nomadic lifestyles, and distances to school. The only two provinces where the NERs were consistently high across all districts were Central and Western.

**Table 8:** Districts with NERs below and marginally above 70 per cent, 2008

Province	NER %	District	NER %	Girls' NER %
Coast	80.8	Tana River**	65.9	60.1
		Mombasa	54.1	53.1
Eastern	98.3	Marsabit	62.8	60.8
		Meru South	33.7	32.3
Nairobi	46.2	Nairobi	46.2	42.1
Rift Valley	97.8	Turkana**	40.00	34.8
		Samburu**	51.4	43.4
Nyanza	98.3	Gucha	73.8	73.9*
		Nyando	72.8	71.4
North Eastern	27.5	Garissa**	23.5	18.6
		Wajir**	20.6	16.4
		Mandera**	42.4	29.8
		Ijara**	23.5	18.6

Source: Uwezo, 2010a and b.

\*Boys' NER 73.7

\*\* ASAL districts

### The primary school completion rate (PCR)

Figures 13 and 14 show the primary school completion rates by province and gender from 2002 to 2008. Overall completion rates have increased from 62.8 per cent in 2002 to 79.5 per cent in 2008 as shown in Figure 13. Girls' completion rates have improved over this period, although in 2008 they were lower than in 2004 and 2007. In 2004, girls' rates were higher than boys. A possible explanation for this is the boost that FPE gave to girls' enrolment; formerly, girls' education had been seen as a waste of resources because of the opportunity costs or their assistance at home, or because it was feared they would marry early and investments in their education would be wasted.

A comparison of regional differences in 2002 and 2008 reveals substantially lower PCRs for both girls and boys in North Eastern province than in most other provinces apart from Coast and Nairobi (Figure 14).

Gender differences persist in most regions, with boys' PCRs being higher than girls'. Nairobi is of special interest because more girls complete than boys. This may be due to boys' participation in local trades and apprenticeships. In Nyanza, girls have a significantly lower completion rate than boys. This may be because of early pregnancies. The field report mentioned the high level of pregnancies among school girls, and other commentators have said that fishermen tend to target school girls in the Great Lakes area, as do long-distance lorry drivers along the Mombasa to Entebbe highway.

### The number of children out of school largely due to HIV and AIDS

The national NER compared with population projections indicates that 595,095 children are out of school (7.5 per cent of the primary school age population). However, this estimate could be somewhat higher – perhaps at least 700,000 (8.8 per cent) of the primary school age population.

In 2005 it was estimated that 204,000 of the 817,000 orphans of school-going age were not in school. Schools received an extra KSh2,000 to support OVC. In addition to children who were orphaned, there were others who were living in families where at least one member was infected with HIV.

A recent estimate of the number of out-of-school children may be obtained from the Annual Learning Assessment (Uwezo, 2010a and b). The study estimated that nationally 5 per cent of the 6–16 year old population was out of school. The Uwezo data show large variations between and within provinces, as illustrated in Figure 15. The second Annual Learning Assessment estimated that 3.7 per cent of school-age children were out of school.

It is difficult to determine the reasons why children are out of school; it may be as a result of HIV and AIDS, or poverty is also a major cause of non-enrolment. In 2005/2006, Otieno and Colclough investigated the percentage of the Kenyan school-age population out of school by reason. The major constraint to primary schooling was financial, despite the introduction of tuition-free primary education. They reported that the poor were more affected by the distance between home and school than the non-poor, and by parental attitudes towards schooling, acquired illness, and conflict with their beliefs. High

percentages of both poor and non-poor were not interested in schooling.

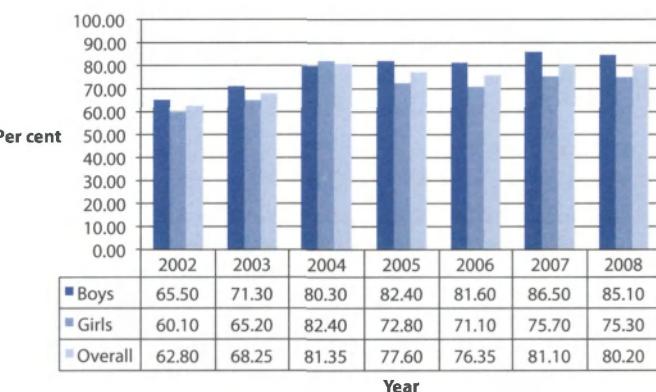
### Factors determining school participation

For children who are infected with or affected by HIV, factors that determine their school enrolment and participation include the direct and hidden costs of schooling, homecare requirements, the opportunity costs of schooling, the relationship of the child to the guardian or caregiver, and the possibility of stigma encountered in the school environment. In poor households, decisions on whether or not a child should continue schooling are frequently occasioned by trauma within the family, such as illness or death. With the abolition of tuition fees, the cost of schooling does not play as important a part in schooling decisions as in the past; but this depends on the initial income of the family and if the breadwinner dies. In that case, other factors come into play. Girls may be required to remain at home to care for younger siblings if a mother dies. Boys may be required to seek paid employment to support the family in the event of a wage earner's sickness or death. Research shows that the decisions made vary according to the circumstances. Paternal orphans living with their mother are more likely to stay in school than maternal orphans residing with the father. For children who are being fostered, decisions on schooling depend on the child's relationship with the foster parents, who will most likely prefer to keep their own children in school unless cultural traditions dictate otherwise.

### Comparison of HIV prevalence, OVC, out-of-school children, PCR, and NER

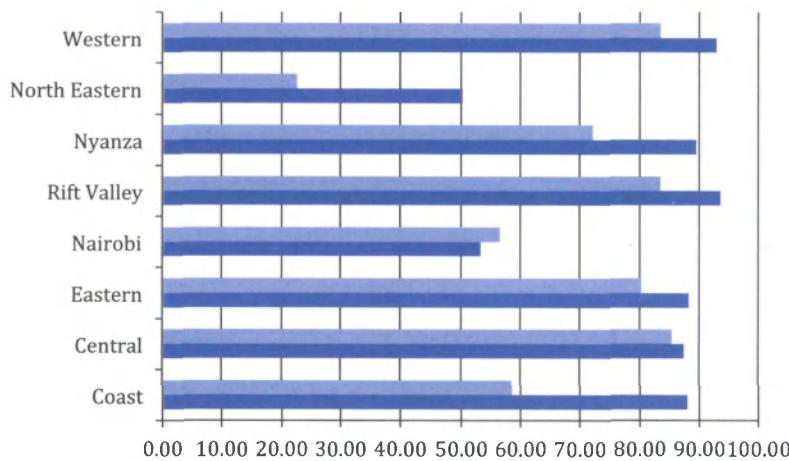
It is informative to plot rates of HIV prevalence, percentage of OVC, and percentage of out-of-school children against

**Figure 13:** Primary school completion rates by gender and year, 2002–2008



Source: MoEST EMIS, various years.

**Figure 14:** Primary school completion rates by province and gender, 2008



Source: MoEST EMIS, various years.

**Percentage**

completion and net enrolment rates, and compare the patterns. This has been done in Figure 16.

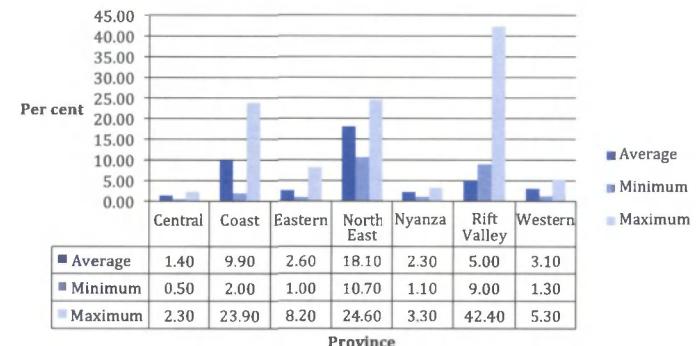
There is consistency between HIV prevalence, percentage of OVC, girls' and boys' completion, and girls' and boys' NERs. Out-of-school children require an explanation because there appears to be an inverse relationship between the indicator and the magnitude of orphans and HIV prevalence in some provinces. There are several possibilities. First, the Uwezo data may not be representative of each region sampled. Second, if the Uwezo data are assumed to be reliable, factors other than HIV are responsible for the percentage of children out of school. In North Eastern province, boys participate in the local economy, children may be enrolled in alternative schools, and girls' education may not be valued. In Coast and Rift Valley, there may be a similar explanation. Nyanza has a higher HIV prevalence rate and more orphans than any other province, but an unexpectedly low number of children out of school. According to a correspondent, this may be due to government interventions and the high concentration of civil society activities targeting orphans in the area. The MoEST's Most Vulnerable Children Programme and the Department of Children's Services' Cash Subsidy programme targets many schools and families in the region. There may also be many NGOs, FBOs, and CBOs implementing programmes that target orphans and young people. It is possible that the payment of orphans' schooling requirements may have attracted more orphans to enrol.

Irregular learner attendance and dropout rates at all levels partially attributed to HIV and AIDS

#### Absenteeism

Although learner attendance may be recorded in school registers, there are as yet no consolidated records to indicate the level of absenteeism, since the district education management and monitoring system (DEMMIS) has not yet been implemented. Uwezo (2011) found that four out of 10 children miss school daily in many of the districts surveyed.

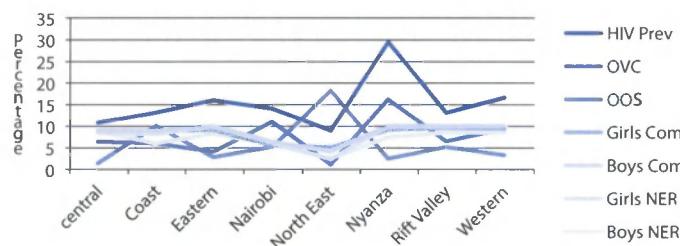
**Figure 15:** Percentage of out-of-school children by province, minimum, and maximum within-province rates by district, 2009



Source: Taken from Uwezo, 2010a and b.

Interviews and focus group discussions in all provinces visited during the rapid survey reported varying levels of absenteeism among pupils, remarking that orphans' absenteeism and dropout were particular challenges. Among the reasons given for absenteeism and dropout were the need for both boys and girls to work, and pregnancy among girls. A few schools reported that some students who were HIV-positive and on medication were frequently absent. In Central province, mention was made of child-headed households, where older children were caring for infected household members and siblings, resulting in absenteeism.

**Figure 16:** Relationship between HIV prevalence, OVC, out-of-school children, completion rates, and NERs, 2008/2009



Sources: KALIS, 2007 - HIV prevalence and OVC; Uwezo 2010 a and b- Out of School Children; MoEST EMIS - PCR and NER. Note: Completion rates and NER are scaled to 10 per cent of value.

A study by Yamano and Jayne (2005) examined the relationship between adult mortality on school attendance in rural Kenya over a five-year period, taking households' initial asset levels into consideration. They found that the probability of girls from poor households remaining in school prior to an adult's death was low. Boys in relatively poor households were less likely to be in school than girls after an adult's death. No clear effects were observed among relatively non-poor households. There was a strong correlation between working-age adult deaths and lagged HIV prevalence rates at a sentinel surveillance site, indicating that the deaths were probably HIV-related. The researchers concluded that rising adult mortality adversely affects school attendance among the poor. Inferences from this research indicate that girls' attendance may be reduced because they are caring for sick adults, while boys' reduced attendance after an adult's death suggests they are assisting the family financially by working.

## Dropout rates

The Ministerial Public Expenditure Review of 2007 states that the increasing dropout rate, besides contributing to the number of poorly educated children, undermines EFA goals. Table 9 shows dropout rates by gender between 2003 and 2007.

In 2003, primary schools registered, on average, a dropout rate of 2.0 per cent, rising to 6.5 per cent in 2004. It fell again to 4.9 per cent in 2005 and to 3.5 per cent in 2007. In 2008, 3.7 per cent of the girls dropped out as compared to 3.2 per cent for boys. Regional dropout rates fluctuated, with North East, Coast, and Western provinces being consistently higher than other regions.

To obtain information on school retention it was useful to look at two other available data sets – survival rates and annual enrolment rates by class over a period of time (ideally, eight consecutive years for primary school and four for secondary). Survival rates to class 5 for 2003 to 2007, as reported in Table 10 and illustrated in figures 17 and 18, paint a mixed picture of drop-outs, drop-ins, and repeaters. The difficulty lies in determining the nature and magnitude of each effect.

There are considerable variations in the survival rates between the provinces, with North Eastern and Coast having the lowest rates over the period – a pattern that persists across most education sector indicators. Survival rates of more than 100 per cent indicate the possibility of a large number of repeaters and of children who may have returned to school to complete their education after a period working or caring for sick relatives or on account of pregnancy. The first two of these may be HIV-related.

The pattern of girls' survival follows that of boys. Similar regional patterns are discernible. However, girls' survival is generally lower than the boys.

Tables 11 and 12 provide information on student flows through primary and secondary education. They may be used to track a cohort of students through schools and identify where there may be drop-outs, repeaters, and drop-ins. There is insufficient data to track the primary school students from class 1 through completion, although there seems to be repetition of both girls and boys in class 4. Scrutiny of secondary students' progression from form 1 to form 4 indicates there may be repeaters in form 3 among the girls in the 2004 and 2005 cohorts, and in forms 3 and 4 among the boys in the 2005 cohort.

## The quality of education offered in view of HIV and AIDS

### Determinants of educational quality

Many in-school and out-of-school factors contribute to good student outcomes. Among the school factors are effective school leadership, a conducive overall school environment, the relevance of curriculum content to the children, the use of interactive teaching methods that develop higher level cognitive skills, sufficient instructional materials, quality time on task, class size, consistency of teaching and learning, and on-going diagnostic and formative evaluation used to provide feedback and improve teacher and student performance. Out-of-school factors shown to make a difference are a supportive home environment, the level of parents' education, the use of homework, and the socio-economic status of the household.

A few studies have examined pupil achievement in selected districts of Kenya and have correlated performance with teaching styles. Several studies have discussed the impact of tuition-free education on student achievement. Only one study has examined teacher absenteeism in three districts in a systematic way. This and some other studies have described schools' coping strategies, as have the field reports. PTRs vary across the country. The target is no more than 45:1 in primary schools, but there is considerable national variation from 62:1 in North East to 42:1 in Central. Nearly 9,000 schools have PTRs of over 50, and 4,500 have PTRs greater than 75 (MoEST EMIS). In primary schools where there is no specialization, the PTR is a good indicator of class size. Some researchers argue that class size is a determining factor in learning. Uwezo (2011) found the national PTR was 52:1, with Western Province having the greatest PTR at 64:1.

**Table 9:** Primary school dropout rates by gender and province, 2003–2007

PROVINCE	2003			2004			2005			2006			2007		
	Boys	Girls	Total												
Coast	1.9	1.8	1.8	5.6	8.5	7.05	7.7	6.7	7.20	7.3	8.5	7.90	5.4	5.9	5.6
Central	1.0	0.8	0.9	5.2	3.9	4.50	3.5	3.2	3.4	4.6	2.2	3.4	2.2	1.6	1.9
Eastern	1.0	0.8	0.9	5.2	3.9	4.5	3.5	3.2	3.4	4.6	2.2	3.4	2.2	1.6	1.9
Nairobi	1.9	1.4	1.65	5.7	5.6	5.6	6.3	6.7	6.5	7.5	5.6	6.6	4.2	4.0	4.10
Rift Valley	2.3	2.2	2.2	6.5	7.2	6.9	4.7	4.3	4.5	6.0	5.2	5.6	3.5	3.6	3.6
Western	2.4	2.4	2.4	6.6	7.8	7.20	5.6	4.4	5.0	9.9	9.6	9.78	1.1	2.2	1.8
Nyanza	2.8	3.1	2.9	6.5	9.2	7.8	3.9	5.3	4.6	6.4	5.7	6.1	2.3	4.4	3.5
North Eastern	2.3	3.1	2.6	12.2	21.4	16.8	6.4	8.1	7.0	8.7	15.9	11.1	4.0	6.1	4.7
NATIONAL	1.95	1.95	2.0	6.1	6.9	6.5	5.0	4.9	4.9	6.8	5.9	6.4	3.2	3.7	3.5

Source: EMIS MoEST, various years.

Since Uwezo found that Western province had lower achievement levels than other provinces, with the exception of North East, they argue that achievement is lower in large classes. Other researchers would maintain that time-on-task affects achievement, but that the amount of time-on-task is less important than the effective and efficient use of that time. A study by Ngware, Onsomu and Manda (2007) into the relationship between educational inputs and outputs (proxied by performance on national examinations) reported the factors that contributed significantly to pupil performance in primary schools. These were students' socio-economic background, the utilization of textbooks (especially for homework), class-size, the classroom environment as measured by pupil seating space, school management, the availability of a meal in school, and school infrastructure. An

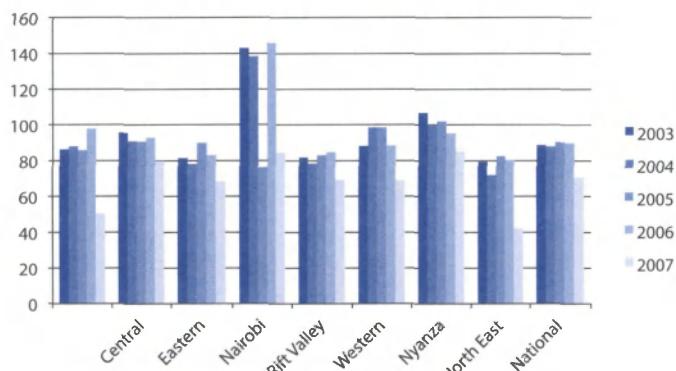
important finding is that the effective utilization of textbooks rather than the pupil-teacher ratio is more important in determining primary school achievement.

Duflo, Dupas and Kremer (2008 and 2009) investigated the effects on achievement of several interventions in western Kenya. Their findings showed that increasing the pupil-teacher ratio had a limited impact on students' performance as compared with the employment of contract teachers or training school communities on better involvement in school activities. They further reported that tracking learners' performance over time significantly improved achievement levels. These observations support earlier findings that purposeful teaching, monitoring pupil performance, and parental involvement in children's learning are factors that

**Table 10:** Survival rates to class 5

Province	2003		2004		2005		2006		2007	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Coast	86.4	86.7	88	76.8	85.9	84	98	101.7	50.4	53.5
Central	95.6	100.1	91	87.4	90.7	92	93	97.5	79.6	88.9
Eastern	81.4	86.6	78.2	75.4	89.9	93	83.1	86.8	68.5	76.6
Nairobi	143.2	148.7	138.4	130.4	76.2	77.9	146	162.5	84.7	83.5
Rift Valley	82	86.3	78.5	74.6	83.2	85.5	84.9	89.6	69.3	77.8
Western	88.4	86.7	98.5	86.5	98.5	96	88.6	91.1	68.8	73.8
Nyanza	107	105.2	100.1	89.4	102.4	95.8	95.5	96.7	85.5	86.1
North Eastern	79.4	72	72.2	51.6	82.6	61.2	80.3	60.4	42.3	34.1
Total	88.9	91.3	88	81.8	90.4	90.3	89.9	93.4	70.9	73.8
Average survival rate		90.1		85		90.4		91.6		73.8

Source: EMIS MoEST, various years.

**Figure 17:** Boys' primary school survival rates to class 5, 2003–2007 (per cent)

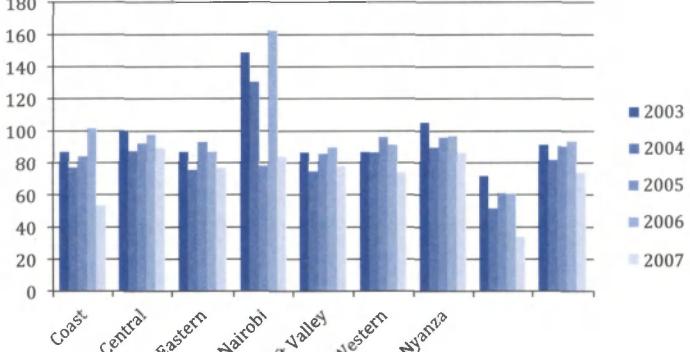
Source: MoEST EMIS, various years.

contribute to school effectiveness (Sammons, Hillman and Mortimore, 1995).

### The measurement of educational outcomes in Kenya

Achievement is measured by a mixture of national, regional, school-based, and classroom-based assessments. National assessments for primary and secondary schools are the responsibility of the Kenya National Examination Council (KNEC) that issues successful candidates with a KCPE or a KCSE as appropriate. Kenya also participates in a regional test run by SACMEQ. A four-year Annual Learning Assessment by Uwezo, Kenya, is in its third year, which measures achievement in literacy and numeracy in a sample of schools and households across Kenya, together with background factors that contribute to school participation and learning. It is reported that the performance of candidates in the KCPE and KCSE is below expectations. Raw mean scores in KCPE from 2003–2005 are given in Table 13.

Gender differences can be observed in achievement at primary and secondary levels. This has significant implications for participation and achievement at the tertiary level, where girls are under-represented (MoEST, 2010, data for 2004/2005–2007/2008). Girls show relatively better performance in languages, whilst boys outperform girls in mathematics and science, although the male math/science advantage is substantially greater than that of girls in languages. An assessment by SACMEQ in 2007 indicates that the girls' language advantage may have eroded.

**Figure 18:** Girls' primary school survival rates to class 5, 2003–2007 (per cent)

Source: MoEST EMIS, various years.

**Table 11:** Primary school enrolment by class and gender, 2004–2008 (thousands)

Class	2004		2005		2006		2007		2008*	
	B	G	B	G	B	G	B	G	B	G
Class 1	646.2	606.2	620.4	585.8	593.2	568.1	638.9	604.2	650.9	617.2
Class 2	588.3	551.1	575.8	551.6	555.1	534.8	622.4	593.9	607.7	617.2
Class 3	493.9	459.8	549.2	517.5	542.5	519.7	603.7	584.6	586.4	569.2
Class 4	477.7	443.7	493.7	469.9	531.8	508.7	572.8	541	591.4	573
Class 5	444	402.5	449.1	410.8	456.7	442.1	492	470.2	543	536
Class 6	418.8	399.9	429.3	413.6	430.8	417.9	464	444.4	510.1	501.4
Class 7	412.6	404.9	443	430	453	442	487.9	470.1	503.2	495.7
Class 8	334	309.1	342.1	309.8	333.5	302.3	379.2	360.8	366	330.1
Total	3,815.5	3,579.3	3,902.7	3,688.8	3,896.6	3,735.5	4,260.9	4,069.1	4,358.7	4,205.1
Grand Total	7,394.80		7,591.50		7,632.10		8,330.10		8,563.80	

Source: MoEST EMIS, various years.

**Table 12:** Secondary school enrolment rates by class and gender, 2004–2008

Class	2004		2005		2006		2007		2008*	
	B	G	B	G	B	G	B	G	B	G
Form 1	146,645	127,057	139,469	124,384	161,588	137,873	170,650	143,045	207,212	180,461
Form 2	134,585	114,053	122,867	109,471	132,015	119,077	173,165	149,840	196,500	163,164
Form 3	117,975	105,118	1,20912	107,770	120,978	115443	157,572	134,793	196,500	163,164
Form 4	101,301	89,416	1,10909	98,367	131,491	111615	137,304	113,899	161,026	136,275
Total	500,506	435,644	494,157	439,992	546,072	484008	638,691	541,577	761,238	643,064

Source: MoEST EMIS, various years.

## SACMEQ results

SACMEQ not only measures achievement, but also assesses the factors that contribute to performance. The 2007 SACMEQ results for 15 countries in sub-Saharan Africa indicated that Kenyan class 6 pupils scored at least 10 points higher than the average on reading and mathematics tests. There was negligible change in performance from the 2002 SACMEQ assessment. Gender gaps in achievement have been a concern for some time. Kenyan girls achieved marginally better in reading than did boys in 2000; but the boys scored higher in 2007. In both 2000 and 2007, boys' achievement was considerably better than girls, giving a 20 point gender gap in performance. Hungi and Thuku (2010) used multilevel analyses to examine pupil, class, and school level factors that influence Kenyan pupils' achievement. A pupil's age, socio-economic status, and the pupil-teacher ratio were important predictors of performance. Pupils who were above the official age for class 6 were disadvantaged, as were those of lower

socio-economic status. There were gender differences in performance, particularly in mathematics where the boys outperformed girls by a large margin. SACMEQ recorded a high level of class repetition. Hungi and Thuku (2010) reported that pupils who had never repeated a class performed better than those who had. The extent of paid private tuition points to the additional advantage more affluent students have over their poorer peers.

## Findings from the first and second annual learning assessments

The first Annual Learning Assessment report (Uwezo, 2010a) described the status of literacy and numeracy learning in Kenya as 'grim'. Class 1–8 pupils were required to sit class 2 literacy and numeracy tests. The top findings were that: (i) two out of three class 2 children in Kenya could not read a simple paragraph; (ii) 20 per cent of 6–16 year olds who were able to

do real life mathematics could not do abstract mathematics of the same difficulty level; and (iii) children attending private schools were better grounded in basic literacy and numeracy. Uwezo (2011) confirmed these findings and elaborated on them. They reported that 70 per cent of children in class 3 could not do class 2 work, and learning levels were poorest in the arid districts and in Western province. Many parents were concerned about their children's learning and were making an effort to ensure schools were better staffed. A fifth of teachers in every school was employed by parents. A further indication of parents' concern to provide a quality education was the amount they paid for private tuition. Table 14 shows the extent of private tuition in Kenyan primary schools.

Private tuition is described by Uwezo (2010a) as 'the monster in our schools'. Paviot (2010) sees it as a challenge to EFA since it could jeopardize the participation of the poorest learners. The widespread use of private tuition in Kenya may not only be to supplement school budgets; it may imply that the standard of curriculum delivery in the classroom is of poor

children new words, tell them stories, and encourage them to read and count at home.

### HIV and AIDS adversely affect the quality of learning and the school environment

HIV and AIDS undermine the quality of education in several separate but interrelated ways. The epidemic impacts both teachers and learners, and this has repercussions on the other teachers and learners, the school management, and the environment. Infected teachers often feel unwell and lack energy. This impedes curriculum delivery and learners' achievement. They may even be absent for long periods of time, causing further disruption for the students and creating an extra workload for already overburdened staff, which can lead to high stress levels and possible loss of motivation.

HIV-positive teachers who do not adhere to a code of practice for civil service employees pose a threat to learners and other teachers and a risk to the learning environment. One

**Table 13:** KCPE raw mean scores by gender and subject, 2003–2005

Subject	Category	2003		2004		2005	
		Male	Female	Male	Female	Male	Female
English	Gender	49.27	49.74	49.17	49.93	49.06	49.96
	Total	49.50		49.50		49.50	
Kiswahili	Gender	48.91	50.14	49.16	49.86	48.89	50.17
	Total	49.50		49.50		49.50	
Mathematics	Gender	51.61	47.22	51.54	47.47	51.49	47.30
	Total	49.49		49.60		49.50	
Science/agriculture	Gender	52.83	45.86	52.23	46.48	52.63	45.99
	Total	49.47		49.48		49.48	
Geography, history and civics	Gender	52.37	46.43	51.89	46.86	51.97	46.74
	Total	49.49		49.49		49.49	

Source: Kenya National Examination Council (2005) cited in Otieno and Colclough (2008).

quality and that parents want to improve their child's chances of performing well and/or that teachers need to supplement their income as in other countries in the region.

Studies by Uwezo (2010a, 2010b and 2011) found that children with literate and numerate mothers and fathers performed better than those without, because literate parents teach their

study discussed at a recent seminar in Nairobi<sup>11</sup> observed that 'teachers, both in regular and special secondary schools, experience sexual harassment'. A total of 58.9 per cent of the respondents said that the main targets of sexual harassment

<sup>11</sup> Presentation by Edwin Buluma entitled 'Study on the nature and effects of sexual harassment of teachers in special and regular secondary schools in Central province, Kenya' on 31 March 2011, at the offices of the Women Educational Researchers of Kenya (WERK).

were young teachers, and 67 per cent considered teachers on teaching practice to be most at risk. About 17 per cent of the teachers considered school offices and the route between home and school as the most risky places for sexual harassment. The study noted that 'the level of awareness of teachers about policies protecting them against sexual harassment is low.'

In cases of teacher deaths, replacements may not be found immediately due to the centralized recruitment process in Kenya; or there may be insufficient funds in the annual budget, as has been reported by TSC (Transparency International, 2010). An ideal solution would be to recruit supply teachers locally. However, locally employed teachers need to be paid by parents or the community, and whereas this may be viable among richer communities, poorer communities would not be able to afford the costs. This further disadvantages learners from poor households.

Affected learners also experience significant absenteeism, tiredness and lack of motivation. Many of them may have emotional problems, especially just before or after the death of a household member. The majority experience serious gaps in their schooling, are over-burdened and fail to catch up on curriculum content that they have missed, and perform badly on tests.

The result is an increasingly stressful school environment. Added to this is the reduction in funds available for school improvement and instructional materials on account of the additional expenditures occasioned by teachers' deaths and absences, i.e. the recruitment of new teachers, funeral costs, and pension pay-outs. The economic crisis of the late 1990s, coupled with the introduction of tuition-free primary and secondary education, had already placed significant strain on physical and material resources. The financial impact of the epidemic means that deteriorating facilities cannot be rehabilitated, necessary improvements to the school

environment cannot be made, and instructional materials cannot be purchased. A healthy and safe school environment is not only necessary to prevent the spread of infection, but is also an indication of the quality of school provision.

### School participation, achievement, poverty, and HIV and AIDS

The relationship between HIV and AIDS and poverty is reciprocal; poverty may be a contributory factor to HIV incidence, and HIV and AIDS exacerbate poverty. Poverty may also limit enrolment and participation, and perpetuate low achievement levels even with FPE and FSE.

There are critical issues in terms of equity in Kenya's public schools. Schools do not have similar facilities or provide the same quality services. Those that have facilities may charge levies to maintain their facilities and require their students to purchase expensive uniforms, buy their own textbooks and stationery, and even purchase a desk when they enrol. In one school in Nairobi, parents paid over KSh10,000 annually to meet these costs. Sawamura and Sifuna (2008) compiled data from interviews on the additional costs of primary education to parents through fees, levies, and required school items such as school uniforms (Table 15). Many schools still collect fees from parents in order to meet gaps in their budgets. This perpetuates inequality, since poorer children cannot afford to attend the high-cost schools, which are often the best performing.

Whereas Sawamura and Sifuna (2008) reported on differences in school amenities and charges levied for specific services, other researchers have claimed that free primary education, when not accompanied by sufficient resource provision, perpetuates the poverty gap in enrolment, progression, and achievement (Oketch and Somerset, 2010), and in some cases excludes the poor altogether (Oketch and Ngware, 2011). Oketch and Somerset (2010) used a series of case studies to

**Table 14:** Percentage of children receiving private tuition

Class	1	2	3	4	5	6	7	6
All 2010	26.8	27	31	38.7	44.7	57.6	72	79
2011	28.7	31.7	35	42.3	47.9	59.9	70.2	74.7
Public	21.9	22.2	26.6	35.1	41.1	55.7	70.6	78.1
2010	21.5	24.9	28.7	37.7	43.8	57.2	68.5	73.3
2011								
Private	64.5	72.6	75.5	78.8	85.6	85.6	91.8	91.5
2010	61.4	66.4	76.3	76.3	80.5	88.9	86.2	87.5
2011								

Source: Uwezo, 2010a and b; 2011.

investigate the local-level effects of FPE on selected primary schools, the secondary school transition patterns of graduates from these schools, and the future possible consequences that followed from the type of secondary school the primary graduates entered. They demonstrated how schools that enrolled significant numbers of additional pupils suffered a 'severe quality shock' from acute shortages of teachers, physical facilities, and learning materials, whereas those schools that had imposed barriers to enrolment did not suffer this effect. Pupils at the former schools were mainly from low-income families, while those from the latter schools were mostly from relatively prosperous families. The majority of graduates from rural and urban low-income families went to low-status district secondary schools. Those from middle-income backgrounds were more likely to go to provincial secondary schools, while the graduates from the three private primary schools studied were more likely to gain entry to the top-status secondary schools. A graduate from a national school has a 'better-than-even' chance of qualifying for a public University. Typical provincial school graduates have a one-in-twelve chance, while district secondary school graduates' chances are about one in 200.

The case study described in Box 1 supports Oketch and Somerset's research evidence on the relationship between poverty and the perpetuation of low achievement. It underscores the need for a life skills curriculum to address social issues, and for the curriculum to include training in entrepreneurial skills that may contribute to poverty alleviation. The report from the head of a secondary school in Eastern province, visited during the field survey, presents an interesting example of how poverty and orphan hood contribute to low achievement.

#### **Summary of the impact of HIV and AIDS on the drive for qualitatively good universal primary education**

The HIV epidemic has tended to highlight and exacerbate existing inequities in society in general and in the education sector in particular. The epidemic tends to restrict educational participation, retention, progression, and achievement of the poor, women, and other disadvantaged groups. The groups most affected are orphans, children infected with and affected by HIV, girls, children from disadvantaged backgrounds, from regions of high HIV prevalence, and those from widely dispersed, often pastoral populations.

Most national EFA goals on school participation may be met by 2015, but progress in achieving parity between girls and boys and addressing regional imbalances in enrolment and retention is less promising. There are serious concerns

about the quality of service delivery and learning outcomes. Paradoxically, measures intended to increase educational access for the poor, girls, and marginalized groups in the pursuit of EFA may have worsened the situation for these groups and resulted in a loss in quality. This may intensify poverty, reduce the level of education, and lower achievement, thereby potentially contributing to higher HIV incidence levels.

## **8. Policy response**

### **Activities prior to policy formulation**

According to Mbwika *et al.* (2004), the education sector responded poorly to the epidemic, and this poor response was fuelled by the absence of a strategy from ministry headquarters down to the district and institutional levels. In the absence of comprehensive long-term plans, most activities were therefore ad hoc.

Of all the policy components, most emphasis has been placed on prevention education, through formal and informal curricula developed by the MoEST with donor support, and by several NGOs and FBOs. The education sector recognized the need to address prevention education when the MoEST, working in conjunction with the UNICEF country office, launched an HIV and AIDS Education Project in November 1992. KICD was the implementing agency. The main objectives were to strengthen the organizational, administrative, and project management capabilities of the MoEST in HIV and AIDS programmes. KICD developed the first stand-alone HIV and AIDS curriculum, which was knowledge-based and intended to prevent and control the spread of HIV among youth, develop responsible behaviour and positive relationships among youth, encourage youth to talk about HIV and AIDS and share the knowledge gained with those with whom they interact, and encourage youth to support people affected by AIDS.

The first national HIV and AIDS curriculum for both primary and secondary schools was launched in 1999. During the initial five years an infusion strategy was adopted with HIV and AIDS education content included in carrier subjects. Teachers were expected to pass on HIV and AIDS messages through their regular subjects using the guidelines provided by the KICD. Textbooks were developed by KICD and were distributed to schools. However, Mbwika *et al.* (2004) reported that due to limited resources, few teaching materials were delivered to schools and only 8,000 teachers out of a teaching force of 240,000 had been trained. Sensitization and training of school heads and teacher training college and university staff were

**Table 15:** Examples of primary school fees and levies collected under FPE

Category of school	Compulsory payments	Optional payments
High-cost	School fees/child support fund: KSh 2,500-6,000 per child per term  Furniture replacement: KSh 550 per child per year  Bus maintenance and repair: KSh 650 per child per year  Swimming pool maintenance: KSh 350	Extra/evening/Saturday tuition: KSh 2,000-4,000 per child per term  (N.B. Since all pupils are expected to attend such sessions, the payment of these funds is practically compulsory)
Medium-cost	School fees/child support fund: KSh 300-600 per child per month	Extra/evening/Saturday tuition: KSh 100-500 per child per term
Low-cost	School fees/child support fund: KSh 50-200 per child per term  Mid-term/final tests: KSh 20-50 per pupil per term	Extra/evening/Saturday tuition: KSh 20-50

Source: Sawamaura and Sifuna, 2008.

carried out with support from development partners including UNESCO. The MoEST changed the implementation strategy following a curriculum review in 2003 that highlighted a gap between learners' knowledge and behaviour change. This resulted in the second HIV and AIDS curriculum that incorporated life skills education materials. These were infused into more subjects, anticipating that this would increase the possibility that, not only would HIV content be adequately taught and examined, but also learners' behaviour would change.

Some international agencies supported projects implemented by CBOs and FBOs that aimed at increasing knowledge and changing behaviours among young people in and out of school. Two were the Primary School Action for Better Health (PSABH), funded by the UK's Department for International Development (DfID) and implemented by the Centre for British Teachers (CfBT); and the Kenya Adolescent Reproductive Health Project (KARPH), funded by USAID, that later evolved into the Kenya Secondary Schools Action for Better Health

#### Box 1: The cumulative effect of poverty and orphan hood on learning

The secondary school is set in a poor area of Eastern province, where HIV prevalence among 15–24 year olds is 2 per cent (2.9 per cent female and 1.6 per cent male) and 15.8 per cent of children aged 0–17 are OVC. Child labour, drug abuse, and sex work are common in the area.

The school has an enrolment of 580 students, most of whom are day scholars. Of these, 134 (23 per cent) are orphans; 80 paternal, 30 maternal, and 24 double orphans. Parental incomes are low. Many of them have died. Eighty-seven per cent of the orphans receive grants. Some work to pay for the subsidized school meals provided by the school. Few instructional materials are available. Teacher shortages and absenteeism are problematic, as is staff replacement, which can take up to two years.

There were few repeaters in the school and only 27 drop-outs in 2010, of which 25 were transfers, one desertion, and one pregnancy. In the month preceding the survey, 13 per cent of all students were absent. Twenty one absences were due to illness and 52 due to financial problems.

The students had entered the school with low KCPE marks. Their low learning achievement persisted through their secondary schooling, and since 2003 the KCSE pass rates have been very low at between 2.3 and 7 per cent.

Source: Schools' survey, 2011

(SSABH) funded by USAID and implemented by CfBT. The development and implementation of these projects brought together a range of stakeholders from the MoEST, the Ministry of Health, the Ministry of Social Services, and the community.

Begun in 1999, the PSABH was piloted in Nyanza province and rolled out to other provinces with the aim of covering 18,500 public primary schools. By the end of June 2005, the programme had been delivered in more than 6,500 schools. The SSABH had reached 250 secondary schools by 2005.

Other education sector activities addressing HIV and AIDS were reported to a meeting of HIV and AIDS focal points in December 2005 (Nkinyangi, 2005). The education sector was represented on the National AIDS Control Council, the Ministerial HIV and AIDS steering committee, and on various mitigation coordination groups. There were three AIDS control units (ACUs) at central level – TSC with six full-time staff members, MoEST with five full-time staff members, and the Council for Higher Education with two. The government budget line for HIV and AIDS had more than doubled since 2002, but was mainly being used to fund the central ACU. Additional assistance was coming from 12 sources, including NGOs, FBOs and donors. The KENEPOTE had begun addressing stigma in schools, and the KNUT, with support from the American Federation of Teachers, had launched HIV awareness training workshops in 28 pilot districts as part of a USAID-funded project to produce revised teachers' terms and conditions of service. Mombasa Polytechnic and Highridge Teachers' College had developed specific workplace policies. However, the MoEST faced several challenges, among which were the magnitude of HIV and AIDS, the burden of OVC, stigma, and the absence of a legal framework to support its activities.

### The process of policy development and design

The need for a coordinated sector response guided by a formal policy was not immediately recognized, therefore UNESCO took the lead in this process. It was initially suggested that the Highridge Teachers' College (2003) policy should be adopted by the MoEST as the overall sector policy. This suggestion was discarded since the policy covered only one teacher training college and was not applicable to all education subsectors. It was then decided to formulate a policy from basic principles. In this, the MoEST was supported by UNESCO and USAID, with technical assistance from the Mobile Task Team (MTT) on the Impact of HIV and AIDS on Education. The MTT based policy formulation on lessons gained from similar work in Namibia and Zambia. Over 2002 and 2003, a team of several task team

members researched the Kenya situation, consulting and developing inputs from various key players, among them the TSC.

A series of workshops agreed on a framework for development, identified the key elements, and led breakaway groups that developed issue-specific inputs. Basic information was consolidated, and the scope, underlying goals, and principles of the policy determined. The first and subsequent drafts were circulated broadly for comments. The final version was presented to the National Conference on Education and Training in November 2003. The MTT was trying to introduce district data collection and improve the educational management information system's (EMIS) capacity to identify HIV-sensitive indicators as a basis for evaluating policy implementation. This and the policy development process took about six months from start to finish. However, development of the framework and initial draft was accomplished in a five-day workshop. Further workshops were held to review each draft.

The policy formulation process involved people with professional knowledge, skills, and experience from, among others, the MoEST, TSCs and NGOs. This ensured the draft was based on hard data and information. Consultations were wide-ranging, engaged all the identifiable key NGOs and CBOs, and included student representation. Oral and written comments were invited from the 800 participants of the National Conference on Education.

Following the adoption of the policy, the MTT was involved for some time in the development and costing of an implementation plan through consultative planning workshops. These involved everyone responsible down to the district level, including local chiefs and women's organizations.

### An overview of the policy

The policy was developed with reference to international conventions, national laws, policies, guidelines, and regulations with particular regard to considerations of gender issues, vulnerable children – including orphans and learners with special needs – and the universality of human rights. The main policy provisions are the right to (i) education; (ii) information; (iii) privacy and confidentiality; (iv) care, treatment and support in line with available resources; (v) a safe workplace and learning institutions; and (vi) fair labour practices. Policy content revolves around four activities: prevention, care and support, the development of workplace policies, and management of the response.

The document is well presented, and the rationale and goals are clear and simple, as are many of the main aims within those goals; for example, education on HIV and AIDS, peer education, psycho-social support, and non-discrimination. However, a heavy burden is placed upon all learning institutions to implement a series of activities, some of which are outside the traditional functions of these institutions. The proposed activities also place a strain on sector personnel who already bear a substantial professional burden and may also be infected with and affected by HIV. Under the theme of care and support, for example, the teacher is expected to care, educate, and provide psycho-social support for OVC. This led one researcher to comment that 'this is an enormous responsibility for teachers, many of whom may be in need of life skills to deal with the HIV scourge in their private lives, while at the same time being expected to respond to the diverse needs of OVC' (Ruto *et al.*, 2009: 4).

### Situation of policy dissemination

The research team could not determine precisely how many copies of the HIV and AIDS policy were produced since different figures were provided by informants. Figures ranged from 25,000 to 235,000, and there was no way of determining the accuracy of any number quoted. Funding had been provided by UNESCO for nationwide distribution of the document.

Dissemination of the policy was reportedly limited to the attendees at the launch ceremony, tertiary and some secondary level institutions, funding agencies, and provincial and district offices (Ndambuki, McCretton, Rider, Gichuru and Wildish, 2006). MoEST personnel stated that documents had been distributed to district education offices, but the rapid survey found that few policy documents had reached primary schools. (One exception is the 180 schools in four districts where the MoEST, TSC, UNICEF and DfID cooperated on 'Teachers Matter' – a nine-month peer-led programme involving many stakeholders that reached 2,700 teachers and discussed workplace issues. There may be others.) As a consequence, few education sector personnel had received the policy, seen it, read it, or knew its contents. The absence of sector-wide dissemination was confirmed by research documents, informants during field research, some online forum participants, and a few consultative meeting attendees.

### Awareness and reaction to the policy by different stakeholders

The reaction to the policy by a number of stakeholders indicates they were not aware of the plans that had been

prepared to disseminate and implement the policy, probably because these were not communicated to them and the plans were overtaken by events.

Prior to implementation, there was some concern about policy development and distribution. Ndambuki *et al.* (2006) analysed policy formulation and implementation structures, mechanisms, and processes. The research involved questionnaire responses from head-teachers and teachers, followed by a workshop for education sector personnel and CFBT staff. There was consensus that there was a lack of ownership of the policy and, as a consequence, weak support from among stakeholders. Distribution and dissemination had been limited and fragmented. It was assumed that there were adequate management structures and sufficient financial and human resources for implementation, but there was no clear indication that these would be forthcoming.

### Policy implementation since 2005

#### Implementation context

The formal policy provided the framework within which the education sector could adopt a coordinated approach to addressing the epidemic. It strengthened the case for activities that had begun. Apparently, the dissemination, implementation, capacity-building, and monitoring plans drafted by MoEST ACU and the MTT were abandoned when implementation was incorporated into the KESSP as one of 23 investment programmes. KESSP became the main vehicle for implementation of the education sector's HIV and AIDS policy. The HIV and AIDS component of KESSP was intended to address prevention, care and support, workplace issues, and management and advocacy through the following complex set of activities:

- Prevention: in-service training of staff in primary and secondary school subsectors; peer support initiatives in TTCs and technical institutions; orientation on KICD materials; the provision of teaching and learning materials in subsectors and the provision of school health club activity kits.
- Care and support: financial support to orphans; support to extended families; an apprenticeship scheme for child heads of families; big brother/sister mentoring; video shows on abuse, stigma, discrimination, harassment, drug dependency, barriers to inclusion, retention, and transition.
- Workplace issues: strengthening the establishment of networks for teachers living with HIV and AIDS; a video on implementing the education sector policy on HIV and AIDS

in the workplace; revision and distribution of a guide on regulations.

- Management of the response: strengthening ACUs and supporting university ACUs in HIV and AIDS and anti-drug dependency initiatives.

### Reported implementation progress under KESSP

The sole official report available on progress in implementing the HIV and AIDS component of KESSP (MoEST, 2008a) is ambiguous in that progress is expressed in percentage terms and is difficult to quantify. In addition, the 2005 baseline position for most targets is recorded as zero, which was not necessarily the case. For example, PSABH had been introduced into approximately 6,500 public schools by 2005. In the absence of other records, the only verifiable progress from 2006–2008 is that over 11,000 public schools were reached through the PSABH programme, and 175,000 orphans and vulnerable children were provided with support for their basic school needs through donor assistance – 25,000 more than the original target.

### Level of implementation by different subsectors

Generally, some prevention activities have been implemented at primary and secondary levels, teacher training colleges, and higher education institutions. Workplace policies have been developed at post-primary levels, while care and support for staff through the education sector has been delivered by central-level educational institutions through the ACUs. The teachers' unions and associations of teachers living positively have helped reduce stigma and provided on-going support for HIV-infected and affected personnel. A modest degree of support has been afforded to children in school through guidance and counselling. Substantial support has been given to OVC through school health and nutrition programmes, conditional cash transfers (CCTs), and grants for school essentials. The MoEST has recently announced that it will supply sanitary products for girls to reduce female absenteeism.

### Level of implementation by different policy components

#### Prevention education

Monitoring exercises indicated that there were gaps in the earlier 1999 curriculum. The second HIV and AIDS curriculum included life skills and was developed with assistance from UNICEF in 2003. Forty thousand copies of the life skills manuals were produced.<sup>12</sup> Teachers and other education sector staff

from nine districts were oriented in the content and use of the manuals with the intention that they would in turn orient other staff. Curriculum was delivered through other subjects.

Following a tour by senior MoEST officers to Zimbabwe and Malawi in 2006, a national conference on life skills, and a monitoring exercise in Kwale district, it was agreed to reassess the infusion approach. When this was done and a situational analysis on the levels of knowledge and application of life skills among ECD, primary and secondary children was carried out, it was decided to develop a full life skills education curriculum. This curriculum would be included in schools' timetables as a free-standing subject. The syllabus, teachers' handbooks, and training manuals for this third curriculum were developed in 2008. From 2008–2009, KICD trained trainers of trainers at national and provincial levels with the expectation that they would train teachers to deliver life skills education in their schools (Maina, 2010).

### Experience from the field surveys

Particular attention was paid to the curriculum during the field survey. It was observed that the teaching of HIV and AIDS tended to be erratic and follow a variety of curriculum contents and structures. Some teachers were teaching the HIV and AIDS syllabus, while some taught life skills. In some schools it was infused in other subjects, in others taught as a stand-alone subject, while in others it was not taught at all. Several teachers had experienced the PSABH programme that had run through 2006, and there was evidence of PSABH in some schools visited – for example, a PSABH question box.

To complement the curriculum-based instruction on life skills, as recommended by the policy, some schools visited had activities such as clubs (girl guides, scouts, peer groups, community outreach, peace clubs, health clubs, guidance and counselling clubs, 'Chill' clubs<sup>13</sup>) that provided additional opportunities to discuss topics such as health, sexuality, and HIV and AIDS. These types of groups appeared more likely to exist in boarding, private, and secondary or TTC institutions, which may be due to the fact that such institutions may have more financial resources to implement/host such activities.

12 Life Skills Education for Lower and Upper Primary; Life Skills Education for the Youth; and Life Skills Facilitators' Handbook

13 After the Kiswahili slang word for abstinence.

## Workplace policies

Prior to the dissemination of the sector policy in January 2005, only Highridge Teachers' College and Mombasa Polytechnic had developed HIV and AIDS workplace policies (Mbwika *et al.* 2004). Since then, at central level, the TSC, the KICD and the KNUT have developed policies protecting their staff. TSC and KNUT set up ACUs that were available for VCT. Several TTCs and secondary schools had developed their own strategies.

The survey team confirmed that some secondary schools and several teachers' colleges visited had workplace policies that protected the infected from both stigma and discrimination and provided opportunities for students and staff to learn more. This, according to one online participant, compelled the institutions to adhere to the policies. Peer education has proved to be effective in disseminating information among students (see Box 2 for an example).

## Stigma and discrimination

There are reports of the impact that information, education, and communication campaigns and training programmes have had in reducing stigma concerning teachers. A major contributor to the reduction of stigma in schools and the community has been KENEPOTE, the association of HIV-positive teachers. The TSC has addressed issues of discrimination in the employment and management of teachers, as has KNUT. Some churches have also contributed to the reduction of stigma, but many have taken a moralistic approach and have been at least partially responsible for increasing stigmatization. The recent announcement by the GoK that VCT services will be integrated into normal hospital and health centre services may be seen as a step to de-mystify the epidemic by treating it like any other illness. This may, in turn, reduce the stigma attached to HIV and AIDS and may result in more individuals coming forward for testing.

The TSC believes that there are many teachers who do not access VCT because they fear the results and the ensuing stigmatization. An online forum participant made the following point:

*The HIV and AIDS services could be merged with others. A holistic approach that does not label one simply by the type of facility they visit. In a few community health days a group of us have organized, we brought multiple services (health education, health insurance, banking, dental/other clinical tests) together. The number of people tested for HIV and AIDS was amazingly high. If we had said this was an HIV and AIDS education and testing day, very few would have turned up.*

Zambia used a similar approach through six health days for teachers and their families, which 9,000 people attended, of which 1,465 were receiving VCT. Funded by the President's Emergency Fund for AIDS Relief, it was a collaborative effort between the MoEST, the District Health Management Board, the Ministry of Health, the Dental Training School, the Malaria Control Centre, and several VCT providers. Teachers and their families were given general health and HIV and AIDS awareness messages and were offered free health services and HIV testing.

## Addressing the needs of OVC

The support accorded to OVC has been considerable. In 2004, NGOs were supporting 973,372 OVC, FBOs 498,716, and CBOs, 58,734, with much of the funding coming from development partners outside Kenya. A conditional cash transfer programme had been initiated in 2004 through the Ministry of Home Affairs (Bryant, 2009). The programme supported families through cash grants to be used for food, clothes, and services such as education and health. The aim was to keep children within their families and communities and to promote their development. An important initiative to improve the nutritional status of OVC was a school feeding

### Box 2: A college policy in action

Kenya Technical Teachers' College students receive a two-day HIV and AIDS Awareness training Program on arrival undertaken by VVOB (a Flemish NGO in Kenya and the Kenya Medical Training Colleges, KMTC). They are taught, via a very interactive training program, about HIV transmission and prevention, stereotypes, stigma. A few students are then selected to join a Trainer of Facilitator's program for one day to equip them with skills to facilitate HIV and AIDS awareness training using a standard kit developed by KMTC and VVOB. These students organize other activities in their institution through their peer educators club. VCT services to the community are periodically offered at the institution.'

*Online forum participant*

programme initiated in 1999. This was a joint venture between the World Food Programme (WFP), the MoEST, and the Ministry of Agriculture. In-school initiatives were the provision of guidance and counselling staff and grants for the school needs of OVC.

Results of the survey indicated that some children were receiving support for their schooling through the provision of money for their school needs. At secondary level, some OVC received bursaries, and in primary and secondary schools a few children participated in school feeding schemes provided either through a government department or through the school and community. There were incidences of school staff providing assistance to vulnerable children. No clear picture emerged of how widespread these interventions were in the districts visited or how they benefited the children.

### Care and support

Teaching staff and students were receiving care and support through their schools, communities, and individuals. At school level, survey team members heard of cases where teachers would club together to provide material and psychological support to affected staff and learners. Probably the most organized support for positive teachers was provided by KENEPOTE, which had 3,500 members employed by the TSC. This increased to about 4,000 if teachers in private schools and non-employees of TSC were included. The loss of members since 2004 appears minimal, with two in the North East and six in Nyanza. KENEPOTE's main role is to provide psycho-social support to its members. There are 42 support groups throughout Kenya, plus district-level focal points. The support includes group therapy, advice on nutrition, and ensuring compliance with treatment. Modalities of ensuring compliance are through 'drug buddy' support groups. Nutritional advice is detailed in leaflets. Most important is the need for a balanced diet with sufficient fruit, vegetables, and protein. Often fruit and vegetables are unavailable (e.g. in the ASALs), in which case the setting up of teaching gardens is encouraged. Since medical practitioners do not always impart sufficient information, the organization empowers people to ask questions through the development and distribution of appropriate leaflets. The groups may also assist teachers who are in debt or need direct support, such as bus fares to attend meetings and assistance in times of crisis, for example when opportunistic infections produce psychological trauma.

Although there were some reports of schools providing support for needy children, nationwide in-school care and support for children suffering trauma were not as well organized as

the support provided for teachers. The consultative meeting stressed the need to make better provision for them through the following:

- Intensified lobbying and advocacy on behalf of the child's right to be recognized and accepted as part of the local and school community.
- Financial assistance through the waiver of tuition fees, examination fees, and other charges and levies.
- Enhanced provision of psycho-social support.
- Provision of, and better access to, child-friendly health care.

### Implementation challenges

School administrators and teachers have faced challenges in implementing the life skills curriculum. Kwedho, Simatwa and Ondigi (2010) surveyed head teachers, staff, and students in 56 secondary schools in Busia, Bunyala, and Samia districts to investigate challenges that head teachers were facing in curriculum implementation. The main challenges encountered were difficulties in managing HIV and AIDS education, such as constraints to its integration in the curriculum (including time), the absence of specific objectives for teaching, insufficient teaching materials, and too many bureaucratic problems to obtain them. There were also cultural, social, and legal challenges, such as customary practices, stigma, and confidentiality concerns. All these constraints operated within a performance-based context that already strained resources. To cope with this situation, some head teachers called on guidance and counselling staff, while others sought funds from NGOs.

The literature on teaching HIV and AIDS points to the numerous challenges teachers face in presenting the topic to children, because they have insufficient knowledge, are inadequately trained, or are uncomfortable with teaching concepts that are traditionally either not openly discussed or not a topic of conversation among mixed gender or different age groups. Ruto *et al.*, (2009a) interviewed teachers in three districts. They noted that none of the teachers interviewed indicated that they had benefited from HIV and AIDS education pre-service training or that they were provided with the methodology appropriate to teaching the topic. This lack of training is reflected in one teacher's experience of teaching the HIV and AIDS curriculum (Mwebi, 2007). She discussed the cultural and professional barriers to teaching HIV and AIDS in the Kenyan classroom and how she used a child-to-child approach, where the child takes an active part in designing the curriculum. A further study by Njue, Nzioka, Ahlberg, Pertet and Voeten (2009) reported on teachers' lack of training, discomfort, and the occasional lack of professionalism in disclosing people's

HIV status. Teachers' negative attitudes inhibited children from discussing issues openly. The report recommended that training should be provided to teachers to boost their self-confidence, 'foster more positive attitudes, and stimulate interactive teaching methods' (Njue *et al.*, 2009: 169).

Generally, teachers interviewed during the survey felt comfortable with teaching HIV and AIDS topics. They reported that their biggest challenges were lack of teaching materials, overwork, and an overloaded curriculum.

### Impediments to policy implementation

The most obvious impediment to implementation was that all stakeholders were not sufficiently aware of the policy and its implications for practice because of its limited dissemination. Several of the activities envisaged in the policy were outside the scope of the education sector to implement on its own. They would require considerable coordination, which assumes adequate management structures for implementation, sufficient financial support, and the cooperation of other

government and non-governmental entities. The study by Mbwika *et al.* (2004) indicated that institutional capacity to implement HIV programmes was limited. Implementation started at the same time that turnover of staff, retrenchment, and retirement, together with a freeze on recruitment, had affected staff availability and continuity (Visser-Valfrey and Abagi, 2007). The situation was exacerbated when implementation was incorporated into KESSP and the original implementation and monitoring and evaluation plan was abandoned. In this way, the HIV component was susceptible to all the challenges experienced by KESSP.

First, there were problems in implementing an HIV and AIDS policy within an overall sector development framework when the policy had not been prepared with that in mind. It was a stand-alone policy that had not been effectively mainstreamed into education sector strategy. Insufficient links were established between components or across those institutions with responsibility for the education sector. Second, the KESSP was introduced when the public sector was relatively weak. Personnel had been depleted by the epidemic; the nation

### Box 3: Responding to the needs of a pastoral community

#### Wind of Hope or Pepo la Tumaini Jangwani – Isiolo, Eastern Province

##### Characteristics of the pastoral community:

- Continual internal clashes
- High poverty levels
- Low nutritional levels, especially among women
- A culture conducive to HIV – cleansing, wife inheritance, the low status of women
- Women lacking the means to earn or sustain their lives
- Girls and women considered as property along with cows and other animals
- Isiolo as a transition city with many commercial sex workers
- A negative attitude to education > high illiteracy especially among women
- High stigma and discrimination
- Widespread hunger and starvation throughout the year

##### OVC and their schooling

- A generation of orphans forming a majority of the population in nomadic area
- Long morning school sessions inappropriate for under-nourished OVC
- Inadequate information about orphans on ART
- The interference of nomadic migration with OVC's consistency in ART use
- Lack of food inhibiting the impact of treatment

##### Pepo la Tumaini Jangwani

- Mitigates the impact of HIV on the pastoral community by offering support for education, empowering the community, and changing attitudes towards women and girls
- Started a vocational school to supplement the efforts of the government by equipping OVC with skills.

Source: Consultative forum, 14 July 2011

was just recovering from an economic downturn; there was a freeze on hiring new staff, including teachers, as a condition of International Development Assistance funding; and a culture of minimal accountability persisted. Third, the many aims of the HIV and AIDS component required both coordination with stakeholders and communication with grassroots level institutions. Although some coordination was effected, this could not be done by the ACU alone with two to five staff members. The education stakeholder forum and national advisory council, which could have coordinated activities, provided stakeholder input, and improved governance in the sector was planned for but not executed. Fourth, there were issues in KESSP management that inevitably affected the HIV and AIDS component. These included components that were poorly planned, leading to haphazard implementation; stakeholders at different levels of the system who were not sufficiently involved in its management; and the erratic availability of financial resources as reported by the ACU coordinator and by Transparency International (2010).

#### Good policy and practice identified

##### Education staff health checks

The TSC organizes staff wellness weeks, which are open to all staff. Free medical and dental checks are available and VCT is offered on the last day. In July 2011, 1,300 staff voluntarily attended the event.

##### Civil society responses

Many civil society initiatives responses to the epidemic's impact on education operate outside the formal public sector. Some were identified during the course of the study. The initiatives presented here illustrate the range of civil society commitment.

Wind of Hope or Pepo la Tumaini Jangwani is an HIV and AIDS community rehabilitation programme that focuses on community education, lobbies for the rights of people living with HIV, and aims to reduce stigmatization and discrimination. It aims to restore 'human dignity despite the multi-faceted challenges posed by HIV and AIDS'.

##### Youth in action

The UHAI welfare group in Nairobi is recognized by the government. It consists of youth volunteers and focuses on the welfare of OVC. The group is based in Banana compound in the environs of Kiambu. Three members have been trained as child rights activists. With the help of the community, the group assists affected children to continue with their lives and access education. Volunteers use their weekends and evenings to assist children with their homework to help raise their achievement. These volunteers visit schools to provide psycho-social support, although they find that this is not always appreciated by the school staff. Reportedly the number of cases of bed-ridden children has fallen. The community is challenged by a cycle of poverty. Inadequate finances restrict UHAI's activities. The OVC need help with covering tuition costs, which are very high, and those who are affected need time to rest. Stigma among children remains very high.

##### Response of local businesses

A response to HIV and AIDS in the community through local businesses was identified during the field survey.

##### Innovative workplace practices by education sector institutions

Several institutions have developed their own workplace policies. The policy of St. Mark's TCC in Kigari is given in Annex 9.

#### Box 4: Community business participation in the response to HIV and AIDS

A town council in Rift Valley has established an HIV and AIDS Committee (consisting of local businesses and NGOs) with budgeted activities on community training and sensitization. In addition, the committee is sponsoring a local children's home and organizing donations for schools.

Source: Schools' survey, 2011

## Supporting primary school HIV curriculum and behaviour change

Examples of school and church support for prevention programmes identified during the field survey are presented in Box 5 and 6.

## Gaps in the policy statement and implementation

### Absence of guidance on dissemination, implementation, capacity building, and criteria for success

Prior to drafting the policy, substantial work had been done in identifying issues to be addressed, planning implementation,

monitoring and evaluation plans and guidelines, and assessing human resource capacity-building needs. These are not reflected in the final product. This omission affected the policy's dissemination, implementation, and evaluation. As a result, human resource capacity to plan for and manage implementation was limited, guidance on the development of workplace policies was absent, and the impact of activities was neither monitored nor evaluated.

### Absence of a clear statement on accountability

The policy states that all heads of institutions and workplaces will be held accountable for implementing the policy, appropriate HIV and AIDS programmes, and practices in the

### Box 5: Collaboration on prevention in primary schools

An education office in the Nyanza region was collaborating with the local church on an HIV prevention programme for six primary schools. The school-based activities included:

- life skills training for pupils and parents
- open forum for pupils and parents
- use of creative arts (dance, drawing) to educate on HIV prevention

Funding was provided by a Europe-based Christian organization that channelled its support through the church.

Source: Schools' survey, 2011

### Box 6: A school in Rift Valley has family groups to discuss important issues

Each teacher in the secondary school is assigned a group of students between forms 1–4. The group has two family meetings each term and discusses important issues including those related to HIV and AIDS. The school has noticed a sharp decline in pregnancy among female students as a result of the family meetings: two cases in 2010 versus over eight cases annually in previous year.

Source: Schools' survey, 2011

workplaces under their control. However, there is no indication of how this accountability will be assessed and by whom, what measures will be taken if they fail, or where ultimate responsibility and accountability for policy implementation rest. Teachers are expected to care for, educate, and provide psychological support for OVC, but there is no mention of how teachers will be held accountable. Consequently, there are no guidelines on how quality assurance officers should monitor and evaluate implementation progress and the role of education sector staff in assuring success.

### Institutions omitted from policy implementation

The scope of application of the Education Sector Policy on HIV and AIDS (2004) stated that:

*The Education Sector Policy on HIV and AIDS applies to learners, employees, managers, employers, and other providers of education and training in all public and private, formal and non-formal learning institutions at all levels of the education system in the Republic of Kenya.*

Despite this, provision for implementation under KESSP was mainly confined to public sector institutions.

### Absence of a cohesive approach to prevention among out-of-school youth and those in post-secondary institutions

The incidence of HIV in post-secondary institutions is reportedly very high. This presents both a challenge and an opportunity to address the needs of a significant proportion of the 'at risk' population, but a coherent approach is not apparent. A participant in an EFA workshop was concerned that initiatives to change attitudes and behaviour among youth were not working, and that support systems required improvement.

### Lack of clarity on condom use

One of the most controversial issues in the debate on HIV prevention in Kenya has been the role of condoms. Although the policy does not make direct reference to the use of condoms, it does not rule them out. It states that 'relevant and suitable teaching and learning materials for HIV prevention will be developed for use by all institutions and workplaces'. Similarly, the programmes to be developed by heads of institutions for their staff should include 'basic information about HIV and AIDS, how it is spread and how it can be prevented'. Some commentators have criticized the policy for not advocating condom use; among these are Njue *et al.* (2009: 169), who stated that the MoEST needs to develop a firm policy 'toward the promotion of condoms.' The MoEST, together with other stakeholders, should agree on the way forward regarding condom use, particularly by adult learners.

### Capacity building to plan and manage the response throughout the sector was inadequate

The need to build capacity in planning and managing the response was recognized during the development of the policy (Mbwika *et al.*, 2004), but capacity building has been limited to some training among district staff and school heads, and is reportedly weak (USAID, 2008). At central level, the MoEST's ACU was responsible for the administration of the response. The training of personnel, coupled with high turnover, has been a major challenge in ACU operation. Proper training for ACU should be provided, and the unit should be adequately staffed. The policy clearly states the need to develop an information base to monitor and evaluate the response to the epidemic. HIV-sensitive indicators should be included in EMIS and DEMMIS data.

### Preparation of teachers to deliver a life skills curriculum is uncoordinated and inadequate

The policy recognizes the need to prepare all teachers to deliver the life skills curriculum. Apart from some short training of trainers courses, there is no evidence of an in-depth comprehensive programme to prepare and upgrade teaching staff.

## Lessons learnt

### Policy development and implementation

The development of an education sector HIV and AIDS policy that is separate from overall sectoral development does not maximize mainstreaming. Policy development, HIV and AIDS implementation plans, and overall sector development strategies need to go hand in hand if HIV is to be successfully mainstreamed.

Ownership and commitment are important. If policies are to be relevant and implemented successfully, stakeholders at the grassroots level should be involved at all stages of policy formulation, dissemination, implementation, and evaluation.

Planning is also necessary. A policy needs strategic planning for successful dissemination and implementation, clearly expressed targets, and formative and summative evaluation arrangements. The targets within these plans need to be desirable, feasible, and affordable within a given timeframe.

Institutions cannot develop workplace policies in the absence of clear guidelines and accompanying resources. Those institutions that had developed their own policies had called in technical support, and many had received financial assistance.

Capacity building to plan and manage the response is essential to its success. This is required at central, regional, district, and institutional levels.

Effective and efficient communication channels are required. Even with an established administrative structure from the centre to the periphery, a top-down approach is not necessarily the most effective way of disseminating, implementing, and evaluating a policy.

Coordination among stakeholders may improve outcomes and reduce duplication. The literature and field surveys revealed that a staggering number of government agencies, local and international organizations, communities, and individuals were managing initiatives in HIV prevention and mitigation. Although there is a degree of coordination through, for example, ACUs and constituency committees, there seems to be no central information base on each initiative, few of which have accessible progress reports. Consequently, there is no way of assessing impact or identifying good practice.

The effectiveness of activities cannot be assessed in the absence of consistent monitoring and reporting. This includes the collection of base-line data and HIV-sensitive indicators

of progress. Without these, adjustments cannot be made to improve impact and cost-effectiveness.

### Life skills curriculum and teacher preparation

Curriculum content and presentation make a difference. This was supported by the field visits, curriculum projects, and research. Many researchers have found that using interactive teaching techniques improves performance in all subjects and is especially important in changing attitudes and influencing behaviours. This is due to the fact that didactic methods ('chalk and talk') are, in most cases, aimed at inculcating and regurgitating knowledge. Interactive teaching involving discussion between teachers and learners or among learners develops higher level cognitive skills – comprehension, application, analysis, synthesis, and evaluation – that are required to make life choices. These lead to attitudinal change and informed behaviour.

Appropriate teacher preparation is therefore essential. The preceding lesson has profound implications for teacher education. Evidence from research and from respondents during field visits points to a rigid approach to initial teacher training, the limitations of training of trainers courses that often do no more than raise awareness of issues, and the discomfort teachers feel in teaching HIV and AIDS, especially using interactive techniques. Another body of evidence from projects such as Teachers Matter, Child-to-Child, and PSABH indicate that attitudinal and possibly behavioural change can best be accomplished through local interactive training courses on curriculum content and methods, and peer support. The use of a variety of approaches at the local level was advocated by the forum and the consultative meeting.

Teacher training was often mentioned as a key modality to improve the education sector response to HIV and AIDS. In the majority of schools, at least one teacher had been to HIV and AIDS training. However, for a variety of reasons (for example, teacher turnover, an overloaded syllabus, and sensitivity to the subject), teachers were not sharing the information obtained with their co-workers or learners.

### Workplace situation

Stigma and denial remain strong. Evidence from the field indicates that silence about the epidemic and stigma attached to it still persists to such an extent that they influence knowledge about the status, living conditions, and psycho-social trauma of adults and children who are either infected or affected by the epidemic. When people do not feel able to be open about their problems, it results in misunderstandings,

rumours, and an absence of compassion. Even where stigma has decreased, this does not necessarily result in more sector staff accessing VCT and declaring their status.

School-based support mechanisms need strengthening. Although guidance and counselling teachers were often cited as a source of information on HIV and AIDS, several learners, particularly secondary school students, were sceptical about confiding in teachers as they may have been lacking accurate information or inclined to gossip with fellow teachers. Learners therefore expressed a desire to receive more information from additional sources, most notably from external experts in HIV and AIDS, people living with HIV and AIDS, relatives, and peer leaders. The researchers concluded that learners had received reasonably accurate information about HIV and AIDS, but learners, especially secondary school students, exhibited an eagerness for more information since few opportunities generally exist for learners to discuss what they know about the disease.

### Summary of policy response

Some activities to address the epidemic through the education sector had begun prior to the development of a formal policy, but these were largely uncoordinated. A comprehensive policy aimed at systematizing the education sector response was produced, together with supporting research and costed plans for policy dissemination, implementation, and monitoring. When aspects of the policy were included in KESSP, the prepared plans were omitted and the policy was not widely distributed. The PSABH prevention programme was rolled out to over 11,000 public schools, and 175,000 OVC were provided with support for school requirements. There was some training in developing workplace policies and in curriculum delivery. Several post-primary institutions developed workplace policies, but primary schools did not. Stigma and discrimination in the workplace were addressed by KENEPOTE, KNUT, and the TSC. School health and nutrition programmes targeting OVC were intensified. Local level initiatives augmented the formal education sector response.

Impediments to implementation were poor dissemination of the policy, limited human resource capacity to plan and manage the response, and teacher shortages. The policy had been developed independently of the KESSP, of which it became a part. Its incorporation into KESSP meant it was subjected to all the challenges facing a complex sector-wide programme. Among these was the need for coordination of

activities within the education sector and among partners. The coordinating group envisaged was not constituted.

Discomfort with curriculum content and inadequate training in delivery presented major challenges to the success of the prevention programme. The content was based on concepts that were not discussed in traditional culture and the teachers were not used to the interactive teaching techniques required to discuss sensitive personal issues.

Among the gaps in the policy and its implementation were failure to address the issue of condoms as a protective measure, the absence of guidance on workplace policy development, the limitation of most activities to public sector institutions, the absence of clear statements on accountability, and the inadequacy of record-keeping and monitoring of activities. The current Education Sector Policy on HIV and AIDS (MoEST, 2004) needs to be revised in response to perceived gaps in content and implementation, and to lessons learned.

## 9. Impact of policy implementation on different beneficiaries

Systematic measures to determine the effectiveness of the policy in practice, produced in conjunction with the development of the policy, have not been implemented. The MoEST EMIS does not record HIV-sensitive data, and the DEMMIS that could have been used to do so has not yet been rolled out nationwide. As far as can be ascertained, there has been only one training workshop in its use.

### Impact on education sector staff

Survey respondents and online forum participants reported that discrimination in the employment of teachers was now rare. Although stigma had been aggressively addressed through teachers living with HIV, unions, school staff, civic organizations, and churches, a substantial number of students and staff indicated that stigma remained high. This was largely attributed to the continuing ignorance and fear surrounding the epidemic. As a result, teachers were reluctant to disclose their status. It is unclear whether the reduction in stigma has resulted in more education staff accessing VCT services. The impact of the policy in reducing stigma was confirmed by an online participant (Box 7).

## How school health and nutrition programmes encourage OVC participation

The interdependence between nutrition and resistance to infection has been substantiated by observers, epidemiological data, and research. Low nutritional status increases the susceptibility of individuals to infection, including HIV. HIV infection lowers nutritional status among infected and affected adults and children, thus impairing the prevention, care, and treatment of HIV-related opportunistic infections among infected persons and reducing the capabilities and future prospects of affected persons. HIV-infected individuals have additional nutritional needs, particularly for macronutrients, and respond better to treatment if nutrition is improved. Box 8 illustrates evidence of the efficacy of nutritional support for people living with HIV.

School health and nutrition programmes have the potential to benefit OVC, children from poor backgrounds, and HIV-infected and affected children, since children from each of these groups have been found to be either malnourished or to require additional nutrients. The health programmes mainly target children from areas where they are likely to acquire parasitic infections or malaria. Participation in schooling and higher achievement among children from very poor households and among OVC have been shown to increase with improvements in their nutritional status. HIV-positive school children benefit from school feeding programmes and nutritional supplements. Additional macro-nutrients help them to fulfil their additional nutritional needs and to benefit from ART. Macro- and micro-nutrients assist in warding off opportunistic infections.

### Kenyan school nutrition initiatives

For several years, nutrition and health programmes have targeted schools in rural and urban areas based on their location (the ASAL), low school enrolment, poor food security,

low poverty indicators, and gender parity ratios. In 2010, a total of 1,290,220 school children benefitted from three major programmes: the WFP programme, in operation since 1980 and catered for 720,500 children; the MoEST Home-Grown School Feeding Programme (HGSF), which benefitted 538,000 school children; and the collaborative programme between the MoEST, the Ministry of Agriculture, and the Ministry of Public Health Services, called Njaa Marukufuku Kenya, which served 31,720 children. The estimated per capita daily cost of a programme was US\$0.16. Each of these models provided slightly different services.

**The World Food Programme** in Kenya has been in effect since 1980. From 1999 onwards, responding to the increased frequency of food crises resulting from drought and political violence, and to the introduction of free compulsory primary education in 2003, the programme expanded significantly, peaking at 1.85 million children in over 5,000 schools. The number of children enrolled in the programme rose from 357,464 in 1999 to 1,017,264 in 2004. In 2008, the GoK took over responsibility for half the programme, while WFP focused on providing meals in the primary schools with the lowest education indicators in the most food insecure parts of the country (the ASAL and urban slums of Nairobi and Mombasa). A new programme of Home-Grown School Feeding and a new policy on school health and nutrition heralded an integrated, cross-sectoral approach, including commitment to providing a 'balanced' meal at school.

### Programme evaluation

A comprehensive evaluation, covering the period from 1999 to 2008, was carried out in 2009. It assessed achievement of the programme's stated educational, gender, and nutritional objectives, and WFP's new social safety net objectives (WFP, 2010). Generally, the evaluation indicates a positive impact on enrolment rates, completion and progression from primary to secondary schools, improved nutrition, and safety net provision.

### Box 7: Reducing stigma in schools

'The period preceding the launching of the policy, HIV and AIDS stigma had reached unprecedented levels that a teacher presumed to be HIV positive was considered a threat to the institution by fellow teachers and parents. Teachers who found it unbearable opted to quit while others sought transfers to distant schools. Their performance must have definitely been affected by this misinformed attitude. This policy that came with lessons and trainings on de-stigmatization and guaranteeing the rights of infected employees has gone a long way in overturning these wrong perceptions towards HIV and AIDS. Cases of discrimination are unheard of these days not only in public institutions but also the private. In fact, the policy's section 9 can be said to have impressively scored way above average in all its subsections through to 9.8.'

*Online forum participant*

### Box 8: Academic model for the prevention and treatment of HIV (AMPATH)

'In Kenya, as part of AMPATH – which started in 2002 – nutrition support is being provided to patients determined by the programme criteria as lacking food security in 19 locations. By the beginning of 2008, an estimated 50,000 people living with HIV were to have been had been reached. At any given site an estimated 20-50 per cent of people living with HIV had access to food support through the highly active antiretroviral therapy and Harvest Initiative of AMPATH. A review in 2006 found that patients enrolled in the nutrition supplement programme while taking ART reported greater adherence to their medication, fewer food-related side-effects, and a greater ability to satisfy increased appetites. The majority of patients experienced weight gain, recovered physical strength, and were able to resume labour activities. Food is provided for individuals and their dependents for up to six months after the start of ART. Patients unable to meet their food needs after this period can enter a weaning programme that provides food and training aimed at enhancing long-term food security.'

*Source AMPATH 2002*

School meals had a positive effect on attendance rates and on scores in exams in the final year of primary school. Educational outcomes were more positive in urban areas than in rural semi-arid and arid areas. School meals did not reverse the significant drop in primary school completion rates and attendance rates in the last two years of primary school, as students reach puberty. The problem occurs nationwide and is worse in schools that do not provide school meals. In arid and pastoralist semi-arid areas, even with school meals, most students do not finish primary school; among those who do finish, few move on to secondary education. In schools with nearly as many women teachers as men, the number of girls and boys are closer to parity than those with few female teachers. Gender objectives are being achieved for enrolment and attendance, but not for completion of primary school in the targeted areas where the social, cultural, and economic constraints on girls' education are extensive.

School meals made a significant positive contribution to reducing students' hunger and improving their nutritional intake. Less than 10 per cent of children surveyed had consumed the Recommended Daily Allowance of the target nutrients<sup>14</sup> (except Vitamin A) during the previous day. School meals accounted for more than half of the Recommended Daily Allowance attained by 40 per cent of students. School lunch provided the largest meal of the day for many children and, frequently, the only meal. School staff and parents also noted that regular school meals improved children's health, reduced the incidence of illness, and increased attentiveness and interest of students in class. While school meals provide important access to nutritious food, they do not compensate for inadequate dietary intake at home, especially among poor rural children. Many households prepare less food at home when a child receives a meal at school.

School meals were found to provide multiple safety nets in Kenya. Reduced food purchase represents direct cash savings of between 4 per cent and 9 per cent of annual household income. School meals also encourage parents to leave their children in school for the entire day, which frees up the parents' time. Almost 30 per cent of households – and even more in urban areas – use this time for income-earning activities. In addition, when children graduate from school and obtain stable livelihoods, there is a strong pattern of assisting the household from which they came. This consideration could contribute to the likelihood of school meals increasing primary school completion rates.

There are physical and human resource constraints that limit the health and learning outcomes of school meals. These are lack of potable water, washing facilities, and latrines. Water and firewood are provided by pupils and parents. These factors make it difficult to prepare food under hygienic conditions. The actual classroom learning environment is characterized by a lack of teaching time, study space, and instructional materials. Community involvement is sporadic. If the maximum benefit is to be derived from school feeding, the school environment and teaching conditions need to be improved.

**The Home Grown School Meals Programme**, an initiative that was started in 2009, targets 538,457 children in 1,711 schools in Kenya's semi-arid districts that are marginal agricultural areas. The aim of the programme is to ensure that children enrol in school, attend regularly, and learn and perform well academically. The programme brings together the objectives of school feeding and agricultural development of the local community (that is, support of local food production and increased access to markets), thereby improving the economic development of the areas in which the programme is implemented. The programme continues to face several challenges, including the low capacity of local farmers to produce and supply food, disparity in food and transportation

<sup>14</sup> Energy, protein, Vitamin A, iron, and iodine.

costs, funding shortfalls at school level, and occasional delays in disbursement. This programme has reportedly improved enrolment and retention rates, and has resulted in higher tests scores.

### Description and evaluation of the de-worming programme

Phase 1 of a de-worming programme that built on Kenya's National School Health Guidelines (2009), involving collaboration between the Ministry of Public Health Services and the MoEST, was implemented in 2009. The programme targeted children in 8,200 schools in 45 districts in Coast, Western/Nyanza and Eastern/Central provinces where there were high prevalence of worms and bilharzias. In total, 3.6 million children were treated. In addition, 1,000 district and division-level personnel plus 1,600 teachers were trained. The unit cost of the entire programme was US\$0.36 per child, of which GoK contributed US\$0.28 from KESSP funds and development partners gave about US\$0.08. Costs included training, logistics, de-worming drugs, monitoring, and the production of printed materials. The main features of this programme were that it was clearly focused on one objective; there were mechanisms to train staff down through the administrative levels; documentation was brief, clear, and widely disseminated; and there was high level political commitment and a publicity campaign.

There are several important features of this programme that contributed to its success and potential for replication. Preparation of the de-worming programme built on the school health policy framework and developed an evidence base indicating the need for treatment in specific areas of Kenya. The most cost-effective way of delivering services to a large number of children was determined. Schools were used to distribute treatment because they are entry points for community health interventions, messages, and services. The general lessons for future programme success are that interventions should be proved to have an impact, be cost effective, build on existing structures and resources, and address the health issues that are most relevant to children and to education. Strong monitoring and evaluation are also essential.

The school feeding and de-worming programmes were incorporated into the KESSP as part of the school health and nutrition component, which was linked with infrastructure development and HIV and AIDS activities. Evaluation of these components pointed to the advantage of placing them in KESSP since funding was approved annually. This allowed for flexibility in implementation. Much of the budget now allocated from KESSP to the school health, nutrition, and

meals investment programme goes to the school feeding component where per capita costs are considerably higher than for de-worming and malaria prevention or the small cost of adding health topics to an existing curriculum.

**Njaa Marukufula Kenya** is a government pilot project initiated in 2006. It targets areas of high poverty that have potential to grow food and has benefitted 31,720 children in 48 schools across Kenya. It integrates agricultural production with nutrition education, school meals, and maternal and child health. Cash grants are provided to schools for food procurement, together with transfers to support small-scale food production. The grants for food purchase are scaled down yearly until year three when responsibility is handed over to the community. Capacity building incorporates community nutrition education and growth monitoring. School committees are sensitized to enhance ownership. Schools are seen as the entry point for new technologies.

The **Millennium Villages Project (MVP)** benefits 19,940 children in 31 schools in Siaya district, Nyanza province. It adopts an integrated approach to address all eight MDGs but is very expensive compared with other interventions.

The **VVOB Healthy Learning Project** was initiated in 2008 by the MoEST in collaboration with the Flemish Association for Development Cooperation (VVOB) and the World Agroforestry Centre. Other key partners include relevant ministries, civil society, and the private sector. The aim of the project is to promote quality education through practical and experiential learning, thereby improving children's school health and nutrition. Schools were encouraged to set up projects such as bee keeping, livestock, vegetable gardens, and fruit orchards to supplement school meals. It further aims to improve coordination and partnership between the MoEST and other stakeholders in school health, nutrition, and meals. The project operates in 30 model schools in eight of Kenya's arid and semi-arid districts

### Conditional cash transfers

The conditional cash transfer (CCT) programme targeted seven districts in Nyanza. An evaluation of Phase 1 of the CCT programme was carried out from 2007 to 2009 using a treatment and control paradigm. Findings on improved educational participation were that the secondary school enrolment rates in treatment areas increased 6 per cent more than in the control areas, but that there was no increase in primary school enrolments. These findings do not necessarily reflect the programme's impact on secondary school

enrolment, where the increase may have been influenced more by the introduction of FSE than by the cash grants.

In households that received CCT, there was evidence of less illness and that OVC were less involved in household chores. Although this may not account for children being out of school, it may explain more regular attendance. Duflo *et al.* (2006) found that the programme's payment for school requirements reduced dropout among girls. It could potentially encourage poor households with limited resources to send their girls to school when there is a choice between educating boys or girls.

### The contribution of life skills curriculum to behaviour change

#### KICD curricula

The study team did not have access to any assessments or evaluations of the three KICD HIV and AIDS-related curricular programmes, two of which were labelled 'life skills', apart from information on the process of curriculum development and the fact that during reviews of implementation there had been a discussion on the efficacy of ways of incorporating the syllabuses into the existing school curriculum.

#### Curriculum delivery in schools and children's knowledge

Although knowledge of HIV and AIDS has reportedly improved since 2002, there are still gaps, and the most recent SACMEQ results indicate that teachers are more knowledgeable than their students, possibly implying that knowledge was not being transmitted effectively (IIEP-UNESCO, 2010).

A questionnaire administered to primary, secondary, and college students in the course of the field survey revealed that there were still misconceptions surrounding HIV transmission. Several respondents considered the virus could be spread through contact with an infected person or using drinking vessels in common. On the question of individual responsibility for sexual behaviour and health, many female respondents were more likely to bear the consequences of infection and pregnancy than boys and men. Teachers considered that the use of non-formal measures such as drama, dance, and clubs was effective in improving knowledge and changing attitudes, and organizations such as the girl guides and churches were said to have added value to the prevention campaign.

As reported earlier, the situation in schools is far from clear. Different ways of incorporating HIV and AIDS into the curriculum were observed during the school survey, as were the teaching of different syllabuses. Occasionally, learners

reported that they were not being taught at all. This observation is confirmed by the findings of SACMEQ's investigation into pupils' and teachers' knowledge of HIV and AIDS that around one in every six class 6 pupils in Kenya (15.1 per cent) reported that they had 'never attended classes/lessons on HIV and AIDS during the current school year' (SACMEQ Policy Brief Number 5, April 2011). SACMEQ's findings indicated a number of other problems in the teaching and learning about HIV and AIDS. Knowledge levels about HIV and AIDS among a majority (61 per cent) of Kenya's class 6 pupils during 2007 were below SACMEQ's 'minimal' knowledge benchmark (which was defined as mastery of at least half of the official school curriculum). There were significant differences in class 6 pupil knowledge levels about HIV and AIDS among education provinces in Kenya, with the lowest levels in Western and Rift Valley provinces. There were also major differences in these knowledge levels within this population of class 6 pupils defined by socio-economic status, location, gender, and age. Poor, rural, and older pupils and girls performed less well than non-poor, urban, and younger pupils and boys. The school survey observed that absence of guidance on the HIV and AIDS curriculum and lack of instructional materials were major hindrances to teaching and learning.

#### Centre for British Teachers Education Trust (CfBT) curricula

Of all the HIV and AIDS curriculum programmes introduced in Kenyan schools, PSABH, SSABH, the Kenya Adolescent Reproductive Health Programme, and associated initiatives are the only ones to have been thoroughly investigated. Ndambuki *et al.* (2006) and Maticka-Tyndale, Wildish and Gichuru (2007) reported on the evaluation of the PSABH programme. This programme brought together personnel from several ministries (education, health, and children's services) and community members in the development and delivery of a curriculum to increase upper primary school children's awareness and change in attitudes and sexual behaviours. This was done through on-going, local in-service training of teachers to use interactive teaching methods and a variety of activities such as drama, health clubs, music, information corners, and anonymous question boxes. The programme content addressed strategies and skills for resisting pressures to engage in sexual intercourse and ways to combat stigma and discrimination.

The programme covered approximately 18,500 public schools over a 10-year period, starting with a small-scale pilot scheme under the HIV and AIDS Prevention and Care Programme funded by DFID. It was implemented in Nyanza province, and when initial reactions were positive was expanded to

other sites to test the impact of a school-based programme on knowledge, attitudes, and behaviour change. 'The overall objective was to bring about positive, risk-reducing behaviour changes in pupils in Standards 6, 7 and 8' (Maticka-Tyndale et al., 2004: 172).

PSABH used a mixed quantitative and qualitative evaluation design to pre- and post-test the programme in 40 intervention schools and 40 control schools after 18 months. The results demonstrated significant programme impact. There was adequate programme delivery, increased HIV-related knowledge, improved communication between parents and teachers on HIV issues, increased peer support in avoiding sexual activity, more understanding of the value of abstinence and condom use, self-reported delay of sexual debut and sexual activity, and increased condom use. The programme was extended to 6,900 schools and was eventually rolled out to a further 11,300 approximately under the KESSP. Considering the possible long-term impact of PSABH, the programme reviewer commented that evaluation was done soon after curriculum delivery, and that there was no possibility of a longitudinal study to investigate the extent of the behaviour change over time. Several other researchers have commented that surrogate outcome measures, such as self-reported sexual behaviour, may produce bias when the respondent takes into consideration the expectations of the often older interviewer.

### International experience with behaviour change programmes

A variety of HIV and AIDS education programmes have been developed internationally that, according to Miedema, Maxwell and Aggleton (2011), fall into three main categories: (i) scientifically informed; (ii) based on notions of human rights; and (iii) overtly moralistic. They aim at behaviour change, empowering young people to exert their rights, and instilling moral views on sexuality and sexual practice. Although the approaches in 11 programmes reviewed were different, there were some commonalities: they all aimed at reducing teenage pregnancy, preventing transmission of HIV, and strengthening traditional values. The programmes were all based on heterosexuality and constructed gender and childhood/teenage sexuality in similar ways – children need to be protected, teenagers are at risk, etc. The programmes' implicit message was that whereas biological urges affect boys most, girls are believed to carry the onus of responsibility for sexual morality. The authors added that there was a 'gap between programme principles and in situ implementation.'

### The role of the school in prevention

HIV and AIDS constitute one of many social issues affecting Kenyan society. Others are increasing alcohol and drug abuse, child labour, and child sex work. The issues of endemic poverty and the increasing gap between the rich and the poor are areas of concern, as are the uncertainties that accompany social and cultural change. These issues are exacerbated by the fallout from HIV and AIDS. All need to be addressed in school curricula, which implies ensuring that the latter are relevant to local issues and are flexible enough to incorporate more as they emerge.

Professor Michael Kelly, in a personal communication on the role of the school in the prevention of HIV, stated the following:

*I firmly believe in two things (1) schools should teach about the epidemic and all the attendant sex and drug issues; and (2) this should not be done in isolation from other social issues. In other words, let schools teach about abstinence, but not only from sex but from substance abuse, environmental abuse, corruption, lack of accountability, gender violence, and many other areas. Insert the HIV AND AIDS and SRH topics into a fairly comprehensive module that will deal with social matters that are relevant to the community in which the school is located. A tall order, I admit, but one that is in line with UNESCO's four pillars of learning, especially learning to be and learning to live together.*

### Study findings on life skills curriculum content and delivery

The difficulties that teachers and head teachers face in implementing an HIV and AIDS or life skills curriculum were discussed earlier. In discussion on curriculum contents and delivery, participants in the online forum agreed that the epidemic should be addressed through the schools' curriculum and that its inclusion has increased children's knowledge and contributed to demystifying HIV and AIDS. The major adverse criticisms of the content were that the life skills syllabus is too thin and pupils already know more than what is being taught. Content delivery is limited to passing on knowledge, not skills and action, and there is a lack of adequate materials for teachers. Recommendations from the consultative meeting were that (i) life skills should be adapted to the development needs of the child; (ii) the content should take care of social, physical, and economic concerns and address day to day challenges; (iii) adolescent reproductive health should be stressed; and (iv) coping skills in an HIV and AIDS context should be developed.

Online participants also stated that content needs to be adapted to the socio-cultural context of the locality. In order to devise a relevant syllabus, they suggested that the MoEST organize participatory workshops with different stakeholders to develop textbooks with measurable and achievable targets according to pupils' ages. One online participant felt that HIV and AIDS should be a stand-alone subject, a suggestion that was made by several respondents during the field survey. Methodology was singled out as being an important factor in teaching about the epidemic. One participant wrote: 'Pedagogy should be more participatory, interactive, and human friendly. (To engage students, teachers need to engage their own beliefs and attitudes, and these may contradict the content they are asked to teach.)' The actual and potential links between schools and the community were mentioned. It was pointed out that children's knowledge was transmitted to other members of their families through discussion and questioning. A recommendation was made that closer links be developed between schools and the community whereby educational institutions could become HIV and AIDS resource centres, accessible to the community through services such as VCT information and youth-friendly centres. It was considered that this could be effective if there were collaboration with other ministries, such as those of public health and youth, gender, and sports.

### The importance of adequate, relevant teacher preparation and continuing education

One of the issues discussed by all personnel from Kenya invited to participate in the study was the initial preparation and ongoing education of life skills teachers. Several respondents felt that there were gaps in the initial training of teachers. Some lecturers were reluctant to teach HIV and AIDS issues. Others placed more emphasis on examinable subjects at the expense of life skills education. Onyango (2009) reported on the experience of one teachers' college in training teachers for the HIV and AIDS curriculum that the college tutors were reluctant to teach. The college used an NGO named 'I Choose Life Africa' to train a group of peer educators in content and delivery of a programme on sexual reproductive health and HIV. The training provided the peer educators with the confidence to teach their fellow students. Several respondents reported that initial teacher education neither provided the necessary knowledge of the life skills curriculum content nor facilitated the use of interactive teaching techniques necessary for curriculum delivery. Generally, teachers reported that they lacked the training and capacity to deal with special-needs learners, assess children, communicate to parents, and manage large or multi-grade classes (USAID, 2008).

Recommendations centred on the importance of teachers being provided with the knowledge, teaching, and counselling skills required to respond effectively to the epidemic. Participants' comments are provided in Box 9.

The consultative meeting suggested that (i) more teachers be involved in the curriculum development process; (ii) curriculum delivery skills be included in teacher education; (iii) language that resonated well with youth be employed; and (iv) teachers in training be provided with ICT skills. A study by Duflo *et al.* (2006) in Western Kenya found that teaching primary school teachers how to implement the national HIV and AIDS curriculum increased the likelihood that they would teach about HIV in the classroom. Two years after the training, students whose teachers had been trained had greater knowledge about the disease and more tolerant attitudes towards those with AIDS. It did not reduce the pregnancy rates among girls, which suggests that they were engaging in unsafe sex. A longitudinal study, begun in 2009, may determine the intervention's impact on girls' risks of contracting HIV.

In-service programmes on life skills through a training of trainers approach were considered too confined to workshops and seminars that were merely awareness sessions and resulted in ad hoc teaching about HIV and AIDS. The field survey revealed that teachers who had attended such courses seldom passed on their knowledge to their peers. There are indications that in some provinces the same teachers were exposed to training in guidance and counselling, life skills, and peace education. However, since training records were not available, this was not verifiable. The consultative meeting stressed the need to intensify in-service training at the local level through (i) organizing local teachers' symposia to learn about new developments and present papers; (ii) visiting nearby schools to share experiences; and (iii) having access to a variety of teaching materials in school or a local resource centre. One online respondent suggested that teachers should be provided with incentives to take in-service courses.

### The situation in schools

Focus group discussions during the field survey reported that impediments to delivering the life skills curriculum were the extra burden of teaching the topics, the lack of instructional materials, timetabling challenges, and the failure to recognize its importance because it was not an examinable subject. According to a capacity analysis by USAID (2008), teachers reported that there was generally little pedagogical support from outside the school and that they preferred to consult their peers. In this regard, the feedback and advice provided by quality assurance officers were reportedly inadequate.

### Box 9: The importance of focused teacher education s

'Although teachers are supposed to be the drivers of school wellness, they are either ill-informed or detached from the realities of the impact of the pandemic. Special guidance and counselling techniques tailored for the times of the AIDS pandemic are required for teachers since singing the awareness song is not enough.'

'Because of the links to sex and sexuality education, preparation of educators should include teaching sensitive issues, some of which may be taboo in the African context.'

'At primary level TTCs, HIV and AIDS could be a unit with gender and life skills. The syllabus could be reorganized into units instead of subjects taught in isolation for passing of final exams instead of preparation to teach in a classroom. This curriculum should be interactive and promote critical thinking and reflective practice.'

*Online participants*

There was considerable concern about the inadequacy of teachers' initial and in-service training to teach an HIV and AIDS or life skills curriculum, to deal with special groups and situations, and to evaluate learners' performance in general. It was suggested that more emphasis be placed on giving teachers in training the necessary knowledge, skills, and resources to teach life skills topics effectively, especially those that involve sensitive issues. More emphasis should be placed on classroom management and learner assessment techniques. The quality of support provided to teachers requires investigation.

constraints. Cooperation between institutions across sectors maximizes the gains achieved through school meals and increases the value of food provided. The GoK has taken important steps in this direction by integrating improved health practices into schools and by introducing home-grown school feeding. De-worming is considered to be the most cost effective of all interventions because it is a once-off activity that provides maximum benefit at modest per capita cost. Other programmes that have contributed to enrolment and retention are CCTs and the provision of OVC schooling requirements.

The impact of prevention education in reducing risky sexual behaviour in the long term is still under debate. There is some evidence that interactive teaching, more schooling, and the empowerment of women, coupled with poverty-reduction strategies such as entrepreneurial training, may reduce the incidence of risky behaviours and limit HIV transmission. There is a perceived need to ensure life skills are made more relevant to emerging societal issues and appropriate to the local community. Those that impinge upon general cultural and societal norms, such as respect and gender equity, should be introduced at ECD level. Pre- and in-service teacher education and the level of staffing in schools are inadequate to deliver curriculum content effectively and require attention, as does the level of support given to teachers.

## 10. Options for an intensified mainstreamed education sector response

### Mainstreaming to date, its benefits, and limitations

The education sector policy on HIV and AIDS was intended to bring about a coordinated, inclusive approach in response to the epidemic. So far, measures to mainstream the response have been limited. Application has been inconsistent, and

OVC support has been extended. School feeding programmes targeting many OVC in Kenya have resulted in positive nutritional and schooling outcomes. Programmes are consistent with government priorities on education and health. However, the benefits of school feeding are limited if separated from the larger context of learning, health, and livelihoods. School feeding programmes in isolation, without an appropriate learning environment and family or community support, is insufficient to achieve the objective of developing healthy, educated children. To justify investments and meet objectives, the school feeding programme must take better account of social, economic, and cultural

the impact of most interventions is unclear. Activities have included prevention, care and support, and the development of workplace policies. Prevention has been addressed through life skills curricula, coupled with extra-curricular activities. Care and support have included individual counselling and support groups. Several post-primary institutions and central organizations have developed workplace policies. Management of the response has been through training in workplace policy development. There is no routine collection of HIV-sensitive indicators. There are gaps between policy statements and implementation, and many challenges and impediments have yet to be addressed.

Since 2005, activities managed by the MoEST have primarily targeted formal public institutions only, thereby omitting non-formal, community-based, and private institutions that cater for a substantial school-age population. Curriculum-based life skills programmes have mainly operated in primary and secondary schools, leaving out a large percentage of the most vulnerable youth in the 15–24 age range who are not in school and failing to target pre-school children in their early formative years when they are most receptive to new knowledge and attitudinal and behavioural messages. There have been three different prevention education curricula since 1999, none of which has been adequately evaluated. The extent and impact of HIV and AIDS prevention and mitigation activities outside the formal sector have not been assessed.

### The epidemic's threat to Kenyan youth – a national challenge

The fundamental challenge is the threat that HIV and AIDS pose for young people aged 15–24 who are at the centre of the epidemic in terms of both new infections and opportunities for reducing HIV transmission. They often face underemployment and unemployment, inadequate schooling, and susceptibility to infection. Many youth have insufficient schooling to be employed and are not financially empowered. They lack the knowledge and skills to protect themselves against early sexual debut, sexual coercion, and unprotected sex. Factors predicting HIV status among youth are gender, poverty, rural-urban residence, and level of education. Women in this age range are particularly vulnerable, and youth are overrepresented among the most at-risk populations of HIV infection such as injecting drug users, sex workers, and men who have sex with men. Youth represent over 20 per cent of the total population in Kenya – about 8 million. Their numbers and age range provide a unique opportunity to address the epidemic through the education sector.

### Characteristics of promising practices

Approaches to reducing new HIV infections may be targeted at individuals through life skills training, at families through communications on sexuality, or at communities using youth-friendly health services, support groups, and media campaigns. Of the interventions that have been tried, in-school, teacher-led sex and/or life skills education is the most promising. Studies indicate that the best way to reduce risk and rates of HIV infection are through behavioural, biomedical, and social strategies, particularly when they are used together (Bigmore, 2011). However, these are not all within the scope of the education sector.

What should be considered when designing and implementing a mainstreamed approach to prevention education and other interventions is that context, culture, and location affect effectiveness, as do the duration and intensity of activities and the length of follow-up.

HIV testing has been at the centre of HIV prevention strategies for many years, but there has been limited evidence of the effects of VCT on behaviour change. There is a growing consensus that VCT, while it is an important entry point for care and treatment, is not effective in HIV prevention.

### Evidence from existing programme evaluations and research

#### Poverty reduction

Poverty reduction strategies seem to have an impact on sexual behaviour. Cash transfers to schoolgirls' families are effective in reducing the instance of early marriage, childbearing rates, frequency of sexual activity, and risky sexual behaviour in Malawi. These are effective tools for HIV prevention and can be introduced at a low marginal cost. A study by Duflo *et al.* (2006) compared three school-based interventions in Kenya and showed that a reduction in the cost of education by providing school uniforms reduced dropout rates, teen marriages, and childbearing rates as compared with teacher training and debates on the use of condoms.

#### Vigorous efforts to contain the epidemic in Kenya may have resulted in a change in sexual behaviour and reduced incidence among youth

The International Group on Analysis of Trends in HIV Prevalence and Behaviours in Countries most Affected by HIV analysed prevalence trends and self-reported sexual behaviour among young people using sentinel surveillance data from 2000 to 2008. They observed a significant decline of

at least 25 per cent in HIV prevalence among young ante-natal clinic attendees in six sub-Saharan African countries, including Kenya, and significant changes in sexual behaviour in these countries. Although this may be attributed to the vigorous efforts to address the epidemic, the authors concluded that more data and rigorous analysis was required at country level to understand the relationship between programmes, reported behavioural change, and changes in HIV prevalence.

#### Additional years of schooling predict protective behaviours

Hargreaves and Glynn (2002) reported that in Africa higher levels of educational attainment were often associated with a greater risk of HIV infection. There is mounting evidence that HIV infections are now concentrated among those with lower levels of education and of lower socio-economic status (Hargreaves and Howe, 2010) and a growing body of evidence that it is not the behaviour-change programme itself that is responsible for delaying sexual debut and minimizing risks (De Walque 2009, Hargreaves and Boler 2006, and Hargreaves and Howe, 2010). Appropriate interactive teaching that develops higher level cognitive skills, coupled with more years of schooling, may have a positive effect on life choices. De Walque (2009) concluded that schooling is one of the most consistent predictors of behaviour and knowledge, and that the level of education predicts condom use, the use of counselling and testing services, discussion of AIDS with spouses, and knowledge about HIV and AIDS. One study quantifies the benefits of schooling in relation to delaying sexual debut as approximately a 6–7 per cent increase in the chance of delaying this for each year of schooling (Barnighausen *et al.*, 2007).

Interactive teaching improves learning and attitudinal and behavioural outcomes

The foregoing indicates that a variety of interventions may be needed to bring about behaviour change, and that those merely addressing issues in educational institutions through the traditional curriculum and extramural activities are insufficient. From a pedagogical perspective, evidence from a study on learning achievement in Kenyan schools shows that achievement improves when the mode of curriculum delivery is interactive and that interactive teaching can provide the basis for changed attitudes and influence behaviours (Ngware, Oketch, Mutesya and Abuya, 2010). Together the findings of recent research on the need to include a broad range of values such as respect, moderation, and gender equity in the curriculum and to address emerging social problems have implications for curriculum relevance and teacher preparation.

#### Grassroots level initiatives are having an impact

There are reports that the response to the epidemic using innovative approaches at the local level are having an impact in supporting OVC, reducing stigma, and changing attitudes. Various stakeholders stressed that since HIV and AIDS is a social concern and the epidemic is driven by a number of socio-cultural factors that are found in specific areas, a bottom-up approach should be used to determine how to address the epidemic rather than a top-down approach. They considered that, in the Kenyan context, the deductive approach was not appropriate because it was out of step with the usual mode of cognition and did not foster ownership and commitment. If this is taken into consideration, it has significant implications for the role of central and county education authorities, and for measures to empower local level communities and institutions.

#### Issues to be addressed for a successful mainstreamed response

The main components of an education sector response remain prevention, care, and support for staff and students; work environments that are safe and free from stigma and fear; and the on-going monitoring of activities with accompanying adjustments to improve their impact. A major concentration of the programme should be provision for OVC to ensure their wellbeing and full participation in schooling. These activities should include all public and private education institutions at all administrative levels. The programme needs to be planned within the development of a comprehensive sector programme that will extend schooling provision to all learners, particularly girls, and improve the quality of the education provided. There are, however, major impediments to success. These are: (i) planning and management capacity at all levels; (ii) gaps in HIV-related information; and (iii) the financing of education, including HIV programmes.

The capacity to process, disseminate, and use information is limited by insufficient numbers of adequately trained and experienced personnel at all levels, the minimal application of information technology, and, until recently, the absence of a data bank or skills inventory to guide human resource employment and development. A skills inventory at the MoEST headquarters and at district level has been established, as has a performance appraisal system as a part of performance contracting. Mid-level management generally lacks capacity to transform visions and mission statements into prioritized strategic plans. This calls for capacity building and consultative practices.

The databases for planning and decision-making are not easily accessible, and the information therein is restricted to institutional data on access, efficiency, quality, and equity. Some data required to respond to the epidemic are not available. There is need for a database that can record illness and HIV and AIDS-related deaths. This can be produced in innovative ways to facilitate staff members' decision to reveal their status. These include more detailed data on education sector staff morbidity and mortality rates, attrition adequately disaggregated to determine whether deaths and illness are HIV-related, reasons for teachers' absenteeism and length of absences, schools' data on the OVC status of learners, and absenteeism among learners. Inefficient communications and slow data processing delay decisions on policy and strategy.

Funding for education at approximately 7 per cent of GDP is adequate to cover the sector's needs. There is no budget line for HIV expenditures, although provision was made under KESSP. The timely distribution and management of the funds is problematic and some schools find it necessary to generate additional income when, at the same time, there is under-utilization of allocations by the central ministries. Reportedly, parents are required to make significant contributions to their children's education, thereby impeding the schooling of the poor. Employees' wages account for nearly 60 per cent of total education sector expenditures, of which a substantial amount is spent on replacement, pensions, funerals, and covering absences. Risley (2009) found that HIV prevalence among teachers is very high. If ART is provided to all teachers who need it, prevalence will increase due to better survival rates, but absenteeism and attrition among teachers will fall, potentially among the education workforce as a whole. As a result, there would be substantial cost savings. In 2008 she estimated that the annual cost of HIV and AIDS to education delivery was US\$15 million. Increasing ART between 2008 and 2015 would spare the lives of about 8,000 teachers and save US\$50 million over seven years. Investing in ART would be cost effective since it would provide a return of US\$2.14 on the dollar.

### Maximizing conditions for successful mainstreaming

There is need to target resources where they will have most impact. Indications are that, if initiatives are to produce results, they should be consistently applied across all subsectors and levels over a substantial period of time. Regular monitoring of these activities will identify gaps and challenges and allow for incremental changes to improve implementation. In a resource-constrained environment, impact may be enhanced by concentrating on a few activities and doing these well. The most important of these are: (i) reduction of the impact of

sector staff mortality and morbidity on service delivery, which is shown to effect cost savings through improved efficiency; (ii) support for OVC; (iii) implementation of workplace strategies to reduce stigma and fear and support vulnerable staff and students; and (iv) behaviour change adult-led prevention programmes targeted at youth, which may reduce incidence and lower prevalence. Prevention programmes need to take into consideration the different needs of young men and women and the different age groups. Societal-contextual issues should be addressed to ensure that young people grow up in a safe and protective environment that reduces their vulnerability.

The success of mainstreaming will depend on intensive capacity building to plan, manage, and monitor activities, improved service delivery, increased coverage and quality of education, and the availability and accessibility of funding.

Support from all sectors of the community is required, and this may be mobilized through the media, which should be heavily involved in sharing information. Local, regional, and national media can be involved in evaluating implementation and providing feedback in local languages. Consistency of feedback may be achieved by including a regular time slot in the media schedules. The media itself may require monitoring to ensure flow of information.

### Expected outcomes from successful enhanced mainstreaming

It is anticipated that enhanced mainstreaming may, in the short and medium term: (i) reduce the effects of morbidity and mortality on education sector staff, thereby reducing absenteeism, improving teaching and learning, and reducing costs; (ii) improve the enrolment, attendance, completion, and achievement of OVC; (iii) reduce stigma and fear, and improve the psycho-social state of affected learners and staff; and (iv) reduce HIV incidence among youth. In the longer term, it may bring down national HIV prevalence and improve the coverage, efficiency, quality, and equity of the education sector.

### Summary of the options for mainstreaming with expected outcomes

Education sector plans for intensified mainstreaming need to fill existing policy and implementation gaps, address the challenges, and remove the impediments to success. The potential merging of government ministries whose primary responsibility is education presents an opportunity

for an inclusive HIV response that covers public and private institutions, all subsectors, and administrative levels.

There is need to maintain the supply of teachers and managers, use the education sector more effectively to galvanize a response, and respond more effectively to the growth in the number of children affected by the disease. To be successful, activities need to be well-targeted, applied over a long timeframe, and be constantly monitored. The immediate outcomes may be a reduction in the loss of education sector staff, more conducive workplace environments, improved care and support for staff and students, improved participation in schooling of OVC, and reduced HIV incidence among youth. The longer-term schooling result may be higher achievement levels. Long-term impact on the epidemic may be reduced prevalence.

Mainstreaming requires innovative approaches in setting up a database on education staff illness and HIV and AIDS related deaths. The streamlining of financial operations in provision for HIV and AIDS programmes needs to include funding of ART for infected staff. This could save lives and reduce personnel costs.

## 11. Facing the challenges: Policy and programme recommendations

### The importance of evidence in decision-making

A huge amount of money is spent on research to inform programmes and policies for development. For programmes and policies to be effective, they need to be evidence-based, adapted to the local context, and, in order to be implemented effectively, reflect public opinion. Evidence may take a variety of forms including peer-reviewed research, statistics, and programmatic evaluations. For financial resources to be used efficiently, researchers, policy-makers, and programme developers need to have access to this evidence in order to know what has already been done, what has worked, what has not worked, and why. For this they may need to be technically competent in order to access and use online information. The recently launched Kenya Open Data initiative has the potential to fulfil this role through the possibility of providing data sets and documents as well as a citizens' platform.

### Indications from the evidence on the epidemic's impact on education

There are several clear features of the epidemic's impact on Kenyan society in general and on the education sector in

particular. Generally, gender issues, hunger, and poverty are at the heart of the epidemic, and, at this stage, the educational level is viewed as a predictor of safe sexual behaviour and HIV status. Specifically, HIV increases the scale of systemic and management challenges to the sector. It does this by incapacitating or destroying the sector's human resource base, enhancing existing gender and poverty-related inequities, and producing generations of disadvantaged children with educational needs that are essentially different from those of previous generations. The severity of this effect is related to the context in terms of geographic location, socio-economic status, and cultural norms and values. The epidemic changes the nature of the clientele for educational services and has an adverse impact on the supply of human and material resources. In this way HIV and AIDS reduce the sector's effectiveness and potentially undermine gains in access, efficiency, quality, and equity that have been made over a period of time.

### Gains made in educational development

Historical statistical data show substantial gains in all education indicators over the years, but, as research indicates, these gains bring with them unanticipated consequences that may erode their impact. Free primary and secondary education do not necessarily bring substantive benefits to the poor, particularly if the provision of FPE and FSE are not accompanied by adequate financial and material resources and personnel, resulting in schools raising revenue through fees and levies to supplement meagre budgets. Quantitative gains have often led to losses in quality and do not necessarily effectively address the long-standing inequalities that they were intended to redress.

### Challenges to further development

There is evidence from demographic and health surveys that indicate that children and young people, especially girls and young women, are potentially more likely to contract HIV and to be expected to care for sick household members. These are the groups that form the backbone of the school, college, and university population. Their vulnerability provides both a challenge and an opportunity to focus on preventing further infections in these groups, thereby helping to control the epidemic.

Information provided by the TSC, MoEST, DEOs, and some district-level research points to a high attrition rate among teachers; this is probably the case among managers and support staff as well, although there are no data to support this assertion. As a result of privacy laws, education staff deaths cannot be directly attributed to HIV and AIDS, but projections

based on teachers' age profiles and the prevalence of HIV in the general population suggest these could be as high as 1.4 per cent annually (Goliber, 2000) and 2 per cent (Risley, 2009); this implies substantial loss of human capital in the future further undermining educational provision.

### Prevention and mitigation activities

There is evidence from a rapid survey, SACMEQ, and research reports to suggest that prevention programmes are not being used to their maximum effect; this limits the role of the sector in preventing further infections. Furthermore, there is scant evidence of the development of workplace strategies in response to the Education Sector Policy on HIV and AIDS (2004) in all but a small number of institutions; these are mainly at central level and post-primary institutions. There are several programmes – such as school feeding, cash grants, and school supplies support – to assist in increasing the enrolment of the most vulnerable children and improving their retention and progression on the assumption that the more children who are educated to a higher level, the more knowledgeable they will be in HIV prevention and the more able to take informed decisions in this regard. Indications from those initiatives that have been evaluated are that they do have a positive impact on attracting children to school and ensuring regular attendance and progression through the grades. These programmes could potentially have a greater impact if they were combined with improvements in the school environment, if curricula were flexible and more relevant, and if learning was facilitated through better qualified and motivated teachers and sufficient instructional materials. As it is, the quality of instruction is not conducive to good learning outcomes.

### How can the education sector respond?

In light of the findings on the actual and potential impact of HIV and AIDS on the education sector in Kenya, there are two basic questions to be addressed: First, what can the sector do to reduce the impact on itself? Second, how can the sector help to minimize the future nationwide impact of HIV?

The comparative advantage of the education sector over other sectors of the economy is its ability to reach a large population of children in the most vulnerable age groups and to influence their knowledge, attitudes, and behaviours. However, it is in a difficult position since it has to protect itself from the future impact of the epidemic by dealing with the anomalies that plague it. In addition, although the education sector can help to minimize the impact of the epidemic, it cannot, in isolation, fully address the underlying factors that drive it – poverty, gender inequality, and cultural norms, values, and behaviours

that may increase risk. However, it can go a long way in creating the conditions for future improvements.

### Progress in mainstreaming HIV and AIDS

With its allocation from KESSP, the MoEST increased its activities in response to the HIV and AIDS epidemic and sought to mainstream these activities throughout the sector. The pooled funds from KESSP were spent on four components: HIV prevention, HIV response at the workplace, management of this response, and care and support of OVC enrolled in primary schools. The MoEST implemented these activities through its ACU. Some targets have been reached, but further progress has been hampered by weak human resource capacity, delays in release of funds, and administrative bottlenecks. The HIV and AIDS activities in support of vulnerable children were linked with school health and nutrition and the development of infrastructure, recognizes the relationship between HIV and AIDS, good nutrition and health, safe school environments, and access to school.

### Challenges to enhanced mainstreaming

Two separate but related sets of challenges face the education sector – maintaining the integrity of the sector and using the sector to address the epidemic within an enhanced mainstreamed approach.

Sector-specific challenges are: (i) the need to upgrade the statistical and research base for educational planning in response to the challenges posed by the epidemic; (ii) the need to develop capacity at all levels for data gathering and processing, planning, and project and programme management; (iii) the development of a results-based culture that will assess sector performance through monitoring and evaluation; (iv) the initial and in-service education of teachers in interactive teaching and classroom management; (v) ongoing constructive teacher support; and (vi) the sustained provision of teaching and learning materials.

Epidemic-specific challenges are: (i) ensuring the health and well-being of education sector staff; (ii) addressing the needs of a growing population of OVC; (iii) improving capacity to deliver, monitor, evaluate, and improve the relevance of the life skills curriculum; (iv) ensuring sustainability of resource provision in the eventuality of a fall in development partner support but without further disadvantaging the poor; and (v) coordination between MoEST departments, across ministries, and between cooperating partners.

## Recommendations for HIV and AIDS policy

To improve the education sector's response to the HIV and AIDS crisis there is need to revise the education sector policy on HIV and AIDS, abridge the document, distribute it, and implement it at all levels. Since the revised policy will inform enhanced mainstreaming of the response, issues that will facilitate mainstreaming need to be considered. These may include, but are not limited to, the following:

- A cohesive approach to prevention among youth, both in and out of school.
- Setting up a database of core indicators of the impact of HIV and AIDS on the education system.
- Measures to ensure on-going adequate funding for HIV and AIDS.
- Determination of where accountability lies and how it will be assessed.
- Procedures to identify and locate OVC.
- Provision of ART to all infected education sector staff.
- Plans for the nationwide dissemination of the policy.
- Guidelines for developing workplace-specific policies.
- Staffing levels and training for units with major responsibility for managing the response to HIV and AIDS.
- Curriculum content, materials, timetabling, and mode of delivery.
- Initial, in-service and on-service training for teachers.

To further inform policy, the MoEST, together with other stakeholders, should agree on the way forward regarding condom use, particularly by adult learners.

Recommendation 3 below outlines possible modalities for disseminating the policy, developing workplace strategies, and monitoring and evaluating implementation.

## Education sector policy

The following policy recommendations are intended to improve overall sector improvement that underpins the success of HIV and AIDS interventions:

- Develop a policy to professionalize the teaching service, which includes a career path for teachers other than to become administrators.
- Draw up a policy and strategic plans to ensure the sustainability of HIV and AIDS programmes currently partially funded by overseas development assistance.

- Develop a policy on primary education quality upgrading.
- Produce clear guidelines for collaboration with other internal and external partners in education sector development.

## Programmatic recommendations

These recommendations aim at maintaining the supply of teachers and managers, using the education system to galvanize the response to the epidemic, and responding to the needs of vulnerable children. An essential step in the process is to strengthen the factual basis upon which decisions are predicated, since many interventions are in response to very weak evidence.

### Goal 1: Strengthen the information base

The literature reports gaps in information on public and private sector financing, qualitative outcomes, human resource availability, attrition and replacement, and the location and needs of vulnerable children and youth.

#### Recommendation 1: Set up databases

To rectify this, it is recommended that five databases be set up or strengthened, each of which has substantial implications for training, additional resources, collaboration between the three ministries responsible for education,<sup>15</sup> among the semi-autonomous government agencies<sup>16</sup> and other relevant ministries such as the following:

- An annual statistical report produced through the current EMIS, based on the schools' census and organizing information under access, efficiency, quality and equity headings.
- An education sector human resource management system (HRMIS) produced by TSC that reports in detail the numbers, status, location, attrition, replacement, and costs of managerial and teaching staff in the sector. Such a management system would highlight issues of major concern, such as imbalances in teacher distribution between rural and urban areas, and teacher shortages or over-supply. It would facilitate human resource management and resource planning.
- An annual report on the financing of the sector. This would include allocations from Kenyan public, private, and household sources, and expenditures at all administrative

<sup>15</sup> MoE, Ministry of Higher Education Science and Technology, Ministry of Gender and Community Development

<sup>16</sup> viz. TSC, KICD, Kenya Education Staff Institute, Centre for Mathematics, Science and Technology Education in Africa among others.

levels. It would identify areas of inefficiency including the timeliness of release of funds, wastage, and over- and under-expenditures.

- A district-level database on (i) attendance and absenteeism among students and staff; (ii) school infrastructure; (iii) instructional materials; (iv) community-school relations; and (v) initiatives supporting vulnerable children and other measures to mitigate the effects of HIV and AIDS. Tracking students' performance on formative, diagnostic, and evaluative assessments in response to changes in school-based factors would help determine how changes impact achievement and provide a feedback mechanism for deciding future interventions.
- A national database on the geographic distribution of OVC and their school participation, which would assist in targeting their needs.

### Goal 2: Maintain the supply of teachers, management, and support staff

A major impact on the sector has been the erosion of the human resource base that is the backbone of service delivery. The work of the sector is personnel-intensive and measures must be taken to ensure not only that there are sufficient personnel, but that they are well-trained and effectively utilized. Actions have been initiated to address the approved establishment level using a skills-based approach. A skills inventory at headquarters and district level has been established, as has a performance appraisal system, which is part of performance contracting.

### Recommendation 2: Sponsor education sector staff health days and provide ART

An initial first step is to ensure that all personnel are healthy enough to perform their duties and will live long enough to maintain continuity in service delivery and avoid the need for replacements. It is recommended that the MoEST, in collaboration with the Ministry of Health, the Ministry of Public Health and Sanitation, and VCT providers, mount a series of Education Sector Staff Health Days in each district with the aim of screening staff and their families for health problems and offering VCT services to those want them. Commitment to these days should come from the highest level of government, and each one should be well publicized. The days should be supported by education staff unions and people living with HIV and AIDS. The next steps would be to ensure that all HIV-infected staff receive treatment and that they and their families have access to counselling.

### Goal 3: Respond to the epidemic's internal and external impact

A situation analysis of the dissemination and implementation of the Education Sector Policy on HIV and AIDS observed that the 2004 policy document had not been widely disseminated and, as a consequence, workplace policies and strategies had not been developed by many institutions. Considerable attention had been accorded the HIV and AIDS curriculum, but its implementation was erratic in the provinces surveyed. The situation analysis observed that policy dissemination was a priority and in this regard made the following recommendations:

- Mainstream measures to prevent HIV and mitigate its impact in education sector strategies from the outset. Concentrate on those measures known to have the greatest effect on preventing the spread of HIV and mitigating its impact on education.
- Involve education sector practitioners, health officials, KNUT, people living with HIV and AIDS, parents, children, and communities in the development of measures to address prevention and mitigation.
- Devolve responsibility for implementation to the local level, but provide guidelines and some resources, and issue a number of one-page information and guidance leaflets such as (i) 'HIV and our school – What our school needs to do to implement the HIV and AIDS policy'; (ii) 'How to develop an HIV and AIDS workplace strategy for our school: Who should be involved? What should the strategy include?'; (iii) 'Measuring the progress our school is making in implementing our strategy – Guidelines for assessing progress'; and (iv) good practice that schools might copy.

### Recommendation 3: Abridge, disseminate, and implement the HIV and AIDS policy

In order to ensure that the policy is adequately disseminated and there is local ownership in devising institutional policies, implementation plans, and monitoring and evaluation schemes, an abridged version of the policy should be produced, together with guidance notes and templates on the essentials of policy development, planning, and monitoring and evaluation. An initial grant will be given to institutions and zones to produce local policies, plans, and monitoring and evaluation schemes. These will be submitted to the DEOs with their receipt recorded. An evaluation team, probably from a local university, college, or capacity-building NGO, will scrutinize each submission and, if approved, recommend it for funding. Once funding is received, the institution or cluster of schools will implement the plan. On-going activities will

be recorded and periodic reports sent to the DEO. Quality assurance officers will monitor plan implementation at set intervals and provide feedback to the school and the DEO. Regular oversight can be given by parent-teacher associations and boards of governors.

#### Goal 4: Enhance protection education

The traditional curriculum development process is time-consuming and there may be a significant time lag between the initiation of a curriculum revision and implementation in schools. The most effective strategy for curriculum development is to base it on teacher-designed and written curriculum materials developed from MoEST curriculum guidelines. The latest version of the KICD life skills curriculum is being implemented somewhat unevenly across Kenya.

#### Recommendation 4: Revise life skills curriculum dissemination and implementation

It is recommended that the syllabus and curriculum materials be revised to be more comprehensive and include issues on sexuality education, sexual behaviour, condoms, safe sex, and other prevention issues. The materials should be broadly disseminated, and teachers should be required to use them. The implementation of HIV and AIDS curricula, programmes, and activities should be backed up with a carefully designed monitoring and evaluation system to ensure that lessons learned and best practices are documented and replicated. Quality assurance officers' skills should be upgraded so that they can monitor the teaching and learning of the curriculum and provide useful advice. Teachers' groups should meet locally to suggest relevant additions or modifications to the syllabus. It is important that sufficient resources be made available to older pupils, poor communities, and non-urban schools; that different versions of the curriculum be produced to suit each educational level; and that non-public schools be covered. To this end sources of funding should be explored.

#### Goal 5: Improve teachers' capacity to deliver life skills education

Teachers are in a position to be instruments of change. Although many teacher training institutions and university education departments are including units on HIV and AIDS in their curriculum, this is not universal.

#### Recommendation 5: Reform pre- and in-service teacher preparation and education

A unit on life skills to include existing and emerging personal and societal challenges should be an integral part of the college and university curriculum. Lecturers should present the topics through interactive methodologies. Peer teaching among students at both types of institution should enable prospective teachers to develop the necessary techniques to deliver a life skills curriculum that addresses contemporary issues. In addition, pre-service teachers need to learn effective communication and classroom management skills (including multi-grade approaches for small schools and group work for large classes) and be taught how to use instructional materials to their maximum effect.

Teacher in-service courses for life skills education should be organized locally because the training-of-trainers approaches currently used have been assessed as ineffective. These courses should be interactive, with the intention of upgrading serving teachers' knowledge and skills on contemporary and emerging issues, and acquainting them with the most recent available resources. One online forum participant suggested that some schools should act as resource centres on HIV and AIDS to provide services to other schools and the community. A well-evaluated example of this is the Sub-Cluster Programmes to Increase Support Effectiveness in Bangladesh, as reported in Craig, Kraft and du Plessis (1998).

#### Goal 6: Improve institutional capacity to manage and evaluate life skills curriculum delivery

Institutional capacity to manage life skills curriculum delivery remains limited. In addition to the teacher training programmes mentioned above, district education officials, head teachers, and school management boards require knowledge and skills to support curriculum delivery.

#### Recommendation 6: Train personnel at district and institutional levels to manage and evaluate life skills curriculum delivery

Local training programmes bringing together these personnel with some teachers are required to develop and support monitoring and evaluation skills, planning and prioritization of classroom needs including materials, computer skills and financial management.

#### Goal 7: Extend support for OVC

Existing programmes seem to have a positive effect on OVC schooling. There is considerable support for them among

collaborating government ministries, communities, school staff, and local and international partners. Although their coverage is broad, there remains a substantial number of OVC who could benefit from such programmes in the short- and medium-term.

#### **Recommendation 7: Address the schooling needs of OVC**

In anticipation that the OVC population will continue to expand for some years, it is necessary to widen support and ensure long-term sustainability. A policy and practical strategic plan are indicated to address this issue. There is need to continue to include support for OVC in the government's core social protection strategy. Two areas that could be improved are school and community collaboration, and coordination between ministries and local and international partners. In the absence of a comprehensive database, the current proliferation of programmes is very hard to track and evaluate.

#### **Goal 8: Improve baseline information and on-going initiatives**

Because the success of HIV and AIDS programmes depends on the context in which they are implemented, much of the success of prevention programmes and mitigation activities will require addressing a number of broader educational issues.

#### **Recommendation 8: Extend the research evidence**

At a minimum, the following areas of research must be explored:

- School-based studies of teachers' classroom effectiveness in the delivery of the life skills curriculum, including the productive use of instructional materials, teaching methodology, and formative and summative evaluation.

- A national survey of the extent of the OVC situation and their school participation to include a rigorous assessment of how on-going financial and nutritional interventions have affected this.
- Piloting of the existing DEMMIS instrument, identifying skills gaps in head teachers' and district level officers' capacity to use the instrument, upgrading capacity at district level, and modifying the instrument in response to practice.
- A survey of the districts to identify capacity-building needs in school inspection; in support, monitoring, evaluation and reporting; and in the use of ICT with a view to upgrading this capacity.
- Community support for schools and the schools' contribution to the community with a view to strengthening this mutually supportive relationship in providing for OVC.
- An investigation into the skills that school management committees and boards of governors require to support school administrations, identify skills gaps and propose ways to empower school management committees and boards of governors to be more effective.
- Investigate all the programmes that offer OVC support and the establishment and maintenance of a database to be used to monitor the programmes and provide results-based evaluation for further action.

#### **Summary of responding to the challenges**

In response to the challenges presented by the policy and its implementation, recommendations have been made to enhance mainstreaming, broaden the information base for decision-making, and improve equity and quality of educational provision. The recommendations are intended to provide the foundation for a results-based culture that may inform future policy and practice. A matrix outlining a proposed action plan based on these recommendations is in Annex 10.

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## Annex 1: Field survey report

### Purpose and scope of the field survey

The purpose of the survey was to identify how the epidemic has affected educational institutions, what is being done to mitigate the effects of HIV and AIDS, and to solicit suggestions of possible additional interventions in the education sector.

### List of research tools

Title of document	Target group/individuals
Provincial level education statistics	PEO-Provincial EMIS/statistician
District level education statistics	DEO-District EMIS/statistician
Primary school education statistics	Head of primary school
Secondary school education statistics	Head of secondary school
Data set on teachers	Teachers' Service Commission
Data set on teachers	Provincial Education Office
Data set on teachers	District Education Office
Policy questionnaire	Central level personnel – various institutions
Policy questionnaire	Provincial level personnel
Policy questionnaire	District level personnel
KESSP HIV and AIDS component log-frame	MoEST Implementing Unit (records) + others
Schools' questionnaire on HIV and AIDS and policy	Primary and secondary school heads and senior staff
Questions to guide teachers' focus group	School teachers
Questions to guide support staff focus group	MoEST support staff
Guiding questions for pupils	Upper primary and secondary school pupils class

### Number of institutions visited by date, region, and county

The survey covered 53 institutions – 32 primary schools, 15 secondary schools and six teacher training colleges in 18 counties within five regions of Kenya. The research team divided into six groups during the course of the study, each group visiting one region. Some groups visited more than one region. Field reports were written by the individual research teams. The content is based on observations made during the visits.

### Field reports observations

#### Lower Eastern region

In total, the research team visited three districts offices and obtained data on policy and a data set on teachers. At the school level, 18 focus group discussions were held with teachers and learners in the three counties. Nine head teachers provided information on education statistics, as

well as responding to the questionnaire on the HIV and AIDS policy. The following are some of the results of these efforts:

- Only one DEO had a copy of the Education Sector Policy on HIV and AIDS. In the other offices, officials did not seem to know it existed.
- Head teachers did not have copies of the policy, nor were they aware of its existence or their role in its implementation.
- During the focus group discussions, teachers felt incapacitated by the lack of a policy framework on HIV and AIDS that would help deal with the challenges of supporting

Date	Region	County	Primary Schools	Secondary Schools	Teacher Training Colleges
22–26 February 2011	Upper Eastern	Embu	1	1	1
		Isiolo	1	1	
		Meru	1	1	1
22–26 February 2011	Lower Eastern	Machakos	2	1	1
		Makueni	2	1	
		Kitui	2	1	
22–26 February 2011	Central	Nyeri	2	1	
		Muranga	1	1	
		Thika	3	0	1
27 February–5 March 2011	Nyanza	Siaya	1	1	1
		Homa Bay	1	1	
		Kisumu	3		
27 February–5 March 2011	Rift Valley	Narok	2	0	1
		Kericho	2	1	
		Nakuru	2	1	
14–18 March 2011	Coast	Mombasa	2	1	
		Kilifi	2	1	
		Malindi	2	1	
	Total	18	32	15	6

infected and affected learners, teachers, and support staff. In one school the teachers expressed frustrations of feeling helpless in situations where infected children report to schools with ART and no information is provided to the administration. This resulted in non-adherence by some learners, thereby compromising their health status.

- Focus group discussions in schools revealed that in one mixed secondary school the administration was informed of the positive status of a male student by the father in the hope that the school would provide a supportive environment. However, the school made the presumption that he was engaging in sexual relationships with other learners. Due to lack of a policy framework, the school recommended that the parents transfer the boy to a single sex school.
- None of the schools' administration had up-to-date information on OVC.
- Teachers had inadequate training to respond to HIV and AIDS issues effectively.
- In primary schools, most of the pupils involved in focus group discussions had inadequate and sometimes incorrect information on HIV and AIDS.
- Learners felt that the church is unrealistic since it only focuses on abstinence.
- No supportive or behaviour change programmes had been established in the schools visited.

- Secondary school students revealed that young people were engaging in unprotected sex for fear of being left by their girlfriend/boyfriend or being regarded as unfaithful.
- There was appetite for more information since apart from what was included in the curriculum, very few opportunities were provided for the learners to engage in discussions on HIV and AIDS.
- Where HIV and AIDS were taught in the curriculum up to the cognitive level, there was little application or focus on the affective level.
- Guidance and counselling focused more on performance than on social interactions and the raising of a well-rounded child.
- Life skills education was not taught in the schools visited because there were no syllabuses and the teachers had not been trained.
- In the college, tutors indicated that they were implementing the policy, and numerous sensitization forums including VCT services have been undertaken.
- In a school for children with severe learning disabilities, incidents of sexual activity and rape among the learners were reported, revealing the additional vulnerability of children with special needs.
- Focusing on academic school performance seems to overshadow the implementation of HIV and AIDS

programmes, including life skills, since this is not an examinable subject.

## Conclusion

The education sector policy on HIV and AIDS has not been implemented in the institutions visited. An implementation strategy for any revised policy should be devised to ensure effective dissemination and utilization. Other communication channels to reach young people with messages on HIV and AIDS to supplement the efforts of school systems should be explored.

## Central province

Researchers visited three counties and nine schools in the Central province. They also met with the Deputy Provincial Director of Education. The communities visited appeared to be affected by HIV and AIDS. In addition, internal displacement, sex work involving children, drugs, poverty, illiteracy, and broken homes were characteristics encountered during the field research. Results from these visits included as follows:

- There was little coordination and knowledge of who is doing what among the different partners (GoK, MoEST, NGOs).
- Because there were no resources or guidelines dedicated to implementing the policy, none of the schools visited were implementing it. Furthermore, none of the schools visited had a workplace policy.
- The TTC had received the policy and had an in-house education and HIV and AIDS policy which they were trying to integrate in day-to-day activities. Tutors, students, and non-teaching staff have been sensitized through resource persons, people living with HIV, and guidance and counselling sessions.
- Pupils thought that HIV and AIDS should be taught in school as teachers are not shy to talk about sex and so young people can protect themselves and pass on information to their family and community.
- The HIV status of pupils was not known.
- Orphans were more likely to be absent from school.
- A school feeding programme has boosted attendance.
- Teachers have not been sensitized enough to implement the curriculum (issues of attitude, confidence, and culture).
- Teaching materials, including audio visual materials on HIV and AIDS, would help.

## Recommendations

- Channel information through teachers and not at the national level.
- Create awareness in the community on HIV and AIDS.

- Empower teachers to be able to identify families and pupils in need, and also be the link with the community.
- Include adequate space in the timetable to address HIV and AIDS.
- Involve people at the grassroots level in policy development (everything happens at national level).

## Nyanza province

Data was collected in Nyanza province from 10 institutions drawn from three counties with the following results:

- The majority of schools visited had pupils infected with HIV.
- Pupils in primary school, especially those in upper classes, were sexually active, and sex among pupils was mainly unprotected. Poverty was a key factor that influenced sexual activity.
- Pupils had basic information on HIV and AIDS. However, this did not necessarily translate to behaviour change.
- There was still stigma and discrimination among infected pupils.
- In the primary schools visited, there were no peer support programmes. However, secondary schools had strong peer support programmes.
- The majority of pupils/students indicated that they wished to obtain information on HIV and AIDS from teachers and parents.
- In all the schools visited, support mechanisms for infected and affected learners were weak. There were no reported teacher support programmes except in Nyamira district.
- Although HIV and AIDS is taught across the curriculum, this has not resulted in higher levels of learning, such as analysis, application, etc.
- In the majority of schools visited, life skills were not being taught.
- The majority of the schools visited had high numbers of orphaned pupils and students. In one school, 80 per cent of pupils were orphans.
- In the schools visited, there were infected teachers; however, they did not openly and freely discuss their status.
- The majority of the teachers reported that they were not trained on HIV and AIDS and life skills.
- There is still stigma and discrimination about HIV and AIDS both in the learning institutions and the community.
- The policy documents were generally not available in learning institutions, and the majority of the teachers were not aware of its existence.
- No school in the sample was implementing the policy except the Primary Teacher Training College, which had adapted the policy and developed a college-specific policy.

## Conclusion and recommendations

HIV and AIDS are affecting the education sector exponentially because the number of orphans has continued to increase, and this in turn affects the system's performance, leading to poor results. Teachers feel overwhelmed and have blocked their creativity to address the epidemic. While the policy advocates the use of various creative innovations, its dissemination has not been adequate. The social support system for orphans does not appear adequate. Moonlight VCT and mobile VCT are the most popular and effective for youth.

- Develop more innovative approaches to address behaviour change as well as stigma and discrimination.
- Develop clear guidelines to initiate innovative and creative approaches to address HIV and AIDS.
- Create schools that are change agents within the community.
- Ensure that the school still appears to be the best avenue for reaching both learners and the community.
- Develop approaches that deal with psychological issues surrounding VCT testing and knowledge of one's status.
- Continuously enhance teachers' knowledge on HIV and AIDS.
- Establish a strong coordination framework for HIV and AIDS service providers.

### Rift Valley province

The researchers visited three counties and nine schools in Rift Valley. In addition, they spoke with district, provincial and municipal council officers in different counties. Several provincial and district offices had seen and distributed the policy (and received funding from MoEST to assist in sensitization). But the visits led to the following conclusions:

- A limitation in the policy's effectiveness is the lack of guidelines; implementation of the policy at the school level is slow.
- Peer educators appear to be an effective vehicle for discussing HIV.
- Post-election violence seem to affect schools. The decline in examination results by one school was attributed to the political environment; no element of peace education was being taught; some students did not go back to school.
- OVCs are identified through class teachers, but teachers have no sure way of identifying HIV-positive children.
- Pupils drop out to work. There were cases of students dropping out because of pregnancy and HIV and AIDS.
- Pupils on tea plantations are introduced to sexual activities at a young age.

- Support services for HIV infected teachers are not always known by staff.
- The sustainability of HIV programmes is a problem because teachers are overloaded with teaching and cannot take on extra activities.
- Some teachers claim that their role has changed from teacher to counsellor.
- Some teachers have been trained by the CfBT-implemented PSABH.
- There is limited disclosure of status by teachers. However, some do approach human resources department to disclose their status. The district office tries to support the teachers who disclose their status, for example by requesting transfers to a school near a clinic.
- There are cultural practices that are difficult to discuss. Cultural practices such as polygamy and female genital mutilation may increase the risk of contracting HIV.
- Clubs such as girl guides and scouts associations go out and sensitize other pupils.
- When the school and community are located near a university, students from the university come to discuss issues of life skills.
- Interviewees commented that sex work, drug and alcohol abuse are affecting the community.

### Recommendations

- Provide guidelines on using a syllabus or books.
- Ensure that the ministry helps OVC directly with clothing, materials, and food, particularly since so much money is spent on workshops ('Let the victims benefit instead of facilitators').
- Pay attention to the need of families to help them care for themselves.
- Train more than one teacher; one teacher cannot train all the others.
- Target training toward boarding school teachers and private schools.
- Involve stakeholders from the beginning of policy development to ensure smooth and consistent monitoring.
- Employ more officers to work on HIV-related activites.

### Coast province

Through the Provincial Director of Education office, three districts were identified: Mombasa, Malindi, and Kilifi. The Provincial Director of Education was also provided with two questionnaires to fill out on provincial-level statistics and the situation analysis of the implementation of the education sector policy. Three district officers were visited, but only Malindi district managed to provide statistical data and information on the implementation of the education

sector policy. Mombasa and Kilifi districts filled out the questionnaire on policy implementation and promised to send the statistical ones. The Municipal Education Office and the Provincial Director of Education also promised to send their questionnaires. Focus group discussions were held with teachers and learners in the three districts. Nine head teachers provided education statistics and responded to the questionnaire on the HIV and AIDS policy. Also, 132 questionnaires were administered to learners in both primary and secondary schools.

- The education sector policy on HIV and AIDS remains non-existent in all schools visited apart from two schools in Malindi district. In these schools, the teachers were not familiar with policy contents.
- Teachers reported that HIV and AIDS were covered through integrated subjects, but life skills as a stand-alone subject is not covered.
- Although a few teachers have taken courses on HIV and AIDS, there does not seem to be a trickle-down process.
- In high schools, cases of unprotected sex were reported.
- A few students, especially in high schools, reported visiting VCT. However, they expressed that the ministry should make it possible for them to access VCT through mobile

services. It was reported that VCT services were available in all the district headquarters and were easily accessible. However, there were none in the rural areas.

- Young people stated that for those already engaged in sex, it was not easy to access condoms and sometimes they had to turn to older relatives and friends. They stated that condoms should be stocked in accessible areas such as the national library toilets.
- For HIV and AIDS to get the attention they deserve, they should be included as a stand-alone examinable subject.
- Data management in schools and districts was poorly organized apart from in Malindi district.
- HIV and AIDS stigma is still high.
- Incidence of early pregnancies was reported in the three districts, but it was reported that there has been a decline which could indicate some degree of behaviour change.

### Conclusion

Although the MoEST and other organizations have been involved in the dissemination of the Education Sector Policy on HIV and AIDS in the last few years, there is little to show that implementation of the policy has taken place. An implementation plan for the policy should be developed.

## Annex 2: Online forum comments and recommendations

THEME	COMMENTS	RECOMMENDATIONS
Presentation and dissemination	<p>There is a lack of dissemination of official policies and circulars.</p> <p>Policy has not reached all institutions.</p> <p>The policy may not have concentrated enough on sustainability as some of its guidelines, though perfect in intention, prove difficult to implement or sustain, or lack support from some of the implementers.</p>	<p>Abridged versions of the policy should be produced in a language that can be understood by the students and other school stakeholders.</p> <p>Involving local leaders in the draft may help reduce resistance and produce local policies adapted to the communities.</p>
Implementation	<p>The education sector policy and related documents (KNUT, Public Service Commission) have improved teachers' working environment; e.g. in terms of dismissal.</p> <p>Currently in Kenya the recruitment of teachers does not discriminate against those with HIV. This is a great step forward, since everyone has an equal opportunity to be recruited.</p> <p>Several institutions, especially colleges, have an HIV and AIDS in the workplace policy that protects the infected from both stigma and discrimination. The institutions are therefore legally bound to adhere to the policy.</p> <p>The education sector policy has helped reduce stigma and discrimination. HIV and AIDS are talked about more freely within schools and with parents. Infected and affected teachers, students, and parents face less stigma.</p> <p>The education sector policy has greatly helped reduced stigma and discrimination in the workplace. Prior to the policy, teachers thought to be HIV-positive were considered a threat to the institution by fellow teachers and parents. However, teachers are still reluctant to openly disclose their status.</p> <p>The education sector policy has increased education on HIV and AIDS. Before the policy came into force, there was a deeply divided opinion within society on the need to introduce HIV and AIDS education in schools (increasing the level of knowledge on sexual matters would enhance immorality). The policy led to trained teachers who were able to demystify HIV and AIDS by giving factual information to children who had previously relied on rumours. This HIV and AIDS education overflowed into homes as children discussed, sought clarification, or forced parents, relatives and guardians to help with their homework. The policy also opened up opportunities for teachers to learn about HIV and AIDS through seminars and workshops organized by MoEST. Students' AIDS clubs were started.</p>	<p>It is imperative to involve people living with HIV to help combat stigma and discrimination.</p> <p>Language guidelines are needed for the education sector to help respond to issues of stigma and discrimination.</p>
Gaps in policy, content and practice	<p>The administration refuses the distribution of condoms, even to teacher trainees.</p> <p>There is a lack of VCT in higher institutions.</p>	
Prevention activities		

THEME	COMMENTS	RECOMMENDATIONS
Curriculum content and pedagogy	The life skills curriculum is too thin; pupils already know more than what is being taught. The curriculum is limited to passing on the knowledge, not skills and action. There is a lack of adequate materials for teachers.	Pedagogy should be more participatory, interactive, and human-friendly. (To engage students, teacher needs to engage their own beliefs and attitudes, and these may contradict the content they are asked to teach.) HIV and AIDS should be a stand-alone subject and a compulsory unit in the curriculum for teacher trainees. Participatory workshops should be organized with different stakeholders to develop textbooks with measurable and achievable targets according to pupils' ages. The content needs to be adapted to the socio-cultural context. Active learning methods should be prioritized. Educational institutions could become HIV and AIDS resource centres, accessible to the community through services such as VCT information and youth-friendly centres. This can be possible if there is collaboration with other ministries such as public health, youth, gender, and sports.
Teacher training		Although teachers are supposed to be the drivers of school wellness, they are either ill-informed or detached from the realities of the impact of the pandemic. Special guidance and counselling techniques tailored for the era of the AIDS pandemic are required for teachers, since merely promoting awareness is not enough. In-service teachers should be encouraged to take INSET courses and be motivated through incentives. Because of the links to sex and sexuality education, preparation of educators should include teaching sensitive issues, some of which may be taboo in the African context. At primary-level TTCs, HIV and AIDS could be a unit with gender and life skills. The syllabus could be reorganized into sub-units that would prepare trainees to teach in a classroom. This curriculum should be interactive and promote critical thinking and reflective practice.
Mitigation activities		

THEME	COMMENTS	RECOMMENDATIONS
Stigma and discrimination	<p>Much progress has been made in other areas, including the development of policies that ensure services are available close to the beneficiaries. Education and training that have resulted in more people being tested voluntarily, visiting the VCTs, and seeking medical treatment. Messages of HIV and AIDS are no longer hidden in dark corners and drawers. There are HIV and AIDS billboards on busy roads and public institutions. Messages are passed through song, dance, drama, and sports to minimize taboo associated with the disease. However, people have yet to accept those infected and they are still suspicious of the affected. If parents are suspected to have died of AIDS, the children are often ostracized. The workplace policy may be clear that the infected are not to be discriminated against, but in practice it is not the case. In Kenya, the teaching community has perhaps moved furthest in ensuring non-discrimination at the workplace, but that is perhaps because they have a very strong union, not because the employer understands their plight. There are cases where parents have moved their children from a school because the teacher was suspected to be HIV positive.</p> <p>Due to the stigma associated with HIV and AIDS, it is often not easy to provide services to the infected and affected, despite such services being availed by government and others. At times, when people die, even the immediate family may not know what the cause was.</p> <p>The stigma is often worse for a person living with AIDS than the symptoms of the sickness itself. Stigmatizing HIV and AIDS can lead to higher infection. In a way, it stops people getting tested and protecting themselves and their partners.</p> <p>Ignorance and fear lead to discrimination. Even scientists have found HIV and AIDS to be a very complicated disease to understand. It is therefore obvious that many are still ignorant about the real facts, not only in Kenya but throughout the world.</p>	<p>It is imperative to involve people living with HIV to help combat stigma and discrimination.</p> <p>Language guidelines are needed for the education sector to help respond to issues of stigma and discrimination.</p> <p>There may be a need to find other systemic ways of assisting such groups without further traumatizing the bereaved. HIV and AIDS services could be merged with others. A holistic approach is needed that does not label people simply by the type of facility they visit. Community health days organized brought multiple services (health education, health insurance, banking, dental/other clinical tests) together. The number of people tested for HIV was extremely high. If they had been called HIV and AIDS education and testing days, very few would have turned up.</p> <p>More information about HIV and AIDS in schools, in other words the teaching of this subject, should start from a very early age using correct and simplified tools adapted for each level. The books should be specifically adapted to Kenyan children and youth. Because of the lack of specific information, people do not understand how HIV is transmitted, and they are afraid. They try to stay clear of people infected with and affected by the sickness. They believe people who are HIV positive are bad or dangerous people. This is why HIV and AIDS are stigmatized. Myths and false information about how HIV is passed on and how AIDS is cured are especially common.</p> <p>To strengthen the policy, ignorance, fear, myths, and beliefs have to be fought through education, using correct literature and information that provide a space for activities, discussions, and questions and answers to enable pupils, students, and teachers to debate in the classrooms. This would be more effective than training teachers because the children would be able to correct some of the false information their families also believe. This would also be more effective because they would be able to debate this subject just like any other issue. This would in fact make it appear like any other disease that can be avoided or treated.</p> <p>Proper education is the only vaccine against the virus and the stigma.</p>
Human rights issues	<p>Violations of children's human rights by teachers exist.</p> <p>Sexual attacks by teachers, caregivers, and students themselves go unreported.</p>	

THEME	COMMENTS	RECOMMENDATIONS
Teaching Environment	<p>Teachers are overburdened with examinable subjects.</p> <p>Teachers are not replaced when absent, leading to increased workload for other staff and a decline in quality.</p> <p>Pupils' absenteeism is frequent.</p>	<p>The school board of governors has to play a role in managing absenteeism.</p> <p>More research is needed on the issues of learner absenteeism.</p>
Presentation and dissemination	<p>There is a lack of dissemination of official policies and circulars.</p> <p>The policy has not reached all institutions.</p> <p>The policy may not have concentrated enough on sustainability as some of its guidelines, though perfect in intention, prove difficult to implement or sustain, or lack support from some of the implementers.</p>	<p>Produce abridged versions of the policy in a language that can be understood by the students and other school stakeholders.</p> <p>Involving local leaders in the draft may help reduce resistance, and produce local policies adapted to the communities.</p>
Implementation	<p>The education sector policy and related documents (KNUT, Public Service Commission) have improved teachers' working environment, e.g. in terms of dismissal.</p> <p>Currently in Kenya, the recruitment of teachers does not discriminate against those who are infected with HIV. This is a great step forward since everyone has an equal opportunity of being recruited.</p> <p>Several institutions, especially colleges, have an HIV and AIDS in the workplace policy that protects the infected from both stigma and discrimination. The institutions are therefore legally bound to adhere to the policy.</p> <p>The education sector policy has helped reduce stigma and discrimination. HIV and AIDS are talked about more freely within schools and with parents. Infected and affected teachers, students, and parents face less stigma.</p> <p>The education sector policy has greatly helped reduced stigma and discrimination in the workplace. Prior to the policy, teachers thought to be HIV-positive were considered a threat to the institution by fellow teachers and parents. However teachers are still reluctant to openly disclose their status.</p> <p>The education sector policy has increased education on HIV and AIDS. Before the policy came into force there was a deeply divided opinion within society on the need to introduce HIV and AIDS education in schools (increased knowledge about sexual matters would enhance immorality). The policy led to trained teachers who were able to demystify HIV and AIDS by giving factual information to children who had previously relied on rumours. This HIV and AIDS education overflowed into homes as children discussed, sought clarification, or forced parents, relatives and guardians to help with their homework. The policy also opened up opportunities for teachers to learn about HIV and AIDS through seminars and workshops organized by MoEST. Students' AIDS clubs were started.</p>	<p>It is imperative to involve people living with HIV to help combat stigma and discrimination.</p> <p>Language guidelines for the education sector to help respond to issues of stigma and discrimination.</p>
Gaps in policy, content and practice	<p>Administration refuses the distribution of condoms, even to teacher trainees.</p> <p>Lack of VCT in higher institutions.</p>	
Prevention Activities		

THEME	COMMENTS	RECOMMENDATIONS
Curriculum Content and Pedagogy	<p>The life skills curriculum is too thin; pupils already know more than what is being taught.</p> <p>The curriculum is limited to passing on the knowledge, not skills and action.</p> <p>There is a lack of adequate materials for teachers.</p>	<p>Pedagogy should be more participatory, interactive, and human friendly. (To engage students, teachers need to engage their own beliefs and attitudes and these may contradict the content they are asked to teach.)</p> <p>HIV and AIDS should be a standalone subject and be a compulsory unit in the curriculum for teacher trainees.</p> <p>Organize participatory workshop with different stakeholders to define textbooks with measureable and achievable targets according to pupils' ages. The content needs to be adapted to the socio-cultural context. Prioritize active learning methods.</p> <p>Educational institutions could become HIV and AIDS resource centres, accessible to the community through services such as VCT information and youth-friendly centres. This can be possible if there is collaboration with other ministries such as public health, youth, gender, and sports.</p>
Teacher Training		<p>Although teachers are supposed to be the drivers of school wellness, they are either ill-informed or detached from the realities of the impact of the pandemic. Special guidance and counselling techniques tailored to the times of the AIDS pandemic are required for teachers, since singing the awareness song is not enough.</p> <p>In-service teachers should be encouraged to take INSET courses and be motivated through incentives.</p> <p>Because of the links to sex and sexuality education, preparation of educators should include teaching sensitive issues, some of which may be taboo in the African context.</p> <p>At primary level TTCs, HIV and AIDS could be a unit with gender and life skills. The syllabus could be reorganized into units instead of subjects taught in isolation and be geared towards passing the final exams rather than preparing to teach in a classroom. This curriculum should be interactive and promote critical thinking and reflective practice.</p>
Mitigation activities		

THEME	COMMENTS	RECOMMENDATIONS
Stigma and discrimination	<p>Much progress has been made in other areas, including the development of policies that ensure services are available close to the beneficiaries. Education and training that have resulted in more people being tested voluntarily, visiting the VCTs and seeking medical treatment. Messages of HIV and AIDS are no longer hidden in dark corners and drawers. There are HIV and AIDS bill boards on busy roads and public institutions. Messages are passed through song, dance, drama, and sports, to minimize taboos associated with the disease. However, people have yet to accept those infected and are still suspicious of the affected. If parents are suspected to have died of AIDS, the children are often ostracized. The workplace policy may be clear that the infected are not to be discriminated against, but the practice is something different. In Kenya, the teaching community has perhaps moved furthest in ensuring non-discrimination at the workplace, but that is perhaps because they have a very strong union, not because the employer understands their plight. There are cases where parents have moved their children from a school because the teacher was suspected to be HIV positive.</p> <p>Due to the stigma associated with HIV and AIDS, it is not often easy to provide services to the infected and affected, despite such services being availed by government and others. At times, when people die, even the immediate family may not know the cause. The stigma is often worse for a person living with AIDS than the symptoms of the sickness itself. Stigmatizing HIV can lead to higher infection. In a way, it stops people from getting tested and protecting themselves and their partners.</p> <p>Ignorance and fear lead to discrimination. Even scientists have found HIV and AIDS to be a very complicated disease to understand. It is therefore obvious that many are still ignorant about the real facts, not only in Kenya but throughout the world.</p>	<p>It is imperative to involve people living with HIV to help combat stigma and discrimination.</p> <p>Language guidelines for the education sector to help respond to issues of stigma and discrimination.</p> <p>There may be a need to find other systemic ways of assisting such groups without further traumatizing the bereaved. The HIV and AIDS services could be merged with others. A holistic approach that does not label someone by the type of facility they visit. Community health days organized offered multiple services (health education, health insurance, banking, dental/other clinical tests) together. The number of people tested for HIV was extremely high. If it had been called an HIV and AIDS education and testing day, very few would have turned up.</p> <p>More information about HIV and AIDS in schools, in other words, the teaching of this subject, should start from a very young age using correct and simplified tools adapted for each level. The books should be specifically adapted for Kenyan children and youth. Because of lack of specific information, people do not understand how HIV is transmitted, and they are afraid. They try to stay clear of people infected and affected by the sickness. They believe people who are HIV positive are bad or dangerous people. This is why HIV and AIDS are stigmatized. Myths and false information about how HIV is passed on and how AIDS is cured are especially common.</p> <p>To strengthen the policy: ignorance, fear, myths, and beliefs have to be dealt with through education, using correct literature and information books that provide a space for activities, discussions, questions, and answers to enable the pupils, students, and teachers to debate in the classrooms. This would be more effective than training teachers because the children would be able to correct some of the false information their families also believe. They would also be able to debate on this subject just like any other issue. This in fact would make it appear like any other disease to be avoided or treated.</p> <p>Proper education is the only vaccine against the virus and the stigma.</p>
Human Rights Issues	<p>Violation of children's human rights by teachers.</p> <p>Sexual attacks by teachers, caregivers, and students themselves go unreported.</p>	
Teaching Environment	<p>Teachers are overburdened with examinable subjects.</p> <p>Teacher absences lead to increased workload for other staff and decline in quality.</p> <p>Pupil absenteeism.</p>	<p>Involve a board of governance in managing absenteeism.</p> <p>More research on the issues of learner absenteeism.</p>

## Annex 3: The consultative meeting report

Hotel Intercontinental, Nairobi, July 14, 2011

### Presentations

Rev. Manasseh, a teacher at St. Mark's TTC, Kigari, gave a presentation on one teachers' college experience in implementing the workplace policy (see Annex 9).

Martin Njoroge, of the UHAI welfare group in Nairobi, described the work of a group of youth volunteers who were supporting HIV-infected and affected children in a poverty-stricken compound near Nairobi.

Khadija Rama, of Wind of Hope or Pepo la Tumaini Jangwani in Isiolo, spoke of what the group was doing among a nomadic pastoral community.

### Plenary and individual observations

#### Issues raised by participants

1. A question was asked on the criteria for selection of schools for the rapid survey.
  - The criteria were urban, rural, secondary, primary, and teacher training colleges. It was explained that biases could not be fully ruled out.
2. The number of 20,000 teachers infected needs to be clarified.
  - The actual figures could not be verified, but estimates were collected from the TSC.
3. Implementation guidelines were prepared at Egerton University, which included various stakeholders but were not circulated to all.
4. Teachers' knowledge on HIV – more than learners.
  - Evaluation of the project was not done at the MoEST as there was no evidence available.

- The dissemination was not done at the teacher level but at the training of trainers levels, which left most of the teachers in the dark.

### Recommendations

1. The policy should be revised and customized at the local levels e.g. at the school level
2. Teacher workload should be reviewed to align the teacher-pupil ratio and improve learning achievement.
3. The Kenya National Union of Teachers should be involved in the dissemination process at the local level.

### Other discussions

- The role of the church/FBOs should be enhanced to demystify the matters on sex and sexuality.
- Adult education should have a curriculum on HIV to reduce new incidence levels.
- The role of teachers should be recognized, especially KENEPOTE who have declared their status.
- Sex and sexuality matters should be openly discussed.
- Simplified brochures should be developed for easy advocacy of the sector policy.

### The role of the media:

1. The media should be involved in information sharing.
2. Local, regional and national media should be involved at the respective levels to evaluate and give feedback in local languages.
3. Consistency in giving information. Schedules and timelines should be established to give data. This should be monitored to ensure information flow.

## C. Group reporting - summary

What can be done to address youth in and out of school on HIV and AIDS issues?	How do we empower women and girls to prevent new HIV incidence?	What should be done at ECD level?	What should be the content of a life skills curriculum?	How can we get more education sector staff to attend VCT facilities?	What can be done at teacher preparation and continuing education levels to improve teacher knowledge and curriculum delivery?	Is it worth extending the school health and nutrition and cash grants programmes? What more could be done?	What can be done to support children living with HIV?
In-school youth Form peer education groups/clubs Customize AIDS Day to the school programme focusing on school needs Develop community linkages and carry out community work Enhance sexuality programme and demystify sex Utilize the positive living children as role models Develop ACU & information corner. Appoint a person to be in charge. Introduce life skills training Youth out of school Organize social groups, netball and football matches, theatre and arts activities, etc. Develop a curricular for youth out of school Train on microfinance and entrepreneurship skills. Develop talent academies and vocational training Establish youth-friendly centres and facilities Develop a volunteer programme for youth	Education of women to be emphasized Educate men/ boys to embrace women's empowerment Equip girls/women with skills to create wealth and self-reliance Advocacy for boys and girls with messages customized to specific areas in Kenya Introduce life skills Introduce and address HIV stigma and discrimination.	Introduce life skills relevant to the level of the children Parents should be sensitized on psycho-social skills for children Teachers' capacity in prevention, mitigation, etc. should be built Expand school health programme on hygiene and nutrition Stakeholders should be sensitized on ECD policy. GoK to take over all ECD centres and offer free education All primary schools should have a pre-primary class	Various development stages of an individual The content should take care of day to day challenges Curriculum should take care of social, physical, economic, and spiritual concerns Adolescence reproductive health Coping with HIV and AIDS (addition). The policy should be aligned with the constitution	Having a comprehensive education programme Mobile testing for staff Have a holistic approach. Training VCT staff and allowing them to access staff meetings that bring together provincial/ national heads, etc. Moonlight testing services Non staff should be involved in testing to reduce stigma and discrimination Group counselling – audio visual. Stigma reduction through training Creating a comprehensive care and support programme	Provide in-service talks and training Inculcate the curriculum delivery skills to trainee teachers Use every material and facility to facilitate delivery, i.e. Internet, objects, ICT, etc. Dynamism and flexibility in language use, i.e. use language that youth can relate to ICT training and provision of computers in schools Joint action where teachers visit the surrounding schools. Involve teachers in the development process of the curriculum Organize symposia for teachers on given areas where teachers research and present papers on topical issues	Identification – The process should be friendly through guardian, church, etc Networking needed to bring other players together to sustain the programme Formation of support groups Facilitate linkage with referral agents Integration in the larger community Family support through health education and financial support Advocacy through the relevant stakeholders Health programmes should be intensified to ensure all children have access to their rights, e.g. life, education, survival, etc.	Lobbying and advocacy to feel part of the community Integration Economic improvement i.e. the waiving of tuition fees, exam fees, and subsidies for other payment Provision of psycho-socio support Provision of health care

What can be done to address youth in and out of school on HIV and AIDS issues?	How do we empower women and girls to prevent new HIV incidence?	What should be done at ECD level?	What should be the content of a life skills curriculum?	How can we get more education sector staff to attend VCT facilities? .	What can be done at teacher preparation and continuing education levels to improve teacher knowledge and curriculum delivery?	Is it worth extending the school health and nutrition and cash grant programmes? What more could be done?	What can be done to support children living with HIV?
In-school youth Form peer education groups/clubs Customize the AIDS Day to school program focusing on school needs Develop community linkages and carry community work Enhance sexuality programme and demystify sex Utilize the positive living children as role models Develop ACU & information corner Appoint a person to be in charge Introduce life skills training Youth out of school Organize social groups, netball and football matches, theatre and arts activities Develop a curricular for youth out of school Train on microfinance and entrepreneurship skills Develop talent academies and vocational training Creation of youth friendly centres and facilities Develop a volunteer programme for youth	Education of women to be emphasized Educate men/boys to embrace women's empowerment Equip girls/women with skills to create wealth and self-reliance Advocacy for boys and girls with messages customized to specific areas in Kenya Introduce life skills Introduce and address HIV stigma and discrimination	Introduce life skills relevant to the level of the children Parents should be sensitized on the psycho-social skills for the children Teachers' capacity in prevention, mitigation, etc. should be built Expand school health programme on hygiene and nutrition Coping with HIV and AIDS (addition). The policy should be aligned with the constitution GoK to take over all ECD centres and offer free education All primary schools should have a pre-primary class	Various development stages of an individual The content should take care of day to day challenges Curriculum should take care of social, physical, economic, and spiritual concerns Adolescence reproductive health Coping with HIV and AIDS (addition). The policy should be aligned with the constitution GoK to take over all ECD centres and offer free education All primary schools should have a pre-primary class	Having a comprehensive education programme Mobile testing to the staff. Have a holistic approach. Training VCT staff and making them accessible to the meetings where staff meets. i.e. provincial/national heads teachers meeting etc. Moonlight testing services Non-staff should be involved in testing to reduce stigma and discrimination Group counselling – audio visual Stigma reduction through training. Creating a comprehensive care and support programme	Provide in-service talks and training Inculcate curriculum delivery skills to trainee teachers Use every material and facility to facilitate delivery, i.e. Internet, objects, ICT, etc. Dynamism and flexibility in language use. i.e. use the language of youth. ICT training and provision of computers in schools Joint action where teachers visit the surrounding schools. Involve teachers in the development process of the curriculum. Organize symposia for teachers on given areas where teachers research and present papers on topical issues.	Identification – The process should be friendly through a guardian, church etc. Networking needed to bring other players together to sustain the programme Formation of support groups Facilitate linkage with referral agents Integration in the larger community Family support through health education and financial support. Advocacy through the relevant stakeholders. Health programmes should be intensified to ensure all children access their rights e.g. life, education, survival, etc.	Lobbying and advocacy to feel part of the community Integration Economic improvement, i.e. the waiving of tuition fees, exam fees and subsidies for other payment Provision of psycho-socio support Provision of health care

## Annex 4: Statistics on registered teachers

Source: TSC

Total number of registered primary and post-primary teachers recruited (2008-2010)

Date	Primary	Post-primary	Total
2008	9,185	3,358	12,543
2009	6,160	2,185	8,345
2010	15,449	5,317	20,766
Total	30,794	10,860	41,654

Total number of registered primary and post-primary teachers by age

Age	Primary	Post-primary
<20	1	0
21-30	16,445	7,497
31-40	61,643	24,909
41-50	74,973	26,753
51-60	39,359	6,877
>60	0	1
Total	192,421	66,037

Total number of registered primary and post-primary teachers by salary grade

Job group	Primary	Post-primary
B	1	0
D	1	0
E	6	0
F	19,968	153
G	93,136	469
H	34,260	4,178
J	14,171	2,351
K	13,553	8,292
L	12,684	24,702
M	4,383	18,613
N	254	6,773
P	3	375
Q	0	78
R	1	53
Total	192,421	66,037

## Total number of newly recruited teachers from 2008 to 2010 by age

Age	2008	2009	2010
<20	0	0	1
21-30	4,330	3,942	11,340
31-40	7,554	4,098	8,818
41-50	657	303	607
51-60	2	2	0
>60	0	0	0
Total	12,543	8,345	20,766

## Total number of newly recruited teachers from 2008 to 2010 by gender

Gender	2008	2009	2010
Male	6,391	4,147	10,414
Female	6,152	4,198	10,352
Total	12,543	8,345	20,766

Official retirement age of teachers and other education sector staff is 60 years.

## Annex 5: Number of primary school teachers by qualifications and sex, 2004-2008

Qualifications	2004			2005			2006			2007			2008*		
	Male	Female	Total												
<b>Trained:</b>															
Graduates	530	395	925	510	380	890	584	436	1,020	608	470	1,078	658	490	1,148
Approved	26,791	22,309	49,100	25,755	21,447	47,202	22,302	18,572	40,874	23,033	20,135	43,168	22,003	21,010	43,013
S1/Diploma	4,513	4,655	9,167	4,338	4,475	8,813	6,786	7,001	13,787	7,060	7,527	14,587	7,054	7,456	14,510
P1	56,156	43,393	99,549	53,985	41,716	95,701	52,616	40,659	93,275	54,741	44,250	98,991	55,241	44,100	99,401
P2	9,037	6,738	15,775	8,688	6,477	15,165	6,541	4,877	11,418	6,805	5,213	12,018	6,802	5,185	11,987
P3	854	1,011	1,865	821	972	1,793	778	920	1,698	809	992	1,801	-	-	-
<b>Total trained</b>	<b>97,880</b>	<b>78,501</b>	<b>176,381</b>	<b>94,097</b>	<b>75,467</b>	<b>169,564</b>	<b>89,607</b>	<b>72,465</b>	<b>162,072</b>	<b>93,056</b>	<b>78,587</b>	<b>171,643</b>	<b>91,758</b>	<b>78,301</b>	<b>170,059</b>
<b>Untrained</b>															
KCPE	672	217	889	538	184	722	338	115	453	568	120	688	-	-	-
KCSE	84	40	124	67	34	101	42	21	63	84	29	113	-	-	-
CPE/others	500	284	790	405	241	646	254	151	405	556	157	713	-	-	-
<b>Total untrained</b>	<b>1,262</b>	<b>541</b>	<b>1,803</b>	<b>1,010</b>	<b>459</b>	<b>1,469</b>	<b>634</b>	<b>287</b>	<b>921</b>	<b>1,208</b>	<b>306</b>	<b>1,514</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Grand total</b>	<b>99,142</b>	<b>79,042</b>	<b>178,184</b>	<b>95,107</b>	<b>75,926</b>	<b>171,033</b>	<b>90,241</b>	<b>72,752</b>	<b>162,993</b>	<b>94,264</b>	<b>78,893</b>	<b>173,157</b>	<b>91,758</b>	<b>78,301</b>	<b>170,059</b>

Source: MoEST EMIS 2010.

\* Provisional

Data are for public schools only and exclude teachers on study leave, disciplinary cases, and those performing non-teaching duties.

## Annex 6: Number of secondary school teachers by qualifications and sex, 2004-2008

Qualifications	2004			2005			2006			2007			2008*		
	Male	Female	Total												
<b>Trained</b>															
Graduates	19,829	10,499	30,328	19,734	10,629	30,363	21,565	11,934	33,499	22,431	12,572	35,003	22,131	12,503	34,633
Approved	8,456	4,446	12,902	8,415	4,425	12,840	5,225	2,747	7,972	5,435	2,894	8,329	5,135	2,397	7,532
S1/Diploma	1,549	1,040	2,589	1,541	1,035	2,576	101	68	169	105	72	177	85	65	150
Technical	451	209	660	449	208	657	371	172	543	386	181	567	365	187	552
<b>Total trained</b>	<b>30,285</b>	<b>16,194</b>	<b>46,479</b>	<b>30,139</b>	<b>16,197</b>	<b>46,436</b>	<b>27,262</b>	<b>14,921</b>	<b>42,183</b>	<b>28,357</b>	<b>15,719</b>	<b>44,076</b>	<b>27,716</b>	<b>15,151</b>	<b>42,867</b>
<b>Untrained</b>															
Graduates	673	93	765	606	85	691	133	19	152	138	20	158	87	15	101
Dip/technical	236	104	340	212	96	308	47	21	68	49	22	71	35	12	47
<b>Total untrained</b>	<b>909</b>	<b>196</b>	<b>1,105</b>	<b>818</b>	<b>181</b>	<b>999</b>	<b>180</b>	<b>40</b>	<b>220</b>	<b>187</b>	<b>42</b>	<b>229</b>	<b>122</b>	<b>27</b>	<b>149</b>
<b>Grand total</b>	<b>31,194</b>	<b>16,390</b>	<b>47,584</b>	<b>30,957</b>	<b>16,478</b>	<b>47,435</b>	<b>27,442</b>	<b>14,961</b>	<b>42,403</b>	<b>28,544</b>	<b>15,761</b>	<b>44,305</b>	<b>27,838</b>	<b>15,178</b>	<b>43,016</b>

Source: MoEST EMIS 2010.

\* Provisional

Data are for public schools only and exclude teachers on study leave, disciplinary cases, and those performing non-teaching duties.

## Annex 7: 2008 primary schools scenario in pupil-teacher ratio

Province	75th percentile PTR	Median PTR	No. of schools with PTR > P50	No. of schools with PTR > P75
Coast	62.57	50.93	549	275
Central	47.51	40.34	887	444
Eastern	47.33	37.67	2,073	1,045
Nairobi	52.42	44.88	91	46
Rift Valley	52.75	41	2,518	1,253
Western	63.2	52.6	975	487
Nyanza	57.23	44.87	1,740	870
North Eastern	85.5	65.76	143	74
Total			8,976	4,494

Source: MoEST EMIS 2010.

## Annex 8: Primary school gross enrolment and enrolment rates, 1999-2009

Year	Enrolment			Population			Gross Enrolment Rate		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1999	3,029,722	2,890,337	5,920,059	3,267,521	3,222,269	6,489,790	92.7	89.7	91.2
2000	3,680,176	2,933,156	6,613,332	3,305,723	3,333,680	6,639,403	111.3	88.0	99.6
2001	3,002,476	2,939,134	5,941,610	3,307,863	3,336,076	6,643,939	90.8	88.1	89.4
2002	3,073,929	2,988,813	6,062,742	3,308,492	3,336,811	6,645,303	92.9	89.6	91.2
2003	3,674,398	3,485,124	7,159,522	3,306,542	3,334,813	6,641,355	111.1	104.5	107.8
2004	3,821,837	3,575,209	7,397,046	3,411,011	3,440,348	6,851,360	112.0	103.9	108.0
2005	3,912,399	3,690,112	7,602,511	3,516,870	3,547,113	7,063,983	111.2	104.0	107.6
2006	3,896,578	3,735,535	7,632,113	3,662,219	3,693,625	7,355,845	106.4	101.1	103.8
2007	4,258,616	4,071,532	8,330,148	3,808,933	3,841,294	7,650,227	111.8	106.0	108.9
2008	4,440,770	4,284,282	8,725,052	3,958,185	3,991,016	7,949,200	112.2	107.3	109.8
2009	4,643,435	4,433,983	9,077,418	4,115,039	4,134,431	8,249,470	112.8	107.2	110.0

Source: MoEST EMIS 2010

## Annex 9: A workplace policy customized for teachers' training colleges

### Background

St. Mark's Teachers Training College, Kigari, is a national public institution under the MoEST. It is located in Manyatta Division, Embu District, North Eastern province. It has a history that dates back to 1910 when the Church Missionary Society (CMS) started it. It offers a residential two-year P1 certificate course. The college has a capacity of approximately 1,200 students; the teaching staff total 86, with 58 support staff. It is well-known as a training ground for gold-winning world athletes.

### Introduction

HIV has affected all sectors of our lives with devastating and far-reaching effects on the education sector. It has not spared the nation, college students, staff, or other members of the college community.

There is therefore a need to develop/redevelop a policy framework that will guide the whole nation in planning and implementing effective prevention, education, care, and support programmes.

### Impact of HIV and AIDS issues in the college

- The retention and completion rates of students are decreased because they are infected or affected; students are in and out of school to seek treatment or to attend to their sick or affected relatives or burials; this creates gaps in learning.
- Many students have financial challenges, either fees or for personal upkeep issues; guardians may be very needy, and some students are orphans.
- Those infected or affected suffer in silence to avoid disclosure, even to counsellors.
- There is a challenge of an overloaded curriculum and co-curricular activities in the year.
- Staff members are often absent from college to attend to health issues, either their own or their relatives.
- Sometimes there is a lack of support for teachers and students affected by HIV and AIDS.

### Objectives of the college in regard to HIV and AIDS issues

Kigari college has tried to implement the already existing Education Sector Policy, basing it on principles, goals, care and support, workplace issues, and management, and it has customized the policy using the objectives below:

- To develop a customized institutional HIV and AIDS policy for use in St. Mark's TTC.
- To promote HIV and AIDS education and training in St. Mark's TTC and its environs.
- To reduce HIV and AIDS prevalence through promotion of safer sexual behaviour and safer non-sexual practices in the community.
- To promote changes in attitude towards HIV and AIDS and the people living with HIV and AIDS for greater social interaction and the reduction of HIV and AIDS-related stigmatization and discrimination.
- To encourage greater participation by the community in HIV and AIDS programmes and activities.
- To promote and provide VCT and ensure access to ART through appropriate referral of staff and students in need of care and support services with a view to preventing new infections.

### What the college is doing to achieve these objectives

- It has developed and revised a customized workplace HIV policy.
- It has trained members of staff and students as peer educators, and reaches out to the neighbourhood.
- It holds sensitization workshops for every first-year group, and holds many talks on HIV and AIDS prevention.
- It holds a yearly community health day, where members of the college reach out to the surrounding community.
- It holds college cultural days yearly, where HIV and AIDS preventive messages are transmitted using songs and dance, art gallery presentations, and the show-casing of traditional foods for the promotion of good feeding habits.
- Infected students through guidance and counselling are linked with the Embu Provincial General Hospital for medical support services.
- The college has also improved the college menu to cater for the sick and all students in general, e.g. it bakes its own bread and has a farm to provide a balanced diet and cut costs.

## Annex 10: A proposed action plan

Objective	Action	Expected Outcomes	Assessment Method
Maintain supply of teachers, managers, and support staff	<p>Mount health days with VCT facilities in each district</p> <p>Provide ART and other treatment</p> <p>Carry out a baseline survey on attrition and absenteeism</p> <p>Develop a monitoring tool on attrition and absenteeism</p>	Lower attrition rates and absenteeism	Comparison of monitoring results with baseline survey; spot checks by quality assurance officers
Facilitate workplace policy development and implementation	<p>Abridge policy, prepare guidance leaflets and disseminate</p> <p>Provide small grant to each institution to develop individual policies, plans, and M&amp;E sheets.</p> <p>Develop zonal primary school policies, plans and M&amp;E sheets and individual plans for other institutions</p> <p>Evaluate the above at district level (by university, college or NGO) and make recommendations made on funding</p> <p>Fund approved plans</p>	<p>Locally produced policies for higher education institutes, TTCs, secondary schools, and zones (for primary schools)</p> <p>Local workplace policies implemented</p>	Reviews from institutions and spot checks by quality assurance officers
Prevent new infections through a comprehensive life skills-based HIV and sexuality curriculum	<p>Review life skills curriculum in each district with local stakeholder participation</p> <p>Amend curriculum and teaching and learning materials</p> <p>Produce sufficient materials for all public and private schools</p> <p>Disseminate materials</p> <p>Mandate one class a week on life skills</p>	<p>Adequate curriculum materials in all institutions</p> <p>All schools having one lesson per week on life skills</p>	<p>Aggregation at district level of receipts from schools</p> <p>Quality assurance officer reports</p>
Improve curriculum delivery through pre- and in-service teacher training	<p>Develop comprehensive curriculum on life skills, interactive teaching methods, communication techniques, classroom management and guidance and counselling to use in TTC and local level in-service courses</p> <p>Upgrade knowledge and skills for tertiary education staff</p>	In-service teachers, newly trained teachers, and tertiary staff delivering life skills curriculum observation	<p>Classroom observation research</p> <p>Learner questionnaires</p>
Improve institutional capacity to deliver the HIV and AIDS curriculum and to monitor and evaluate the implementation	<p>Develop local training course for DEOs, quality assurance officers, school heads and management boards on knowledge and skills required to support curriculum delivery</p>	<p>More constructive advice to teachers by quality assurance officers</p> <p>Improved support for curriculum activities (adequate timetabling and provision of materials)</p> <p>More efficient record-keeping, planning, and management by district staff and school heads</p> <p>Enhanced school-community relationships</p>	Teacher feedback through interviews and questionnaires

Objective	Action	Expected Outcomes	Assessment Method
Intensify strategies to support OVC participation in education	<p>Intensify school health and nutrition programmes, cash transfers, and provision of school requirements for OVC</p> <p>Develop a monitoring and evaluation system to determine impact on child health and school participation</p>	Improved health and nutrition of children, more regular school attendance, and better educational achievement	<p>Health and nutrition assessments</p> <p>Tracking of attendance through school registers</p> <p>Tracking of achievement through school tests and examinations</p>
Improve and extend research and the evidence base by building capacity of Kenyan researchers	Initiate and facilitate research by Kenyan researchers in partnership with experienced HIV and AIDS research organizations	Improved national capacity to undertake qualitative and quantitative evaluations to inform education sector policy and programmes	Research reports subject to external review

## Annex 11: Online forum, consultative meeting, interviews, and personal communications

### Online forum and consultative meeting (in alphabetical order):

James Adede (Family Health International); David Aduda (Nation Media); Everlyn Anyal Musa (Ford Foundation); Pamela Apiyo (Forum for African Women Educationalists); Lucy Barimbui (Kenya National Union of Teachers); Nicodemus Bore (Kenya Secondary School Heads Association); Simon K. Chege (Mkungi Investment); T. Wambui Gathenya (USAID); Ali Hassan (Pepo la Tumaini Jangwani HIV and AIDS Community Programme); Everlyn Kemunto (Aga Khan Foundation); Susan K. Kimathi (Ministry of Education); J. Maina Kiranga (USAID); J. M. Kiunjuri (Ministry of Education); Simon Limberia (Ministry of Education); John Loya (Shanzu Teachers Training College); Daniel Makini (Concise Learning and Research Ltd.); Rispa Makonya (Kenya National Union of Teachers); Oliver Munguti (Teachers Service Commission); Magdalene Musau (Teachers Service Commission); Nyamai Musyoka (Ministry of Education); Kimanzi Muthengi (UNICEF); Dorothy Muthoni (Kenya National Union of Teachers); Josphat Mutua (Ministry of Public Health and Sanitation); Simon Mwai (Kenya Education Staff Institute); Rahab Mwaniki (National Empowerment Network of People living with HIV/AIDS in Kenya, NEPHAK); Rosemary Mwendwa (Wind of Hope in the Arid); Vivian Nereah Atakos (VVOB); Jacinta Ndegwa (Kenya National Union of Teachers); Esther Nganga (World Relief); Carolyne Ngina (Ministry of Education); Manessah Nguu (St. Marks Teacher Training College); Jemimah Nindo (Teachers Service Commission/KENEPOTE); Martin Njoroge (UHAI Welfare Group); Xavier Nyamu (Kenya National

Union of Teachers); Charles Obiero (Ministry of Education); Iddah Ojino (Rae Girls Secondary School); Agatha Olago (National AIDS and STI Control Programme); Mary Oluga (Aga Khan University); Mike O'Maera (Elimu Yetu Coalition); Edwin Oloo (Ministry of Education); Moses Orwe Onyango (Aga Khan University); David Otiato (Ministry of Education); Christine Otieno (Ministry of Education); Dickson Oyieko (Ministry of Education); Khadija Omar Rama (Pepo la Tumaini Jangwani HIV and AIDS Community Programme); Eva Rogo-Levenez (author/translator); Harvey Smith (CfBT Education Trust); Phelisia Wagude, (Ford Foundation).

### Interviews and personal communications (in alphabetical order):

Peter Badcock-Walters (HIV and education consultant); Katie Bigmore (World Bank); Don Bundy (World Bank); Helen Craig (World Bank); Joanna Heart (UNESCO); Jane Ireri (AMREF); Ann Kamau (Teachers' Service Commission); Michael Kelly (HIV and education consultant); Pauline Kiandiko (Teachers' Service Commission); Jane Kimbwarata (National Economic and Social Council); Kipkogei M. Kutol (Teachers' Service Commission); Gabriel K. Lengoiboni (Teachers' Service Commission); Yong Feng Liu (UNESCO); Harriet Mathiu (Teachers' Service Commission); Jane Mbaya (USAID), Francis Muraya (Ministry of Education); David Murithi (Kenya Institute of Education); Magdalene Mwele (Teachers' Service Commission); Jane Njoroge (Kenya Institute of Education); Grace Ngugi (Kenya Institute of Education); Anna Obura (Education Consultant); Alice Ochanda (UNESCO Office Nairobi); Claire Risley (University of Liverpool); Abbey Smith (CfBT Education Trust); Isaac Twuita (Ministry of Education); Charity Wachira (Ministry of Gender and Children's Affairs); Janet Wildish (ex CfBT Education Trust); Juma Vitalis (Teachers' Service Commission).





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