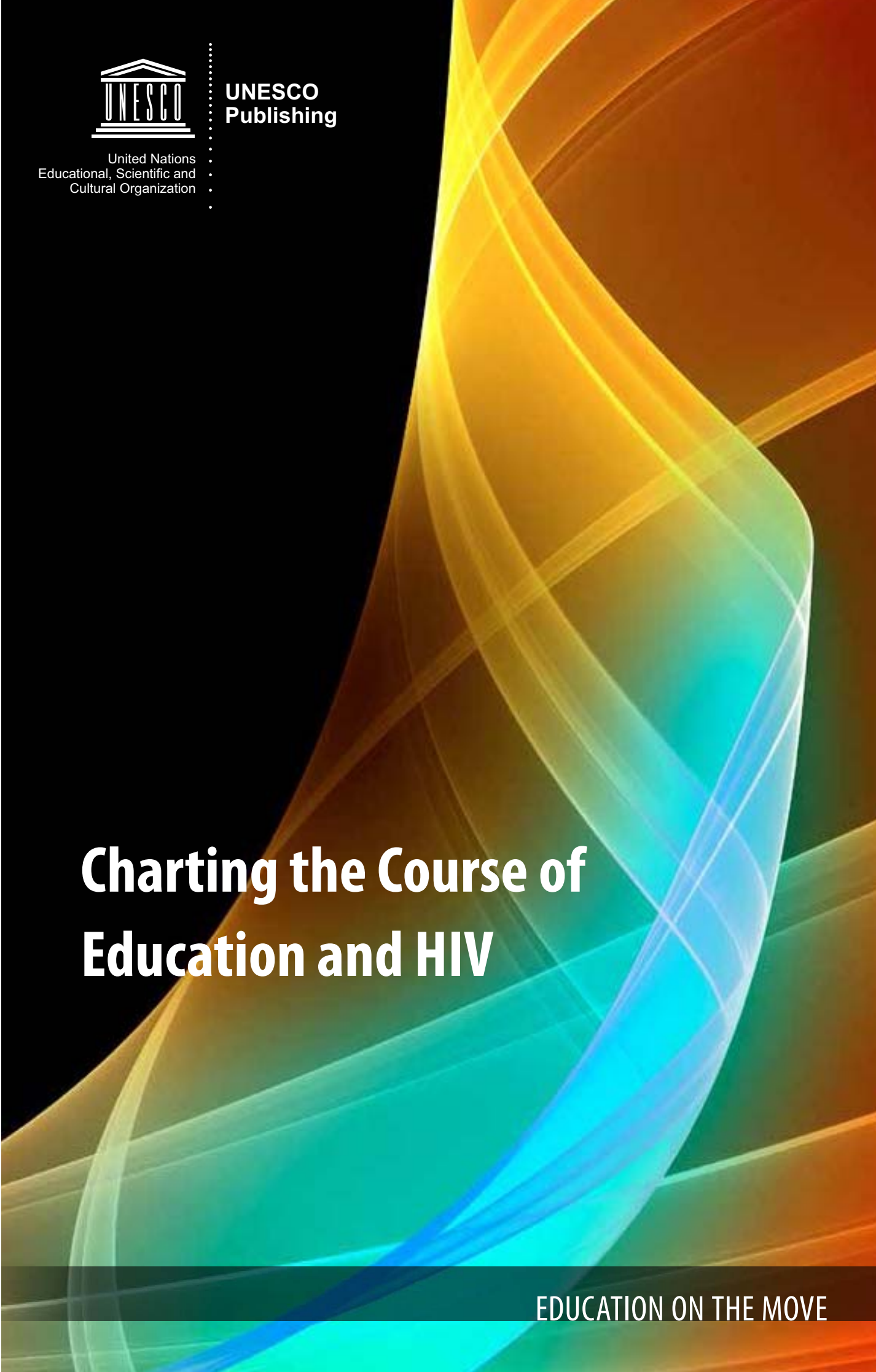
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EDUCATION ON THE MOVE

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Foreword

This book is part of UNESCO's Education on the Move series which was created to provide policy-makers, educators and other stake-holders with state-of-the-art analyses of topical issues. More than three decades into the HIV epidemic, HIV education and the role of the education sector in its provision are among these contemporary issues that deserve to be examined.

From the beginning of the epidemic until today, the education sector has played a central role in the global response. It has contributed to the prevention of new infections, supported testing treatment and care, and reduced stigma and discrimination so often experienced by those living with HIV or AIDS, or vulnerable to it. According to UNAIDS, new HIV infections among adults and children in 2012 have been reduced by 33 per cent since 2001 and AIDS-related deaths have also dropped by 30 per cent since the peak in 2005. This is an important achievement to which the education sector has contributed, but the work is far from done.

Between 2001 and 2012, only 26 countries were successful in decreasing by 50 per cent the annual number of new infections among adults and adolescents. A number of other countries are not on track to reach this globally agreed target of halving sexual HIV transmission by 2015. To this we can add that with 2.3 million new infections in 2012, the world has a considerable way to go to ensure that each new generation of young people has the knowledge, attitudes and skills to protect themselves and others, thus highlighting the importance of sustaining and improving current prevention efforts.

In this juncture, it is therefore critical that we reflect on what we have learned and how we can do better to capitalize on our successes. The objective is to redouble our efforts in the education sector to ensure a strong and continued contribution to the prevention of new infections, fewer AIDS-related deaths and less stigma and discrimination.

One of the most significant lessons learned from decades of engagement in this field is that education is not just about acquiring reading, writing and numeracy skills. Education can transform lives. It has the capacity to create

globally-minded citizens able to navigate and thrive in their environment, take healthy decisions and build a more just, inclusive, safe and sustainable world.

This holistic view of education establishes more clearly the connections between education and health - two inextricably linked sectors that are equally paramount to the development of individuals and nations. One without the other condemns a nation and its people to desolation.

This book reviews these and many other lessons learned from HIV education interventions and draws out from among these the strategies and approaches that can be replicated to address other health and life issues and support the development of global citizenship.

It builds on the experience and knowledge of UNESCO staff working in Latin America and the Caribbean, Africa, Eastern Europe and Central Asia, Middle East and North Africa and Asia and the Pacific, and includes contributions from some of the key thinkers and practitioners in this field. UNESCO is very grateful for their contribution, as well as for the time and effort taken by our external reviewers, Ms Margherita Licata and Mr Oliver Liang from ILO, Dr Rafael Mazin from PAHO and Mr David Clarke (independent consultant).

Qian Tang, Ph.D.
Assistant Director-General for Education

Education and HIV: Where to from here?

UNAIDS estimates that there are 35.3 million people living with HIV worldwide, of whom 2.3 million were newly infected in 2012.[1] Even though new infections have declined by 34 per cent in sub-Saharan Africa since 2001, it remains the most affected area, accounting for 70 per cent of all new infections in 2012. Young people are particularly affected. For example, in East and Southern Africa fifty young people are infected every hour.[2] In other regions, such as Eastern Europe and Central Asia (EECA) and the Middle East and North Africa, new infections are on the rise.[3] Eleven UN agencies, including UNESCO, are responding to HIV as UNAIDS cosponsors. UNESCO's contribution focuses on the pivotal role of education in HIV prevention, treatment and care and in reducing stigma and discrimination. As the Executive Director of UNAIDS stated at the launch of the Global Education First Initiative on 27 September 2012, 'Ending AIDS is possible – and education is the key to success'.

HIV education supports prevention, treatment and care (including testing) and helps to address stigma and discrimination. The contents of HIV education should reflect the epidemiological context, for example the disease burden and modes of transmission. In this publication, the term HIV education refers to both HIV and AIDS.

This book provides an overview of the evolution of the role of the education sector and its approaches to HIV education, what has been learned, emerging challenges and opportunities, and future directions. Its themes include policy and funding, teacher training, HIV education content and delivery, and monitoring and measurement. The role of the education sector in responding to HIV and the contribution of school-based HIV education are issues that have been, and continue to be, the subject of much debate. The book explores these debates and proposes a way forward.

Debates covered in this book include the importance of interactive pedagogy to promote life skills, this is in contrast to didactic teaching methods; age-appropriate sexuality education to prevent new HIV infection, this is in opposition to the rigid moralisation of an abstinence-only education policy; and establishing limits to the role of education in promoting behaviour

change. This book aims to highlight both the education sector's contribution to the HIV response and the key learnings made within the education sector as a result of responding to HIV. It is based on contributions received from UNESCO staff at headquarters and field offices, other UN agencies, and academics, all with a wide range of experience in education and in HIV education specifically, it is intended to provide a reference for policy-makers, practitioners and researchers in HIV and education from both the education and health sectors.

This volume will touch upon many aspects of education, including non-formal, post-secondary and adult learning; it focuses on formal school-based approaches to HIV education. This reflects the observation that schools are particularly well placed to reach large numbers of youth and that school-based education programmes have been effective in developing healthy attitudes and skills among young people, and builds on UNESCO's comparative advantage of supporting ministries of education. However, as we will see later in this book, provision of HIV education is uneven, with disparities across regions and within countries, and is often not commensurate with the disease burden. The focus on formal education, specifically primary and secondary, stems in part from the global commitment to achieve the Education for All goals, which has led to an increase in enrolment in primary schools, as well as a projected increase in secondary school enrolment. This trend looks to continue through to the post-2015 development agenda as education remains a global priority. These increases in enrolment require national education sectors to gear up and be ready to respond to increased need; formal schooling remains one of the most effective ways of reaching the largest number of young people in a systematic and sustained way.

As a contribution to UNESCO's Education on the Move series, this volume explores, over four chapters, the issues, approaches, and debates related to HIV education in view of informing professionals working primarily in education. However, given the centrality of these issues to the health sector as well, it is our hope that this volume will also be helpful to health professionals. HIV is a rare issue for the education sector to address; it is a public health crisis and a development challenge. Issues and debates concerning pedagogy, the role of schools in the sexual lives of young people, and the role of education in contributing to behaviour change are analysed. Chapter one describes how the response has evolved by discussing the global context and the education sector's response to it. Chapter two unpacks the systemic challenges and includes two Viewpoint sections written by recognised global leaders on the issues. Chapter three sets the stage for a way forward by discussing developments and opportunities. Chapter four explains

a new way forward for HIV education. It recognises global developments that are breaking barriers, such as global citizenship education, new views on learning assessment and the emergence of widely available and effective new learning technologies that work together to create new opportunities to address the needs of young people and build their skills for health. The volume concludes that education is critical for all to develop the knowledge, attitudes, values and skills to live healthy.

How the response has evolved

The volume starts by setting out the rationale for the role of education in the HIV response and describing the contribution of HIV education. It highlights the links between education and health, both of which are basic human rights promoted by UN agencies. For example, good health can positively affect educational outcomes by increasing enrolment, reducing absenteeism and drop-out, and improving cognitive performance and educational attainment. Education is also a key determinant of health. It develops the knowledge, values, attitudes and skills required to make informed choices and adopt healthier behaviours.[4] While knowledge on its own is usually insufficient for behavioural change, it is a prerequisite for the adoption of safer sexual behaviours and thus the foundation for an effective HIV response. The cognitive, psychosocial and emotional coping and self-management skills that are the key to HIV and sexuality education can also be used to address a number of other health issues such as violence prevention, substance use prevention and hygiene promotion.

Education is also central to human and social development and an enabler of human rights and gender equality. Gender is a key driver of the HIV epidemic. The roles that boys and men, girls and women are expected to play in many societies can increase risk behaviour and vulnerability. Education can improve awareness of gender inequality, address harmful gender norms and help to reduce gender-based discrimination and violence. These outcomes are important both in their own right for equal, fair and prosperous societies and as critical enablers for an effective HIV response.

The first chapter also provides an overview of the evolution of the global context, the education sector response and approaches to HIV education since the epidemic began. It describes the context in which HIV education became part of the global response to the epidemic. The rapid spread of HIV and, in the early years, the lack of treatment demanded an urgent response to prevent new infections, including among young people who were becoming

sexually active and were thus at risk. This was not something that could be addressed by the health sector alone, and thus the education sector became an important actor in what was increasingly a multisectoral response, as international commitment and funding for HIV grew.

Initially HIV education emphasized providing young people with knowledge about HIV. Most approaches were characterized by teaching about HIV and AIDS as a science or a moral issue. In many contexts, formal education used scare tactics in an attempt to prevent young people from engaging in sexual activity, or promoted 'abstinence-only' messages. These methods did not have the intended effect, and infection rates continued to rise. As HIV education became more established and better evaluated, it became widely understood that knowledge about HIV alone was not enough to produce healthier behaviours. Thus, skills-based approaches such as life skills education, which emphasize cognitive skills but also communication and coping skills, were adopted.

However, while there is agreement that knowledge and skills are essential foundations for behaviour change, it has also become increasingly recognized that young people's ability to make healthy choices is also influenced by the environment in which they live and factors such as gender, culture and socio-economic status. Consequently, there has been growing interest in broader approaches that also address structural factors. For example, a recent study demonstrated that education programmes targeting gender inequities, sexual coercion, alcohol and substance use, as well as economic factors, can lead to a reduction in the incidence of sexually transmitted infection.[5] There is a corresponding development in the health sector where the idea of a social public health, which addresses these structural issues, has gained momentum, as 'effective prevention ... requires that public health addresses people not only as individuals but also as connected members of groups, networks and collectives ...'.[6]

Initially, HIV education was in effect synonymous with HIV prevention, but as antiretroviral therapy has become more widely available it has widened to include treatment education. At the same time, growing recognition of the role of stigma and discrimination, in particular in preventing people from seeking HIV services, has resulted in an increased emphasis on education to reduce stigma and discrimination. And, as the understanding of the epidemic developed, especially with respect to differences in epidemiology and drivers of transmission across regions and countries, it also became clear that HIV education needed to be adapted to reflect these differences: approaches appropriate for countries with generalized epidemics were not

relevant to those where specific populations, such as men who have sex with men, sex workers and their clients, and injecting drug users, were most at risk. However, the extent of this adaptation varies, and more needs to be done to ensure that HIV education reflects local epidemic realities.

More recently, HIV education has moved from a stand-alone subject to the wider skills-based health approach, including comprehensive sexuality education. A significant event that had a major influence on the education sector response was a meeting of ministers of health and education in the Latin American and Caribbean region, which coincided with the 2008 International AIDS Conference in Mexico. At that meeting ministers made a commitment to put sexuality education at the core of the sector's response.[7] The commitment highlighted the need for sexuality education to be an essential component of all curricula in formal education, related as it is to key health outcomes and rights.

In the wider context there was growing recognition of the need for a more systematic education sector response, one that took account of the impact of the epidemic on the sector itself and on educators and learners, especially in the most severely affected countries. This was accompanied by a range of initiatives that aimed to support the education sector and strengthen its capacity to manage and mitigate the impact of the epidemic and to deliver effective HIV education in schools. Despite these initiatives, progress was slow initially, in part due to wider changes, in particular the focus on universal primary education, which placed considerable demands on education systems. Subsequently, concerted efforts were made at global level by UNAIDS cosponsors, bilateral donors and civil society organizations to accelerate comprehensive education sector responses to HIV. As a result, an increasing number of countries have developed policies and plans, expanded training for teachers about HIV and increased the breadth of HIV education. However, weaknesses in implementation of policy and plans remain a problem.

Lessons learned and challenges to delivery of HIV education

Given that young people are a growing demographic group, and that each year a new cohort becomes sexually active, it is imperative that all adolescents and young people are provided with good-quality HIV, sexuality, and health education. However, three decades into the epidemic, although infection rates have decreased in a number of countries and a large number of young people receive adequate education, knowledge levels among learners on

how to protect oneself from HIV infection remain unacceptably low. In many places the delivery and quality of HIV education are compromised by competing priorities, teacher shortages, poorly prepared teachers, overcrowded curricula, and inadequate HIV education curricula and teaching materials.

In addition, efforts have focused on provision of HIV education in secondary schools, despite a strong argument for starting such education at primary school level, when children are developing attitudes and values and before they reach puberty and start to become sexually active. These and other challenges are discussed briefly below and in more detail in Chapter 2.

We know what needs to be included in the curriculum[8] and how HIV and sexuality should be covered. However, available evidence suggests that many existing curricula have weaknesses, including inadequate reference to key aspects of sex and sexuality, lack of information about where to access services, and limited attention to social and cultural factors, sexual rights and sexual diversity.[9] These weaknesses reflect both the time required to change curricula and also political, religious and societal opposition to teaching certain topics to young people. Even where the curriculum is more comprehensive, selective teaching is often a challenge, particularly in situations where teachers do not feel mandated or supported by the school or community to teach about sexuality, relationships and sex in general, or are uncomfortable with sensitive issues or unprepared to address them.

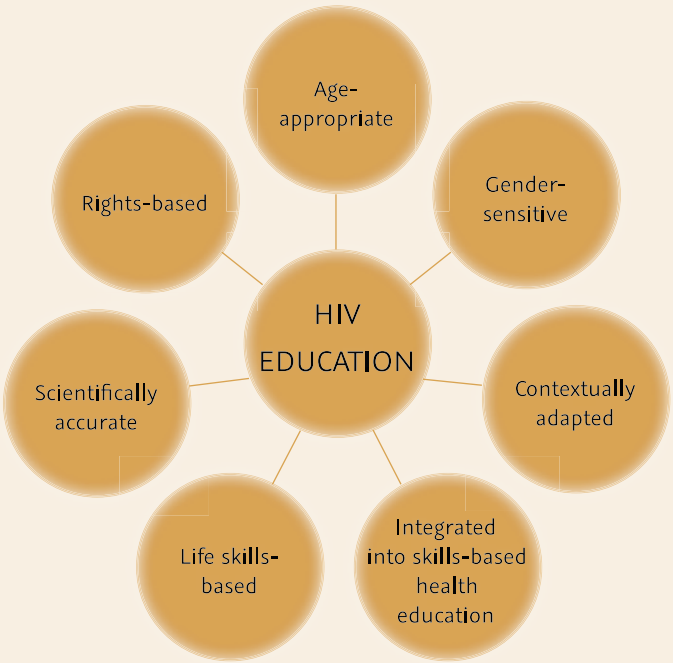
Effective HIV education requires participatory methods and other learner-centred approaches as well as a logical sequencing that builds on knowledge and skills and introduces subject matter that is age-appropriate and relevant to learners' social situation and cognitive development. Education for younger children, beginning as early as age five, should include basic information, less advanced cognitive tasks and less complex activities. In other words, the acquisition of knowledge, attitudes, values and skills starts at an early age and should be provided throughout a learner's education. This is a challenge in schools where teachers do not have the skills or confidence to use these approaches, class sizes are large and education is focused on examinations. Changes in classroom structure and dynamics can be achieved through a number of techniques,[10] but this requires a move away from authoritarian models of classroom management towards collaborative approaches between teachers and learners,[11] which can be difficult if teachers are unused to such approaches and have to manage large classes. Early on in the epidemic, teachers were mostly prepared to deliver HIV education through

in-service training. This was often limited in scope and duration and in many cases based on a cascade model of training, which can result in poor quality training at lower levels of the cascade.[12] It has become increasingly evident that in-service training is insufficient, given the sensitivity and complexity of HIV and sexuality education. Teachers need quality pre-service training and follow-up in-service training and support. It has also become clear that the most effective training involves teachers in its design, builds their knowledge, skills and confidence, allows them to explore and address their attitudes and values, recognizes their vulnerabilities, and helps to develop their life skills so that they can protect themselves and others. Training for teachers as well as other members of staff within an educational setting also needs to cover issues such as human rights, gender, sexuality and sexual diversity, and inclusion and non-discriminatory practices.[13]

Teacher training should equip teachers to deal with modern realities, including the dramatic increase in the availability of information through new communication technologies and media. Teachers can no longer be the gatekeepers of information, but they can help learners to make sense of the information they receive. Teachers are also responsible for helping learners to interpret information and the world around them, in line with the four pillars of education proposed by the International Commission on Education for the Twenty-First Century – Learning to Know, Learning to Do, Learning to Live Together and Learning to Be – which are the foundation of UNESCO's educational mission.[14] But again, inadequate training means that many teachers are ill-prepared to play this role.

We have learned[15] that when comprehensive sexuality education, including HIV, is age-appropriate, gender-sensitive, rights-based, contextually adapted, scientifically accurate, life skills-based and provided in a building-block approach, it does not lead to early sexual initiation but can help learners to develop and maintain safer behaviours, while reducing stigma and discrimination towards people affected by and living with HIV. However, inadequate provision of good-quality HIV and comprehensive sexuality education remains a major challenge, and relatively few countries are implementing comprehensive sexuality education at scale.[16] This reflects lack of political commitment, weak long-term planning and investment, and lack of clarity about how to implement comprehensive sexuality education,[17] as well as wider education system and capacity challenges. In countries struggling to improve the quality of education and to cope with the increase in primary school enrolment resulting from the push for Education for All, HIV, sexuality and life skills education may be given low priority.

Figure 1: Characteristics of effective HIV education



In addition, HIV financing has increasingly been directed towards treatment and other biomedical interventions and a relatively small proportion of available funding is allocated to prevention through school-based education. This is partly the result of the current emphasis of the global response on interventions that deliver improved biological or behavioural outcomes. This is a challenge for the education sector, since measuring how knowledge contributes to behaviour change and, in particular, attributing change to the effect of formal education rather than to other interventions, is extremely difficult. In addition, one aim of HIV education is to develop the knowledge, attitudes and skills that provide the foundation for healthy behaviours; as such, it cannot be expected to deliver behavioural outcomes alone. This challenge, as discussed in greater detail in Chapter 2, is also reflected in the indicators currently used for the monitoring and evaluation (M&E) of the global response, which do not provide a comprehensive assessment of the education sector's contribution.

Recent developments in a changing international context

Chapter 3 discusses the ways in which wider changes in the global context and emerging issues will present both opportunities and challenges for the education sector response to HIV and also for HIV education.

The global context is changing, as the international community debates priorities beyond the Millennium Development Goals. The process of defining the post-2015 global development agenda has highlighted the importance of addressing the world's most pressing challenges, including those facing children, adolescents and young people.[18] Education is recognized as the foundation for sustainable development, promoting inclusive human development, economic growth, environmental sustainability, peace and security. Comprehensive sexuality education, including HIV education, also features prominently in discussions of the post-2015 global development agenda, and there is growing pressure to recognize comprehensive sexuality education as a basic human right.[19]

The Global Education First Initiative (GEFI), launched in September 2012 by the UN Secretary-General, seeks to re-energize the global community to achieve the 2015 Education for All and education-related Millennium Development Goals. It seeks to address the problems that undermine good-quality education and learning outcomes and to foster global citizenship, promoting education that is transformative, that cultivates shared values, and that promotes respect and responsibility across cultures, countries and regions. It highlights the fundamental role of good-quality education, including education on HIV, in achieving better health outcomes, progress towards gender equality, economic opportunities and sustainable development. It also promotes a new vision of education that builds on basic skills for empathy, global stewardship, and capacitating learners to 'answer the big questions of the day.'[20]

The changing global education agenda offers promising and innovative ways to teach and learn. For example, the work of the Learning Metrics Task Force, co-convened by UNESCO through its Institute for Statistics (UIS) and the Center for Universal Education (CUE) at the Brookings Institution, has the opportunity to shift the focus of global education debates from an idea of simply accessing schooling to the quality of learning through a focus on competencies and skills. The Task Force proposes seven domains of learning that encompass what every child needs to learn – physical well-being, social and emotional, culture and the arts, literacy and communication, learning approaches and cognition, numeracy and mathematics, and science

and technology. This holistic framework of learning domains provides an opportunity to ensure that life skills including HIV and health education, is a core area of learning. This opportunity will only be realized if there is systemic change in the education sector, however.

Emerging issues that will have significant implications for the education sector, and for HIV and sexuality education specifically, include changing demographics, the need to address educational disparities, growing emphasis on universal access to secondary education, and the role of new technologies. In the last 60 years, the number of adolescents in the world has increased dramatically, from just below 500 million in 1950 to just over 1.2 billion in 2010, and the UN[21] expects the main population increases to occur in the least developed countries in the future. With increasing numbers of learners entering formal education, schools will more than ever be the most important setting for HIV and sexuality education. At the same time, this will pose significant challenges for education ministries, for the provision of education in general, and for HIV and sexuality education more specifically, requiring increased investment to meet growing demand and to ensure that children and young people receive good-quality education.

Despite progress in increasing primary school enrolment, a significant number of children remain out of school. Greater efforts will be needed to address disparities in access and learning outcomes across regions and also geographical, socio-economic and gender disparities in primary school access, completion and learning outcomes within countries, as well as to ensure that those who are out of school receive effective HIV and sexuality education. Formal secondary school is the most effective way to develop skills for life and for work, and is thus essential for the future development of individuals and countries. However, the focus on universal access to primary education has resulted in a lack of emphasis on secondary schooling. To address this, the global education agenda is now shifting to greater emphasis on universal access to secondary education. This offers the opportunity to ensure that increasing numbers of adolescents and young people receive good-quality HIV and sexuality education, but it will place additional pressure on education systems.

In education, the rapid spread of new technologies can contribute to universal access, equity, the delivery of quality learning and teaching, teachers' professional development, and more efficient education management, governance and administration. Growing access to the internet and telecommunications and increasing use of social media have the potential to contribute to improvements in education, including comprehensive sexuality

education. Technology is also challenging traditional didactic approaches to teaching as it facilitates young people's opportunities for participation, interactivity and creativity and gives teachers new tools to build and assess skills in real time. Virtual classrooms offer new ways of teaching for educators and new ways of assimilating knowledge for learners, both of which are particularly relevant to sexuality education.

Towards a new approach

Chapter 4 looks to the future, describing how HIV education, and in particular the way in which it is framed and delivered, needs to change in order to respond to new challenges and developments and to ensure that it is effective and relevant to the needs of learners.

Firstly, HIV education will need to adapt to an evolving epidemic, to new developments and approaches, including recent advances in prevention and treatment, and to the needs of adolescents and young people who are living with HIV. The availability of antiretroviral therapy has enabled a generation of children born with HIV to become adolescents. These adolescents and future young adults have specific needs with respect to relationships and sexuality that are often not covered in existing HIV and sexuality education.

Secondly, education ministries and their approaches to HIV education need to respond to the growing demand from young people and parents for comprehensive sexuality education and related services. This will require the education sector to incorporate HIV education within broader skills-based health education, including comprehensive sexuality education and to strengthen the links between education and integrated HIV and sexual and reproductive health services. It will also require new ways of working and new partnerships at all levels.

Thirdly, we need to rethink the way in which HIV and sexuality education is delivered. During the last two decades education ministries have addressed HIV through a range of responses. Most have focused on curriculum-based interventions, which aim to equip children and young people with the knowledge and skills they need, and related pre- and in-service training of teachers and development of teaching and learning materials. As will be discussed in the book, HIV education and life skills programmes face numerous challenges in their implementation and coverage, which means that many learners leave school unprepared to lead healthy sexual lives. Experience has highlighted the importance of learner-centred participatory

teaching methodologies and of the need for teachers to be well prepared and supported to deliver HIV education. Teachers should be able to customize each class and lesson to meet the needs of their learners and to build their skills to negotiate the challenges and vulnerabilities they face daily in their community.

Fourthly, we need to set out clearly what education can contribute to the HIV response, as well as what it cannot be expected to achieve, and to measure its contribution using educational rather than health metrics. The education sector measures outcomes such as knowledge, attitudes and skills. These can contribute to safer behaviours but will only be realized in the long term.

In conclusion, this book argues that education is fundamental to an effective HIV response and that lessons learned from experience in HIV education can contribute to modernising education and making it more relevant to learners by building their skills to navigate the many challenges they face. HIV education is entering a new phase, one that builds on experience and enables learners to make healthier choices throughout their lives. There has been substantial progress; further change will take time but will ensure that education helps learners to achieve their full potential and cope with future challenges, promoting good health and reducing new HIV infections, HIV-related mortality and HIV-related stigma and discrimination.

Chapter 1

How the response has evolved

The role of the education sector in the HIV response

This chapter provides a brief overview of the rationale for education sector involvement in the HIV response and, more specifically, for school-based HIV education. HIV education has three main components: prevention, treatment and care, and education to address stigma and discrimination.

Education is central to human and social development. Globally, investment in education has resulted in significant gains in human and social development. For example, the evidence underpinning the United Nations Secretary General's Education First Initiative[22] shows that:

- Getting all children into basic education, while raising learning standards, could boost growth by 2 per cent annually in low-income countries. Some 171 million people could be lifted out of poverty – reducing the global poverty rate by 12 per cent – if all students in low-income countries acquired basic reading skills.

- Some countries lose more than US$1 billion a year by failing to educate girls to the same level as boys. Each additional school year can increase a woman's earnings by between 10 and 20 per cent.

- Women with secondary education are more likely to know how to prevent mother-to-child transmission of HIV.

- Over the past four decades, the global increase in women's education has prevented more than four million child deaths. In sub-Saharan Africa, approximately 1.8 million children's lives could have been saved in 2008 if all their mothers had had at least secondary education.

Education is a critical enabler for human rights and gender equality. Children and young people have the right to education, including to education that enables them to stay healthy and to protect themselves from risk. To meet the Education for All (EFA) goals, education must be inclusive. A key pillar of inclusion is the Convention against Discrimination in Education, adopted by UNESCO in 1960, that aims to eliminate discrimination in education. It also promotes the adoption of measures that promote equality of opportunity and treatment. 'Every child has the human right to education, health and security. The central role of schools is teaching and learning, but they are

also a unique community resource to promote health and development for children, families and teachers.'[23]

The education sector can play a key role in ensuring that all children and young people are aware of their rights and the rights of others, through formal education and a supportive school environment. Sector-wide and in-school anti-discrimination policies can ensure that all learners enjoy their right to education. More specifically, both school-based and non-formal education can play a role in addressing HIV-related stigma and discrimination faced both by children and young people and by teachers, and can foster positive attitudes, tolerance and respect for diversity.

Gender inequality is increasingly recognized as a key driver of the HIV epidemic, as the roles that men and women are expected to play in many societies can increase risk behaviour and vulnerability. Where women are in positions of less power, their ability to decide when, where and with whom to have sex, and to negotiate safer sex, is compromised. Equally, social expectations of masculinity in many countries may lead men to take risks, to adopt a dominant position in relationships with women and, in some cases, to perpetrate violence against women.

Education has a direct impact on gender equality. The global movement to achieve gender parity in education is based on recognition of the beneficial effects, for individuals, families and societies, of educating girls. Education can also improve awareness of gender inequality and address harmful gender norms, which in turn helps reduce the risks associated with gender inequality both for boys and girls and to reduce gender-based discrimination and violence. These outcomes are important both in their own right for equal, fair and prosperous societies and as critical enablers for an effective HIV response.

Various studies have explored the link between literacy and HIV, including ways in which non-formal education programmes to improve literacy can contribute to HIV prevention.[24,25,26] Formal education can reduce vulnerability by exposing boys and girls to information, building self-esteem and skills, improving economic prospects and influencing the balance of power within relationships. In addition, education has specific HIV-related benefits for girls and women. Studies have shown that girls who have completed secondary education have a lower risk of HIV infection than those who have only completed a primary school education.[27] Formal schooling delays first sex, marriage and childbearing.[28]

There is also emerging evidence[29] that shows that gender-responsive HIV education can help learners understand their individual and social vulnerability to HIV and perceive the power and gender dynamics that play out in sexual relationships. Critical thinking skills can give children and young people the opportunity to challenge existing social norms that may put them at risk, and develop more equal gender relations. Such skills can enable young people to, for example, analyse what the barriers to negotiating sex or condom use are (for a girl or a boy), and how to address these issues.

The most damaging manifestation of gender inequality is gender-based violence (GBV), which has far-reaching physical and psychological effects for the victim and is detrimental for society more broadly. GBV has a powerful effect on HIV vulnerability and risk both directly, through trauma or unsafe sex, and indirectly.[30] Education is a key element of a comprehensive response to GBV. More specifically, secondary school completion has a protective effect on females' risk of intimate partner violence.[31]

Homophobia and transphobia are other manifestations of gender-based violence. Bullying undermines all three dimensions of a human rights-based approach to education – access, quality and respect within the learning environment.[32] It is important to link efforts aimed at tackling homophobia and transphobia with comprehensive sexuality education, including HIV education, because it affects the physical and mental health and the rights of those directly victimized. In Latin America, for example, where sex between men is the leading mode of HIV transmission (in Brazil men who have sex with men are 11 times more likely to be HIV-positive than the population as a whole), homophobia fuels the epidemic, isolating individuals and making them less likely to seek help and support.[33] Education can help promote positive attitudes towards sexual diversity and the need for changes geared to addressing intolerance and tackling homophobic and transphobic bullying. These are associated with a range of adverse outcomes in gay, lesbian and transgender youth, including poor academic achievement, dropping out of school, violence, anxiety and depression. In some countries, schools have anti-bullying policies that include protections based on sexual orientation and gender identity. These policies have been associated with learners' reports of feeling safer, experiencing less abuse and feeling better about themselves, including highly significant decreases in self-harm, suicidal ideations and attempted suicide.[34]

In sum, education is central to the HIV response in terms of its potential for change in the area of gender equality. Keeping girls in school, implementing HIV and sexuality education, and taking a gender-responsive approach to education in general and HIV education in particular can all play a role.

Education is also critical to good health, and good health is critical to maximizing the benefits of education. Healthy learners learn better and better educated learners have the knowledge and skills to be healthy. Addressing the health of learners is central to meeting the health and education Millennium Development Goals (MDGs) – achieving universal primary education (MDG 2), promoting gender equality and empowering women (MDG 3), combating HIV/AIDS, malaria and other diseases (MDG 6)[35] – and the EFA goals, as well as the new development goals that are emerging for the post-2015 period.

The report of the Global Thematic Consultation on Health,[36] one of a number of thematic consultations that will inform the post-2015 agenda, highlights the need to focus more broadly on good health and well-being, rather than only on preventing and treating disease, and tackling gender and other inequalities, discrimination and human rights violations:

> "Education is a key determinant of health. Early childhood development is a critical enabler of health, with early childhood experiences having a long-lasting impact on the mental and physical health of individuals. Health has an important role in cognitive development in the pre-school years, from birth to age five. Improving access to nutrition and health care for children from lower socio-economic strata improves their school attendance and their scholastic performance. Education of girls is a crucial building block for improving women's and children's health. Equally, women who are empowered through education and good health generally choose to have fewer children and are able to invest more in the health and education of their children, thereby creating a positive cycle for growth and development. Schools can also encourage the early adoption of healthy behaviours, including abstaining from tobacco use, increasing physical activity, avoiding alcohol and encouraging healthy dietary habits. Sexuality education has a beneficial impact on sexual and reproductive health." [37]

There is a growing body of evidence showing that good health can positively affect educational outcomes, by increasing enrolment, reducing absenteeism, reducing dropping out and improving cognitive performance. Conversely, poor health has a detrimental effect on school attendance and academic performance. For example, iron deficiency anaemia reduces children's test scores,[38] and malnourished children are more likely to start school late and to drop out early.[39]

The relationship between educational attainment for girls and health outcomes for children is also well recognized, and maternal education has a statistically significant effect on child health outcomes even after controlling for other factors.[40,41,42] The 2011 EFA Global Monitoring Report (GMR) highlighted research showing that each additional year of maternal education can reduce the risk of child death by between 7 and 9 per cent.[43]

Education is central to enabling people to make healthy choices. Much has been written about how education serves as a 'social vaccine' against disease and HIV and how higher levels of educational attainment have clear benefits in terms of preventing new HIV infections, promoting access to treatment and combating stigma and discrimination. Education itself, even in the absence of HIV-specific education, offers an important measure of protection against HIV.[44] Global efforts to achieve EFA will therefore continue to have a significant impact on the epidemic.

Education is also central to developing the values, attitudes and skills required to make informed choices and to adopt healthy behaviours, as well as to learn to live with HIV in affected communities and societies. More specifically, health literacy and life skills are essential for accessing and using HIV prevention and treatment methods and services.

The education sector has demonstrated that it can enable young people to acquire knowledge, develop attitudes and build skills for HIV prevention. School-based HIV education can increase knowledge and develop the attitudes and skills required to reduce HIV risk behaviour. The impact of HIV education on knowledge has been confirmed by numerous studies.[45] For example, a review of 23 studies in sub-Saharan Africa concluded that school-based, adult-led, curriculum-based lessons improve knowledge of what young people need to do in order to reduce their HIV risk.[46] Improving knowledge[47] is a key foundation for behaviour change.[48,49] Although this alone is not sufficient for behaviour change, it is a critical element that depends on the contribution of the education sector.

As one author notes,

> "It is clear that although correct knowledge of HIV prevention and transmission methods does not necessarily translate into safe sexual behaviours, some knowledge of HIV prevention and transmission methods among young people is associated with safe sexual behaviours. After all, knowledge of protective behaviours is a prerequisite to the adoption of safe sex behaviour. Young people must learn the facts before they become sexually active and the information needs to be regularly reinforced and built on."[50]

Properly implemented school-based HIV education can also help to develop the skills required for healthy behaviours and the positive attitudes required to reduce HIV-related stigma and discrimination.[51] Healthy behaviours established at younger ages can have long-lasting beneficial effects on health and well-being.

HIV education can also be an entry point for addressing other health risks. The cognitive, psychosocial, emotional coping and self-management skills which are at the centre of HIV education can also be used to tackle other risks to health, such as violence and substance use, as well as to promote a healthy lifestyle. Integrating HIV education into comprehensive sexuality education, and integrating this in turn within skills-based health education and a holistic education sector approach to school health, can therefore have wider health benefits beyond HIV prevention. In addition, a more comprehensive approach to addressing the health of learners is a more effective use of limited resources than separate interventions to tackle specific health issues in isolation.[52]

Theories underpinning HIV education

The theory underpinning HIV education has also evolved over time. Early approaches described above, in particular those that emphasized facts and fear and those that took a moralistic approach, were based on a view of the learner as a 'recipient' of information. Many of the theories underpinning HIV education were derived from behaviour change models based on this view, assuming that if a learner understands X they will do Y. The X in this case can refer to a moral code or to scientific facts about HIV. The corresponding Y is an action or behaviour, such as abstaining from sex or using a condom. The most commonly used theories and models in HIV education are built on the assumption that knowledge will lead to the adoption of safe behaviours.

For example, the theory of reasoned action[53] 'operates under the premise that a person's intention is a function of two basic determinants, which are attitude towards the behaviour and "subjective norms" or social influence'.[54] The theory of planned behaviour[55] extended the theory of reasoned action by adding a dimension of measurement of perceived ability to act. Social learning or social cognitive theory[56] recognizes social influences on learning, but its link to behaviour is not always clear. The health belief model is built on social learning theory, bringing in aspects of personal belief to interrogate the barriers and the efficacy of behaviour.[57] The stages of change model[58] recognizes the complex process that an individual goes through from thinking about change to doing it and maintaining it. Similarly, the AIDS risk reduction model[59] 'uses constructs from the health belief model, the social cognitive theory and the diffusion of innovation theory. The model identifies three stages involved in reducing risk for HIV transmission, including behaviour labelling, commitment to change, and taking action'.[60]

However, some have argued that these theories and models that expect behaviour change are fundamentally flawed. They argue that learners' knowledge, skills and intention to make healthy choices are only part of the conditions necessary for reducing their risk of HIV infection.[61] Young people live in complex situations with many influences on their behaviour that are beyond their individual control, such as political, economic and cultural factors.[62] The theories and models stem from an individualist understanding of human behaviour that does not always apply, for example in societies where identity is associated with group structures such as the family or village.[63] This theme of the rational person, or 'neo-liberal agent', is reinforced by the biomedical approaches to HIV prevention, where the atomized individual can be counselled and tested and 'what works' can be replicated.[64] This approach is an enduring backdrop to HIV education and the elusive quest for an intervention that can be taught to learners with the confidence that it will lead to a certain type of action or change in behaviour. This is not possible. Education can provide young people with the ability to develop and maintain healthy behaviours, but whether these are realized is a function of broader factors that influence agency, such as culture, social and gender norms, and access to services.

This view is supported by a 2008 review of life skills programmes that included HIV. The authors found that it is 'unrealistic to think that short-term skills-based interventions will lead young people to think clearly and stay safe considering all the barriers they face in accessing information, condoms, contraception and in overcoming social stigma associated with

sex and relationships'.[65] An individual's skills are only part of the equation. The structures that affect an individual's ability to apply those skills are also deserving of attention.[66] This observation is not restricted to education but has been observed across the spectrum of HIV prevention activities, in a call for an ecological approach that S. Kippax has called 'social public health'. She argues that 'effective prevention entails developing community capacity and requires that public health addresses people not only as individuals but also as connected members of groups, networks and collectives who interact (talk, negotiate, have sex, use drugs, etc.) together'.[67] Some refer to this as the fourth generation of HIV management, with community mobilization as the change agent and 'attention . . . shifted upwards to the . . . powerful and not downward to the marginalised'.[68]

We have learned that there are strengths to build on. The education sector has shown that it can help young people acquire knowledge, develop attitudes and build skills for HIV prevention.[69,70] And, as described above correct knowledge of HIV prevention and transmission methods does not necessarily translate into safe behaviours but is a pre-requisite. These findings, which could apply equally to unsafe drug use, are echoed by other researchers who state that improving knowledge and skills are an essential part of behaviour change.[71] Thus, education's role in the HIV response is central.

Evolving perspectives

In many settings HIV education has taken a path through short-term interventions, isolated from the curriculum, towards a more integrated approach where it is part of life skills and sexuality education. However, where the epidemiological context has not spurred a change in the curriculum and conservative views about sex education prevail, HIV has stayed outside the formal curriculum. In concentrated epidemics HIV remains a low priority for the education sector, but experiences from countries with generalized and hyperendemic disease burdens have taught us that integrating HIV into broader life skills and sexuality education helps prepare learners to navigate life challenges of their own, such as reducing risk of HIV infection, and those relative to others, such as reducing stigma and discrimination.

Within formal education, early HIV education initiatives took a range of approaches, although most were characterized by teaching about HIV and AIDS as a science or health topic or as a moral issue, with a strong emphasis in the latter approach on messages about sin and abstinence. Some mirrored

public education campaigns that relied heavily on fear.[72] Where HIV was taught as a science topic, there was often little or no consideration of sexuality, sexual behaviour or sensitive aspects of the subject.[73] Where the emphasis was on abstinence, this often reflected the agenda promoted by the early years of PEPFAR and by some churches.[74] It was not until conclusive evidence of harm was presented to US policy-makers in 2009 that political pressure for a focus on abstinence in US policy was reduced.[75] In a few countries, the education sector took a different approach, using HIV education programmes informed by notions of rights that aimed to empower learners to protect their health. Examples of these are the South African initiative 'Today's Choices' and the Namibian programme 'My Future is My Choice'.[76]

HIV education had differing entry points in the education sector depending on the region and where in the curriculum education authorities thought it appropriate to place it. In sub-Saharan Africa, for example, life skills education, or variations of it, became the dominant framework, with life skills either taught as a stand-alone topic or integrated into other subjects. Similarly, in the Caribbean, life skills education, delivered through Health and Family Life Education, has been the main approach used across the region.

Growing emphasis on 'Know your epidemic, know your response', which highlighted the differences in the epidemic in sub-Saharan Africa and in other regions, led to a rethink of the education sector response and of HIV education in other parts of the world, seeking to ensure that it was relevant to the epidemic and the country concerned.[77] The 'Know your epidemic, know your response' approach[78,79,80] meant understanding the epidemiological scenario, such as the modes of HIV transmission and key drivers of the epidemic; the behavioural and social conditions that affect an individual's ability to access and use HIV information and services, including the legal and policy environment; the resources available and the cost of interventions; and the combination of interventions required to achieve the desired impact.

So, for example, the 2008 Asia Commission report[81] shifted the response in the region to focus on the dynamics of the epidemic. The report recognized that the epidemic in Asia was of a different nature to that in sub-Saharan Africa, with transmission of HIV, including among young people, largely occurring through unprotected sex between men, unprotected paid sex and unsafe injecting drug use. In some countries in the region, such as Cambodia, India, Lao PDR, Nepal, the Philippines and Papua New Guinea, children, adolescents and young people most at risk have been identified

as particular target groups for the education sector, reflecting improved understanding in recent years of the epidemiological situation, including modes of transmission, and of the specific needs of young people from key populations.

In Eastern Europe and Central Asia, concentrated epidemics among the same populations also increasingly became the focus, although in some countries in the region the discussion in schools of sex between men and drug use remains challenging. Growing recognition of the need for national responses to reflect epidemic priorities also led to debates about the role of education in places where the prevalence of HIV was low and other sexually transmitted infections and unintended pregnancy are a more immediate concern for young people and communities.

The increasing availability of treatment also influenced HIV education. As HIV in effect became a manageable chronic illness, education played a role in treatment literacy. Getting the information was as important as getting the drugs, an issue highlighted by activists at the 14th International AIDS Conference in Barcelona in 2002 and since.[82]

More recently, HIV education has been marked by a shift from considering HIV in isolation to situating it within a wider school health and sexuality education context. A significant event with a major influence on the education sector response was a meeting of ministers of health and education in the Latin American region, which coincided with the International AIDS Conference in Mexico in 2008. Under the leadership of the Mexican government, and with strong support from UNAIDS and cosponsors including UNESCO, UNFPA, WHO and UNICEF, ministers made a political commitment to put sexuality education at the core of the sector's response.[83] The commitment highlighted the need for sexuality education, related to key health outcomes and rights, to be an essential component of all curricula in formal education. How sexuality education would be defined and delivered was left open; the central issue was to ensure that children and young people receive accurate, evidence-based, age-appropriate education about sex, relationships and HIV.

This need was not confined to Latin America. It was evident in other regions that HIV education was not addressing fundamental issues of sexual behaviour, safer sex, contraception, and gender and power relations.[84] However, the shift in Latin America gave momentum to the policy, technical and programme work of UN agencies and civil society, which has refocused school-based responses to HIV and reinforced the need to address the education and health needs of young people in an integrated manner,

including through linking schools and health services. It was recognized that there was a problem in the way responses to the sexual and reproductive health of adolescents and young people were typically managed: the health sector provided services and commodities and the education sector provided information and skills, but the two were rarely coordinated.

Although the education and health sectors had been collaborating on school health programmes, guided by initiatives such as Health Promoting Schools and Child Friendly Schools, the Mexican initiative highlighted the need for health and education to work together on sexual health. It underscored that sexuality education and services need to be viewed as part of a continuum in which school education programmes are linked with and supported by access to good-quality services and reliable affordable commodity supplies. Experience in countries such as Estonia[85] has since demonstrated the value of linkages between school-based sexuality education and health services.

Whereas Latin America had a tradition of state-supported sexuality education programmes in public schools,[86] a critical challenge in acceptance of this approach in other regions was the absence of global guidance that could provide convincing evidence in support of sexuality education. Although sexual and reproductive health policies and programmes for young people were well established in Africa, Asia and other parts of the developing world, many policy-makers in education remained unconvinced that sexuality education was an issue to be addressed in the classroom (see also Chapters 2 and 4).

In 2008, UNESCO conducted a systematic review to inform the development of International Technical Guidance on Sexuality Education,[87] drawing on research studies[88] and the work of organizations focused on young people's rights to education, health and other services.[89] All of the programmes included in the review were designed to reduce unintended pregnancy or sexually transmitted infections (STI), including HIV. The review found that 'sexuality education rarely, if ever, leads to early sexual initiation. Sexuality education can lead to later and more responsible sexual behaviour'.[90] It also found that almost all of the programmes increased knowledge about different aspects of sexuality and risk of pregnancy or HIV and other STI. Some programmes also had additional benefits. For example, more than a third delayed the initiation of sexual intercourse and a similar proportion decreased the frequency of sexual intercourse and the number of sexual partners while increasing condom use.

This international guidance, which was released in 2009,[91] was intended to provide clear information for education and health decision-makers about why sexuality education was needed and what was required for a comprehensive approach. The publication does not prescribe what every lesson plan might look like; rather, it provides a set of age-specific standards and stimulated adaptation for regional and country level use. Since the publication of the international guidance, a number of countries have adopted sexuality education into formal curricula and are expanding coverage in schools.[92]

There has also been increasing focus on how sexuality education is taught[93] and on issues such as gender and power relations[94] and sexual diversity. In addition, there is growing recognition of the need for sexuality education, both in the formal education sector and in non-formal education, to address the sexual and reproductive health needs of young people living with HIV.[95] This reflects both the significant number of young people who are living with HIV and the high proportion of new HIV infections that occur among those aged 15–24. In addition, thanks to improvements in treatment and care, many of the children who were infected perinatally are now reaching adolescence and young adulthood. Like all young people, young people living with HIV need information and skills to help them make safe, healthy choices about sex, relationships, family planning and other aspects of reproductive health.[96] Thus they have specific sexual and reproductive health needs, and guidance has been developed to ensure that comprehensive sexuality education is relevant to them.[97]

The changing global context

From the outset, the global response to HIV has been characterized by debates about the respective merits of a purely biomedical approach versus a multisectoral one. The initial response was centred on the health sector, led by the WHO's Global Programme on AIDS and at country level by national AIDS control programmes within ministries of health. The Global Programme on AIDS provided strong leadership but was focused on a biomedical response, lacked funding, and was unable to mobilize the levels of UN and international support required.[98]

In the absence of treatment, the health sector at country level struggled to cope with the epidemic. National responses concentrated on awareness and prevention campaigns for the general public, condom distribution,

counselling and testing. Efforts to encourage people to seek counselling and testing where this was available were undermined by concerns about confidentiality, given the stigma associated with HIV, and about the value of knowing one's HIV status without the hope of effective treatment.

The nature of HIV transmission, the prevalence of HIV among young adults, and the impact of the epidemic on families and communities, as well as the denial, fear and discrimination associated with AIDS, made it increasingly clear that all sectors of society needed to be involved. However, many health ministries lacked the mandate and capacity to lead or engage other ministries and non-state actors in national responses.

In the worst-affected countries, civil society and faith-based organizations started to take action both to prevent the spread of HIV by educating communities and also to mitigate the impact of AIDS by providing care and support for those infected and for orphaned and vulnerable children. Much of this mobilization preceded global or national recognition of the need for action across a range of sectors and at every level of society.

In 1995, the Joint UN Programme on HIV/AIDS (UNAIDS) was established to coordinate a multisectoral response. Altogether, UNAIDS had ten UN cosponsors by 2004, and eleven by 2012 with the addition of UN Women.

Box 1: UNAIDS cosponsors

ILO	International Labour Organization
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children'Fund
UNODC	United Nations Office on Drugs and Crime
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization

The creation of UNAIDS resulted in the establishment at country level of national AIDS councils or commissions, in some cases under the health ministry and in others as separate structures, and the development of national multisectoral plans. This represented a significant shift from a medicalized response to one that recognized the social, economic and human rights dimensions of the epidemic. Advocacy played a critical role in this, in particular advocacy for the human rights of those most at risk of HIV infection – men who have sex with men, injecting drugs users and sex workers. These persons were already marginalized and stigmatized in most societies even before their vulnerability to HIV was recognized.

In 2000, HIV responses were included in the Millennium Development Goals. In 2001, at the UN General Assembly Special Session on HIV/AIDS (UNGASS), 189 nations agreed that HIV/AIDS was an international and national development issue of the highest priority. Following this, international funding for HIV increased dramatically, often exceeding national budgets for health. The aid architecture also evolved rapidly, with the establishment in 2002 of the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) as a major funding mechanism, soon followed by the US government's US$15 billion commitment to the President's Emergency Plan for AIDS Relief (PEPFAR). In many countries, this rapid increase in resources resulted in the development of vertical AIDS programmes outside the health system, reflecting the emergency nature of the response.

More funding was made available for non-health sectors, including education, and for civil society. For example, in 2000 the World Bank launched its Multi-Country HIV/AIDS Programme for Africa (MAP) to strengthen national HIV strategies and multisectoral responses, through support for sector ministries and civil society and for the mainstreaming of HIV. The move towards a multisectoral response brought a dramatic increase in the number of stakeholders involved in a national response. In 2004, in order to promote coordination of efforts and to achieve the most effective and efficient use of resources, UNAIDS cosponsors and other key international organizations, national governments and donors agreed to three core principles, the Three Ones:

- One agreed HIV/AIDS Action Framework that provides the basis for coordinating the work of all partners

- One National HIV/AIDS Coordinating Authority, with a broad-based multisectoral mandate

- One agreed HIV/AIDS country-level Monitoring and Evaluation (M&E) system to ensure effective coordination of national responses to HIV and AIDS.

This trend towards a wider multisectoral response continued into the new millennium and supported the emergence of education sector responses in many countries.

At the same time, activists around the world – many of them living with HIV – were instrumental in advocating for the development of drugs to treat HIV. Treatment became available initially only to those in high-income countries, and activists shifted their attention to demanding universal access. This, together with Global Fund and PEPFAR funding, resulted in a dramatic increase in the number of people living with HIV who received treatment.

Box 2: Education and key HIV-related events

1984	Uganda begins promoting sexual behaviour change in response to HIV.
1986	The US Surgeon General's Report on AIDS calls for education and condom use.
1987	AIDS becomes the first disease ever debated on the floor of the UN General Assembly. The Assembly designates the WHO to lead the effort to address AIDS globally, and the Global Programme on AIDS is launched. The US Congress adopts the Helms Amendment banning use of federal funds for AIDS education materials that 'promote or encourage, directly or indirectly, homosexual activities'.
1988	First World AIDS Day is declared by WHO.
1990	The Jomtien World Conference on Education establishes Education for All as a goal, and highlights the link between health and education.
1993	UNESCO cooperation with WHO leads to the implementation of pilot school AIDS education projects in various regions and the development of a resource package for curriculum planners, adapted to different socio-cultural contexts and translated into more than ten languages.
1995	Highly active antiretroviral therapy (HAART) becomes available. Within two years, death rates due to AIDS will have plummeted in the developed world. The Global Federation of Teachers Unions, Education International, passes a resolution on school health and HIV prevention at its first world congress in Harare, Zimbabwe.
1996	UNESCO joins four other UN organizations and the World Bank to form a joint and cosponsored programme on HIV/AIDS, called UNAIDS (comprising 11 organizations by 2013). Annual global spending on AIDS in low- and middle-income countries is $300 million.[99]

2000	Millennium Development Goals are adopted, including reversing the spread of HIV/AIDS, malaria and TB (MDG 6), achieving universal primary education (MDG 2), and promoting gender equality and empowering women (MDG 3) as three of eight key goals. The Dakar Framework for Action is adopted at the World Education Forum, committing to work in partnership to achieve the EFA goals and targets, including to 'implement as a matter of urgency education programmes and actions to combat the HIV/AIDS pandemic'. The Focusing Resources for Effective School Health partnership is launched.
2001	At a UN Special Session (UNGASS), world leaders set long-term targets on HIV/AIDS. The World Trade Organization announces the Doha Agreement, to allow developing countries to buy or manufacture generic medications to meet public health crises such as HIV/AIDS. Adult and child deaths due to AIDS approximately 1.9 million.
2002	UNESCO establishes clearinghouses on the Impact of HIV/AIDS on Education (at IIEP) and on a Curriculum for HIV/AIDS Preventive Education (at IBE). Establishment of the UNAIDS Inter-Agency Task Team on Education. The Global Fund is established to boost the response to AIDS, TB and malaria. The first HIV rapid tests are approved, enabling the test to be performed outside the laboratory, allowing more widespread use.
2003	The '3 by 5' campaign is launched by WHO to widen access to AIDS treatment. PEPFAR, the President's Emergency Plan for AIDS Relief, a $15-billion initiative to address HIV/AIDS, tuberculosis and malaria primarily in hard-hit countries, is launched.
2004	The Three Ones Principles are agreed upon by stakeholders to accelerate and improve national responses. EDUCAIDS, the Global Initiative on HIV and AIDS on Education, is launched.
2008	A report by the Commission on AIDS in Asia calls for a refocusing of responses on 'Know your epidemic, know your response'. In Mexico, ministers of health and education make a political commitment to work together to put sexuality education at the core of the response. An estimated US$14.2 billion is available for HIV and AIDS in low- and middle-income countries (57 per cent from international sources).[100]
2010–2011	Results from the iPrEx trial show a reduction in HIV acquisition among men who have sex with men who take pre-exposure prophylaxis. Results from the HPTN 052 trial show that early initiation of antiretroviral treatment reduces the risk of HIV transmission by 96 per cent among HIV-discordant couples. Trials show efficacy of treatment, but this may affect future resource allocation and educational needs. An estimated US$16.8 billion is available for HIV and AIDS in low- and middle-income countries (49 per cent from international sources).[101]

2012	Launch of the Global Education First Initiative (GEFI), which highlights that quality education, including education on HIV, is fundamental to better health outcomes, progress towards gender equality, economic opportunities and sustainable development. A High Level Panel on the Post-2015 Development Agenda places education and health at the centre of the development agenda.
2013	The Learning Metrics Taskforce proposes seven domains of learning and recommendations that encompass what every child needs to learn. Ministers of education and health in East and Southern Africa commit to work together to improve comprehensive sexuality education and sexual and reproductive health services for adolescents and young people.

Changes in the education sector response to HIV

As previously stated, the initial education sector response reflected the unprecedented public health crisis of the HIV epidemic. Something needed to be done to prevent new infections, and schools were identified early on as providing the opportunity to potentially reach large numbers of youth,[102] although some took the view that HIV was a health issue and resisted the idea of school-based HIV education.[103]

The need for a systematic education sector response to HIV was highlighted in a number of international and regional arenas, especially in Africa where the impact of the epidemic on the sector was the most severe. Responses included the 1999 Lusaka International Congress on HIV/AIDS and STDs in Africa, and the 2000 Dakar World Education Forum. As the global response to HIV shifted towards a multisectoral approach, there was an increased focus on planning, financing and management of the education sector's response to the epidemic. In the worst-affected countries, the impact on education systems as a whole (in terms of teacher mortality and morbidity, the large and growing number of children orphaned and made vulnerable by the epidemic, and the impact on enrolment, attrition, attainment and educational quality) came to the fore, and UNESCO's International Institute for Educational Planning initiated a series of publications focusing on these issues.[104,105,106]

Box 3: UNESCO's evolving role in the education sector response

Between 1988 and 1991 UNESCO collaborated with the WHO Global Programme on AIDS on a school AIDS education project that included establishing a clearinghouse on AIDS at UNESCO headquarters. In the mid-1990s UNESCO joined with four other UN agencies and the World Bank as a founding cosponsor of UNAIDS.[107] Following the launch of UNAIDS, UNESCO's actions broadened to involve all its programme sectors including education, culture, communications, and natural, social and human sciences.

Preventive education on drugs and HIV was adopted by the organization within its major planning framework, with a regional focus on Latin America and the Caribbean and the Arab States. In Africa, teacher training and curriculum development were the priority entry points. At the same time, cultural and media programmes were supported as a vehicle for preventive education, as well as work on youth, girls and women.

In addition, UNESCO's Institute of Education Planning launched an initiative to measure the impact of the epidemic on the sector and to support countries to manage the response. Shortly after, in 2002, UNESCO established a comprehensive global information clearinghouse on HIV and education (see http://hivaidsclearinghouse.unesco.org) and assumed the leadership of the UNAIDS Inter-Agency Task Team (IATT) on HIV and Education. By 2004, UNESCO's work on HIV was consolidated under the umbrella of EDUCAIDS, a global UNAIDS-supported initiative led by UNESCO.

The 2011–2015 UNESCO Strategy for HIV and AIDS states that UNESCO's work on HIV and AIDS focuses on three key priorities:

- Building country capacity for effective and sustainable education responses to HIV
- Strengthening comprehensive HIV and sexuality education
- Advancing gender equality and protecting human rights.

Various other initiatives were established to support and strengthen the education sector response. These included initiatives by the UNAIDS Inter-Agency Task Team on Education, established in 2002 to bring together UNAIDS cosponsors, including UNESCO; donor agencies; and civil society actors with an active portfolio in education and HIV. The IATT worked with the Mobile Task Team to investigate the impact of HIV and AIDS on education. The Mobile Task Team is a technical support network designed to assist African education ministries and their development partners to develop sector-wide HIV policy and plans to manage and mitigate the impact of the epidemic on education systems. Another example was the Accelerate initiative, established in 2002 by the IATT on Education to support countries in sub-Saharan Africa to 'accelerate their education sector responses' through the establishment of programmes with strong local ownership, capable of accessing suitable funding and implementation at all levels of the education sector. As part of Accelerate, networks of ministry of education HIV and AIDS focal points were established and used to share good policies and practices.

Subsequently, UNESCO led the Global Initiative on Education and HIV and AIDS known as EDUCAIDS, which seeks to support comprehensive education sector responses to HIV and specifically to utilize education to help prevent the spread of HIV and to protect the core functions of the education system from the effects of the epidemic. A range of EDUCAIDS technical briefs related to quality education; content, curriculum and learning materials; educator training and support; policy, management and systems; and approaches and entry points, as well as Practical Guidelines,[108] were published in order to support the education sector HIV response implementation process on a national and local level. Teachers' unions also became increasingly involved and, in 2006, Education International, WHO and Education Development Center, Inc. launched the EFAIDS Programme, which combined the efforts of teachers' unions in advocating for EFA and their commitment to HIV education in schools. The programme was active in nearly 50 countries and trained nearly 200,000 teachers in how to keep themselves and their learners healthy and support their profession.

However, in parallel with these developments, the education sector was undergoing a dramatic transformation, especially in regions such as East and Southern Africa (ESA). The Education for All (EFA) Fast Track Initiative (FTI) was established in 2002 to support low-income countries to achieve the MDGs and EFA goals. Between 2002 and 2013, the FTI (subsequently the Global Partnership for Education), channelled an additional US$1.6 billion to education.[109] At the December 2007 meeting of the High-Level Group on EFA, ministers, senior officials of multilateral and bilateral agencies, and civil society organizations reaffirmed their financial commitment to the pledge that 'no country seriously committed to EFA will be thwarted in its efforts because of a lack of resources'.[110] The EFA FTI Working Group of the UNAIDS IATT on Education analysed the extent to which the education sector plans of the endorsed FTI countries address HIV and AIDS and supported FTI partners to mainstream HIV in education sector plans.

The advent of universal free primary education for the first time in countries such as Kenya, Uganda, Tanzania and Malawi brought a major influx of new entrants to education systems. This was a positive development for the many children who had been excluded from education, but it increased the pressure on already overstretched and under-resourced education systems, as large numbers of new schools and teachers were needed.

Consequently, despite agreement that the education sector had a crucial role to play in reaching young people with HIV education through schools,[111] as well as teachers and other employees, the formal education sector was slow to respond, even in the most severely affected countries.[112] For example, a global survey conducted on behalf of the UNAIDS IATT on Education in 2004 on education sector readiness and responses to HIV found that only 32 per cent of ministries of education had adopted a sector-specific HIV policy.[113] In addition to the wider changes affecting the sector, this also reflects the nature of education systems, which are large and complex and adapt slowly to change.

In many countries, civil society organizations took the lead in HIV education, pioneering the use of non-formal education and community-based approaches in populations and communities hardest hit by the epidemic as well as implementing interventions in schools and through extra-curricular activities.[114,115] These initiatives were well in advance of the formal sector and established the early basis for much that followed.[116] Existing programmes, such as REFLECT,[117] a participatory adult education methodology, also took on the issue of HIV and AIDS, while others, such as Stepping Stones,[118] linked HIV and AIDS to issues of sexuality, gender and power. In 2004, the World Bank documented thirteen education-based programmes targeting children and youth in seven countries in sub-Saharan Africa. Most were small-scale and implemented in non-formal settings, or concentrated on the production and dissemination of information, education and communication materials. Few were led by ministries of education and none was part of the formal curriculum.[119] There was also growing interest in the role of young people themselves in HIV education, in particular through use of peer education approaches; again these were often initiated by civil society organizations.

Attempts to set up dedicated HIV units within ministries raised the profile of the response but did not always address the need to mainstream HIV within policy and management. This started to change after 2000, as education ministries in a number of countries developed sector policies that defined the roles and responsibilities of a range of stakeholders and took a more comprehensive approach that also included prevention, mitigation, workplace issues and management of the impact of the epidemic on the sector.[120]

Box 4: Conditions necessary for an effective education sector HIV response

'The primary education objective is that all learners, regardless of wealth, health status or sex can access good quality education in a safe environment, and that they receive an age-appropriate, scientifically accurate and contextually adapted HIV education that helps them acquire the knowledge and develop skills to adopt healthy behaviours. The education should be rights-based, gender-sensitive and life skills-based. It should be delivered by a well-trained teacher who is competent in interactive methods and participatory pedagogy and is comfortable talking about HIV and connected topics such as sexuality in a constructive way with learners. This teacher should have the knowledge, skills and access to services to live healthy themselves. This teacher, along with all education staff, should be protected to do their job, regardless of their HIV status. The teacher should be equipped with a curriculum and support materials. The teacher should have the support of administration and the protection of a policy. Finally, parents and the community should be involved to support and reinforce this learning. Collectively, these are the necessary and sufficient conditions needed for an education sector response to HIV that promotes lifelong healthy development and global citizenship.'

'Many of the necessary conditions for an effective education sector response to HIV and AIDS are trending in the positive direction since 2004. Almost all countries have an education sector HIV policy; there is increasing space within the curriculum to teach about HIV and more teachers have been trained to teach HIV; there are more EMIS units in place; and, there are increased protective policies and services for learners and teachers.'

Source: UNAIDS IATT on Education, 2013. *2011-2012 Education Sector HIV and AIDS Global Progress Survey. Progression, Regression or Stagnation?* Paris, UNESCO

The establishment of the aforementioned IATT on Education marked the beginning of a concerted effort at global level by UNAIDS cosponsors, bilateral donors and civil society organizations to accelerate comprehensive education sector responses to HIV. Donors encouraged governments, particularly in Africa, to develop sector policies, engage with the national response and plan for mitigating the impacts of the epidemic.[121] Sector policies were established in a number of heavily affected countries including South Africa, Namibia, Kenya, Zambia and Uganda.[122]

However, while significant resources were provided to support countries to expand access to education, in particular universal primary education, two assessments of education sector plans, in 2004[123] and in 2008,[124] found that these plans did not address HIV adequately and that there was limited evidence of countries using any of these additional resources to support the education sector response. In the 2008 assessment, only three of the eight country sector FTI-endorsed plans reviewed included a comprehensive HIV response and detailed costing of HIV-related activities.[125] The authors concluded that the FTI appraisal and endorsement process had yet to apply a consistent methodology to support the development of evidence-based education responses to HIV, despite specific references to HIV and AIDS in the guidelines for appraisal of the primary education component of education

sector plans.[126] The three countries that had developed more comprehensive sector plans had received direct technical assistance through other processes.

The initial response of education ministries in most countries also focused on curriculum-based programmes: one of the first activities of the IATT on Education[127] and UNAIDS[128] was to provide recommendations and practical guidelines for integrating HIV education in schools. However, the challenge of equipping teachers and schools to deliver a curriculum-based response was enormous, ownership by ministries of education was low and efforts were often dependent on donor funding.[129] The additional demands on teachers to deliver HIV education and to take on a wider pastoral role in care and support of learners were also often underestimated, especially where teachers were already struggling with an overloaded curriculum, large classes, and inadequate training, supervision and support.

In some cases teachers – in particular those who were living with HIV – took the lead in highlighting their needs and challenging denial and stigma.[130] Female teachers were often at the forefront of these initiatives, reflecting the gendered dynamics of HIV and indicating who was willing at that time to test, disclose positive status, and seek treatment as a way of raising awareness and mobilizing support.[131]

The current education sector response

Information on the current status of the education sector response is incomplete because of existing monitoring and evaluation limitations (see Chapter 2 below for a discussion of this topic). However, surveys have been conducted, such as the IATT on Education's 2011–2012 Global Progress Survey (GPS),[132,133] which aimed to measure progress and trends in education sector responses to HIV since the 2004 Global Readiness Survey[134] and to provide a comparative analysis of the situations in 2004 and 2011–2012.[135]

The GPS reviewed the current status of the education sector response in four main areas:

- the enabling environment and mainstreaming of HIV in the education sector, including political advocacy by education policy-makers, policy development and implementation, education management information systems, dedicated national education sector HIV management structures, and the extent to which the HIV response is mainstreamed in education management and planning processes at the national level

- human resources, including HIV workplace policies, referral systems, and teacher demand and supply analyses

- curriculum and teaching, including the content and coverage of generic life skills programmes, teacher training and orientation, orientation for parents and communities, and HIV education at tertiary level

- orphans and vulnerable children, including programme coverage, school feeding, school fee waivers and exemptions, and out-of-school youth.

The main findings are described below.

The policy environment has improved, but implementation lags behind. The GPS[136] found a substantive increase in policy development. In 2004, only ten of thirty education ministries had a specific HIV policy. By 2011–2012 that had increased to nineteen out of thirty with another five policies in development.

In addition, by 2011–2012 only two countries with a generalized epidemic did not have a policy in place or were not developing one; both of these reported that HIV is mainstreamed in the national education sector policy.

The high level of commitment to policy development in the most affected countries is a dramatic improvement since 2004, and has been due in part to countries adapting regional policies to speed up the process. However, countries with a concentrated epidemic are lagging behind. In 2011–2012, only 44 per cent of these countries had a policy, with another 12 per cent reporting that a policy was in development.

The GPS findings show that while the policy context has improved significantly, implementation of policy remains a challenge. More than half of the 22 countries with a policy in place reported an implementation rate below 50 per cent. Only five of the twelve countries with a generalized epidemic and a policy reported an implementation rate above 75 per cent.

The findings are similar for implementation of education sector HIV action plans. Of the 22 countries that reported having an action plan, more than half reported implementation rates below 50 per cent. Only three countries reported an implemenation rate above 75 per cent.

The low rate of implementation of action plans is often due to lack of funding. Only 3 of the 22 countries with an action plan reported that their plan was

76 per cent to 100 per cent funded. Over half of the 22 countries reported a funded rate of 50 per cent or less. These findings support other research showing that only 3 per cent of national HIV budgets are spent on prevention for youth in school, and only 1 per cent on prevention for out-of-school youth.[137] Without adequate funding for implementation, policies and action plans are of limited value.

Box 5: EDUCAIDS

What is EDUCAIDS?

EDUCAIDS, the Global Initiative on Education and HIV & AIDS, is a UNAIDS initiative led by UNESCO. EDUCAIDS seeks to encourage and support countries to mobilize the education sector to design and implement effective responses to HIV and AIDS; it is an approach to guide actions that are planned and delivered in partnerships.

While EDUCAIDS is led by UNESCO, its success largely depends on the effective collaboration of various key stakeholders such as governments and national AIDS authorities, civil society organizations, teacher unions, networks of people living with HIV, and bilateral and multilateral agencies, including other UN agencies and programmes.

What are the goals of EDUCAIDS?

EDUCAIDS has two main goals: to prevent the spread of HIV through education, and to protect the core functions of education systems from the worst effects of the epidemic. It does this by promoting, strengthening and supporting the scale-up of effective national education sector responses to HIV and AIDS. EDUCAIDS draws together the many different dimensions of effective education sector responses to HIV and AIDS - for example, quality education on HIV and AIDS, learning materials, workplace policies, teacher education programmes on HIV, etc. - and views the impacts and challenges of HIV and AIDS in relation to the whole education system. It was designed as an emergency response approach, and has subsequently been superseded by the comprehensive sexuality education approach to addressing HIV.

Source: http://www.unesco.org/aids

While development of policies and implementation plans increased between the two surveys, the number of countries with a dedicated response structure – including committees or units – declined during the same period. In 2004, out of 71 countries, 72 per cent reported having a dedicated management unit and 7 per cent reported they were in the process of developing one. By 2011–2012 only 54 per cent of the 39 countries surveyed had dedicated structures. Fourteen of the seventeen countries with a generalized epidemic and six of sixteen countries with a concentrated epidemic reported having dedicated management units in 2011–2012. This decline could be due to a range of factors, including a shift from AIDS 'exceptionalism' and a 'crisis mode' to normalization and a transition towards a more sustainable response that is mainstreamed across the education sector. The fact that 29 out of 39

countries (74 per cent) reported that their HIV response is mainstreamed in education management and planning processes at the national level suggests that this may be the case. However, while the apparent shift to mainstreaming is a positive development, there is little consensus on how to define mainstreaming, and the extent to which it is being implemented effectively is not known.

The GPS found other evidence of greater policy commitment and stronger systems, including an increase in public statements about HIV by education ministers, and growth in the number of functioning education management information systems (EMIS) from 19 out of 30 countries in 2004 to 29 out of the same 30 countries in 2011–2012. However, only 13 of these countries could confirm that their EMIS had been reviewed or amended to include HIV-sensitive indicators.

Box 6: Responses to the UNAIDS National Commitments and Policy Instrument

Responses to the UNAIDS National Commitments and Policy Instrument (NCPI) by countries in 2005, 2007 and 2010 confirm that there has been progress. Between 2005 and 2010, among reporting countries categorized as having generalized, concentrated or low HIV epidemics (75 countries in 2005, 103 in 2007 and 107 in 2010):

- The percentage of countries with the education sector included in the multisectoral strategy for HIV increased from 80 per cent to 95.3 per cent; those with a specific HIV budget for the education sector's activities increased from 0 per cent to 72.9 per cent; and those addressing the school setting from 0 per cent to 94.4 per cent.
- The percentage of countries having a policy or strategy promoting HIV-related sexual and reproductive health education for young people increased from 81.3 per cent to 96.3 per cent, and those with an HIV education strategy for out-of-school young people increased from 0 per cent to 80.4 per cent.
- The percentage of countries reporting that HIV is part of the curriculum increased from 50.7 per cent to 75.7 per cent for primary schools; from 65.3 per cent to 92.5 per cent for secondary schools; and from 0 per cent to 84.1 per cent for teacher training colleges and institutions.

More countries now report provision of HIV education. The inclusion of HIV education in the curriculum, either through life skills or other topics, is essential to ensure that it is taken seriously and is actually taught. In 2011–2012, 31 of the 39 countries surveyed (79 per cent) indicated that they provided generic life skills at lower primary and upper primary school levels, a slight increase since 2004. A higher number reported provision of life skills education in secondary schools: 35 countries (90 per cent) provided life skills at lower secondary level and 32 (82 per cent) at upper secondary level. Most but not all countries reported that there were support materials for life skills and HIV education.

These findings are reflected in a 2012 UNICEF life skills evaluation,[138] which found that coverage is increasing as life skills education becomes integrated into national education systems and curricula, and in a recent review[139] of the status of HIV and sexuality education in East and Southern Africa, which found that twelve out of thirteen countries reported having made HIV and related life skills issues a compulsory part of the curriculum, with eight of them making it examinable.

Box 7: Life skills education

'Life skills education is an important vehicle to equip young people to negotiate and mediate challenges and risks in their lives, and to enable productive participation in society. UNICEF is an advocate for life skills education (LSE), and has been a source of support for life skills education programmes in many countries. A global evaluation was commissioned by the UNICEF Evaluation Office to assess the relevance, coverage, efficiency, effectiveness and sustainability of LSE initiatives. . . The evaluation found that LSE programmes are relevant in that they were introduced in each country as part of national responses to identified priorities, and are thus closely aligned to national and sectoral policies and plans. There is evidence to credit LSE programmes for developing relevant knowledge, skills and attitudes among learners, both in thematic risk areas and general psychosocial skills. However, apart from traditional examinations in which knowledge acquisition tends to dominate, there is no commensurate effort in systematic monitoring and evaluation at the system level or at the level of the individual learner. Also, there is evidence of the influence of social norms (both supportive and constraining) on the design, implementation and outcomes of life skills education at all levels, yet few LSE interventions have undertaken detailed analyses of social norms to understand their impact, or have explicitly recognized and found appropriate ways to address them.'

Source: UNICEF Evaluation Office. 2012. Global Evaluation of Life Skills Education Programmes. New York, UNICEF.

The term 'life skills' as used in this book relates to a pillar of work conducted by Focusing Resources on Effective School Health (FRESH) partners including UNESCO, UNICEF, the World Bank, WHO and civil society organizations in skills-based health education. This focuses on communication and interpersonal skills, decision-making and critical thinking skills, and coping and self-management skills. A related and important aspect of life skills are literacy, numeracy and other applied skills developed through technical and vocational training (TVET), which are vital for poverty reduction, economic recovery and sustainable development.

Similarly, in 2012 country reports for Global AIDS Response Progress Reporting (GARPR: see Chapter 2 for more details on this reporting system) reveal that all the 21 ESA countries have a policy or strategy to promote life skills-based HIV education for young people, and that these strategies include age-appropriate, gender-sensitive sexual and reproductive health elements. UNESCO's support in the ESA region is focusing heavily on strengthening

curriculum development, teacher training and advocacy to support scaling up of sexuality education.

However, implementation remains variable and there is a significant gap between quality standards in design and in implementation. Competing priorities, teacher shortages, overcrowded curricula, limited teaching material and a focus on traditional examination topics mean that life skills is often the first topic to be cut.

Teachers need the mandate, support and skills to teach successfully about HIV and other 'sensitive' subjects. Teacher training is critical. The GPS found that the number of countries providing orientation for teachers had increased since 2004, when only sixteen out of thirty countries reported that this was provided. By 2011–2012, countries were reporting relatively high levels of in-service training and slightly lower levels of pre-service training.[140] This form of professional development is positive, but at the same time we have to recognize the broader context and conditions of service that teachers work in, which can help or impede implementation of these newly acquired skills –administrative support, adequate and timely remuneration, and manageable workloads, among others. Orientation for parents and other community members is also essential to increase acceptance and mandate teachers. The GPS found that the number of countries providing orientation for parents had increased from 8 out of 30 (27 per cent) in 2004 to 18 out of 30 (60 per cent) in 2011–2012.

Data from the GPS show that the extent to which countries address HIV and human resource issues varies considerably. Countries with a generalized epidemic tend to take a more comprehensive approach. Yet very few countries had analysed the impact of the epidemic on the demand for and supply of human resources in the education sector, with little improvement since 2004. By 2011–2012 only 26 per cent of countries surveyed reported having conducted such an analysis.

Improvements in policy frameworks were, however, evident. Non-discrimination and confidentiality policies were available in most countries, and the number of countries with a workplace policy doubled, albeit from a very low baseline. As with other aspects of the response, implementation of policy is a challenge. The proportion of countries implementing awareness and prevention programmes for sector staff increased from 33 per cent in 2004 to only 50 per cent in 2011–2012. Condom provision and referral systems were available to staff in only 50 per cent of countries in 2011–2012.

There has been progress in meeting the needs of vulnerable children and young people. The 2011–2012 survey found that 94 per cent of countries with a generalized epidemic had programmes in place to address the needs of orphans and vulnerable children. Of the 39 countries, 95 per cent reported that they provided free education for these children, 77 per cent reported having a school feeding programme and 65 per cent reported that teachers received training in caring for HIV-infected learners. However, this support is not necessarily available in every school or region, and some school feeding programmes, for example, are subject to the availability of resources on a month-to-month basis. In addition, the proportion of children reached is unknown.

Finally, many of the countries surveyed reported efforts to reach out-of-school youth. Fifteen of seventeen countries with a generalized epidemic reported action to reach this group. However, this was the case for only just over half of countries with a concentrated epidemic.

Summary

This chapter has described the ways in which HIV has evolved from an emergency response for a public health crisis, characterised by isolated programmes, to one that is integrated within a broader school health context, such as in life skills education and comprehensive sexuality education. We have seen that there is an increase in systemic support for modern HIV education through policy and training; but as the next chapter will explore, there are still debates about roles and approaches and challenges to implementation.

Chapter 2

Current challenges and debates

Poor quality and delivery

Considerable challenges remain. Sustaining efforts over time to ensure that new cohorts of children and adolescents receive HIV education, is one. Improving knowledge levels among young people, now unacceptably low, is another. Poor levels of knowledge reflect inadequacies in the quality and delivery of HIV education and failure to implement comprehensive sexuality education at scale, including in countries with low-level and concentrated epidemics and at all levels of the education system. This is due in part to underlying sector challenges, such as weak and under-resourced ministries of education, and in part to the contested nature of sexuality education. Inadequate funding for comprehensive sexuality education also reflects wider debates about what such education should be expected to deliver and the related challenge of demonstrating and measuring its impact.

Low levels of HIV knowledge among young people

Three decades into the epidemic, although infection rates have decreased in a number of countries and a large number of young people are reached with HIV education, knowledge levels among learners remain unacceptably low. In 2012, in low- and middle-income countries, only 24 per cent of young women and 36 per cent of young men responded correctly to the five questions on HIV prevention and HIV transmission included in the international indicator on HIV knowledge among young people aged 15–24.[141] Paradoxically, what these data also show is that in the last 30 years millions of young people have been reached with what could be considered a new body of knowledge.

Box 8: The education sector response in the Caribbean

There is a high level of commitment to the education sector response to HIV in the Caribbean, and efforts to strengthen it have been supported by the Education Sector HIV and AIDS Coordinator Network (EduCan), established in 2006 with the endorsement of Caribbean ministers of education and national AIDS authorities. A rapid survey, conducted by EduCan in 2008 in Anguilla, Antigua, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, and Trinidad and Tobago, found that there was a supportive policy environment for the sector response to HIV. Ministries of education in ten of the thirteen countries had a framework in place to manage and mainstream their response and a national policy on free education to reduce barriers for orphans and vulnerable children. Twelve of the thirteen countries had a national HIV strategy, six had an education sector HIV strategy and nine had an education sector HIV action plan.

In all thirteen countries the education sector provides skills-based health education, including HIV prevention, to school students and staff, mostly within Health and Family Life Education, and schools use both curricular and peer education approaches to deliver life skills education. All countries also reported that teachers are trained to teach HIV prevention education, although this training is mostly provided in-service rather than pre-service. Education ministries in nine of the thirteen countries had workplace policies or regulations that ensure an inclusive environment for those affected by HIV.

Source: EduCan et al. 2009. *Strengthening the Education Sector Response to School Health, Nutrition and HIV/AIDS in the Caribbean Region: A Rapid Survey of 13 Countries.* Christ church, EduCan

In Africa, the 2007 HIV-AIDS Knowledge Test (HAKT), commissioned by the 15 ministries of education associated with the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), was administered to approximately 60,000 Grade 6 pupils aged around 13.5 years and their teachers in over 2,500 schools in the SACMEQ countries. It found that only 36 per cent of pupils reached the 'minimal' knowledge level and only 7 per cent reached the 'desirable' level. In addition, these average figures hide significant differences between countries. The proportion of students with minimal knowledge levels ranged from 70 per cent to 7 per cent, and the proportion with desirable knowledge levels from 24 per cent to 2 per cent. The proportion who reached minimal levels of knowledge was below the average of 36 per cent in seven of the fifteen countries, and the proportion who reached desirable levels of knowledge was below the average of 7 per cent in nine of the fifteen countries.[142]

In other regions, such as Asia-Pacific, high levels of ignorance about HIV, and about sex in general, persist.[143] For example, a recent evaluation of India's Adolescent Education Programme, implemented since 2005 and reaching roughly 400,000 learners on an annual basis, found that there is significant scope for 'improvement in knowledge levels among the students on issues related to HIV transmission and prevention'.[144] In Viet Nam, only 30.5 per cent of young women aged 15–24 have comprehensive knowledge about HIV.[145] In China, only 43 per cent of young people in a recent study reported knowing how to use a condom correctly.[146] The focus on key populations may be contributing to this, by neglecting the broader needs and rights of adolescents to information on sex, sexuality and reproductive health.[147]

Reported data suggest that knowledge levels are also relatively low in the Caribbean. Of the six countries in the region that reported on young people's knowledge about HIV transmission in 2010 UNGASS reporting, only Cuba, Jamaica, and Trinidad and Tobago reported levels of knowledge above 50 per cent. Five countries reported knowledge of HIV among young people who inject drugs, young men who have sex with men, and young sex workers: levels of knowledge ranged from 5 per cent of young sex workers in Haiti to 65 per cent of young men who have sex with men in Cuba.

In most countries in Eastern Europe and Central Asia, young people know how to prevent sexual transmission of HIV, but few have comprehensive knowledge. Of fourteen countries for which data are available, only Belarus reports a relatively high level of comprehensive knowledge about HIV among young people (62.7 per cent), while in other countries the proportion of young people aged 15–24 who have correct knowledge of HIV does not exceed

40 per cent.[148] At the same time, age of sexual debut is low in a significant proportion of young people and the proportion reporting that they had had sex before the age of fifteen has increased in a number of countries.[149,150]

Despite the significance of HIV transmission through unsafe injecting in some regions, little information is available about young people's knowledge of this mode of transmission and data on this are not collected through GARPR (see below, this chapter, for more details on this reporting system).

Weaknesses in HIV and sexuality education curricula

Experience in the past decade has generated a growing evidence base about HIV and sexuality education. Broadly speaking, successful programmes have been characterized by a comprehensive approach[151] and by student-focused participatory learning as opposed to a more traditional teacher-focused pedagogical approach.[152] Comprehensive sexuality education takes a broad view of sexuality that includes human rights and gender equality as well as safer sex and contraception. It views sexuality as an area of human potential, and aims to help children and young people to understand their sexuality and to develop responsible and fulfilling relationships at each stage of their lives, as well as to develop the skills to protect themselves from possible risks.[153]

This comprehensive approach is different from traditional approaches to sexuality education, which have tended to focus on the risks of sex, such as HIV, other STIs and unintended pregnancy, and to ignore rights and equality aspects. Such traditional approaches have often failed to provide children and young people with the information and skills they need or to reflect the realities of their lives. In contrast to the scare tactics and other hard-hitting approaches for disease prevention used in the initial stages of the response, comprehensive sexuality education can help learners to develop healthy attitudes and skills concerning sex and relationships.[154]

Low levels of knowledge reflect inadequacies in the scope of HIV and sexuality education. Findings from the GPS show that HIV and sexuality education curricula and teaching materials are not always comprehensive. For example, a recent review of school-based programmes on HIV prevention in China found that they tended to prioritize an 'abstinence-only approach', focusing on 'self-discipline' and 'sexual morality' and encouraging the delay of sexual debut.[155]

An assessment of curricula in ten of the most heavily affected ESA countries[156] highlighted a number of weaknesses:

- References to sexuality tended to be negative and fear-based.
- Other key aspects of sex and sexual health were lacking, including information about reproduction, STI, abortion, and where to access condoms and sexual health services.
- Most curricula addressed the experience of puberty strictly as a biological process without acknowledging the changed social environment (for example increased harassment, parental monitoring) that can also generate considerable confusion and difficult feelings for pubescent girls.
- Most curricula did not pay enough attention to empowering young people, building agency or teaching advocacy skills.
- Most curricula did not address sexual rights and none addressed sexual diversity in an appropriate way.

In addition, by default or design, many curricula retained an abstinence focus and were unwilling to recognize that significant numbers of adolescents and young people are sexually active or may choose to be sexually active before marriage. The assessment found, for example, that most curricula did not contain enough basic information about contraception and male and female condoms, even though knowledge about these is a key protective factor.

In 2010, seven countries in Eastern Europe and Central Asia – Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Russian Federation, Ukraine and Uzbekistan – reported that between 58 per cent and 100 per cent of schools were providing life skills-based HIV education. However, this did not translate into high levels of student awareness. For example, in Ukraine, although HIV education had been a part of the curriculum in all schools since 2001, only 40 per cent of young people aged 15–24 had comprehensive knowledge in 2011. Knowledge levels were below 40 per cent in Kazakhstan, Kyrgyzstan, Moldova and the Russian Federation, and only 12.5 per cent in Uzbekistan. Poor learning outcomes in the region are attributed to a combination of factors including irregular and inconsistent teaching, inadequate numbers of lessons, didactic teacher-centred instruction and avoidance of 'sensitive' issues.[157,158] The time allocated for HIV and sexual and reproductive health education in mandatory subjects such as biology or life skills is generally insufficient for learners to develop in-depth knowledge and the necessary

skills for safe and healthy living. Educational institutions are often inadequately supplied with resource materials and do not have the right environment to support interactive approaches to teaching and learning.

Most school-based education does not address sexuality, sexual behaviour or reproductive and sexual rights, although there are some exceptions. In the Caribbean, for example, the Health and Family Life Education curriculum addresses sexuality and sexual health. Gender diversity, in particular the issue of transgender people, is often ignored. Alternatively, gender diversity is presented as an 'abnormality',[159,160] for example, in lessons for Grade 9 students in Serbia. Teachers' guides on sexuality education published in Belarus in 2008–2010 defined homosexuality and bisexuality as a psychosexual disorder.[161] In 2013, the Russian Federation passed a law that imposes a fine on any citizen or organization who shares information with minors (under 18) that discusses 'non-traditional sexual relations' and might cause the 'distorted understanding' that gay and lesbian relationships are 'socially equivalent' to heterosexual pairings. In addition, HIV education has also tended to focus on sexual transmission, neglecting the role played by unsafe drug injecting in HIV transmission in many areas of the world.

Another shortcoming of current curricula in sexual and reproductive health education, including HIV education, is that too often they focus exclusively on prevention at the expense of recognizing and addressing the specific sexual and reproductive health needs and rights of young men and women living with HIV. Young people living with HIV face stigma and discrimination on a daily basis, ranging from bullying and various naming and shaming practices to denial of access to education (where the provision of education is made conditional upon disclosure of HIV status). Moreover, due to the pervasive and inextricable linking of HIV and blame, HIV-positive learners carry the burden of self-stigma in addition to the physical burden of infection. To be effective, comprehensive sexuality education has to be both inclusive and non-stigmatizing, that is, it has to tackle sexual and gender-based bullying and promote gender equality, as well as take into consideration the existence, needs and rights (rights to education, privacy, fulfilling romantic relationships and sexual lives) of all young people living with HIV.[162]

There have also been ongoing debates about whether HIV and sexuality education should be a stand-alone subject with specialized teachers or integrated into the curriculum. Regardless of the approach taken, such education can only be provided when enough time is allocated for it. A study of Canadian teachers and HIV education[163,164] highlighted difficulties linked to

the time and space given in the curriculum to HIV and sexuality education in particular, because it was not a stand-alone subject but was integrated into other subjects. Teachers felt that there was not enough time and that they had neither the training nor resources to ensure quality teaching. A UNICEF review of health and family life education in four countries in the Caribbean region identified similar implementation challenges. Despite enthusiasm, teachers expressed concerns about the time available to complete lessons and had ongoing problems with scheduling class time, given other priorities and school schedules. In addition, many teachers had little classroom experience of using the pedagogic, interactive strategies that are integral to the HFLE curriculum.[165]

Box 9: Integration of HIV into the curriculum

Many countries in the Asia-Pacific region report integrating HIV into their curriculum (depending on the country, this may be called reproductive health education, adolescence education, family life education, life skills education or sex education). Out of 28 countries, 12 report addressing HIV at primary level,[166] with a further 2 indicating their intention to do so in the near future; 22 out of the 28[167] report addressing HIV in the curriculum at the secondary level. Information on integration into tertiary curricula is scarce. Just under two thirds of countries report including HIV content in teacher training.[168]

In Eastern Europe and Central Asia, for example, despite significant differences in the approach, content and scale of life skills-based health and sexuality education, all countries have integrated HIV prevention into either mandatory subjects or optional courses. Implementation, however, varies, with the proportion of schools reported in 2009 to provide HIV education ranging from 16.5 per cent in Bulgaria to 100 per cent in Azerbaijan and Uzbekistan.

In countries in Southern Africa a policy of infusion and integration was adopted by ministries of education in an effort to mainstream the topic and keep it on the learning agenda. Consider this definition from a curriculum in Botswana:

'Infusion: This entails the incorporation of HIV and AIDS issues into the content of other subjects such that they blend well with the lesson. This method allows for HIV to be spread across as many subjects as possible to provide learners with frequent encounters with the issues being addressed. Infusion therefore allows for HIV to be part of every aspect of the curriculum, such as programmes and instructional materials. As infusion does not require strong affinity between the subjects, as in the case of integration, it results in easy mention of the concepts being infused.

'Integration: This entails the combination of two or more subjects to form a single discipline, for example, Integrated Science and Social Studies. It may also take the form of incorporating a minor or carrier subject into common or strongly related topics. There are subjects that can cater for several HIV objectives; for example, Natural Science, Moral Education, and Home Economics are known as the main carrier subjects. Subjects that allow for fewer issues to be incorporated are known as the minor carrier subjects. Though integration is not as pervasive as infused curriculum, it is very useful in HIV education in that it enables the teacher to ensure that HIV issues are addressed when they appear in the teaching objectives, especially since these issues become examinable.'[169]

Limitations of the classroom setting and teaching methods

Class sizes make a major difference to the strategies that teachers can use at classroom level. In many developing countries, in particular in Africa where enrolment rates have increased rapidly in recent years, classes are often very large. In some schools, teachers may have classes with a hundred or more students. In addition, classes often include learners of different ages, especially in places where many children enrol in school late or repeat grades. Large and mixed-age classes are less conducive to using participatory and learner-centred methods that enable children and young people to explore attitudes and develop skills. In large groups it is difficult to ensure the full and equal participation of all students or to address a wide range of abilities and needs.

Maintaining discipline at the same time as creating space for safe and open discussion of sensitive issues is a challenge for even the best teachers when class sizes are large. Teachers need skills in classroom management and ways of relating to their students that foster healthy development. This means examining sources of authority, power and hierarchy in the classroom and creating space for safe and open dialogue at the same time as being able to maintain discipline.[170] New ideas about teacher training are emerging that show promise. One example is the use of action research techniques to explore gender dynamics within the school and the educational process.[171]

HIV education has also been implemented using different pedagogical approaches. On one side is the view of the learner as a passive recipient of knowledge given from their teacher. Early HIV education was based on this view, and facts were delivered to students in the belief that this information could be translated to action. We know that this view is too simplistic and removed from the life of learners. On the other side is the idea that learning is much more complex than a hierarchical transfer of information. Learners do not approach new information with a blank slate; rather, they bring their own experience to the issue, and information has to be internalized and contextualized to be useful. Those taking the latter view argue that while the recipient approach can work in certain disciplines, such as mathematics, it is less effective for more situation-specific issues such as HIV and sexuality, where learners need to be an active participant in their learning so that they can translate information to healthy behaviours within their life context.

Poorly prepared and supported teachers

Experience has shown that effective HIV and sexuality education depends on capable and motivated educators who receive quality training as well as ongoing management, supervision and support.[172,173] Without skilled teachers who can have open, honest and non-judgmental discussions with learners and help them to understand risk in their context, and who are able to employ participatory approaches, even the best curriculum will have little impact. Teachers are often assumed to be professionals who are ready to teach anything, but in practice they may not have the necessary subject knowledge or the participatory and interactive teaching skills required to deliver successful HIV education.

In the past decade the number of teachers trained has increased markedly, as the GPS findings in the previous chapter show. The aforementioned EFAIDS programme trained 200,000 teachers through a cascade system in almost fifty countries in Africa, Asia, Latin America and the Caribbean. An independent evaluation concluded that 'Based upon the evaluation data there seems to be no doubt that the teachers that received training through the programme have increased their knowledge about and understanding of HIV and AIDS. In a lot of countries where the programme has operated there is little training available for teachers on this specific topic.'[174] It also found that 'By being involved in the programme teachers have developed their teaching competencies (teaching methodologies, tools, and pedagogical skills) not only with regard to HIV, but also in a way that can be applied across a range of subjects.'[175] Further, 'teachers attest to having more self-confidence and self-esteem when it comes to broaching the topic of HIV. Trained teachers feel more at ease to discuss issues related to the virus, and other sensitive topics associated with taboos, in and outside the classroom.'[176] The evaluation also noted that the trainings had positive ramifications in that the 'increased self-esteem and pride has also reflected in a positive change of attitude of trained teachers towards their own profession. In many of the countries studied, the teaching profession is not considered a strong career, neither in terms of status nor remuneration. The programme has acknowledged their professionalism and the valuable contribution they can make based upon their skills and position.'[177]

However, while these numbers and effects are impressive, this programme relied on the cascade model of training to reach teachers throughout the country, and there are concerns about the quality of training at lower levels of the cascade.[178] A key element of this method is the lack of resources and

the fact that life skills education has often been donor-driven and may not be part of the general curriculum.[179]

According to a 2012 report by UNICEF,[180] there is a strong demand for additional teacher training and support, but limited evidence of approaches to teachers' engagement and professional development that effectively address the specific demands of life skills education delivery beyond knowledge content. Effective delivery is commonly seen as dependent on the introduction of participatory teaching and learning methodologies, but significant challenges exist to the implementation of such methodologies in the context of resource-constrained systems and more traditional didactic modes of delivery.

Findings from the GPS highlight the lack of appropriate pre- and in-service teacher training on HIV and sexuality education. Similar findings have been found in other reviews. For example, an assessment of pre- and in-service teacher training for HFLE in Guyana found that insufficient time was allocated to the topic during training and that teachers needed to receive more training in the use of interactive and participatory activities.[181]

In Eastern Europe and Central Asia, efforts to date have mostly focused on in-service training to deliver HIV and life skills education, in some cases (for example, Azerbaijan, Belarus and the Russian Federation) on a significant scale, mainly through the support of international donors and UN agencies. This is beginning to change slowly, as a number of countries, such as Armenia, Moldova and Ukraine, have started to integrate HIV and sexual and reproductive health into pre-service training in selected teacher training institutions. However, since sexuality, health and life skills education is not a mandatory subject it is difficult to decide which teachers to train to teach courses that schools may or may not choose to deliver. At the same time, in-service training for teachers of mandatory subjects, such as biology or civic education, has proved to be inadequate, with many teachers still feeling uncomfortable about discussing sensitive issues and unable to apply participatory methods to health and life skills education.

New technologies offer potential. For example, many teacher training institutes in Kazakhstan and Kyrgyzstan use an interactive e-course,[182] developed with UNESCO assistance, to raise trainee teachers' awareness about HIV. In the Caribbean, UNICEF, UNESCO and CARICOM are developing an online professional diploma in instructional approaches to HFLE delivered by the University of the West Indies Open Campus, and some pioneering work in discourse theory concerning teachers and HIV has been conducted

in South Africa at the Faculty of Education, University of the Western Cape. However, the 2007 SACMEQ study found a significant gap between teacher knowledge and student knowledge, suggesting that lack of knowledge is not the only barrier to effective teaching about HIV and sexuality. A recent UNICEF evaluation highlighted the facts that existing training does not adequately address important elements such as teachers' psychosocial skills and attitudes and that teachers often feel that they do not have a mandate to teach about HIV and sexuality.[183]

Evidence from studies of teaching about HIV and sexuality in the classroom conducted between 2000 and 2008 also found that many teachers were not able to deliver HIV and sexuality education successfully, due to lack of skills or lack of an enabling environment.[184] For example, a study conducted in Mozambique found that teachers in lower primary school in particular lacked the skills to talk about sensitive sexual issues. There were also challenges at secondary level, where learners were more experienced than younger children and often asked difficult questions. Younger teachers often found it easier to talk openly about HIV and sexuality. The same study found that support from colleagues and management contributed to teachers' willingness to teach about HIV, while lack of support had a negative impact on teaching.[185]

Teachers are often viewed as neutral transmitters of information,[186] but in reality they bring their life experiences, attitudes and values to the process. The practice of 'selective teaching', where teachers avoid content that they feel uncomfortable with, has been widely reported.[187] Teachers' willingness to communicate about HIV is also affected by concerns that children will initiate sex or become promiscuous, or that parents or religious leaders would not approve of sexuality education. As one teacher commented, 'We will be accused of provoking disgrace'.[188] Teachers have raised similar issues in other studies and in other countries.[189] As Kelly notes, in ESA countries teachers question their role in this form of education. They have 'anxiety concerns' and 'resistance concerns'. Anxiety concerns refer to fears of violating taboos, giving offence to parents, being accused of encouraging promiscuity and loose moral practices in the young, or being regarded as using their teaching in this area as a form of personal sexual outlet. Resistance concerns relate to doubts whether sex education, the formation of appropriate sexual attitudes and the transmission of very specific behavioural guidelines really belong to their work as teachers, when their whole training and orientation were directed towards what are essentially academic areas.[190]

In addition to selective teaching, teachers have found other ways to avoid difficult or challenging issues. A review of HIV education in ESA countries[191] found that teachers often opted to focus on knowledge rather than skills and to use textbooks instead of engaging pupils in participatory approaches. Similarly, a study in Togo reported that teachers in primary schools do teach about sexual transmission of HIV but do not explain about sex. Teachers commented that they leave it to experts from outside organizations to address this and noted the benefits of involving these organizations in schools.[192]

Recent studies show that these challenges persist. For example, a study in Tanzania found that teachers were unable to discuss sexuality, sex, condom use and family planning.[193] Tanzanian teachers were afraid that talking about sexuality could encourage sexual activity and felt that discussing issues such as homosexuality, masturbation, condoms and sexual pleasure was counter to community norms, culture and religion. The authors commented that professional teachers are part of society and are therefore not immune to the influence of community norms, culture and religion on attitudes towards young people's sexuality. A five-country study conducted in the Latin America region in 2010 highlighted the need to strengthen pre-service and in-service training, to give teachers the opportunity to consider their own attitudes and the challenges of lack of time in the curriculum and limited resources.[194] Evidence from the Caribbean also suggests that teachers experience challenges in teaching about sensitive topics.[195]

One study of Canadian teachers found that they avoided using the words 'HIV' and 'AIDS' directly and used words such as 'it' or 'that situation' instead, suggesting that they were not comfortable discussing the subject.[196,197] In addition, teachers were not able to tackle issues related to ethnicity, poverty and sexual orientation. The author concluded that teachers needed more information and training, more suitable teaching aids and access to external resource-persons. They also needed more time to discuss sensitive issues and to engage in critical self-reflection and assessment of values.

> "While education is a starting point, teachers must likewise continue to acknowledge their discomfort when taboo topics such as HIV/AIDS are introduced and their uncertainty regarding how to dissect their own misinformation and biases. . . . Teachers who decide to discuss HIV/AIDS in their classroom must first self-evaluate and acknowledge their pedagogical model. They should take into critical consideration what they wish their students to learn, and what responsibility they hope to hold when imparting this information. Derek [an interviewed teacher]

was clear that he was timid in discussing sexuality, and that he had to be cautious. Rightly so, however, perhaps a thorough assessment regarding his own values concerning sexuality and, as an extension, all teachers' thorough assessment on sexuality would serve them well when talking of HIV/AIDS. Ignorance has been a ruling factor in why people shy away from gaining awareness on HIV/AIDS. Once teachers acknowledge their lack of understanding and relinquish their concern over how their students will perceive them, they will be better suited to discuss HIV/AIDS critically and extensively."[198]

Cultural and gender challenges

Other research has highlighted the influence of culture, ethnicity and religion on teaching about HIV. For example, one study of multicultural, multireligious refugee schools in Kenya[199,200] focused on gender, multicultural and multireligious beliefs and practices, and how they affect teaching and learning about HIV education. It concluded that teachers lack the skills to deal with multicultural classes. For example, while Christian Turkana and Ugandan girls were active participants in HIV education activities, Somali and Ethiopian Muslim girls remained quiet. They were reserved and shy because, according to their culture and religion, this was a way of showing respect to male teachers and pupils. However, Kenyan Christian teachers misinterpreted this behaviour as being rude or found it uncomfortable. In some cases, as a result, teachers avoided teaching about HIV and sexuality. As one teacher commented, 'when you go in and try to talk to them about matters of HIV/AIDS and sexuality, you find them looking down, whispering, covering their faces and that is very funny according to me. It's quite annoying and uncomfortable to teach such girls.'[201,202]

The same study also emphasized the influence of gender on the provision of HIV and sexuality education, in particular the impact of culturally influenced gender roles adopted by both teachers and learners on interaction in the classroom. For example, learners reacted differently depending on the gender of the teacher and vice versa. Girls and boys also reacted differently to the contents of the lessons, with boys preferring the sexual content and girls preferring content concerning love and care of people living with HIV. In some cases, the involvement of male pupils in preparing HIV education materials resulted in the development of gender-biased materials that perpetuated patriarchy and male dominance. During lessons about HIV, many girls found the behaviour of boys intimidating and thus disliked mixed classes for HIV education.

In addition, male and female teachers were perceived differently depending on their age. While older male and female teachers were culturally regarded as 'parents' and therefore respected, young female teachers were seen as 'afraid age-mates' and young male teachers as having a hidden 'sex agenda'. Most of the refugee girls had experienced sexual harassment and did not trust men, including male teachers. Female teachers were considered to be gossipers and hence were not trusted either.

The study highlights the importance of considering the culture, religion and gender of teachers and learners in planning the delivery of HIV education, and the need for HIV and sexuality education to be delivered by teachers who are properly trained. Other studies have noted that for HIV education interventions to be sustainable and effective, teachers need to identify and position themselves within the content as a condition to facilitate learner-centred approaches that explore life issues such as identity, anxiety and health.[203] For example, they need to explore their own gender constructs as a necessary first step to the creation of more gender-sensitive teaching practices.

Viewpoint: Teaching about HIV in schools – the missing link?

This contribution was provided by Padmini Iyer, Peter Aggleton and David Clarke. Given the centrality of teachers to effective HIV education, they discuss what is known about teacher education and training for HIV education and key issues requiring further review and research.

Introduction

To date, much work on education and HIV internationally has either focused on systems issues – for example, assessing and getting education systems ready, training for policy-makers and education department staff – or on curricular materials.[204,205,206] However, the need to prioritize HIV education for teachers – both initial preparation and training and continuing professional development – is increasingly recognized.[207,208,209,210,211,212] The absence of good-quality training that sensitizes teachers to the issues to be addressed as part of HIV education, and provides them with the skills to teach the subject to students, constitutes a significant barrier to the effective implementation of HIV education in many countries.[213,214,215,216,217] The situation is made more complex because education about HIV encompasses at least three different but related components: education for HIV prevention, treatment education and education to mitigate the negative social effects of the epidemic.[218]

Among the challenges and barriers to be confronted, socio-cultural taboos relating to the discussion of HIV and sex-related issues, with teachers' consequent embarrassment or reluctance to implement HIV education, have been well reported.[219,220,221,222,223,224,225,226] Teachers' political and religious beliefs can lead to the exclusion of HIV-related material in curricula.[227,228,229] Teachers' lack of knowledge can lead to incorrect information being shared with students.[230,231]

While the importance of improved teacher education and training for HIV education (both initial teacher education and continuing professional development) has been acknowledged, little research has addressed issues such as which type of teacher education and training works best, how long training programmes should last, how to involve the community in these forms of education, and what forms of education take place in classrooms subsequently.[232,233,234]

What do we know about teacher preparedness?

It is widely accepted that teachers cannot simply be engaged as 'academicians or communicators of knowledge' for HIV education.[235,236,237,238,239] Knowing what to teach is only one element that prepares a teacher to address HIV in the classroom; a supportive policy context and the willingness and confidence of teachers to undertake this work are also key.[240]

As well as a focus on the cognitive domain (e.g. knowing ways to avoid contracting the virus), there is therefore also a need to emphasize the affective aspects of education (e.g. examining personal values) and change behaviours (e.g. making good decisions).[241] By providing trainee educators with opportunities to examine their own attitudes about sexuality and behaviours, understand the content they are teaching, and gain confidence in discussing sensitive and controversial topics, teachers can be 'transformed ... into committed, responsible and effective agents of positive social change'.[242,243,244,245]

The use of learner-centred, participatory teaching methodologies for HIV education – both for teachers and students – is recommended by many researchers and practitioners. But, 'telling teachers in general about strategies that might be used in the classroom, without examples and models, does not typically lead to deep understanding'.[246] Alternative, participatory methods to teach about HIV can turn the focus towards creating an open and safe environment, while also engaging appropriately with cultural, gender and age behaviours.[247] The use of a simulation game in HIV education with pre-service teachers in South Africa offers one example of such an approach: findings suggest that this novel experiential pedagogy was particularly effective in light of student-teachers' relative naivety concerning the intersection of biological, socio-cultural and economic issues in HIV transmission.[248] In Jamaica, it has been found that teachers trained using experiential teaching methods, participatory exercises, role-plays and performing arts were more likely to use these methods in their classrooms than those who were trained with more traditional pedagogies.[249] Similarly, pre-service teacher training based around participatory methods has been found to improve teachers' HIV-related knowledge in Cambodia.[250]

Both pre-service and in-service programmes are necessary in order to prepare teachers adequately for their role in HIV education. It has been noted that a pre-service setting 'offers an opportunity for future teachers to explore their own beliefs and concerns' relating to HIV education; it can also be a cost-effective place to start such programmes.[251,252] While pre-service teacher

training programmes are usually carried out in teacher training colleges or in the education departments of universities, in-service training for those already teaching is often sponsored by international organizations or local NGOs, which are sometimes supported by the government and linked to its ministry of education.[253] When used in isolation, both approaches have potential weaknesses. HIV education components in pre-service training programmes are often not implemented in reality, while continuing education programmes may have limited success in reaching significant numbers of teachers and in developing the required understanding and teaching skills.[254,255,256]

Pre-service and in-service training programmes can be strengthened by teachers' active involvement in their development and implementation. For example, teacher involvement in planning and implementation to improve the design of an HIV education intervention in West Java, Indonesia, was found to encourage teacher motivation.[257] Experiential and context-specific action-based learning and research into the educational aspects of HIV has been notably employed in South Africa and Kenya, with the aim of breaking the silence and reducing stigma, and equipping teachers to provide care and support for infected and affected learners and colleagues. Training through action research enables teachers to examine their own experiences and attitudes and also encourages them to hypothesize, test their own suggestions and engage with their colleagues in reflective dialogue about effective teaching on HIV.[258,259] This approach is consistent with preparing teachers to become 'lifelong learners who are able to learn from their own practice while maintaining reflective dialogue with other teachers, subject specialists and researchers'.[260]

What do we know about barriers to effective work?

Several obstacles prevent the implementation of effective teacher training for HIV education. Socio-cultural factors, for example cultural taboos relating to the discussion of HIV-related issues, particularly sex and drugs, can mean that HIV education is neglected in schools in spite of the availability of teacher education and training programmes. The political sensitivity of discussing contentious issues in the classroom places teachers at risk of making themselves and their students feel uncomfortable, or of offending parents and administrators (e.g. in Latin American[261] and sub-Saharan African countries[262]). Teachers' religious beliefs play a considerable role in determining the topics they are willing to discuss. The sensitivity of discussing drugs and sex in a Muslim society has been cited as an obstacle to teachers

implementing HIV education in Indonesia,[263] while teachers' evangelical Christian beliefs have been shown to lead to a firmly 'abstinence-only' focus in Uganda.[264]

Several other challenges to providing teacher training on the scale required for effective national implementation – 100 per cent coverage – have been observed. In many countries in Asia and the Pacific, the scope, quality and focus of initial teacher education in the areas of HIV education often fail to prepare teachers adequately for the challenges they face within schools, which in turn can mean that teachers' embarrassment and anxieties remain unaddressed. Once again, this leads to the subject not being taught at all.[265,266]

Lack of available resources is also a barrier to the implementation of effective teacher education and training for HIV education. In Timor-Leste, limited budget allocation for the education sector response to HIV has led to a lack of available resources for pre-service training, including time and materials.[267] Meanwhile, the cascade model of in-service training for teachers widely adopted in countries such the Philippines[268] and Thailand[269] has been criticized for its limited success in changing teachers' practices and behaviour through an initial one-off 'workshop' format, and for the subsequent dependence on a small group of teachers to both understand and pass on new information to their colleagues.[270] Similar problems have been encountered in Kenya, where the Ministry of Education aimed to prepare teachers for HIV education through a week-long, cascade-model training course. Unsurprisingly, this approach to training frequently failed to address teachers' anxieties and concerns, or to prepare them adequately for the implementation of HIV education.[271]

What do we know about factors that contribute to success?

The duration and length of the training offered appears to have a considerable impact on teachers' effectiveness. A correlation between the duration of training and the degree of HIV education content taught to students has been observed in sub-Saharan African countries.[272] Short-term or one-off training courses may be insufficient to affect teacher confidence and competence in the medium to longer term, and it seems unlikely that required changes in teachers' attitudes and behaviours will happen in a short period of time.[273,274] Teachers who receive both initial training in a pre-service setting and follow-up in-service courses are therefore expected to benefit more.[275] Examples of successful longer-term approaches include teachers working in teams, obtaining periodic observation for constructive

feedback, and attending refresher courses which can reinforce new skills and knowledge and help teachers address issues and concerns.[276] Countries including Thailand, Mexico, Jamaica, Zambia and Kenya have adopted this approach to support teachers after pre-service training.[277,278,279]

Numerous pre-service and in-service training programmes for HIV education have encountered problems because the teaching staff themselves do not have a theoretical and practical understanding of the epidemic and its implications.[280] A priority in the implementation of such programmes must therefore be to develop appropriate skills and knowledge, including research skills, among education staff in universities and teacher education institutions.[281,282,283]

Beyond the structure of teacher training programmes themselves, effective coordination seems essential for successful teacher training for HIV education. Teacher training should not be seen as isolated from the wider community. Experience from Uganda and Malawi has shown that involving local leaders and parents in both pre-service and in-service training can serve to sensitize communities about HIV and to reduce opposition to school-based HIV education.[284] The support of the school administration, and particularly the school principal, is also essential in order to add legitimacy to HIV education, increase teacher and community comfort, and ensure that the content is actually covered.[285,286,287]

Partnerships and support beyond the school level are also required to ensure the success of teacher education programmes. In particular, the support of national ministries is essential in providing leadership and commitment to sustainability, ensuring that information is consistent across programmes and maximizing limited resources.[288] Recent experience of HIV and sexuality education in six Latin American countries (Argentina, Brazil, Chile, Paraguay, Peru and Uruguay) has pointed to the advantages of harmonizing public policies, strengthening links between health and education sectors, and placing an emphasis on training both teachers and students.[289] Generating political will among educational communities has facilitated capacity-building for teachers, the development of operational guidelines and the preparation of pedagogic guidelines, which have all facilitated the implementation of sustainable HIV and sexuality education in these countries.[290]

What issues need to be reviewed and researched?

There appears to be some consensus on best practice when training teachers to implement HIV education. A combination of pre-service training and in-service support for teachers, implemented by tutors who are themselves well-trained, and programmes which actively involve teachers, increase their knowledge of HIV issues and encourage them to examine and challenge their own attitudes and beliefs, are all conducive to the implementation of good-quality HIV education in schools. Yet research examining how such programmes take shape in reality, and their impact on classroom practices, remains limited.

Debates persist as to whether training for HIV education should be offered as a separate curriculum element or integrated into the more general aspects of the teacher education curriculum.[291,292] A UNICEF review of life skills programmes in sub-Saharan Africa found that placing education about HIV within the context of personal development and health skills (where such subjects exist and are taught) may work better than integrating the material into other subjects, where it may get lost.[293] However, the review from which this evidence derives was carried out in 1999 and reported on findings prior to this date; there is an urgent need to revisit this issue in the context of recent 'AIDS fatigue' in schools, especially in contexts where the impact of the epidemic has been greatest.[294]

Greater attention to teacher education and training for HIV education is also required, including a focus on the models and approaches that are cost-effective and work best.[295] Recent work on HIV and sexuality education in Latin America suggests that, subsequent to the 2007 Regional Harmonization Agreement and the 2008 Mexico Declaration, an impressive emphasis has been placed on capacity-building and teacher sensitization education programmes.[296] However, in these countries and all over the world, more disaggregated data (e.g. issues relating to gender and age, primary versus secondary teacher training, rural and urban settings) are required to provide a more nuanced understanding of effective teacher education and training.

More information is also required concerning the ways in which teacher education and training for HIV education is incorporated into broader reforms on teacher education, and how teachers are selected for training and implementation of HIV education. Overall, there is a need for further research examining what actually goes on in classrooms, in order to understand and address any potential disconnects between policy intent, teacher training practice and classroom realities.

Comprehensive sexuality education in low-level and concentrated epidemic countries

Low levels of knowledge also reflect the fact that relatively few countries are implementing comprehensive sexuality education at national scale.[297] These include, for example, Nigeria[298] and India,[299] both of which are increasing coverage of programmes with a focus on sexuality, health and education, though many learners are still not reached. In Latin America and the Caribbean, where the International Planned Parenthood Federation (IPPF) has conducted reviews of the status of sexuality education and recently launched a database of related information,[300] there has been reasonable progress: for example, in Colombia the government is implementing an innovative new approach to sexuality education and citizenship,[301] and in Peru sexuality education is being brought to 900 schools.[302]

However, a recent review[303] found that comprehensive sexuality education is a long way from being institutionalized in most low- and middle-income countries where the HIV epidemic poses a disproportionate burden. Even in countries with the highest HIV rates, small-scale pilot projects were the norm, and there were relatively few examples of scaled-up, sustainable programmes within educational curricula. Failure to institutionalize comprehensive sexuality education is due to factors including lack of political commitment, of long-term planning and of adequate investment, education system constraints, lack of clarity about how to implement these programmes and how to scale them up in diverse contexts, and, most importantly, lack of coordination between different actors.[304] In Thailand, for example, the TeenPath project, which aimed to integrate sexuality education and HIV prevention into the Grade 7–12 curriculum in selected schools, faced challenges to scaling up: these included the difficulty of institutionalizing a pilot project within governmental structures and a decentralized education system, and a perception among educational administrators that the issue had limited relevance in a system that prioritizes 'academic excellence'.[305]

A key question is how sexuality education translates into curricula, lesson plans and teaching in the classroom, given that the curriculum is contested space. In India, for example, controversy around the Adolescent Education Programme led to its being withdrawn in a number of states. Some teachers may have some autonomy in deciding how to interpret the curriculum, while others may be expected to follow a more prescribed path. In HIV and

sexuality education, this can make a significant difference to both quality and outcomes.

Sexuality education has also been viewed as controversial in other regions. In a number of countries in Eastern Europe and Central Asia, sexual and reproductive health education programmes were introduced in the 1990s, mostly by NGOs, but without adequate preparation of teachers or engagement of parents and other stakeholders. As a result there were objections from parents and religious organizations, strengthening the views of those who argued that sexuality education was counter to traditional values and morality and that it was not appropriate to discuss condoms in schools; most of these programmes were suspended. Between 1999 and 2006 attempts were made to re-introduce sexuality education in the context of life skills education, avoiding use of the term 'sexuality'. Today, HIV education is delivered in all countries of the region, although significant differences exist in approach, content and scale of implementation. In some countries, concerns continue to be raised about the sexuality and HIV content of teaching materials, and consequently sexuality education has not been incorporated into the curriculum nor delivered on a national scale.

Box 10: Policy context in the Asia-Pacific region

The Asia-Pacific region has a highly favourable policy environment for the implementation of HIV education: the education sector included sexual and reproductive health, HIV or related issues in sector policies and decrees early on in countries as diverse as China (1988), Indonesia (1997), the Philippines (1995) and Thailand (1991).[306,307] A decade later, countries including Cambodia, Lao PDR, Nepal, Pakistan, Papua New Guinea and Viet Nam had integrated HIV into sector policies, typically in the context of school health or health education, while two countries – Cambodia and Papua New Guinea – established HIV policies specifically for the education sector.[308,309] In a recent review of policies and strategies in the region, 21 out of 25 countries' national HIV strategies or plans included some reference to the role of education, including in some cases reference to detailed sector strategies. Most of these target in-school youth, mention capacity development of teachers, and promote HIV and life skills education.[310]

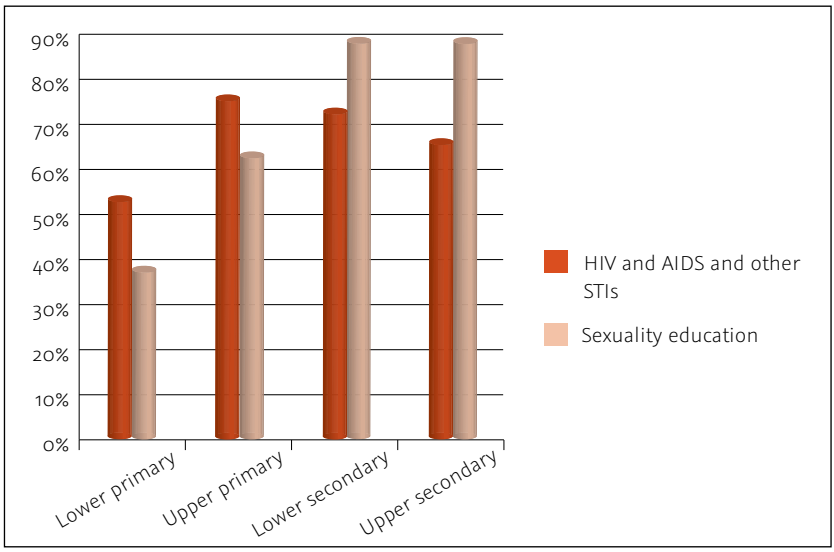
Lack of HIV and sexuality education in primary schools

Comprehensive sexuality education, including HIV education, should be provided in a building block approach over the critical years of development from five to eighteen years of age. Learning objectives should be logically staged with concepts for younger learners including more basic information, less advanced cognitive tasks and less complex activities.[311] To maximize learning, it is essential that the basics are put in place at primary level.[312] In addition, as discussed below and in more detail in Chapter 3, in many countries rates of primary school completion and secondary school

enrolment remain low, so it is critical to ensure that children receive some education about HIV and sexuality in primary school.

This does not always happen, and efforts to date have focused mainly on delivery of HIV and sexuality education in secondary schools. The GPS showed that most countries at secondary level included HIV and sexuality education in their curriculum.[313] However, the figures decrease for primary education, with only 38 per cent reporting the inclusion of sexuality education and 54 per cent the inclusion of HIV education in the lower primary curriculum (see Figure 2). A number of respondents to the survey also pointed out that inclusion in the curriculum does not ensure that it is taught, especially if the topics are sensitive. This means that the number of children receiving appropriate education on the topics at the appropriate age is likely to be lower than officially reported.

Figure 2: Inclusion of HIV and sexuality education in the curriculum of the 39 GPS countries



Source: UNAIDS IATT. 2013. 2011–2012 Education Sector HIV and AIDS Global Progress Survey. Raw data file available upon request from aids@unesco.org

These and other shortcomings have been confirmed by recent country reviews using tools such as the UNESCO-developed Sexuality Education Review and Assessment Tool (SERAT). For example, in 2012 the Tanzania Institute of Education used SERAT to conduct a review[314] of content by key concept at different levels of the education system. This showed that for the

5–8 year age group, youth empowerment and sexuality and sexual behaviour were the weakest areas.

The curriculum review of ten countries in East and Southern Africa[315] discussed earlier found that while content is often age-appropriate there was delayed delivery of some topics. Covering topics too early or too late reduces the effectiveness of sexuality education, as knowledge, attitudes and skills are not built on in a coherent manner.

Concerns about opposition from parents, religious leaders and others in the community are often cited by education ministries and by teachers who are reluctant to teach about HIV and sexuality, especially to younger children. However, in practice, parents are often more supportive than teachers suppose. An early study by ActionAid in India and Kenya, for example, found that over 80 per cent of parents wanted their children to learn about HIV at school while only 4 per cent were opposed or strongly opposed.[316]

There are other strong arguments for providing comprehensive HIV and sexuality education in primary schools. Firstly, in many countries, the age of sexual debut is low. In the developing world, 11 per cent of girls aged 15–19 and 5 per cent of boys aged 15–19 have had sex before the age of 15. The highest rate of early sexual debut is in Latin America where 17 per cent of 15–19-year-olds had sex before the age of 15. In sub-Saharan Africa the proportion is 14 per cent.[317] According to a WHO survey, 45 per cent of 15-year-old boys in Armenia, 40 per cent in Ukraine and 37 per cent in Russia had their first sexual experience before reaching this age.[318] Data from the Caribbean region also suggest that age of sexual debut is low in a number of countries, particularly among girls.[319]

Box 11: Tackling discrimination in Eastern Europe and Central Asia

The increase in the number of children born to HIV-positive parents in the region, in particular in the Russian Federation and Ukraine, in the early 2000s, added another dimension to HIV education. Both countries launched training and sensitization programmes for teachers to prevent discrimination in schools towards children living with or affected by HIV and acceptance and tolerance of people living with HIV was enhanced in HIV education.

These programmes paved the way for adoption of national policies on HIV in the education sector, for example in Belarus, Ukraine, Kyrgyzstan and Tajikistan in 2012–2013. Developed with technical assistance from UNESCO, and based on UNESCO-ILO 2012 regional practical recommendations on HIV policy implementation in the education sector, these policies provide management and staff of educational institutions with a framework for supporting learners and educators living with or affected by HIV and protecting them from discrimination.

Secondly, there is good evidence that HIV and sexuality education is most effective in terms of knowledge acquisition and skills development if it targets children before they become sexually active.[320,321,322,323,324,325,326] Before puberty, all young people should learn about sex and sexual health, including how to protect themselves from HIV and other STI, early pregnancy, sexual violence and exploitation. Education can strengthen children's skills to negotiate their emerging sexuality, while increasing awareness of gender, violence and rights. For too many children, such knowledge and skills are imparted too late, if at all.[327,328,329] Numerous research studies have shown that teaching about sex and relationships before young people become sexually active increases neither the likelihood that they will start having sex nor the frequency of sexual activity of those who are already sexually active.[330]

For example, a review in Kenya[331] showed that a national primary school HIV intervention can have positive effects if it is provided in a timely manner. The programme had a significant impact on its stated objectives, including increased HIV-related knowledge and increased communication with parents and teachers about HIV and sexuality. However, the impact was different depending on gender and sexual experience, with the most beneficial effect being on sexually inexperienced young people. Boys reported increased condom use while girls were more likely to decrease or delay sexual activity. The reviewers point out that given the higher impact on non-sexually active youth, and the fact that nearly half of young people reported that they were sexually experienced at baseline (patterns of sexual experience were similar for males and females, increasing from 37.5 per cent of 11–12-year-olds to over 60 per cent of 16–17-year-olds), the programme should be implemented with the youngest age groups possible. This review strengthens the argument for implementing age-appropriate HIV and sexuality education in lower primary settings.

Thirdly, there is increasing evidence that gender socialization of boys and girls begins early, and efforts to promote gender-equitable norms should, therefore, also begin early, including in primary school. Education at an early age can also build understanding of health, communications, values and attitudes.[332,333]

Primary education is now compulsory in almost every country, and 91 per cent of children who enter school stay there until the end of primary school,[334] making it the best opportunity to reach the largest number of children in a cost-effective manner. Rates of primary school completion and secondary school enrolment are low in many countries, including countries in sub-Saharan Africa worst affected by HIV.[335] Failure to provide HIV and

sexuality education before secondary school means that a large proportion of children and young people receive little or no education about HIV before they become sexually active. Without comprehensive education about HIV and sexuality, young people are at risk of lacking the knowledge and skills to understand and interpret the increasing amount of information that is available to them through new technologies and social media.

Those most affected by missing out on sexuality education are girls in countries where the female school drop-out rate at the end of primary school is high. One in four adolescent girls aged 15–19 in the developing world (excluding China) is married or in a union; in the least developed countries nearly half of women aged 20–24 are married before the age of 18.[336,337] During this period HIV risk also increases, particularly in highly affected ESA countries.[338,339,340] In addition, many girls have their first child at a young age. Globally, approximately 16 million girls aged 15–19 give birth every year, 95 per cent of them in low- and middle-income countries. Niger, for example, which has one of the lowest rates of primary school completion for girls, has the highest rate of childbearing in this age group.[341] Early pregnancy is associated with higher risks of birth complications and maternal mortality. In low- and middle-income countries, complications of pregnancy and birth are the leading cause of death in girls aged 15–19.[342] The need for comprehensive sexuality education is also underlined by high rates of unintended pregnancy and unsafe abortion among adolescents.[343]

In summary, high primary school drop-out rates, early onset of sexual activity, the need for sequential comprehensive sexuality education sessions over critical years of development[344] and the fact that the best results are found in individuals who are targeted before they become sexually active[345,346] add up to a compelling argument for providing comprehensive sexuality education, including about HIV, to children in primary school.

HIV education beyond secondary school

> "The role of universities as opinion formers within society, their pivotal position in the creation and dissemination of knowledge and the fostering of innovation, and their contribution to their nation's human resource capacity marks them out as an essential site for the establishment of national, regional and global responses to . . . HIV/AIDS."[347]

Reviews of the impact of and responses to HIV in higher education have also highlighted the need for HIV education at tertiary level.[348,349] Students in

higher education – technical and vocational training institutions as well as universities and colleges – are the future public servants and entrepreneurs who will play a central role in a country's development and an important target population for HIV and sexuality education. Such education is essential to ensure that they have the knowledge and skills to protect themselves from HIV, other STI and unintended pregnancies.

Students in tertiary education are vulnerable to HIV infection. They may be alone and away from family and friends for the first time. They have more freedom and, in some places, easier access to alcohol and drugs. In some institutions, they may be at higher risk of sexual abuse and harassment or pressured by staff to exchange sex for grades. Financial pressures can also result in students engaging in sex work.

South Africa is one of the few countries to have conducted extensive research on the vulnerability of students and staff in higher education. In a study of 21 higher education institutions,[350] academic staff had the lowest overall HIV prevalence at 1.5 per cent, followed by students at 3.4 per cent, administrative staff at 4.4 per cent, and service staff at 12.2 per cent. Female staff and students were three times more likely to be HIV positive than their male counterparts, with HIV prevalence of 4.7 per cent compared with 1.5 per cent. This study showed that sex with older partners was a risk factor. Among the 7 per cent of female students who reported that their most recent sexual partner was ten or more years older, 12.8 per cent were HIV positive. In contrast, those with partners fewer than ten years older had a prevalence rate of 3.1 per cent.

It is often assumed that because students have reached the level of tertiary education, they have received HIV and sexuality education; however, studies on knowledge and attitudes among students show low levels on both areas. For example, a study in China found that while 24 per cent of students surveyed considered themselves to be at moderate to very high risk of contracting HIV, 40 per cent of sexually active students never used condoms.[351] Low levels of knowledge are also reflected in negative attitudes towards people living with HIV. For example, a study in Malaysia found that only 9.2 per cent of pharmacy students would be willing to assist HIV-positive patients.[352]

To date, efforts to ensure that students in higher education have access to information and to include HIV in the curriculum have been mixed. A recent global review assessed access to HIV information and prevention materials among students in higher education.[353] The review found that access ranged from 10 per cent to 100 per cent, with the highest levels of access in countries

with a generalized epidemic. The proportion of countries reporting that they have reviewed and adapted their tertiary curriculum to address HIV increased from 30 per cent in 2004 to 60 per cent in 2011–2012.

However, available evidence suggests that the quality of information provided and of revised curricula is variable, and that the extent of implementation varies. Many country respondents to the review commented that adaptation of the curriculum to include HIV and related issues does not automatically mean these issues will be allocated time in the lecture room or will be adequately covered, as tutors may be reluctant to teach subjects they find uncomfortable or embarrassing.[354]

This suggests that there has been limited progress since 2006, when a study conducted by the Association for the Development of Education in Africa (ADEA) Working Group on Higher Education found that tutors lacked both the requisite knowledge to impart to students and the skills to address the complex and value-laden issues related to HIV.[355] Country studies have come to similar conclusions. For example, a 2012 report from South Africa by the University of Cape Town HIV/AIDS Institutional Co-ordination Unit (HAICU) found that there had been little implementation progress, even though HIV components had been piloted in 2010.[356]

While examples of good practice exist,[357] in most cases the response of higher education institutions to HIV has been neither comprehensive nor systematic. The University of Cape Town and an HIV Co-ordination Unit at the University of Cape Town report warns of the risk of 'cosmetic' responses that incorporate useful additions in the curriculum but do not go far enough in developing the commitment, academic understanding and analytic ability required to address HIV. More needs to be done, both to ensure that students in higher education are equipped with the knowledge and skills they need to stay healthy and to create 'HIV-competent' individuals and societies.

Viewpoint: Higher education - still grappling with the reality of HIV

Mary Crewe provides a perspective on tackling HIV in tertiary education in Africa.[358]

Dominance of the public health approach

Just over ten years ago, in keeping with the spirit of the time, an article in *The Lancet* stated that 'HIV/AIDS is the greatest threat to life, liberty and the pursuit of happiness and prosperity in many African countries. Interventions, therefore, must be quantitatively and qualitatively commensurate with the magnitude of the threat posed by the disease.'[359] Somewhat controversially, it also suggested that the emphasis on human rights had reduced the importance of public health, which offered a framework for prevention that might be more relevant to people's lives and was more likely to be effective.

An earlier assessment of HIV education for university students had suggested that 'any programme targeting HIV/AIDS can be included in a more comprehensive initiative for improving and maintaining student health. The skills learned to reduce the risk of HIV infection are transferable to other health issues and involve empowering students to take control and responsibility for their actions.'[360]

This approach has bedevilled the response of higher education institutions in sub-Saharan Africa, such that 'almost a quarter of a century into the AIDS epidemic, many universities are still trying to grapple with this reality. They have not fully grasped the fact of their HIV/AIDS condition and its implications for its effective functioning. In the naïve belief that they were responding effectively to the epidemic, many institutions have regarded HIV/AIDS as essentially a health problem.'[361]

This view also resonates with the emphasis to be found in the HIV/AIDS toolkit for tertiary institutions developed by the Association of African Universities and the Association of Commonwealth Universities. The toolkit provides a 'framework and a process'[362] for institutions to assess, plan, design, implement, and monitor and evaluate HIV responses. However, although the toolkit identifies the need to confront 'personal and cultural' sexual issues, it mainly takes an education management perspective, underpinned by the

need for capacity building for university managers,[363] and does not address the role and function of universities and higher education institutions or their history in dealing with social issues.

Ten years later, the focus is still on curricula, teaching methods and access to services. How can higher education institutions in Africa move away from this approach, with its portrayal of young people within these institutions as 'subjects of risk' rather than 'citizens of empowerment'?

Higher education about HIV

Universities are subject to and tend to express the conflicts and contradictions of society,[364] but some have argued that they have a role in bringing about wider change in society.[365] Badat[366] has identified five features that are important to the role and functions of universities and institutions of higher education:

- the cultivation of highly educated people
- democracy and democratic citizenship
- development needs and challenges
- engagement with the intellectual and cultural life of societies
- research and scholarship.

He highlights how increasingly students are drawn from diverse social backgrounds and need skills to enable them to function in a changing society and world. In addition, societies need sensitive intellectuals and critical citizens who understand pressing development needs and challenges. Graduates need to be able to engage with the life and culture of the society in which they live and to be involved in all kinds of rigorous scholarship.

These functions are thrown into sharp relief by calls for the tertiary sector to respond to HIV. Sub-Saharan Africa, particularly East and Southern Africa, continues to experience high rates of HIV infection and, despite the success of some treatment programmes and reports of declining infection rates,[367] the need for education, prevention and awareness remains high. However, it is the nature of these programmes that is contested. In many higher education settings, most students have had access to information about prevention and how to access treatment and are aware of the need to use condoms and to practise safer sex. Giving more of the same knowledge is not primarily what

tertiary institutions should be about. Rather, good education about HIV is at the heart of what universities are about – linked closely to the roles and functions identified above.

The role of tertiary institutions in dealing with HIV is about creating well-educated – as opposed to well-informed – young people who can critically engage with wider social and political issues. To understand how to engage with HIV in their personal and professional lives, they need to have a critical intellectual engagement with epidemiology and the ways in which issues such as poverty, race, globalization and class drive the epidemic.[368] Students in higher education also need the conceptual and intellectual means to engage critically with sexuality, sexual practice and sexual preferences, sexual tolerance, understanding and acceptance. They need to understand and be able to challenge the racial, gender and cultural stereotypes with which they are confronted daily. They need less peer education and more intellectual curiosity. They need more ability to critically engage with notions and interventions such as testing and male circumcision that turn them into subjects rather than respecting them as citizens.[369]

The challenges in engaging with HIV in tertiary institutions on the African continent are to address their institutional integrity and culture and the fact that universities are workplaces of a special type,[370] and to consider how they can respond to the multiple social, political, economic and rights issues that exist in the societies from which their staff and students are drawn. 'Global figures of the numbers of men and women at tertiary institutions address only access to study and employment, and tell us very little about the institutional cultures and conditions in Africa's universities. What is clear is that Africa's campuses remain difficult and challenging places for women at many levels, in ways that are further complicated by the dynamics of growing poverty, and by persistently inequitable ethnic, religious, sexual and other social relations.'[371]

The need for a robust intellectual response

While the logistical response to HIV in tertiary institutions in Africa is important – in terms of policy, condoms, student health, voluntary counselling and testing, and awareness and prevention campaigns – such actions need to be supported and sustained by a robust intellectual response. 'African intellectuals have to be at the forefront of responsible citizenship' and in the creation of an African agency in dealing with the social and cultural issues that come with HIV and AIDS.[372]

Students in higher education are curious and intelligent, the future leaders of their countries, and they need to be able to engage with HIV as critical intellectuals. The approach in higher education should, therefore, be about creating critical and informed sexual citizens rather than compliant subjects. This requires a critical intellectual and fundamentally educational response that shapes and drives programmatic interventions to ensure that young people not only understand their epidemics and their societies, but also know how to change them.

Challenges for countries with low-level and concentrated epidemics

Although much attention has focused on countries with generalized epidemics, young people are at risk in other regions.[373,374] For example, although the Pacific region has primarily low-level epidemics, the proportion of HIV cases among young people is reportedly increasing, particularly among young women,[375,376] and high rates of other STIs are a major concern: on average one in four of all sexually active young people in the region has an STI.[377]

In countries with concentrated epidemics, available evidence suggests significant risk and vulnerability among young key populations.[378,379,380] The Commission on AIDS in Asia estimated that 95 per cent of infections among young people in the region occur among young men who have sex with men, young transgender people, young people injecting drugs, or young people selling sex.[381] In Pakistan, for example, HIV prevalence is higher among young people under the age of 25 who inject drugs than their older counterparts.[382] In India, 17 per cent of female sex workers surveyed reported entering sex work before the age of 15.[383]

The challenge is that, in most regions, strategic information on the profile of young people from key populations is inadequate, and stigma and discrimination continue to hinder access to information and services, including within the education sector. The 2011 UN General Assembly Resolution noted that prevention strategies do not adequately focus on populations at higher risk of HIV, and that only 33 per cent of countries had prevalence targets for young people.[384] Education ministries in a number of countries have made efforts to better understand and meet the needs of young people from key populations. For example, in Bhutan and Cambodia targeted surveys have been conducted to understand alcohol, drug and sexual behaviours and knowledge, access to and use of sexual and reproductive health services among young key populations (see Box 12).[385,386,387]

Box 12: Collecting data on young key populations in Cambodia

In 2010, the Cambodian Ministry of Education, Youth and Sport, with support from UNESCO, UNAIDS, UNFPA, UNICEF and WHO as well as NGOs working on HIV and AIDS, conducted a Most-at-Risk Young People Survey to assess risk behaviours, perceptions and preferences concerning sexual and reproductive health programmes, and made programme recommendations. The survey was conducted in eight provinces and included qualitative and quantitative methods. Many respondents cited family problems, peer pressure, exposure to alcohol, drugs and pornography at a young age, and the lack of employment opportunities as factors leading them to engage in high-risk behaviours. Many questioned the value of education and cited social acceptance and popularity with peers as more important.

Recommendations informed the 2011 National Policy on Cambodia Youth Development, with interventions including

- review of school and teacher training curricula in order to include up-to-date information on high-risk behaviours and risk reduction skills
- engagement of youth peer educators
- facilitating access to alternative education opportunities
- creation of more protective school environments that support safer behaviours
- ensuring access to psychological counselling services for in-school and out-of-school young people.

Source: UNESCO. 2011. *EDUCAIDS Country Snapshot: Cambodia. Producing Evidence-Based Information for Better Planning for Most-at-Risk Young People.* Paris, UNESCO.

Other school-based surveys, such as the Global School Health Survey (GSHS), provide critical information on drug and sexual risk behaviours and protective factors among students.[388] This evidence is an important foundation for ministries of education in developing programmes, including for learners at higher risk of HIV exposure. However, in many settings it has been difficult to translate evidence into effective school-based programmes that address issues such as sexual diversity and the behaviours that drive HIV infection among young people from key populations, including unprotected anal sex between men, unsafe injecting drug use and unsafe sexual intercourse during sex work.

In order to reach the highest possible number of young people engaging in behaviour which places them at risk of HIV exposure, it is vital that sexuality education incorporates the topic of sexual diversity. In Latin America and the Caribbean, for example, not addressing sexual diversity in the HIV response would do a serious disservice to young people affected by and vulnerable to HIV, since the HIV rates among men who have sex with men, including young men who have sex with men, are extremely high.[389] Sexual diversity is a topic currently underrepresented in school curriculum. In a recent study in Australia, many young people consulted agreed that only 'straight sex' was discussed in classroom settings.[390] The ESA curriculum review mentioned

earlier, covering ten countries, found that almost none of the curricula addressed sexual diversity in an appropriate way.[391] In China, where one third of new infections are among men who have sex with men, and HIV prevalence in this population is estimated to be as high as 17 per cent in some cities,[392] learning materials had mainly focused on transmission of HIV through heterosexual sex. Although this is now changing, HIV prevention information still does not 'adequately address issues such as anal sex'.[393] In addition, few countries are addressing the issue of homophobic and transphobic bullying, either in the context of sexuality education or more broadly, although there is increasing recognition of its negative impact on young people's health and academic attainment. It is important to note that these issues need to be addressed in all epidemiological settings, not just in countries with concentrated epidemics, but this is not consistently the case.

Similarly, there is a critical need for education to address substance use and its link to HIV vulnerability among young people. Globally many people who use drugs are young people between the ages of 10 and 24; in some countries the majority of drug users are in this age group.[394] The need is especially urgent in Eastern Europe and Central Asia, where national epidemics are largely driven by drug-related transmission and by further transmission to the sexual partners of people who use drugs.[395,396] The average age of initiating drug injection in the region is low, and consequently HIV prevalence has more than doubled among young people aged 15–24 during the past decade.[397] In Albania, Serbia and Moldova, for example, between 35 per cent and 68 per cent of young people who inject drugs started when they were under 18 and between 5 per cent and 30 per cent before the age of 15.[398]

However, many drugs education campaigns have been found to be ineffective because they are unrealistic, abstinence-focused, do not acknowledge the deep and often complex social and psychological causes of drug use, and often target those who need it least.[399,400,401,402,403] For example, a study examining the initiation of injecting drug use among vulnerable adolescents and young people in the Ukraine found that 'information and educational campaigns aiming to prevent drug use are generally directed at a broad youth audience, not to those young people most at risk of drug use initiation nor those experimenting with substance use. General educational programmes influence confirmation of anti-drug attitudes among convinced abstainers, but are not effective in preventing the initiation of drug use, and of injecting drugs in particular, neither do they delay nor prevent experimentation with drugs'.[404] The study called for 'an increase in the effectiveness of school programmes and harm reduction projects'.[405]

The education sector can play a critical role in all epidemiological settings, and in particular in those with concentrated epidemics, in preventing and tackling stigma and discrimination experienced by young people from key populations. However, this may require addressing the attitudes and beliefs of teachers and other education sector staff, many of whom may hold and consciously or unconsciously convey negative views about key populations. For example, in a survey in Europe among young lesbian, gay, bisexual and transgender youth, 14 per cent of those who had negative experiences in school mentioned teachers as the source or part of the problem.[406,407]

For young people living with HIV, stigma and discrimination and other barriers to accessing, remaining in and achieving in school are key issues. While there has been greater focus on addressing their needs in generalized epidemics, there are ongoing challenges in low and concentrated epidemics. At a global consultation in 2010 hosted by UNESCO and the Global Network of People living with HIV, one young person commented, 'If there is a very low HIV prevalence, HIV gets given very low priority. Young people living with HIV are almost invisible and our needs are given low priority'.[408] Moreover, in concentrated epidemics where HIV disproportionately affects people who sell sex, people who inject drugs, men who have sex with men and transgender people, assumptions are often made about the behaviour or sexuality of young people living with HIV, leading to further judgment and blame.[409]

There is also an important role for non-formal education in regions and countries with concentrated epidemics. In such contexts, many of the young people who are at elevated risk of HIV are often less likely to be in school or only attend school erratically. It is therefore critical that they are reached by non-formal education programmes and other initiatives targeting out-of-school youth.

System weaknesses and underfunding

Case studies conducted in preparation for the GPS highlighted four main systemic challenges that affect the education sector and have implications for a comprehensive education sector response to HIV. In most of the countries surveyed, these challenges have yet to be successfully addressed.[410]

Firstly, the success of the sector's response is highly dependent on effective governance and the functionality of the education system itself. If the capacity and efficiency of the system is compromised in any way, this will limit the potential of the HIV management unit or focal points to coordinate and direct the response. If the budget is under pressure and subject to competitive stresses, the flow of funds to the HIV response will be affected. Funding for the education sector response is further discussed below.

The second challenge is the variability of EMIS operations. The authors of the GPS noted that if an education system does not have reliable and up-to-date management information, it cannot monitor or analyse performance and efficiency, particularly in respect of supply and demand, outputs and quality. Without such data, monitoring, evaluation and reporting on the sector response will be difficult. Data and monitoring and evaluation challenges are discussed in more detail below.

The third challenge in some countries is the high and increasing number of private schools, which are often run by churches or other faith-based organizations. These may not always implement national policies and curricula concerning life skills, HIV and sexuality education.

The final challenge is the future impact of the recent significant growth in primary school enrolment as a result of the push for universal primary education. In many countries, little planning or preparation is taking place to deal with the impact of increased primary school enrolment on secondary education in the coming years. The expansion in student numbers has resulted in higher teacher-pupil ratios, a risk of declining educational quality and pressure on existing infrastructure. Resources available for the sector to respond to HIV and, specifically for HIV and sexuality education, may be reduced as budgets are increasingly allocated to increasing teacher recruitment and training, expanding infrastructure, and production of teaching and learning materials.

Inadequate resource allocation

Inadequate resource allocation is the underlying reason for many of the challenges discussed above. According to a UNAIDS costing of resource needs in low- and middle-income countries in 2005, an estimated US$313 million was required to scale up HIV education in schools to cover 10 per cent, 20 per cent and 50 per cent of students in low, concentrated and high prevalence countries respectively during the period 2006–2008.[411] Another study[412] estimated the annual costs in international dollars[413] of achieving 90 per cent coverage of school-based HIV education in two regions at 77 million for sub-Saharan Africa and 176 million for Southeast Asia.

Although HIV resources have been used to support the education sector response, analysis of the allocations of the main international donors suggests that funding provided has not been commensurate with estimated requirements or evidence-based interventions. For example, the US President's Emergency Plan for AIDS Relief (PEPFAR), a major donor for HIV programmes, allocated significant resources for HIV prevention. One third of these prevention resources were earmarked for 'abstinence' programmes, although there is no evidence that these programmes reduced HIV risk.[414]

At a UNAIDS IATT on Education symposium in 2008 on the sector's engagement with HIV and with the aid architecture, the Global Fund, another major donor, acknowledged that the education sector had not been a major recipient of grants. Only ten countries had received education sector support for HIV from the Global Fund. A review[415] conducted by the UNAIDS IATT on Education showed that 'youth education' was a component in only two regions – East and Asia-Pacific, and Europe and Central Asia – in Round 5 and in one region – South Asia – in Round 6. This represented, respectively, only 1 per cent and 0.29 per cent of the total Global Fund budget for HIV prevention activities. No funds in recent rounds have gone to the education sector directly. Where the Global Fund has invested in the education sector, for example, in Belarus and Namibia, the results have been impressive (see Box 13).

Box 13: Impact of Global Fund support to the education sector

In Belarus, Global Fund support of US$250,000 a year has been provided since 2004 for educational activities. To date, 2000 peer educators have been trained, 13 resource centres have been established and almost one million school children and students – 90 per cent of the total – have been reached with prevention programmes through peer educators or other channels. HIV prevalence among young people dropped by 54 per cent (from 28/100,000 in 2002 to 15/100,000 in 2007); condom use with casual partners rose from 17 per cent in 1999 to 75 per cent in 2007; and the proportion expressing acceptance of persons living with HIV rose from 56 per cent in 2005 to 65 per cent in 2007.

In Namibia, the Ministry of Education received N$19 million from Global Fund Round 2 to support HIV prevention, school feeding and counselling programmes for orphans and vulnerable children. With these funds, the Ministry conducted extensive training in counselling, established school-based support groups, integrated HIV into the curriculum for comprehensive sexuality education, mainstreamed HIV into other subjects, established a workplace programme and a network of HIV-positive teachers, and established school feeding programmes covering 20 per cent of all children in need.

Source: UNAIDS IATT on Education. 2009. *Education Sector Engagement with the AIDS and Aid Funding Architecture at the Country Level.* Symposium Report, 17 November 2008. Geneva, UNESCO. (http://unesdoc.unesco.org/images/0018/001802/180203e.pdf)

In a separate review of HIV funding in low- and middle-income countries in 2008, analysis of data from a subset of 53 countries found that 60 per cent of prevention resources were spent in 5 areas: communication for social and behavioural change (16 per cent), voluntary counselling and testing (14 per cent), prevention of mother-to-child transmission (13 per cent), blood safety (10 per cent) and condom programmes (7 per cent). Only 7 per cent of prevention funding was spent on most-at-risk populations.[416]

In the 22 countries with generalized epidemics that provided a detailed breakdown of expenditure on HIV prevention, communication for social behavioural change received the largest share of prevention spending. Mass media campaigns, community mobilization and workplace prevention programmes together accounted for 27 per cent of prevention spending, while voluntary counselling and testing received 17 per cent, 20 per cent was invested in prevention of mother-to-child transmission and 5 per cent in ensuring a safe blood supply. In contrast, HIV prevention for in-school and out-of-school youth only accounted for 3 per cent and 1 per cent of spending respectively. These figures vary slightly depending on the epidemic context. For example, prevention for youth in school received 5 per cent of prevention funding in countries with low-level epidemics, 4 per cent in countries with generalized epidemics and 2 per cent in countries with concentrated epidemics.[417] More recent data[418] show that treatment programmes account for the largest share of HIV funding in most countries. For example, in South Africa more than 50 per cent of the available HIV resources are spent on treatment.

To address this, UNESCO commissioned a study in 2010 to measure the costs and cost-effectiveness of school-based HIV and sexuality education and to determine the cost of scaling up such programmes in a range of countries – Estonia, India, Indonesia, Kenya, Nigeria and The Netherlands.[419] The findings showed that the costs and coverage of sexuality education programmes vary considerably, but overall concluded that school-based HIV and sexuality education is potentially cost-effective for developing the skills of learners and teachers and contributing to health outcomes.

The total costs of the programmes studied ranged from US$1.19 million in Indonesia to US$12.2 million in The Netherlands.[420] The cumulative total of students reached ranged from 6240 in Indonesia to 990,000 in India. Annual figures for costs and numbers reached are more instructive, given the varying coverage and timeframes of the programmes. These show that, for example, 240,000 students were reached in Nigeria every year at a cost of US$562,000, whereas 28,000 students were reached in Estonia at a cost of US$311,000. Annual costs per student in 2009 were US$7 in Nigeria, US$13.50 in India, US$33 in Estonia and The Netherlands, US$50 in Kenya and US$160 in Indonesia. The higher cost per learner in Kenya and Indonesia reflected the fact that these were pilot programmes with limited coverage and high operations costs. Considerable reductions in cost per learner reached could be achieved by expanding coverage. For example, if the programmes in Kenya and Indonesia were scaled up, the cost per student could be reduced from US$50 to US$16 and from US$160 to US$13 respectively. In addition, the most efficient approach would first expand uptake in schools that already have the programme – for example by making the curriculum mandatory – before introducing it to new schools or districts.

Education within the UNAIDS Investment Framework

In June 2011, *The Lancet* published an article proposing 'a strategic investment framework that is intended to support better management of national and international HIV/AIDS responses than exists with the present system'.[421] The authors argued that, to date, expenditure allocations in the HIV response had been made 'irrespective of their relative effects' and proposed a new approach to investment. This approach would be based on three categories of investment: basic programme activities, critical enablers and synergies with development sectors.

The Framework differs from earlier UNAIDS guidance on combination prevention, since it groups interventions into categories based on their contribution. Basic programme activities are those directly affecting transmission, morbidity and mortality. Critical enablers are social and programme areas that complement basic programme activities. Development synergies recognize the link between HIV and other areas of social and economic development. The approach acknowledges that basic programme activities have direct proximal outcomes, critical enablers have a more distal and context-specific effect, and development synergies are the systems necessary for an effective response.

Together, these categories are designed to guide international and national investment by prioritizing effective efforts and to locate elements of the response in the wider HIV and development context, in order to establish clear relationships and priorities. In the same *Lancet* article, the authors conducted a modelling exercise based on the framework.[422] This estimated a dramatic increase in expenditure on basic programme activities, from US$7 billion in 2011 to US$12.9 billion in 2015, with 38 per cent of this increase spent on treatment, resulting in expected coverage of 18.3 million people. Expenditure on critical enablers would decrease from US$5.9 billion to US$3.4 billion and expenditure on development synergies would increase from US$3.6 billion to US$5.8 billion in the same timeframe.

UNAIDS further developed this approach in *Investing for Results. Results for People. A People-Centred Investment Tool Towards Ending AIDS*, which is intended to inform investment by UNAIDS cosponsors and partners.[423] This document states that an Investment Framework offers a realistic, achievable road map to decisively accelerate progress in the global HIV response. One of its major strengths is that it is based on the best available evidence on what works in HIV prevention, treatment, care and support. Moreover, the framework allows adaptation as new evidence emerges, especially if new technologies or approaches show that they directly affect HIV incidence, morbidity and mortality and can be consistently scaled up.

Box 14: Illustration of the Investment Framework

Basic Programme Activities	Critical Enablers (HIV-specific)	Synergies with Development Sectors (HIV-sensitive)
Prevention of mother-to-child transmission Condom promotion and distribution Treatment, care and support for people living with HIV Male circumcision Behaviour change programmes Activities integrating key populations at higher risk	***Social*** Political Commitment and Advocacy Stigma Reduction Laws, legal policies and practices Mass media Community mobilization Local responses to change the risk environment ***Programme*** Community-centred design and delivery Programme communication Food and nutrition support Health education Gender equality and gender-based violence interventions	Social protection and poverty reduction Education sector Criminal justice and prison reforms Employment practices and legal reform Gender equality and gender-based violence

Source: UNDP, 2012. *HIV/AIDS: Understanding and Acting on Critical Enablers and Development Synergies for Strategic Investments.* New York, UNDP.

What does the Investment Framework mean for education broadly, and HIV education specifically? The Investment Framework refers to the role of the education sector in the HIV response in all three areas. Education is mainly mentioned in the Framework as a development synergy, which speaks only to educational attainment as a protective factor. As a basic programme activity, education refers to interventions and programmes designed to reach specific key populations, but these are in the main not education sector activities and are conducted mostly by civil society actors and public health workers in non-formal contexts. Quality HIV education, which if connected to skills-based health education becomes a critical enabler, is the third mention of education. This distinction has been elaborated since the original Lancet article in UNAIDS cosponsor documents (see for example, *Understanding and Acting on Critical Enablers and Development Synergies for Strategic Investments,* UNDP et al. 2012), demonstrating that education is central to the response in distinct ways that need to be recognized in terms of expectation, accountability and funding source. In this document

education is recognized as both a critical enabler, in that HIV education builds knowledge and skills that support basic programme activities, and a development synergy, whereby a general education attainment results in many positive human development outcomes, including an important protective factor in HIV prevention, particularly for girls.

The Framework articulates the role of the education sector in achieving the MDGs and as part of a comprehensive HIV response. As noted earlier, the Executive Director of UNAIDS stated at the launch of the Global Education First Initiative on 27 September 2012, 'Ending AIDS is possible – and education is the key to success'. More specifically, it reflects recent research showing that education is an important protective factor in HIV and that educational attainment can reduce the risk of HIV infection.[424,425,426] This includes a study of 115 countries that found that 'secondary school enrolment has the largest effect on the AIDS death rate. In fact, it is the only structural variable that remains significant across all models. This implies that education has consequences for the impact of AIDS, as higher school enrolments translate into fewer AIDS deaths at the country level'.[427]

Education, specifically comprehensive sexuality and HIV education, is also defined in the UNDP supplementary guidance document, referenced above, as a critical enabler. The Framework defines critical enablers as 'activities that are necessary to support the effectiveness and efficiency of basic programme activities'. As discussed earlier, through HIV and comprehensive sexuality education learners develop life skills for healthy decision-making. Education at the right time can ensure that children and young people develop the knowledge and skills they need to protect their health before they become sexually active and are at risk of HIV infection. The skills for healthy living – health literacy, critical thinking and personal efficacy among others – can contribute to health at every stage of life. These skills are also critical to eliminating stigma and promoting human rights and positive social norms.

The UNAIDS Programme Coordinating Board (PCB) acknowledged the role of HIV and comprehensive sexuality education at its 27th meeting, stating that it welcomed 'UNAIDS efforts to strengthen the incorporation of comprehensive sexuality education policies and programmes into its strategy. These programmes should be implemented in coordination between the education and health authorities and the medical, social and recreational services and include both in and out of school populations including young people in conditions of vulnerability'.[428]

The intention of the approach outlined in the Investment Framework, which is to ensure effective resource allocation in an area where financial support is declining but the need is not, is laudable. However, there are a number of concerns about the Framework and its application. One of the main shortcomings is that while evidence of effectiveness and cost-effectiveness is strong for basic programme activities, it is limited for critical enablers and development synergies.

The proposed increase in funding for basic programme activities and decrease in funding for critical enablers, supported by statements about 'rational' and 'smart' investments, promotes the biomedical aspects of the response at the expense of aspects that are more difficult to measure. In response to concerns about this, UNAIDS developed *Understanding and Acting on Critical Enablers and Development Synergies for Strategic Investments* to provide guidance to support multisectoral and comprehensive country responses. It states that the Investment Framework is designed to provide guidance rather than to be prescriptive, and makes the case for a comprehensive approach, noting that enablers and synergies are integral to national AIDS responses, not optional. They support and increase the effectiveness, efficiency and reach of basic programme activities to ensure more equitable outcomes while acting directly to reduce (or by their absence exacerbate) susceptibility to HIV. They promote an integrated analysis of HIV and suggest multisectoral perspectives, even if national responses emphasize specific sectors. Some protect and promote human rights, and some support achieving other health and development goals, including the Millennium Development Goals. Universal access cannot be achieved without addressing enablers and synergies.[429]

However, critical enablers are complex, difficult to measure and may not show an immediate return on investment. A significant risk of the Investment Framework is that critical enablers such as skills-based HIV education that, as discussed above, have historically been under-funded, will not be adequately resourced in future.

Monitoring the education sector response to HIV

At the international level, the education sector response to HIV has been measured through reporting on indicators recommended by UNAIDS and through IATT surveys.

Current approaches to M&E

Until 2011, international indicators used to measure the HIV response were based on commitments made during the United Nations General Assembly Special Session on HIV and AIDS (UNGASS) in 2001. There were 25 UNGASS indicators in 2011, of which 6 could provide some data on the role of the education sector in the response. Four of these six indicators focused on outcomes:

- Indicator #12 measured school attendance among orphans and non-orphans aged 10–14. This indicator could provide data about the efficacy of some school-based interventions to mitigate the impact of HIV on affected learners so that they are still able to go to school.
- Indicator #13 measured the levels of knowledge about HIV prevention amongst young people, in terms of percentages of young women and men aged 15–24 who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission. HIV knowledge is fundamental to behavioural change and the uptake of HIV services.
- Indicator #15 measured the percentage of young people aged 15–24 who had sexual intercourse before the age of 15. This indicator could provide data on the age of sexual debut and on the potential contribution of education to delaying this.
- Indicator #17 measured the percentage of women and men aged 15–49 who had more than one partner in the past twelve months who used a condom during their last sexual intercourse. Disaggregated by age groups 15–19 and 20–24, this indicator could show whether young people tended to use condoms more often as a result of better knowledge about the role of condoms, the importance of using them and skills on how to use them provided by the education sector.

Two additional indicators focused on processes that should be in place in order to achieve the desirable outcomes:

- The National Composite Policy Index, now the National Commitments and Policy Instrument (NCPI), known as UNGASS #2, assessed progress in the development and implementation of national HIV policies, strategies and laws from the perspective of national governments and civil society organizations. This could provide some data about whether the education sector response is guided and enabled by policies, strategies and resources in the context of a national HIV response.

- Indicator #11 provided data on the percentage of schools that provided life skills-based HIV education within the last academic year.

In 2011 the UNAIDS Monitoring and Evaluation Reference Group (MERG) reviewed the UNGASS indicators and decided to remove three from the list of internationally recommended indicators for reporting, including UNGASS #11. This left five international indicators that could be used to some degree to measure the role of the education sector in the response to HIV. Following the 2011 High Level Meeting on AIDS, and building on a decade of UNGASS reporting, UNAIDS is now requesting UN Member States to continue to report on national progress through a new process called Global AIDS Response Progress Reporting (GARPR). Guidelines for reporting in 2012 on the core indicators for monitoring the 2011 Political Declaration on HIV/AIDS were released by UNAIDS in October 2011.

Also at the international level, as discussed in Chapter 1, the UNAIDS IATT on Education has commissioned two surveys – the 2004 Global Readiness Survey (GRS)[430] and the 2011–2012 Global Progress Survey (GPS)[431] – to measure the education sector response to HIV. Both surveys focused on process aspects of the education sector response rather than outcomes and impacts. (It is also important to note that these surveys are relatively limited in scope, mainly reflecting self-reported data from national education ministries and civil society.)

At national level, in addition to data collected to report on the international UNGASS and GARPR indicators, countries collect data on the education sector response through M&E systems including the education ministry Education Management Information System (EMIS).

In 2010 UNESCO and UNICEF commissioned a rapid assessment[432] of M&E systems, including education and HIV indicators, in Angola, Botswana,

Lesotho, Namibia, Tanzania, Zambia and Zimbabwe. The assessment found that eight of the nine countries used education and HIV indicators that were additional to the UNGASS indicators, and that the number of additional indicators ranged from 2 in Mozambique to 56 in Botswana. For example, indicators included in the Zimbabwean EMIS in 2010 were:

- number of pupils exposed to lessons about HIV
- numbers of peer educators who were active
- number of pupils in School AIDS Action Clubs
- number of pupils receiving education assistance
- number of school teachers trained in life skills-based HIV education
- number of students visiting resource centres for HIV services (in tertiary institutions)
- number of condoms distributed (in tertiary institutions)
- number of student STI cases recorded (in tertiary institutions)
- number of students tested for HIV (by age and sex) (in tertiary institutions)

Gaps and challenges in approaches to measurement and M&E of the role of the education sector and of HIV education currently exist. These relate mainly to the definition and use of the international indicators recommended by UNAIDS for global reporting. The way in which these indicators are defined affects how data are collected at country level and limits the extent to which the data provide a comprehensive assessment of the role of the sector and hence the utility of the data for education ministries and other stakeholders.

The revised NCPI (GARPR indicator #7.1) includes some questions related to the education sector. However, these are included in a long list together with other questions, which makes it difficult to conduct analysis of the education sector-specific response.

Unlike data collection through Demographic and Health Surveys (DHS), which disaggregates data by level of education (no, primary, secondary and higher education) countries are not requested to provide or analyse data on knowledge of the essential facts about HIV transmission (GARP indicator #1.1) by level of education. This is a missed opportunity to assess whether formal education improves HIV knowledge or not.

The same applies to indicators that measure sexual debut of young people and use of condoms (respectively GARP indicator #1.2 and GARP indicator #1.4). As a result, it is not possible to analyse the sexual behaviours of young

people who have access to education versus those who have had no or limited access to education, and hence the potential role of formal education at different levels, in affecting those behaviours. Education sector policy-makers at country level could take the initiative and compile the available disaggregated DHS data on levels of education. However, this is unlikely to happen without the incentive represented by the global reporting process.

The lack of robust international indicators means that there is a lack of strong evidence on the role of the education sector in HIV response and on the role of education in prevention. Without this evidence, the role of education, and its impact on knowledge, is open to question.

There are also gaps and challenges at country level, reflecting those at global level. In some countries, national M&E systems do not include indicators related to HIV and education that could provide data to address the gaps in international indicators. As noted in Chapter 1, the 2011–2012 GPS found that only 45 per cent of countries with an EMIS had reviewed or amended their EMIS to include HIV and AIDS-sensitive indicators. And in many countries, changes in learners' knowledge, skills and behaviour are not routinely monitored and evaluated. Existing indicators and data collection methods do not allow for objective assessment of the coverage and effectiveness of HIV education.

In other countries indicators are either too numerous or too complex to be of use to the education sector. Even where indicators are appropriate, many countries lack the resources and capacity to collect, analyse and use data, including generating evidence about the specific contribution of the education sector to the national response. For example, in the rapid assessment of systems for monitoring and evaluation of education and HIV in ESA[433] mentioned earlier, only 50 per cent of education ministries indicated that their planning, budgeting, management and reporting are characterized by a results-based management approach; only 60 per cent reported that they routinely made use of data collected through their M&E systems. Many of these weaknesses result from limited awareness among education sector policy-makers and managers of the importance of monitoring and evaluating the role of the education sector in the response to the HIV epidemic.

Recent steps have been taken to improve the M&E of the education sector response at international and country level. In 2008, partners involved in the Focusing Resources on Effective School Health (FRESH) initiative started to work on developing a generic M&E framework for school health and nutrition programmes. As part of this, the IATT on Education focused on

identifying a limited number of global indicators, as there was a consensus that this was a major area of need.

Following a review of existing indicators and international consultations, the IATT identified seven process and outcome indicators, which were disseminated in 2010 for consideration and field-testing by country stakeholders. UNESCO organized a series of regional consultations in the Caribbean and sub-Saharan Africa in collaboration with other UN agencies, which led to recommendations for nine additional indicators, including eight for countries with generalized HIV epidemics.

At the end of 2010, the IATT endorsed a revised list of core indicators and agreed that the eleven new indicators for which data would be collected through the education sector – that is, through the EMIS or school-based surveys – should be tested to check whether they met international indicator standards. In addition, the IATT agreed to field-test a school-based version of the international indicator on HIV knowledge among young people (GARPR indicator #1.1, former UNGASS indicator #13). Field-testing of indicators took place in four countries in East and Southern Africa – Namibia, South Africa, Tanzania and Zambia – and in Jamaica in 2011 and 2012.

Following this, eleven of the twelve field-tested indicators were determined to meet international indicator standards. These eleven indicators, together with four additional GARPR indicators, were endorsed by the IATT in February 2013 as the recommended core indicators to be used to measure the education sector response to HIV worldwide. Guidelines for the construction of these indicators were developed by UNESCO[434] as part of a global monitoring and evaluation framework for comprehensive education sector responses to HIV and AIDS. The guidelines are intended for education ministries and other education sector stakeholders. They provide information on how to collect and analyse data for each indicator, including information on how to make the analysis of the data collected through the four GARPR indicators relevant to the education sector. UNESCO and other UN agencies are supporting the use of these indicators by countries in different regions, in particular their integration within routine M&E conducted by ministries of education through their EMIS.

The 15 international indicators recommended by the UNAIDS IATT on Education to measure the education sector response

1. National Commitments and Policy Instrument (GARPR)
2. Percentage of educational institutions with rules and guidelines for staff and students related to physical safety, stigma and discrimination, and sexual harassment and abuse that have been communicated to relevant stakeholders
3. Percentage of schools that provided life skills-based HIV and sexuality education within the previous academic year
4. Percentage of schools that provided an orientation process for parents or guardians of students regarding life skills-based HIV and sexuality education programmes in schools in the previous academic year
5. Percentage of schools with teachers who received training, and taught lessons, in life skills-based HIV and sexuality education in the previous academic year
6. Percentage of students aged 10–24 who demonstrate desired knowledge levels and reject major misconceptions about HIV and AIDS
7. Percentage of young people aged 15–24 who have had sexual intercourse before the age of 15 (GARPR)
8. Percentage of women and men aged 15–49 who had more than one partner in the past twelve months who used a condom during their last sexual intercourse (GARPR)

Indicators specific to countries with a generalized HIV epidemic

9. Percentage of orphaned and vulnerable children aged 5–17 who receive bursary support, including fee exemptions, through schools
10. Percentage of orphaned and vulnerable children aged 5–17 who receive emotional/psychological support through schools
11. Percentage of orphaned and vulnerable children aged 5–17 who receive social support, excluding bursary support, through schools
12. Percentage of educational institutions that implement an HIV workplace programme
13. Current school attendance among orphans and non-orphans aged 5–17 (GARPR)
14. Percentage of students who permanently left school due to illness or death in the previous academic year
15. Teacher attrition rate in the previous academic year

Measurement challenges

Donors and policy-makers want to spend limited resources on programmes that can demonstrate measurable results. This has resulted in an emphasis on measuring whether or not education delivers improved biological or behavioural outcomes,[435] using the same approach as that used to measure the effectiveness of biomedical interventions.[436] As discussed above, the misunderstanding outside the sector about the role of education and, more specifically, unrealistic expectations about the impact of HIV education on behaviour and HIV outcomes, is a particular challenge.

Measuring how knowledge translates into behaviour change and, in particular, attribution of change to formal education versus other interventions is impossible. The aim of education is to develop the knowledge, attitudes and skills to make behaviour change possible, but it should not be measured or expected to achieve behavioural outcomes. It is difficult to compare curricula without considering implementation by different teachers and in different classes[437] and to isolate the effect of a curriculum from other factors that influence young people's behaviour.[438]

Other reviews have also highlighted issues concerning the quality of available evidence. For example, an in-depth analysis of evidence available on the impact of education on HIV responses, commissioned by the IATT and conducted by the Overseas Development Institute in 2009, identified a range of weaknesses. These were mainly associated with the overall difficulties in measuring changes in human behaviour over time and attribution of such changes to education programmes. The review also noted that in resource-limited settings, policy and programme priorities tend to be those that deliver quick tangible results, which cannot be expected from education.

At the same time, there is growing interest in measuring non-HIV outcomes of HIV and sexuality education. More attention is being paid to measuring changes in gender norms and power relations, and in particular to the reduction of gender-based violence,[439] and the extent to which these are linked with health outcomes. For example, a recent review of 31 curricula found that the most effective were those that included gender and power issues: 78 per cent of these curricula met their health goals. In addition, they showed promise in improving overall education outcomes, by demonstrating the interconnectedness of education, gender and health.[440] And a recent empirical study showed that education programmes targeting structural factors such as gender and sexual coercion, alcohol and substance use, and economic factors led to a reduction in STI incidence.[441]

It is also important to recognize that education can only do so much. As discussed in Chapter 1, while knowledge and skills are a vital prerequisite, they are not the only factors that determine behaviour. Individual behaviour is influenced by a wide range of factors including social attitudes, values and beliefs as well as poverty and gender. As articulated earlier in the book, many of the theories informing HIV education are derived from behaviour change models that assume that the right knowledge and attitudes will result in so-called rational behaviour, although some of these theories do acknowledge the influence of social norms and the complexity of behaviour change.

Knowledge, skills and intentions to make healthy choices are only part of the picture of reducing the risk of HIV infection.[442] Young people live in situations where many factors influencing their behaviour are beyond their control. The review of life skills programmes mentioned earlier concluded that 'Life-skills education provides no quick fix in HIV prevention among young people in developing countries' because of the barriers that young people face.[443] It is no quick fix because it focuses on an individual's skills and does not seek to change the structures that affect the ability to apply those skills.[444] To further complicate matters, doubt has been cast on models of HIV prevention that only consider sex as a behaviour. Research in ESA countries, for example, describes sex as relational, based on networks and networking and rooted in property, mobility and society.[445]

> "…although some individually oriented interventions have shown results in reducing risk behaviour their success is substantially improved when HIV prevention addresses the broader structural factors that shape or constrain individual behaviour, such as poverty and wealth, gender, age, policy, and power."
>
> *Source:* Gupta et al. 2008. Structural approaches to HIV prevention. The Lancet, Vol. 372, No. 9640, pp. 764–75.

There is considerable evidence showing that structural factors shape health outcomes, including for adolescents.[446] For example, teenage pregnancies should be understood within the broader socio-economic and socio-cultural environment in which adolescents operate. These include their own aspirations about parenthood as a marker of social status, or a lack of parental guidance on issues of sexuality compounded by cultural taboos that inhibit such discussions.[447] In South Africa, for example, research suggests that when stigma about adolescent sexuality abounds, few opportunities exist for open communication about sex with parents and partners, and access to judgement-free health services is constrained.[448]

WHO has commented that 'programmes must work to create an enabling environment . . . paying particular attention . . . to gender and human rights'.[449] Structural interventions[450,451,452,453] are needed to address the social, legal, political and environmental factors that contribute to the spread of HIV. These can include legal and policy reform to improve access to information and services for young people, addressing social norms around gender, sexuality and adolescence, and the rights of young people, and promoting economic empowerment.

Recent work on conditional cash transfers and health outcomes highlights the role of structural risk factors and the impact of efforts to address them.[454,455,456,457] The analysis concluded that conditional cash transfers can help to address key structural drivers of HIV, such as economic and gender inequalities, as well as low educational attainment; can help to increase uptake of critical prevention services, such as voluntary counselling and testing, with implied impacts on HIV risk; and show some promise in reducing STI, although an impact on HIV has not yet been demonstrated. This highlights the need for an approach that responds both to the individual and to the context that influences the way in which young people are able to exercise their rights to education and sexual and reproductive health.

Summary

This chapter has explored the debates and challenges in the education sector HIV response. It has acknowledged that despite significant investments there are persistent low levels of HIV knowledge among young people. It has demonstrated differing views on curriculum and corresponding pedagogy, along with systemic challenges, such as large class sizes, that have made implementation of HIV education difficult and coverage quite limited. It has also underscored the need for HIV education to extend to post-secondary learners and, critically, to the out-of-school youth and key populations who are at high risk for HIV infection. It has also explained that the combination of a focused bio-medical approach to HIV and a lack of effective monitoring in the education sector puts the future of HIV education itself at risk. However, there is hope. The next chapter will continue to analyse challenges, but will also identify opportunities in an effort to chart a course for the education sector by building on lessons learnt.

Chapter 3

Developments and opportunities

Global commitments and targets

The education sector response to HIV, and the nature of HIV education, will need to adapt to new agendas and demands. This chapter discusses some of the key developments anticipated and the opportunities and challenges they present for the education sector response and for HIV education.

The Global Education First Initiative (GEFI), seeks to re-energize the global community to achieve the 2015 EFA and education-related MDG targets (see Box 15), and to lay the foundations for a bold post–2015 vision for education that prepares children and young people for life.

Box 15: International education goals (EFA and MDG)

EFA Goal 1:	Expand and improve comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.
EFA Goal 2:	Ensure all children, particularly girls, those in difficult circumstances and those belonging to ethnic minorities, have access to and complete free and compulsory primary education.
EFA Goal 3:	Ensure that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes.
EFA Goal 4:	Achieve a 50 per cent improvement in adult literacy, especially among women. Secure equitable access to basic and continuing education for all adults.
EFA Goal 5:	Eliminate gender disparities in primary and secondary education by 2005, and achieve gender equality in education by 2015, with a focus on ensuring girls' full and equal access to basic education of good quality.
EFA Goal 6:	Improve the quality of education so that measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.
MDG 2:	Achieve universal primary education Ensure by 2015 that children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.
MDG 3:	Promote gender equality and empower women Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.

Specifically, GEFI will rally development partners for a strong push to deliver on the promise of universal access to primary education, support a global movement to put education at the heart of social, political and development agendas, and generate additional and sufficient funding for education through global advocacy. The GEFI makes it clear that good-quality education, including education on HIV, is fundamental to better health outcomes, progress towards gender equality, economic opportunities and sustainable development.

Since 2000, MDGs 2 and 3, along with EFA, have provided a global rallying call for greater access to education and contributed to unprecedented progress in education. Primary school enrolment has increased by 6 per cent since 1999, with 52 million more children enrolled in primary school, and there have been significant improvements in gender parity in access to primary education. GEFI recognizes these achievements, but also highlights the fact that 61 million primary school-age children remain out of school and 71 million adolescents receive no post-primary education.

Girls in particular still face barriers to education, including child marriage, early pregnancy, expectations of domestic labour, unsafe travel and lack of school sanitary facilities. Countries often undervalue girls' education: 53 per cent of primary school-age children who are not in school are girls and some 34 million adolescent girls are out of school around the world. In many countries, humanitarian crises and conflict keep children out of school. In others, child labour takes children out of school and into the world of work.

GEFI also recognizes that the emphasis on achieving the MDGs has led to the neglect of important aspects of education, such as quality, early childhood care and education, and post-primary education and training. In particular, the narrow focus on access to education has failed to address learning outcomes. Too often children leave school without basic literacy and numeracy skills, let alone skills for healthy living. Continuing on the same path will not meet the demands of rapidly changing societies and economies.

GEFI aims to overcome the problems that undermine quality education and learning outcomes. These include a shortage of classrooms, poorly trained and motivated teachers, and a lack of books and other materials for learning. The poorest countries need an estimated 4 million new classrooms by 2015; an additional 5.4 million new teachers, 2 million for sub-Saharan Africa alone, are needed to reach the target of universal primary education by 2015.[458] The shortage of teachers, combined with absenteeism and lack of qualifications, is a significant barrier to learning. Other challenges include hunger and poor nutrition in children, weaknesses in early childhood learning, and inadequate monitoring and assessment of learning outcomes.

A final priority area for GEFI is to foster global citizenship, promoting education that is transformative and cultivates shared values and promotes respect and responsibility across cultures, countries and regions. This will require updated curricula and learning materials, better teacher capacity to support learning that goes beyond traditional subjects and a stronger focus on values. More than anything else, GEFI strongly makes the case that

good-quality education unlocks progress across all the MDGs; this has been reinforced by global consultations on development priorities post-2015.

Box 16: Global Education First Initiative's Ten Key Actions

Enrol all children in school: Eliminate cost barriers to attending and completing basic education; eliminate access inequities to primary and secondary education, especially for marginalized children; close the gender gap at all educational levels.

Sustain education in humanitarian crises, especially conflict: Enforce the protection of children, teachers and schools during armed conflict; ensure national education policies are in place to secure the continuity of children's education during humanitarian emergencies; make education a central pillar of every humanitarian response.

Ensure all children are literate and numerate: Ensure all children are fully literate and numerate after four years in school; promote instruction in children's local languages, especially during early grades; track every student's learning outcomes and use the information to improve their achievement.

Train more teachers: Hire two million more teachers by 2015; ensure that all teachers receive basic training and have opportunities for professional development; improve teachers' earnings, working conditions and status in society.

Equip classrooms with books and learning materials: Build four million more classrooms, especially in marginalized areas; ensure that books and supplies are up to date and in good condition; use information and communication technology to expand access and improve the quality of learning.

Prepare students for livelihoods: Expand access to secondary school, halving the number of adolescents out of lower secondary school; ensure education is relevant for local economies and livelihoods; prepare young people with critical thinking and 21st-century skills.

Improve child nutrition: Halve the number of children under five who suffer from stunted growth; provide food and health services through school for poor children; develop systems to identify and help children who need nutrition and social support.

Instil lifelong learning: Increase from 15 to 45 per cent participation in quality early childhood development programmes for marginalized children in low-income countries; provide alternative learning opportunities, including life skills, to all young people who have missed out on formal schooling; halve the number of illiterate adults by 2015, especially women.

Foster global citizenship: Develop the values, knowledge and skills necessary for peace, tolerance and respect for diversity; cultivate a sense of community and active participation in giving back to society; ensure schools are free of all forms of discrimination, including gender inequality, bullying, violence, xenophobia and exploitation.

Close the financing gap: Invest at least 5–6 per cent of national GDP in education; increase global investment in poor countries' school systems by an additional US$24 billion per year to fill the financing gap for primary and lower secondary education; ensure effective and accountable use of resources aligned with national education plans.

Developments affecting the education sector

Changing demographics

Current and future demographics will have significant implications for the education sector, and for HIV and sexuality education specifically, particularly in regions where children and young people make up a large proportion of the population. The UN expects the main population increases to occur in the least developed countries, particularly those with high fertility rates, of which 39 are in Africa, 9 in Asia, 6 in Oceania and 4 in Latin America.[459] The number of people living in the least developed countries is projected to rise by over 50 per cent, from 832 million in 2010 to 1.73 billion by 2050.[460]

Currently, 26 per cent of the global population is under the age of 15, but in sub-Saharan Africa the proportion is 41 per cent and in some countries, such as Malawi, it is as high as 49 per cent.[461] In the last 60 years the number of adolescents in the world has increased dramatically, from just below 500 million in 1950 to just over 1.2 billion in 2010. Adolescents – those aged 10–19 – make up 18 per cent of the global population, but 23 per cent of the population in sub-Saharan Africa,[462] the only region where the number of adolescents is expected to grow significantly.[463] In other regions, in particular Asia and Latin America, there is a significant population bulge in those under 20. The Asia-Pacific region alone accounts for 55 per cent of all young people aged 10–24 in the world.[464]

The demographic dividend is defined as economic growth resulting from a change in the age structure of a country's population. If a country's demographic structure shifts, so that more of the population are within the age range of 15–64 than in older or younger age groups, it can benefit from the increased productivity of a large working-age population coupled with lower overall dependency of the remaining population. A number of emerging economies, such as Brazil, India and South Africa, are rapidly shifting towards this demographic profile.[465,466] Less developed countries where more than 40 per cent of the population is under the age of 15 have the potential to benefit from the demographic dividend, as this large cohort moves into adolescence and adulthood.[467]

However, the benefits of the demographic dividend will only be realized if appropriate plans, policies and services, including comprehensive HIV and sexuality education and sexual and reproductive health services, are put in

place to improve health, education and gender equality.[468] In practice, many of the countries that have experienced significant increases in the number of young people are unable to provide services, especially education, for this population, and are ill-prepared to cope with future demographic changes. The Asia-Pacific region, for example, has been experiencing rapid social and economic growth in recent years, but widening inequities have meant that many young people face obstacles to employment, education, and health care.[469]

Ensuring that this generation is able to make informed choices about their sexual and reproductive health will be central to national economic development. Adequate investment in sexual and reproductive health education and services, including family planning to enable women to determine the number and spacing of their children, is especially critical to realizing the demographic dividend. National investment needs to prioritize secondary education for girls and the reproductive health needs of married and unmarried young people.[470]

With increasing numbers of learners entering formal education, schools will be the most important setting for HIV and sexuality education. However, the population bulge in younger age groups will pose significant challenges, for education in general and for HIV and sexuality education more specifically. Countries will need to increase investment in education to meet growing demand, as larger numbers of children enter formal education and transition to secondary schooling, and to ensure that they receive relevant, good-quality education.

Ensuring that children and young people receive quality HIV and sexuality education is of particular concern, given the difficulties that education systems are experiencing in even delivering good basic education. In 2012, the EFA GMR[471] found that children of primary school age are failing to learn the basics of literacy and numeracy. As many as 250 million children are unable to read or write by the time they reach Grade 4, leaving them without the skills needed for life and work. If this is the case for core subjects, the prospects for non-examinable subjects such as HIV and sexuality education are not promising.

Recognizing that HIV and sexuality education has broader benefits, in terms of skills development, better health and well-being, and improved gender equality as well as for wider learning, is an important first step. As noted earlier, this is acknowledged by the GEFI, which identifies health as one of the core outcomes of good-quality education and reminds us that 'education

unleashes potential in the individual and society to solve the problems of today and unleash the potential of tomorrow'.[472]

Addressing educational disparities

Despite increases in enrolment, the number of primary school-age children who are out of school has changed little since 2008. Of the 61 million who were still out of school in 2010, 47 per cent are never expected to attend school, 27 per cent have attended school but left and 27 per cent are expected to enter school at some point.[473] Almost half of the world's out-of-school children live in twelve countries, eight of which are in Africa. In Central Asia, sub-Saharan Africa, the Arab States, and South and West Asia, about half of all out-of-school children of primary school age are expected to never enter school.[474] Meeting the needs of these children and young people for HIV and sexuality education is a significant challenge, and one that needs to be better addressed by non-formal education programmes and other initiatives.

Gender disparities are different across schooling levels, economic status and regions. While there has been progress in reducing gender disparity, girls still face major obstacles to accessing school, and in many low- and middle-income countries poor girls have a lower chance of starting primary school. The EFA GMR points out that 68 countries have still not achieved gender parity in primary education, and that girls are disadvantaged in 60 of them. However, one of the successes of EFA has been to reduce the incidence of severe gender disparity. Of the 167 countries with data for 1999 and 2010, the number of countries where fewer than 9 girls are in primary school for every 10 boys fell from 33 to 17.[475]

The situation is reversed at secondary level, where in over half of the 97 countries with gender disparity fewer boys than girls are in school. These countries tend to be wealthier and to have higher rates of enrolment, and are mostly found in the Latin American and Caribbean and East Asia and Pacific regions. However, similar gender disparity also occurs in some low-income countries, such as Bangladesh, Myanmar and Rwanda, where boys from poorer families need to engage in paid work. In some countries the ratio is worsening. For example, in Bangladesh in 1999 there were 90 boys for every 100 girls in secondary school, but by 2010 this had fallen to 82. The 43 countries where girls are more disadvantaged at secondary school level are predominantly in the Arab States, South and West Asia, and sub-Saharan Africa.[476]

While increased enrolment has had an adverse effect on quality in some low-income countries, other countries have managed to maintain quality. The third SACMEQ study shows that four out of five children in Kenya and Zambia made it to Grade 4, but schools in Kenya were twice as effective in ensuring that the children learn basic mathematical skills. Similarly the Trends in International Mathematics and Science Study (TIMSS) showed that while Algeria and Tunisia both had 98 out of 100 children making it to Grade 4, the percentage achieving basic numeracy skills in Algeria was 50 per cent higher.[477]

The level of quality is also reflected in grade repetition. Globally in 2010, 32.2 million pupils repeated a grade in primary school, a decrease from 34.7 million in 2000. This means that while enrolment increased by 6 per cent, the number of repeaters fell by 7 per cent. However, there are regional differences. In the Arab States, enrolment increased by 18 per cent and the number of repeaters decreased by 14 per cent. Even though enrolment rose in South and West Asia, the figure for repeaters remained stable at 5 per cent. However, sub-Saharan Africa continued to account for the highest share of global repeaters, at 35 per cent, and its absolute number of repeaters increased by 16 per cent during the decade, predominantly due to the rapid increase in enrolment.[478]

The related challenges of poor quality of education and high pupil-teacher ratios also have particular implications for HIV and sexuality education. Where the quality of education is poor and teachers are struggling with large classes, the chances that children and young people will receive effective and comprehensive HIV and sexuality education are likely to be limited.

Free, compulsory primary education is recognized by the UN as a fundamental human right. Formal secondary school is recognized as the most effective way to develop skills for life and for work, and is thus essential for the future development of individuals and countries. However, the focus on universal access to primary education has resulted in a lack of emphasis on secondary schooling. In 2010, primary education was compulsory in almost every country, whereas lower secondary education was compulsory in only three in four countries and upper secondary education compulsory in only one in four countries reporting data.[479] And while many governments have withdrawn formal fees for basic education, few have removed fees for secondary education.

Keeping adolescents in education beyond primary level is critical to fully realize both the protective effects of education and the benefits of

comprehensive sexuality education. As increasing numbers of children complete primary school and attention focuses more on access to secondary education, the education sector will need to be ready to scale up provision of comprehensive sexuality education to a growing number of young people. However, there are and will continue to be many adolescents who do not attend school and need non-formal comprehensive sexuality education programmes provided in the community. Such programmes will need to be aligned with the content of school-based programmes as well as being tailored to the needs of out-of-school adolescents.

Increasing access to new technologies

Information and Communication Technology (ICT), or new technologies, are increasingly being used in education and health programmes. In education, new technologies can contribute to universal access, equity, the delivery of quality learning and teaching, teachers' professional development, and more efficient education management, governance and administration. Growing access to the internet and telecommunications through a growing range of devices and increasing use of social media also has the potential to contribute to improvements in education, including comprehensive sexuality education.[480]

Until recently, ICT was only available to better-resourced communities, but this is changing as a result of growing access to mobile phones. According to the World Bank, mobile phone access reaches one quarter of the world's population and is increasing each day. The number of mobile users has increased from fewer than 1 billion in 2000 to over 6 billion, nearly 5 billion of whom are in developing countries. More than 30 billion mobile applications or 'apps' – software that extends the capabilities of phones, for instance to become mobile wallets, navigational aids or price comparison tools – were downloaded in 2011. In developing countries, citizens are increasingly using mobile phones to create new livelihoods and enhance their lifestyles, while governments are using them to improve service delivery and citizen feedback mechanisms.[481]

ICT in education enables learners to access information on a wide range of topics at their own pace, provides new platforms for collaborative and peer learning, and offers the scope to connect with others to explore issues, ideas and cultures, a first step in developing global citizenship. Technology is also challenging traditional didactic approaches to teaching as it facilitates young people's opportunities for participation, interactivity and creativity

and provides teachers with new tools to build and assess skills in real time. Virtual classrooms offer new possibilities and new ways of teaching for educators and new ways of assimilating knowledge and learning for learners, both of which are particularly relevant to sexuality education.

The Republic of Moldova, for example, is using ICT to scale up HIV and sexual and reproductive health education. At the end of 2012, the Ministry of Education launched an internet-based interactive training course for the Life and Health module of Civic Education. This e-course enhances classroom-based instruction of students by giving them more in-depth learning opportunities. Students can subscribe to the course online, study the topics for their grade, take an online test and earn grades. They can access the course from school-based or home-based computers as well as through mobile phones. For those with limited or no access to the internet, the course is available on a CD. NGOs in a number of countries, including Kazakhstan, the Russian Federation and Ukraine, are also creating web-based resources to provide young people with additional sources of information about HIV and sexuality as well as to raise the awareness of parents about the contents and benefits of sexuality education.

Social media has already shown its capacity to link people across the world, and social networking has the potential to promote and reinforce knowledge and to empower teachers and teaching. Outside the formal education setting networking can reach large audiences with messages, for example encouraging healthy behaviours, which could have important benefits in non-formal education and in reaching young people who are marginalized and most at risk of HIV. Discussions can encourage wide participation and answer questions – as long as they are well moderated to ensure the information provided is accurate, since social networking can encourage risky behaviours as well.

There are also challenges associated with new technologies, particularly when the internet and social media are the main source of information about sex for young people. While much of the information available is useful, there is also content that gives young people distorted, unbalanced or degrading messages about sex and sexuality. School-based education can and must play an important role in countering unhelpful information and in teaching children and young people to critically evaluate information available from different sources.

Many terms are used to define the different applications of ICT to education, including e-learning (electronic learning) and m-education (mobile education). UNESCO has developed guidelines to ensure that mobile learning is used effectively and responsibly and its benefits are maximized.[482] The guidelines highlight the potential for mobile learning to:

- expand the reach and equity of education
- facilitate personalized learning
- provide immediate feedback and assessment
- enable anytime-anywhere learning
- ensure the productive use of time spent in the classroom
- build new communities of learners
- support situated and seamless learning
- bridge formal and informal learning
- minimize educational disruption in conflict and disaster areas
- assist learners with disabilities
- improve communication and administration
- maximize cost-efficiency.

Overall, use of ICT for HIV education can enable learners to access information and improve their knowledge in an easy, user-friendly way and support teachers to provide effective life skills education. It allows access to lessons anywhere, anytime and enables young people to find out about sensitive topics and to get answers to embarrassing questions in private. This is particularly valuable in countries where social norms do not encourage open discussion of sexuality with parents or with teachers. It also has the potential to address many of the challenges in HIV education, including shifting the focus from teaching to learning, a fundamental change needed if skills-based health and sexuality education is to succeed.

However, use of ICT is a relatively new field and there has been relatively little evaluation to date. Consequently, there is little empirical evidence about the best ways to use ICT in HIV education; this is an area that merits further exploration.

Sustaining financing for education and for HIV education

At the same time that the education sector faces unprecedented changes and challenges and HIV education needs both to be scaled up and to adapt to changing needs, financing for the education sector, and for HIV education specifically, faces growing constraints.

The EFA GMR[483] estimates that an additional US$26 billion per year (from all sources) is needed to achieve good-quality basic education for all by 2015. The likely expansion of education goals after 2015 to include completion of universal lower secondary education would create a total funding shortfall of US$38 billion per year. Although domestic expenditure on education is increasing, development aid for education is decreasing.

Total government spending on education has increased steadily since the 2000 World Education Forum in Dakar. Between 1999 and 2010, 63 per cent of low- and middle-income countries have increased the share of national income spent on education, with the largest increase – at 7.2 per cent a year on average – in low-income countries and an annual increase of 5 per cent in sub-Saharan Africa.

The EFA GMR also notes that concerns that recent global financial and food crises could affect education spending appear to be unfounded. Although some countries, such as Chad and Niger, cut their budgets as a result of these crises, two thirds of low- and middle-income countries actually increased their education budgets. In 2010, low-income countries allocated 4.6 per cent of GNP to education (compared with 3.1 per cent in 1999), lower middle-income countries allocated 4.8 per cent (4.3 per cent in 1999) and high-income countries 5.4 per cent (5 per cent in 1999). Improvements in net primary school enrolment are closely linked to expenditure, as the example of Tanzania shows. In 1999, Tanzania spent 2 per cent of GNP on education; by 2010 this had increased to 6.2 per cent and the net primary enrolment ratio had doubled.[484]

However, while progress has been made in increasing education allocations, the figures still fall short of the 6 per cent of GNP recommended by the EFA Fast Track Initiative. In addition, investment in education varies considerably between regions and countries. For example, the total education budget in France is higher than the education expenditure of all sub-Saharan African governments combined.[485] The annual expenditure per primary school

pupil was estimated to be approximately US$105 in Kenya and Guatemala in 2007,[486] whereas OECD countries spent on average US$7,065 per primary pupil in 2008.[487]

Box 17: Conclusions and recommendations from the UNESCO study of the cost and cost-effectiveness of sexuality education

- In order to reach a critical mass of young people, comprehensive sexuality education programmes should be intra-curricular, integrated into national curricula, compulsory and scaled up through the public sector.
- Extra-curricular pilot programmes may provide useful initial learning experiences and successful pilots should be gradually integrated into national curricula to make them more efficient.
- Larger class sizes reduce per capita costs but are likely to limit the quality of sexuality education; countries therefore need to strike a balance between the costs and quality of sexuality education programmes.
- Advocacy to secure community engagement and ownership is an important and necessary cost component of sexuality education programmes.
- Expanding sexuality education within schools where programmes already exist first, by making it mandatory, before introducing it to new schools or districts, is most efficient.
- Comprehensive sexuality education programmes can also have significant educational outcomes.
- A combination of school-based sexuality education programmes, and youth-friendly sexual and reproductive health services is needed to deliver health outcomes.
- There is a need for more comparative research in other regions, e.g. Latin America and the Caribbean, and for research to assess gender-related elements and outcomes.

Source: UNESCO. 2012. Policy Brief. *The Cost and Cost-Effectiveness of School-Based Sexuality Education Programmes.* Paris, UNESCO.

At the same time that domestic budgets for education have increased, international aid for education has stagnated since 2009, the year in which the highest increase in aid was recorded.[488] Despite international commitments, basic education has been given low priority. Of the US$13.5 billion in aid for education in 2010, only US$5.8 billion was for basic education, and only US$1.9 billion was for basic education in low-income countries.

Only 5 of the 23 member countries of the OECD Development Assistance Committee have reached the target of allocating 0.7 per cent or more of Gross National Income for development assistance. Since 2009, the global financial crisis and associated pressure to reduce expenditure has reduced development assistance. In 2011, global aid fell by 2.7 per cent in real terms compared with 2010, due to austerity measures in donor countries.[489] Major donors are not only reducing their overall aid budget but also giving education lower priority. The Netherlands, for example, is expected to cut aid to education by 60 per cent between 2010 and 2015.[490] In addition, around

one quarter of total direct aid to education never leaves donor countries, as it is spent on scholarships and imputed costs for students in developing countries to study in donor countries.[491] The reduction in aid, and the share of aid that is allocated to education, has serious implications for achieving global education targets in the poorest countries and, in particular, for addressing educational disparities between and within countries.

In addition, financing for HIV prevention and education is being adversely affected by 'AIDS fatigue', the global financial crisis and overall decline in donor funding, and the costs associated with increasing access to HIV treatment.

Total funding for HIV from all sources in 2011 was US$16.8 billion.[492] Funding from donor governments increased six-fold between 2002 and 2008 to US$7.7 billion, but has remained at around the same level since then (US$6.9 billion in 2010 and US$7.6 billion in 2011).[493] In 2011, two of the main donors for HIV significantly increased their funding, seven maintained funding at the same level and four reduced their funding.[494] The global financial crisis is a significant factor, but donor priorities are also shifting (earmarking of funds for HIV has decreased) in response to growing pressure to demonstrate results, as well as to the progress made in a number of countries in reducing new infections and scaling up the availability of effective treatment.

Domestic public and private HIV expenditure in low- and middle-income countries increased from US$3.9 billion in 2005 to almost US$8.6 billion in 2011, when domestic spending accounted for the majority of all HIV expenditure for the first time. However, a number of countries remain heavily dependent on international funding for their national HIV response. Donor funds represented 36 per cent of the US$9.4 billion spent on HIV in 107 low- and middle-income countries between 2006 and 2011. Of these, 38 countries received 75 per cent or more and 61 countries 50 per cent or more of their HIV funding from international sources. Among 33 sub-Saharan African countries, 26 received more than half of their HIV funding from international resources, 19 of those received 75 per cent or more from international sources.[495]

Analysis of the 2008 global recession showed that it had an adverse impact on HIV programmes in almost all low- and middle-income countries.[496] Related factors included reduced government revenues and expenditure on HIV, increasing poverty and declining household incomes, and unfavourable exchange rates, making imported medicines and equipment more expensive. The situation was compounded by the slowdown in the rate of increase of donor financing, the growing demand for HIV treatment and competing priorities. The real, perceived and anticipated negative effects were slowing, and in some cases potentially reversing, country progress and, while all aspects of national responses were affected, the greatest impact was on HIV prevention efforts.

As a result of the dramatic scale up of HIV treatment during the past decade, the proportion of total HIV funding, and in particular of domestic funding, that is spent on treatment has increased significantly. A review of funding for HIV in low- and middle-income countries in 2008 found that 53 per cent of funding was allocated to treatment and care.[497] Given the importance of treatment adherence and the growing emphasis on early initiation of treatment, it is unlikely that this proportion will be reduced in the future. Available evidence suggests that funding for treatment is likely to be prioritized and that if there is a shortfall in funding for the national response, resources may be diverted from other areas such as prevention and education.

In addition, funding for HIV prevention is more dependent on international donors and hence more likely to be affected by a decrease in donor funding. Overall, in 2008, prevention received 21 per cent of HIV resources – 20 per cent in concentrated epidemics, 21 per cent in generalized epidemics and 45 per cent in low-level epidemics. But international donors accounted for 65 per cent of all prevention resources, and 93 per cent in low-income countries. In contrast, 63 per cent of treatment costs was funded domestically.[498]

There is a risk that declining international funding will have a considerable impact on the already low allocation of resources for HIV prevention targeting young people both in and out of school, in particular those who are most at risk. Although UNAIDS is advocating for increased allocation of domestic resources and a number of countries, for example China and India, are increasing financing for HIV, domestic resources are unlikely to be sufficient to fill the gap in many low-income countries in the near future.

Summary

This chapter has highlighted the systemic challenges that the education sector is facing to meet its commitments to education for all. With the burgeoning number of young people set to enter the school system, it is more important now than ever that schools help learners meet modern challenges and learn how to make healthy decisions. This chapter has also pointed out that a large number of adolescents and young people do not attend school. They should not be left behind, but neither should resources be diverted to create parallel out-of-school education structures. Rather, education administrators need to use emerging technologies and global support for universal education to leverage change and ensure that all adolescents and young people develop the skills to prevent new HIV infections and reduce stigma and discrimination. The next chapter will describe a way forward towards this end.

Chapter 4

Towards a new approach

Adapting to an evolving epidemic

Previous chapters have reviewed how the education sector's response has evolved, what we have learned and the challenges we face, as well as global and national developments that will have an impact on HIV education in future. This chapter discusses how HIV education, in particular the way in which it is framed and delivered, needs to change in order to respond to new challenges and developments and to ensure that it is effective and relevant to the needs of learners.

HIV education will need to adapt to changes in the HIV epidemic and new interventions. Although HIV education programmes have always had a strong emphasis on prevention, an exclusive focus on prevention without addressing issues such as treatment, care and support, and stigma and discrimination is no longer sufficient. HIV education needs to encompass the continuum of prevention, treatment and care and to highlight the importance of early diagnosis, timely treatment and adherence to treatment in order to maximize longevity and quality of life for people living with HIV. This is particularly the case where HIV prevalence is high: learners from communities in which parents, siblings, and other family and community members are affected by HIV need education about HIV that is not limited to prevention.

HIV education also needs to adapt to the changing needs of adolescents and young people living with HIV, especially as they reach puberty and move towards adulthood. They have particular psychosocial needs: they have to cope with the stresses relating to their health status, which can manifest themselves in depression, anxiety, low self-esteem and behavioural problems. They also have specific needs with respect to physical health (addressing the effects of HIV-related treatment), education (whether to disclose their HIV status or not, the need for distance learning or other alternative ways of learning) and sexual and reproductive health (the right to develop and sustain emotionally and sexually satisfying and fulfilling relationships).[499]

HIV has also increased teachers' responsibilities beyond instruction in the classroom. Schools have been used as centres of care and support to respond to the needs of orphans and vulnerable children.[500] This requires teachers to play a wider role, including in social protection and medical referral, often at the same time that they are struggling to cope with staff shortages, larger class sizes and an expanding curriculum. Some research suggests that teachers play a more active out-of-class role in learners' lives and should be trained as such.[501] Other research shows that with teacher shortages, large class sizes

and abridged teacher training, as well as an expanding curriculum, it would be unrealistic to add to their existing responsibilities, and that alternative models are needed.[502]

Treatment education, providing information about available drugs, side-effects, adherence and related issues has been introduced within a number of HIV education programmes.[503,504] For example, in India UNESCO and Plan International have developed treatment literacy materials for the education sector. Treatment education has become increasingly important and relevant as treatment access expands and in view of growing evidence of the benefits of 'treatment as prevention'. The value of 'treatment as prevention' has been confirmed by studies showing that people with HIV on antiretroviral treatment are significantly less infectious and thus much less likely to transmit the virus to their sexual partners.[505] This also highlights the need for HIV education to move away from separate consideration of HIV prevention and treatment to address prevention, treatment and care issues together.

HIV education also needs to encompass recent and future advances in HIV prevention and treatment. With respect to prevention, studies have now confirmed the significant protective value for men of voluntary medical male circumcision in reducing the likelihood of HIV acquisition from sex with an HIV-infected female sexual partner,[506,507,508] resulting in a range of initiatives to promote this intervention in highly affected countries where male circumcision rates are low. There have been some studies[509] showing the potential of vaginal microbicides to prevent HIV infection in women, although subsequent trials to confirm the earlier promising results have been disappointing and work on this technology continues.

With respect to treatment, it was reported in early 2013 that a baby born with HIV in the United States who started on antiretroviral therapy immediately after birth and later stopped treatment, was found to be 'functionally cured' of HIV. While the scientific enquiry into this case continues, it appears that very sensitive testing confirmed that the infant had indeed been infected with HIV. This story and other studies are putting to rest a longstanding debate about whether it is better to test for HIV and start treatment as early as possible or to delay the initiation of treatment. A number of countries have adopted a 'test and treat' approach, encouraging individuals to have an HIV test and, if they test positive, to initiate treatment immediately.

While these developments are exciting and are expanding the range of interventions available to improve the response to HIV, they will only be used if people know about and are motivated to use them. In particular,

the benefits of many of these advances will only be realized if people know their HIV status. However, current estimates suggest that only 50 per cent of people living with HIV are aware of their status.[510] Good-quality education will therefore be essential to promote awareness of available interventions and of the benefits of knowing one's HIV status. Many countries have addressed stigma and discrimination and human rights – often key barriers to seeking testing – within HIV education. There is, however, a need to ensure that these issues are consistently addressed in all contexts.

Meeting increasing demand for comprehensive sexuality education

Education ministries and approaches to HIV education also need to adapt to the growing demand from young people and parents for comprehensive sexuality education and related services. This will require the education sector to integrate HIV education within broader comprehensive sexuality education programmes and to strengthen the links between education and integrated HIV and sexual and reproductive health services.

At global level there is growing pressure to recognize comprehensive sexuality education as a basic human right.[511] Sexual and reproductive health education and services for young people are featuring prominently in the transition to the post-2015 global development agenda as well as in follow-up discussions to the 1994 International Conference on Population and Development (ICPD). At regional level, the Mexico ministerial declaration in 2008 marked a key turning point among recent initiatives demonstrating increased commitment to ensuring that all young people have access to sexuality education.

There is also growing demand from young people themselves for the right to good-quality comprehensive sexuality education, as witnessed by the 2011 Mali Call to Action, declarations at the International Conference on AIDS and STIs in Africa (ICASA) 2011 and the Bali Global Youth Forum in 2012.[512] The Bali Youth Forum Declaration, for example, states that, 'Governments should create enabling environments and policies to ensure that young people have access to comprehensive sexuality education, in formal and non-formal settings, through reducing barriers and allocating adequate budgets'. Young people are demanding more, and better, sexuality education, not always because of concerns about HIV, but primarily because they want to be better informed about pregnancy prevention and other sexual and reproductive health issues. There is also increasing anecdotal evidence in some regions that young people are tired of hearing about HIV, reinforcing the need to situate HIV education within the wider context of sexuality education.

East and Southern Africa is no exception, where demand is growing for better guidance for young people on sexuality and HIV prevention. This reflects concerns about the high prevalence of HIV and other STI, abortion-related deaths, high rates of sexual and gender-based violence, increasing teenage pregnancies, and the conflicting messages that young people receive from society and the media, and about the effectiveness of current approaches to sexuality and HIV education.

As discussed earlier in this book, during the last two decades education ministries in the region have addressed HIV through a range of responses. Most of these have focused on primary and secondary school curriculum-based interventions, which aim to equip children and young people with the knowledge and skills they need, and related pre- and in-service training of teachers and development of teaching and learning materials. However, evaluations of HIV education and life skills programmes have highlighted significant challenges in their content and delivery, which has limited their effectiveness. As a result, many young people do not receive even the most basic sexuality education and leave school without adequate knowledge; misinformation about sex and its consequences remains common.[513] There is also a consensus that HIV and life skills education is failing in most instances to develop the skills that young people need to lead a healthy life, including a healthy sexual life.[514] This is illustrated by the views of a young female learner in South Africa.

> "You taught me the names of the cities of the world BUT I do not know how to survive in the streets in my own city.
>
> You taught me to speak and write in three languages BUT I do not know how to say what I feel in my heart.
>
> You taught me about reproduction in rats BUT I do not know how to avoid pregnancy.
>
> You taught me how to solve maths problems BUT I still can't solve my own problems.
>
> Yes, you taught me many facts and thank you, I am now quite clever BUT why is it I feel I know nothing?
>
> Why do I feel I have to leave school to learn about coping with life?"
>
> *Source:* South African Department of Education. 2002. Conference Report Protecting the Right to Innocence: The Importance of Sexuality Education.

Evidence about the effectiveness of comprehensive sexuality education, its potential to reduce the risks associated with sexual activity and to improve young people's sexual health and well-being, is resulting in growing interest among researchers, educators, policy-makers and parents in providing sexuality education to young people.[515]

While views differ about what should be included in sexuality education, there is growing commitment in the ESA region to provide comprehensive sexuality education. A number of policy and strategic commitments and frameworks have been developed in the region, reflecting increasing recognition of the need for comprehensive HIV and sexuality education to address the health challenges that face Africa's young populations. These include the Framework for Action in Sub-Saharan Africa, included in the Dakar Framework for Action adopted at the World Education Forum in 2000; the African Youth Charter 2006; the Maputo Plan of Action on Sexual and Reproductive Health and Rights 2006; the Model Law on HIV in Southern Africa 2008; the African Health Strategy 2010–2015; the East African Regional Strategic Plan on Sexual and Reproductive Health and Rights 2008–2013; and others.

Significant momentum has been generated by the endorsement in December 2013 of the Ministerial Commitment on comprehensive sexuality education and sexual and reproductive health services for adolescents and young people in Eastern and Southern African (ESA). Inspired by the example of the Mexico Ministerial Declaration and led by UNESCO and UNAIDS, this focuses on mobilizing political support to ensure that all young people have access to high-quality, comprehensive life skills-based HIV and sexuality education and to appropriate youth-friendly health services. This has the potential to catalyse urgently needed improvements in education and health services to achieve better sexual and reproductive health outcomes, including strengthened HIV prevention, for young people in the region. The Commitment was endorsed by ministers of both health and education from 21 countries in the region after a process of evidence collection, consultation and advocacy.

Evidence for the Ministerial Commitment was published in a state-of-the-art diagnostic report presenting the current status of comprehensive sexuality education and access to services for young people as well as related issues such as gender inequality and legal restrictions. The report, *Young People Today. Time to Act Now*. makes the case for high-level political commitment and improved collaboration between education and health services. The Commitment itself provides a framework for ministries to work together

more effectively and focuses on ten major areas of action that will improve health outcomes. These include a focus on universal access to education and the delivery of sexuality education from primary school level. Unlike the Mexico Declaration, the ESA Ministerial Commitment includes a set of specific and measurable targets. For the education sector, these include curriculum review, teacher education and improving HIV knowledge levels. In 2014 and 2015, working with regional and country level partners, UNESCO will support country action to implement the Commitment with a focus on strong coordinated engagement by education and health ministries and increased involvement of youth-led and youth-serving organizations. On the basis of lessons learnt from the follow-up of the Mexico Declaration, an accountability framework that involves governments, UN organisations, civil society and young people is also being put in place to monitor government's progress towards the agreed targets.

Many communities also now recognize the importance of comprehensive sexuality education for young people. In general, as discussed earlier, parents are supportive of school-based sexuality education. Parents often rely on teachers or health workers to respond to young people's developmental needs, particularly those considered more private, gender-specific or culturally defined. Contrary to popular belief, adults in ESA are increasingly supportive even on more sensitive issues like condom education. For example, an analysis of Demographic and Health Surveys (DHS) 2009 data shows that in ten countries in the region, at least 60 per cent of parents support condom education for young adolescents aged 12–14 years, although many school HIV education programmes continue to omit discussion of contraception and condoms. Schools also remain hesitant about making condoms available because of concerns about parental and community opposition. For example, a proposed initiative to distribute condoms to Rwandan secondary school students has divided parents, teachers and other members of society, with some supporting the plan and others concerned that adolescents are not mature enough to use condoms responsibly.[516] Social change is a factor driving increased demand for school-based comprehensive sexuality education. Traditionally in Africa, young people learned about sexuality from grandparents and aunts and through traditional rites of passage.[517] However, these are being challenged by the pressures of modern life, urbanization and the breakdown of the extended family, and there is increasing acceptance that formal, organized approaches to delivering sexuality education are required.[518]

Parental and community support or resistance has been widely recognized as an important factor that enables or constrains the introduction and implementation of comprehensive HIV and sexuality education for young people in or out of schools. In addition, school-based programmes that are linked to and supported by parents and communities are more effective than those that are not.[519] However, the GPS found that few of the thirteen ESA countries surveyed had made systematic efforts to engage parents, and while efforts were being made to engage religious, community or traditional leaders in most countries, these efforts were rarely systematic. Orientation for parents regarding life skills-related programmes in school has been formally structured across the system in only two countries, and is limited to informal local initiatives in four countries; in the remaining seven countries, no process is reported. Only three countries reported that systematic efforts were made to ensure that religious, community or traditional leaders support the HIV prevention approach adopted by the education sector, the messages it communicates and the materials it uses.

More concerted efforts are needed to sustain and build on political commitment and to bring together sector ministries, school principals, teachers and parents to develop a common agenda for scaling up the provision of comprehensive sexuality education for young people. The 2006 Maputo Plan of Action on Sexual and Reproductive Health and Rights, which has been widely adopted in the region, promotes universal access to comprehensive sexual and reproductive health services in Africa. Its implementation plan includes developing and implementing information, education and communication strategies for parents as well as educators.

Concerns have also been raised in other regions about the extent to which it is possible to implement comprehensive HIV and sexuality education in countries where the cultural context is extremely conservative. However, experience shows that, even in the most conservative settings, HIV education can be delivered, provided that it is culturally sensitive, involves key stakeholders from the outset[520] and embraces indigenous forms of knowledge.[521] For example, while there is still some vocal opposition to sexuality education by parents and conservative groups in Eastern Europe and Central Asia, some countries are beginning to recognize the need for better quality and comprehensive HIV and sexual and reproductive health education, and opinion polls suggest that there is public support. In a survey in the Russian Federation, 88 per cent of women aged 15–44 were supportive of sexuality education being delivered in schools.[522]

Macedonia is reviewing the scope and quality of sexuality education delivered within life skills classes, in response to a recommendation made by Parliament following a public hearing of a Framework for Comprehensive Sexuality Education developed by the Macedonian Health Education and Research Association in 2011.[523] In Bulgaria, as a result of lessons learned from experience and civil society advocacy, the Ministry of Education is taking steps to enhance sexuality education in schools by including it in the new educational standard on Civic, Intercultural and Health Education. In Asia, a recent online poll of parents in China showed that 90 per cent were in favour of incorporating sex education into school curricula, including information about family planning and how to cope with inappropriate sexual advances.[524]

Strengthening links with school health programmes

As pointed out in earlier chapters, the initial education sector response to HIV took a vertical approach, but there is now greater understanding of the need to integrate HIV with other health topics to benefit from synergies of knowledge and skills for a wider range of healthy behaviours. For example, the cognitive, psychosocial, emotional coping and self-management skills which are key to HIV and sexuality education can be used to address a number of other health topics such as violence prevention, substance use prevention and hygiene promotion. To ensure that HIV is neither sidelined nor ignored, it should be fully integrated into comprehensive sexuality education, which in turn should be an integral part of a school health programme. Ironically, this means that we have now come full circle. HIV education started off as a response to a public health crisis, and is now repositioned, albeit far more broadly to include sexuality and other factors affecting behaviour, within a school health programme.

There is a strong foundation for a holistic and whole-school approach in the literature and in practice that has been described in part in earlier chapters. For example, a review in 2010 set out three reasons for this approach.[525] Firstly, topics interact and are not separate at the behavioural level: for example, sexual activity is often linked to alcohol use. Secondly, addressing a topic in isolation may mean that it is considered only in relation to the individual, whereas the social environment is often a vital influence on behaviour. Thirdly, there is a tendency with a topic approach to assume that human behaviour is completely determined by knowledge and reasoning, whereas social and emotional aspects are integral to all health issues. In other words, the emphasis should shift to skills such as risk assessment.

The review does not suggest that a topic approach does not play a role, but rather that connections should be made to other topics in the classroom and the wider school and social environment, so that learners consider the issue within their own context.

For example, the FRESH framework[526] takes a holistic, whole-school approach to school health. The framework is structured around four main components – equitable school health policies, safe learning environment, skills-based health education, and school-based health and nutrition services. These components are supported by partnerships between the education and health sectors, between teachers and health workers, schools and communities, and between pupils and those implementing the programme.

A number of studies have been conducted to identify the factors that contribute to effective promotion of health in schools (see Box 18).[527]

Box 18: Factors contributing to effective school health promotion

- developing partnerships between education and health sector policy-makers
- developing both a sense of direction in the goals of the school and clear and unambiguous leadership and administrative support
- developing and maintaining a democratic and participatory school community
- creating a social environment that fosters open and honest relationships within the school community
- creating a climate where there are high expectations of students in their social interactions and educational attainments
- ensuring students and parents feel a sense of ownership in the life of the school
- ensuring a consistency of approach across the school and between the school, home and wider community
- exploring health issues within the context of the students' lives and community
- using strategies that adopt a whole school approach rather than primarily a classroom learning approach
- implementing a diversity of learning and teaching strategies
- providing adequate time for organization and coordination, class-based activities and out-of-class activities
- providing ongoing capacity building opportunities for teachers and associated staff
- providing resources that complement the fundamental role of the teacher and have a sound theoretical and accurate factual base.

Source: IUHPE. 2009. *Achieving Health Promoting Schools: Guidelines for Promoting Health in Schools* – 2nd Edition of the document formerly known as 'Protocols and Guidelines for Health Promoting Schools' (2008). The International Union for Health Promotion and Education (IUHPE).

Implementing effective school health programmes requires coordination and collaboration. Clear identification of relevant stakeholders and delineation of roles and responsibilities at national, sub-national and school level is essential. Stakeholders can include education, health, welfare, infrastructure, youth, sport and culture sectors, schools, teachers, school nurses, social workers, civil society, parents, communities and students.

Collaboration between the education and health sectors is especially important. The health sector shares responsibility for the health of children, while the education sector is responsible for implementation and often for funding of school health programmes. Education and health ministries, as well as other relevant ministries and other stakeholders, must be involved in the development of school health policy and programmes, which need to draw on expert knowledge. Effective implementation depends on collaboration between the education and health sectors and other providers, such as civil society organizations. For instance, curriculum changes may be needed to reflect a country's disease burden and priority health problems, and teacher training may need to be adapted in line with these changes.

A related challenge is measuring outcomes. Here again there are differences in desired outcomes and, as discussed earlier, in the approach to measuring them. Health sector goals can be measured through more precise outcomes such as health status, STI and pregnancy rates, tobacco use and behaviour change. The education sector measures outcomes such as knowledge and skills. Teachers and curriculum developers do not rely on the results of randomized control trials of interventions, which is standard practice in health work. Curriculum change takes place slowly and usually only once every five to seven years; the results of any changes can therefore be evaluated only in the long term. Depending on the country, teachers may have a degree of autonomy in deciding on how to interpret the curriculum or they may be expected to follow a more prescribed path. In HIV and sexuality education, this can make a significant difference to outcomes.

Implementation also has its challenges. These include coordination of a wide range of stakeholders many of whom may not have worked together before, finding time in a crowded curriculum, teacher training, resource mobilization and securing community support. Issues to consider[528] include:

- The need for school health initiatives to have realistic expectations and to ensure that they take a whole-school approach.

- The need to allow enough time: school health programmes often have a short timeframe, but health promotion outcomes occur in the medium to long term.

- The need to recognize that evaluation of such programmes is difficult and complex.

- The importance of ensuring that health sector funding does not undermine a health promotion approach by focusing school health programmes on reducing mortality and morbidity.

- The need for time, partnerships and mutual respect to develop a shared understanding and common goals between the education and health sectors.

- The need to provide the education sector with evidence that health promotion can improve educational outcomes.

Given the relationship between education and health and the synergies that exist, developing and implementing a school health policy and programme should be a priority for the education sector. Despite the challenges associated with developing and implementing school health programmes, their potential benefits, to health and to learning, warrant greater investment.

Reframing HIV education

Skills-based comprehensive sexuality education, including HIV, remains central to the healthy development of each new generation of young people, and as such should take the form of a process occurring over the entire life-span of each individual.[529] Currently, the education sector in many places is caught between a biomedical response, resistant local school cultures and a workforce trained in conservative methodologies. The school day is over-booked, subjects are often taught in narrow unconnected modules, and all of these challenges arise against the backdrop and pressure of standardized testing. In view of these challenges, how does the education sector move forward?

A confluence of events has created the opportunity to address HIV education and life skills more broadly. The analysis of the MDGs and discussion on the post-2015 UN development agenda has led to an increased understanding of

the need for the education sector to adapt to emerging trends and demands and to focus on improving the quality of education. Testing and employable skills dominate the current paradigm, but new metrics for evaluation are emerging that will enable us to replace rigid testing with more adaptive and interconnected forms of measuring educational outcomes. There is also a growing movement that sees that 'the short-sighted focus on profitable skills has eroded our ability to criticize authority, reduced our sympathy with the marginalized and different, and damaged our competence to deal with complex global problems. And the loss of these basic capacities jeopardizes the health of democracies and the hope of a decent world'.[530]

The Global Education First Initiative's call for global citizenship provides the sector with an opportunity to reconnect with the foundations of education and to reconsider its meaning and purpose as well as to reinforce a social agenda in education. The Initiative states that 'the world faces global challenges, which require global solutions. These interconnected global challenges call for far-reaching changes in how we think and act for the dignity of fellow human beings. It is not enough for education to produce individuals who can read, write and count. Education must be transformative and bring shared values to life. It must cultivate an active care for the world and for those with whom we share it. Education must also be relevant in answering the big questions of the day.' Finally, the rapid pace with which technology is developing offers promising and innovative ways to teach and learn. Now, more than ever, the sector is at a crossroads that requires it to respond with a new model of education, one that is interactive, skills-based and holistic.

Education is a social and interactive process and the emerging discourse on global citizenship, underscores the education sector's role in creating better societies. The focus is moving away from individual achievement to developing competencies for collectively addressing global challenges. HIV is one of the global challenges that require a social solution. It is infectious and an individuals' vulnerability is determined not just by their own actions but also by the actions of others. HIV is often associated with stigma and discrimination, and education serves a central role in challenging stigma and reducing discrimination. Developing healthy behaviours and global citizenship requires knowledge, attitudes and skills gained through participatory and experiential methods. In this way, HIV education is inclusive, relevant and firmly anchored within UNESCO's vision of the post-2015 development agenda.

HIV education is not about absolutes; it is a changing and relational field,[531] and thus skills to learn and engage with the daily concerns of life are critical.

This type of education opens up possibilities for diversity and higher-order thinking, in contrast to universalistic and narrow applications of education.[532] The curriculum is a negotiated process and a one-size-fits-all curriculum only alienates learners and disregards their own experience.[533] HIV education is at a philosophical crossroads, where interpretivist approaches offer an alternative to positivist education in which learners are passive recipients of information.[534]

In contrast to the scare tactics and other hard-hitting approaches of disease prevention used in the initial stages of the response, there is a need for non-judgemental approaches that are empowering and health-promoting.[535] What is also needed is a comprehensive sexuality education that helps learners develop healthy attitudes and skills towards sex and relationships and thus reduce their risk of infection.[536,537] A pedagogy that encourages learners to connect fact and meaning through discussion-based methods can help them understand the social as well as the biomedical aspects of HIV.[538] Skills-based health education, already in use in many schools, represents this change. This can be expanded and deepened and become the norm for learning, so that didactic and other teacher-centred approaches will become the exception.

Previous chapters have highlighted the limitations of many HIV education models, explaining that while education can provide young people with the ability to develop and maintain healthy behaviours, whether they are able to do this is a function of broader factors including family, culture, gender and social norms, as well as issues of poverty and access to services. HIV education has been predominately based on health theories, with less attention paid to theories of education.[539] Fortunately, HIV education can draw on traditional theories and recent practices in education to inform the way forward. Experiential education and powerful learning as promoted by educational theorists such as John Dewey and Paolo Freire and advanced more recently in practice and policy by Linda Darling-Hammond, provide a solid foundation and vision for reform.[540] Experiential education is a process of learning that balances content and experience. In this way, learners can interpret information, construct meaning, and develop attitudes that can contribute to healthy behaviours. Skills-based health and sexuality education, including on HIV, provide the methods and curricular context for effective learning. Goal orientation theory, which was developed in a classroom context, relates short-term to long-term learning and behaviours. It could prove a useful approach in the future: a recent study suggests that 'training teachers to focus their students on mastery and improvement, and to deemphasize test scores and extrinsic outcomes as reasons for

participation, may lead to benefits for adolescents who are learning about HIV and pregnancy prevention in school.'[541]

Whether or not HIV and sexuality education should be an examinable and stand-alone subject is a debated topic, because the majority of methods of examination are restricted to measuring only a small part of skills-based health education. However, without the status given by many teachers to examinable subjects, life skills will not be taken seriously. Efforts should be made towards engaging with new methods of assessment that capture the richness of life skills education. Many of the skills in skills-based health education transcend health: critical thinking, decision-making and interpersonal skills, for example, have multiple applications and the connections to reinforce learning across the curriculum should be considered.

As already mentioned, recent work on student measurement provides an opportunity to shift the focus of global education debates from an idea of simply accessing schooling to the quality of learning. Recent work conducted by the Learning Metrics Task Force illustrates this shift. It recommends that education systems offer opportunities to learners to master competencies in seven domains of learning: physical well-being, social and emotional, culture and the arts, literacy and communication, learning approaches and cognition, numeracy and mathematics, and science and technology. This holistic framework of learning domains was developed by drawing on existing global policies and dialogues, human and economic development research, and a global consultation of practitioners. The framework is intended to identify areas in which to measure learning outcomes.

These domains are a departure from confined subject-based measures. The conceptualization of these domains brings to the fore a place for HIV education especially as part of life skills and sexuality education. These were not central to traditionally organized schooling, which is dominated by legacy subjects. Whereas life skills education was in many instances a subject of secondary importance, in this framework it has the potential to become a core area of learning. HIV taught as a biomedical event was an attempt to get it on the agenda, but it also made it safe and contained.[542] We know that this has not been effective and that we have to try a new approach. What is proposed by the Learning Metrics Task Force opens up possibilities for interpretive education and for addressing HIV as a social issue as well as a biomedical one. Life skills can be taught across all these domains, and young people can learn about HIV in several contexts – physical well-being, social and emotional, or science and technology, for example.

One cannot teach critical thinking in a few lessons and expect to undo years of schooling that denies learners the ability or opportunity to make meaningful choices, as was done in the past.[543] The new approach discussed in this chapter can address this fundamental shortcoming. It must start by recognizing the tensions inherent in education and give teachers the tools and learners the ability to negotiate these. These are tensions between the global and local, the universal and the individual, tradition and modernity, long-term and short-term, among others.[544] Education should be inquiry-based and experiential, incorporating and building on the lived experiences of the school community. It should be informed by core learning domains that can be applied across subject areas, where learners are encouraged to explore and create linkages through various interactive and skill-building techniques. The content must be relevant to learners and their needs and prepare them to live a healthy life, to be active and caring global citizens, and to reach their full potential.

Fundamental changes are also needed in classroom structure and dynamics. This includes everything from the arrangement of classroom furniture to facilitate collaboration, increasing group work, increasing the ratio of student to teacher speaking time, increasing physical movement, and use of multiple sources of information.[545] The fear in some quarters is that learner-centred approaches mean that teachers have to relinquish control of the classroom and undisciplined behaviour will follow. If one comes from the viewpoint that the teacher should be authoritarian and controlling, then learner-centred approaches will reinforce this fear. However, research on effective models of classroom management suggests that the opposite is true.

Classroom management models that are developed and maintained collaboratively between learners and teachers, with the support of parents and the community, are effective and responsive to the needs of the learning community.[546] This new approach moves away from authoritarian models of classroom management towards collaborative approaches that facilitate learning of sensitive subjects, like sexuality and HIV, in an age-appropriate and relevant way.

Rethinking teacher training and support

The best curricula will have limited impact without skilled teachers who can use them well with learners. There has been an increase in training of teachers in life skills, including for HIV, in the past decade. In Latin America and the Caribbean, for example, national health and education

ministers committed through the Mexico Declaration of 2008 to including comprehensive sexuality education curricula in all teacher training programs by 2015.[547] However, despite this, 'the evidence relating to the quality and scale of HIV and life skills delivery in the classroom would suggest that there are still significant gaps between training and delivery: there is continuing concern that effective and comprehensive HIV education within the context of life skills is not receiving adequate attention or delivery in the classroom'.[548] As mentioned earlier, many educators are not trained in the methods and content for teaching HIV and sexuality.

In many instances teachers have been considered solely as messengers,[549] but it is important to recognize the intrinsic importance of teachers. A teacher's life experience cannot be separated from the content of HIV and sexuality if it is to be taught in an open and honest way. Therefore it is crucial to meet teachers' right to access health services and to develop the knowledge, attitude and skills for healthy living as a routine part of teacher training. These are important conditions for effective HIV education. This is not to say that teachers must reveal their personal details to learners, but rather that they draw on their own experiences as a source of empathy.[550] Talking about sex and gender can be embarrassing and, without proper training, a teacher may revert to the facts and reassert control in the classroom with moral judgement. This type of education is emotionally detached, decontextualized and seemingly irrelevant to learners.[551] Effective HIV education needs an honest connection between teachers and learners.

A new approach to teacher training is needed to support a new approach to HIV education. This envisages a teacher who is able to customize each class and lesson to meet the needs of the learners in a timely way and to build their skills to negotiate the challenges and vulnerabilities they face daily in their community. This means that teachers must be equipped to deal with issues that in many cases at present are not taught at all. Further, the administration and head teacher must create an enabling environment by communicating and enlisting the support of parents and community members. This must start with the health of the teacher, provide them with appropriate support, and recognize their intrinsic value as well as their instrumental value.

This new approach to teacher training has three main components. The first component needs to start by recognizing the vulnerabilities of teachers themselves, and work to develop their life skills in the cognitive, psychosocial, affective and interpersonal domains, among others. They must understand the virus and forms of vulnerability in their community. They must examine

their own attitudes towards HIV, relationships and sexuality in relation to protection and prevention. These skills will give teachers confidence, enabling them to tackle sensitive issues with their learners and engage with the community to change norms around socio-cultural taboos. In other words, teachers need life skills to protect themselves and to protect others.

Training is critical to support teachers and other education sector staff to clarify their values and to gain the knowledge and skills they need to promote healthy and safe learning environments for all learners. This includes issues such as human rights, inclusion and non-discrimination, gender, sexuality and sexual diversity, and non-discriminatory practices.[552] For example, in Sao Paulo state in Brazil, an inclusive and transformative approach to teacher training on sexuality education has been developed that embraces sexual diversity.[553] In the Russian Federation, training kits have been designed to support education sector administrators, teachers and carers to support HIV-positive learners in the classroom, including addressing social prejudice, stigma and discrimination.[554] In Namibia, the Rainbow Project has run workshops for rural teachers that explore social inclusion and exclusion from a rights perspective based on teachers' own experiences, challenges related to human rights in general including issues affecting gay, lesbian, bisexual and transgender people, and teachers' addressing of human rights in school.[555]

The second component concerns the use of learner-centred and participatory learning methods rooted in experiential learning. With these methods the teacher cedes control over certain aspects of the learning process, as learners have more input into the topics, methods and classroom management. This is a radical shift from didactic command and control teaching, but it is not entirely new. Modern teaching has included techniques such as drama, games and other interactive methods for subjects such as language learning, so the experience is there; it just needs to be amplified and applied more broadly.

With topics associated with HIV, health and sexuality, teachers must be prepared to discuss what is relevant to learners in order to address their risks. This requires creating and maintaining a safe learning environment. This task becomes harder with larger class sizes, but there are peer models that can be used with large classes to increase interactivity.

Technology also offers opportunities to deliver lectures asynchronously, allowing learners access to information on their own time and freeing up class time for participatory methods such as case analysis with real time

feedback. At the same time, modern technology deluges learners with information that challenges the curriculum and the teacher. The aim of this pedagogy is to help learners interpret and make sense of their influences and analyse their risk. This is yet another departure from teaching subjects confined to a predetermined text. Teacher training thus needs to reflect this modern reality and equip teachers with the skills to help their learners face and solve current and future challenges. Teacher training courses should provide teachers with the opportunity to practise these techniques with their peers in sessions that are designed to be supportive and encourage constructive feedback. With increased connectivity, learners in a number of countries will have unprecedented access to information. Teachers cannot be the gatekeepers of information – there are too many channels available today – but by using skill-building methods they can help learners make sense of the information they receive and learn how to adopt healthy attitudes and behaviours.

Both pre-service and in-service training has been used in the HIV response. The 2013 GPS states that 'pre-service training should be the focus of concentrated orientation and training in these subject areas, to ensure that a new generation of teachers can enter the classroom equipped and prepared to deal with these life-saving issues. While teacher training and curriculum planners may argue that there is little room to expand pre-service training, there is a strong case for doing so as it is logistically easier to manage and deliver, has significantly wider reach and thus is more cost effective.'[556]

However, we would argue that this should not be an either/or choice. To build the skills of teachers in these methods requires a solid foundation in initial teacher training, supplemented with career-long in-service training that teachers themselves have a stake in designing, in order to reinforce, refine and update their skills in teaching and assessment. The method of implementation for in-service training should avoid cascade methods as they are currently used. Though peer-led training can be very effective, it needs to be adequately supported. Consideration should be given to a 'peer-plus' approach where a teacher is supported by a professional trainer. This can be done in person in a team training approach, or remotely if communication technology is adequate. The use of audio-visual technology can be used to ensure fidelity of message and presentation of model teaching methods. In other words, all trainees will observe the same demonstration footage. Further, it will be necessary to develop communities of practice for peer support so that teachers can be encouraged and assisted to apply their new learning.

The third component deals with assessment. Most of public education in the twentieth century relied on tests that measure cognitive skills. Life skills education goes beyond the cognitive domain. The fundamental change to education needed will also require new ways to assess learners' progress and achievements, and teacher training must equip teachers to adapt and adopt new theory, practices and technology. The assessment techniques can be conceptualized with rubrics for measuring skills beyond conventional testing methods such as multiple-choice exams. These rubrics can be designed for observing demonstrated skills in such activities as role-playing. Additionally, technology provides the opportunity for customized learning, so teachers will need to develop assessment models that provide instantaneous feedback and direct learning through a graduated pathway. The theory for this type of instruction is well established (for example, see Vygotsky's zone of proximal development as a departure point[557]). The innovation here is the use of new learning technologies to adapt lesson plans to learner responses and provide timely feedback to advance learning across several domains. Theory and methods for assessment will be central, because measuring life skills requires a departure from standardized multiple-choice exams.

However, it is important to recognize that introducing a new approach to teacher training will take time. We also need to be realistic about what teachers can achieve in settings where they have had limited education themselves, receive inadequate training, and are overburdened and poorly paid. In such settings, many are struggling to teach even a basic curriculum. Training alone will not be enough to enable teachers to implement new ways of teaching, promote citizenship, human rights and gender equality, or deliver quality sexuality education. In addition, the reluctance of teachers to address culturally sensitive issues such as sex and sexuality is often well-founded, as discussion of these could further undermine their already fragile social status and subject them to harassment, violence and abuse from students, parents or community members. If schools and teachers are to fulfil their potential in contributing to the HIV response, greater investment will be needed in education, in particular to address the shortage of teachers and to improve their working conditions and social status.[558]

Improving implementation

There are also a number of other key considerations for implementation. Firstly, mother tongue education is critical. The language of instruction for life skills to reduce risk of HIV infection is more useful if it is the same as the language that learners use outside the classroom, where they encounter risk.

Otherwise the life skills lesson becomes academic and removed from the life of learners. It is also important that learners understand the language of instruction and that the concepts used are familiar to them.

As discussed earlier, where classes are very large it is difficult to use interactive and small-group methods because it is hard for teachers to give adequate feedback and maintain order within the classroom. However, we know that interactive learning is more effective at skill building than lectures. At the same time, we must acknowledge that this is easier to do in better-resourced environments where class sizes are smaller. Nevertheless, there are ways to introduce interactive methods in large classes. Peer-led breakout groups with video, radio and computer simulations are increasingly used, and we need to engage with these.

We have also identified the importance of parental and community support. However, it may be asking too much of individual teachers to broker this relationship. This needs to be done systematically, led by the school administration, to communicate with and enlist the support of community members, thus providing a supportive environment for effective classroom learning.

Skills-based health education has been somewhat silent on the issue of inclusion and the needs of learners with disabilities. The literature, let alone policy and practice, has not engaged with such issues as how life skills should be taught to the hearing- and sight-impaired. For example, young people with learning disabilities may face vulnerabilities that require another set of considerations in education entirely; this is an area that needs to be explored in more depth.

Given the knowledge gap, the education sector cannot run away from its core functions of building knowledge, developing attitudes values and skills. While many of the suggestions in this chapter depend on radical education reform, there are things that can and must be done immediately. Learners need to know how to protect themselves and others. As demonstrated, knowledge and attitudes are not the only things necessary to prevent infection and reduce stigma and discrimination, but they are the foundation.

There is also a need for system-wide commitment and a strong mandate for HIV education. Teachers are unlikely to take on difficult and sensitive topics if they do not feel mandated or supported by their superiors. They need to feel that the sector is committed to implementing HIV education. This can be achieved in a number of ways, for example by developing policy and ensuring

its implementation, prioritization at national and local levels, development of curricula and provision of teaching materials, budgetary allocations, and statements of support by senior staff.

Beyond 2015

The education sector has learned that skills-based sexuality education, including HIV, can help young learners adapt and maintain safe behaviours and reduce stigma and discrimination towards HIV affected and infected persons. Education therefore, is central to the HIV response. But holding an HIV curriculum accountable for individual behaviour change is a misapplied evaluation, as there are many factors influencing behaviours. This book has argued for a holistic ecological model for the HIV response to build on strengths and address limits in aspects of the multisector response. We should reinvest in what the education sector does and measure its progress and contribution to the HIV response along education metrics and not health ones. Rather than a normative approach to education, where we tell learners how they ought to be, we should provide an interpretive education, where we meet them where they are and lift them up to reach their full potential and cope with life challenges.

There is pressure to reform education from many quarters, both to improve the quality of education and to make education more effective, responsive and relevant to the modern world and the needs of children and young people. This pressure is influencing discussions about the future global agenda for education beyond 2015, in which education that is designed to develop the whole person features prominently.[559] This also has implications for the way in which HIV education is conceptualized and delivered, as the education sector shifts from 'teaching' to 'active learning'. Skills-based and interpretive HIV education fits firmly within that agenda. Core UNESCO principles about the purpose of education can be reconceptualized as the HIV pandemic forces us to engage in the debate about the nature, goal and role of education in the 21st century. An analysis of the underlying issues in these findings would support Delors's argument that schools need to place as much value on the educational goals within UNESCO's domains of 'Learning to be' and 'Learning to live together' as on traditional education subjects in the domains of 'Learning to know' and 'Learning to do'.[560] It is clear that a new approach to HIV education requires broad-based and systemic change. The post-2015 UN development agenda, new methods for measuring learning outcomes, improved learning technology, and the global movement to foster global citizens are forces all working together to drive reform.

However, we must also recognize that the education sector is a series of complex systems. It is subject to politics, large bureaucracies, tens of millions of teachers, hundreds of millions of learners, and their families and communities throughout the world. Thus, changes argued for here will be slow in coming and the steps will be incremental and partial. But complexity and slow pace should not be an excuse for inertia. There are steps that can be taken in every education sector to move towards a more learner-centred approach. First and foremost, teachers, administrators and parents have to wake up to the fact that young people will find out about HIV and other issues related to sexuality and reproduction whether they learn it in school or not. The education sector must ensure that learners have correct and comprehensive information so that they can protect themselves. All incoming teachers should be routinely taught skills-based health education for their own well-being and that of their learners, and how to use participatory methods. The curriculum should be revised slowly and deliberately, and in-service teacher training should be commensurate with these changes. It is not a final destination that is being proposed but rather an iterative process of inquiry and adjustment and response to developments in technology, education policy and research.

It is clear how education can make a contribution to the HIV response. It is our hope that we will look back at this time as one of opportunity, the beginning of a shift in the education sector towards active learning, that will bring us to zero new HIV infections, zero AIDS-related deaths, and zero AIDS-related stigma and discrimination. This passage below from Silin (1995) written nearly twenty years ago captures an aspiration that we now have the tools, experience, insight and will to achieve.

> "Although HIV/AIDS may challenge our prior ideas about pedagogical authority, it also offers us an opportunity to examine new models that more accurately reflect who we understand ourselves to be and what we would like our students to become. From HIV/AIDS we learn about the limits of science and the importance of human vision, the frailty of the body and the strength of the spirit, the need to nurture the imagination even as we direct our attention to rational cognitive structures. In the end, the HIV/AIDS curriculum can be more about life than about death, more about health than about illness, more about the body politic than the body physical." [561]

Conclusion

In this book we have reviewed the evolution of the education sector response to HIV and AIDS, and the contribution it has made during the past three decades. We have indicated how education has helped to prevent new infections, supported testing treatment and care, and reduced stigma and discrimination. As has been highlighted earlier, there is strong evidence for the protective benefits of simply being in school as a way of reducing risk and vulnerability to HIV, for learners fortunate to enjoy this right. Beyond this, we have reviewed in the book what is known about how education can contribute to healthier behaviours, through life skills programmes and those that specifically teach about HIV prevention, treatment, care and support. We have described how the engagement of the education sector has shifted from an emergency response at the beginning of the epidemic to one that now addresses HIV as part of a more mainstreamed effort, increasingly situated within comprehensive sexuality education and as part of broader health education programmes.

However, measuring the contribution of education to biomedical outcomes is challenging. We have argued that the role of education is to increase knowledge, presenting evidence to show that when implemented well, educational programmes have been highly successful in achieving this. More recent reviews of the evidence are starting to acknowledge this point, helping to put to rest an unproductive debate about the role and value of school-based HIV education programmes.[562] Evidence also shows that education can address harmful attitudes, such as stigmatizing views towards people living with or vulnerable to HIV, and strengthen the skills necessary for people to take decisions and actions that will enable them to lead healthier lives. Few would claim that the contribution of education alone will solve the complex set of challenges that HIV represents; however, it is an essential foundation to enable individuals and communities to overcome the epidemic and to lead healthier and more productive lives.

Commodities such as male and female condoms and antiretroviral treatment and services such as HIV testing and counselling are indisputably essential, but people need to know about them, understand why they are important, and know how to find and use them. Education has and will continue to play a key role in this regard.

Tools and resources, including the UNAIDS Investment Framework, designed to support countries to make wise investment decisions with limited resources in order to get ahead of the HIV epidemic, acknowledge the importance of synergies with other development sectors including education, as well as 'critical enablers' such as supportive laws and legal frameworks, and access to social justice and gender equality, which are crucial for supporting sustainable changes in behaviours that can perpetuate HIV. The choices are not simply about one thing instead of the other, treatment instead of prevention, health services instead of HIV education and prevention. All of these are essential, delivered in the most effective and balanced way and with good quality. Getting the mix right is essential if progress in tackling the epidemic is to continue.

The good news is that three decades of effort against HIV are paying off. New infections are down, and so are AIDS-related deaths, in large part because of the wider availability of antiretroviral drugs and increased knowledge and skills to access them means that these drugs are now reaching nearly 10 million people. The number of people newly infected dropped to 1.9 million in low- and middle-income countries in 2012, which is 30 per cent lower than in 2001. In sub-Saharan Africa, the decrease is an impressive 34 per cent since 2001, with an even larger drop in the Caribbean of 49 per cent. More than 60 per cent of pregnant women with HIV in 2012 were put on antiretroviral treatment which will save their lives and that of their babies.

There is much more work to be done, however, and gains are fragile. There were still 2.3 million new infections in 2012. While progress has been made on a number of fronts, the world still has a considerable way to go to ensure that each new generation has the necessary knowledge, attitudes and skills.

Of particular concern for the education sector is the persistent low level of HIV knowledge amongst young people, a key global indicator regularly monitored and reported, and stubbornly remaining just under 40 per cent for young men and young women. We know many of the reasons for this, including the frequent view of HIV education as a somewhat low priority compared to other topics, reluctance to teach about issues perceived to be sensitive, and poor overall education systems with overcrowded classrooms, poorly trained and supported teachers, and pedagogic methods which fail to engage learners in more effective learning. Poor learning outcomes are not only a challenge for HIV education but a growing concern across the education system, highlighted by the Global Education First Initiative and in the deliberations for the post-2015 development agenda.

While addressing the poor HIV knowledge levels of learners must remain the priority of the education sector, we should not forget that tens of millions of learners are now demonstrating correct comprehensive knowledge about HIV – a life-threatening and costly condition the world knew nothing about just three decades ago. This is a major achievement. Education about HIV is contributing positively to the lives of many people and their communities, even if we have a long way to go to attain the goal of 95 per cent knowledge levels amongst young people by 2015 agreed to by countries as part of a political commitment made at the UN in recent years.

There is now a much more sophisticated understanding of the epidemic, how it varies by region, country and even within countries, and how the response must be tailored accordingly, including by education programmes. There is also greater recognition that some people have increased risk and vulnerability to HIV, stemming from behaviours such as sex between men, injecting drug use and commercial sex. People engaging in these behaviours and from these key populations are thus particularly important to target with HIV education and services, and doing so will make a greater impact on the epidemic than earlier approaches that insisted that everyone was at risk. Despite awareness of the value of this focused approach, the stigmatized and often illegal nature of these risky behaviours means that HIV investments do not match up with initiatives that would have the greatest impact.

The challenges for targeting key populations increase when considering adolescents and young people under the age of eighteen engaged in these behaviours, since in many places this age group is below the age of consent, and there is a strong reluctance to do anything seen as 'condoning' or 'legitimizing' such behaviours. Educating adolescents and young people engaged in high-risk behaviours can thus be difficult in most places, particularly as part of the formal school curriculum. Non-formal and informal education, therefore, remain important.

We have traced the emergence of comprehensive sexuality education as a framework that can address the neglected but critical areas of sex and relationships. Too often in the early years of the HIV response, and indeed in some places still today, education about HIV has been limited to its biological aspects, overlooking the fact that HIV is a virus overwhelmingly transmitted through human sexual behaviours. Young people need opportunities to learn about not just the science, but also the social, sexual and gender aspects of HIV, through a participatory and life skills-based approach where they can gain not only knowledge but attitudes and skills that equip them to make healthier and safer choices in life.

Sexuality education also has the potential to simultaneously address other pressing concerns among young people and their parents, in particular about pregnancy. Many young men and women express significantly greater concern about unintended pregnancy than they do about HIV and other sexually transmitted infections. An approach to HIV prevention that takes as its starting-point the main concerns of those affected is much more likely to have the desired impact.

Introducing or strengthening existing sexuality education programmes has not happened quickly, in part because of the lingering but incorrect notion that sexuality education may encourage early sexual initiation. The evidence is overwhelming that it delays sexual debut and can result in a reduction in the number of sexual partners when a person later becomes sexually active, and also that when those who have benefited from good-quality sexuality education start their adult sexual life they are far more likely than those who did not to do so in a safer and more protected way. The other reason for the slow expansion and scale-up of sexuality education programmes is that, like any education programme, sexuality education depends on the overall quality of the education system within which it is implemented.

While those responsible for educational planning seek ways to speed up the slow pace of scaling up good-quality HIV and sexuality education, they must do so against a backdrop of a rapidly expanding demographic of young people. In some regions the growth in the population of young people is increasing at a dramatic rate, such as in Eastern and Southern Africa, where young people between the ages of 10 and 24 represent 33 per cent of the population, and are projected to grow from 158 million today to 281 million by 2050.[563] Countries must prepare now for this fast-growing youth demographic. Current levels of investment in education, let alone HIV and sexuality education, simply cannot remain static if countries want to keep up with this significant demographic trend and ensure that young people receive a good-quality education.

There also remains a continuing debate and differing views about the most effective and appropriate ways to deliver HIV education, which aggravate the slow and often hesitant response of the education sector. Obtaining rigorous evidence on 'what works' takes time and can be very costly. It took many years, for example, to conclusively demonstrate that 'abstinence-only' educational programmes are not only ineffective but may in some cases be counter-productive, as they deny learners the full range of basic information and options essential for them to make safer choices when they start their

adult lives. It is now better understood that abstinence can be one of several strategies that adolescents and young people can use and should learn about, but it cannot be the only one.

Similarly, there is a growing appreciation of the importance of listening to and involving adolescents and young people themselves when designing, delivering and evaluating HIV education programmes. When consulted, young people consistently demand good-quality sexuality education, and express frustration that it is too often denied because adult gatekeepers are reluctant to deliver it due to perceived sensitivities surrounding the topic. Nonetheless, we have noted in this book a growing level of support for sexuality education, propelled not only by young people but also by parents and communities who want and expect that this will be provided in school. Although some vocal resistance to sexuality education continues to be seen in some places, there is increasing recognition of the urgency of including sexuality education as part of the curriculum.

With recent progress, including impressive declines in new HIV infections, fewer deaths and more acceptance of people living with HIV, a key challenge going forward will be to avoid being the victim of success. Already there are signs that HIV and AIDS are viewed by many as effectively dealt with and 'over'. Indeed, there is increasing discussion about 'the end of AIDS', welcome news to a world weary of years of effort and investment in the response. But the gains we are seeing today are the results of policies, interventions and investments made several years ago. We have argued in this book that maintaining and even strengthening HIV and sexuality education will be essential going forward, to solidify recent gains and to ensure that new generations of young people continue to have opportunities to learn about HIV, how to prevent it, and to understand why it is so important not to stigmatize and discriminate against people living with or affected by it.

We have indicated in this book a promising trend, which is to situate HIV education within the wider context of skills-based health and sexuality education. In addition, we are encouraged by efforts to step outside of education and health 'silos', building on the significant synergies that are possible when the two sectors work together. A recent example of this can be seen from efforts to improve the sexuality education and sexual and reproductive health services for adolescents and young people in Eastern and Southern Africa. Known as the 'ESA Ministerial Commitment' process, it has from the start sought to address the needs of adolescents and young people holistically, acknowledging both their educational needs and the essential health services that they also require. In this regard, we have seen that

sexuality education can help to create awareness of and demand for sexual and reproductive health services, but also that demand creation needs to be complemented by the availability of youth-friendly services for referral. One without the other means an unfulfilled and empty commitment.

All the recent and hard-won gains in the struggle against the HIV epidemic are a testament to what can be achieved when there is a determined and concerted effort, one that is multidisciplinary with the contributions of many sectors and partners including the education sector. But we must not forget the millions of people who still need the life-prolonging drugs and the millions of people who are living with HIV but do not know they have the virus.

This takes us back to the vital role of education to educate people about the epidemic, about what can be done to prevent new HIV infections, and about the importance of learning their status. Even as the global response to HIV continues to evolve, and even if scientists one day deliver an effective vaccine or cure for HIV, education will remain central to ensure that individuals and communities know about and take advantage of these advances.

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Acronyms

AAU	Association of African Universities
ADEA	Association for the Development of Education in Africa
AIDS	Acquired Immune Deficiency Syndrome
EduCan	Education Sector HIV and AIDS Coordinator Network
EFA	Education for All
EFA GMR	Education for All Global Monitoring Report
EMIS	Education Management Information System
ESA	East and Southern Africa
FRESH	Focusing Resources on Effective School Health
FTI	Fast Track Initiative
GARPR	Global AIDS Response Progress Reporting
GBV	Gender-Based Violence
GEFI	Global Education First Initiative
GNP	Gross National Product
GPS	UNAIDS IATT on Education, 2011–2012 Global Progress Survey
HFLE	Health and Family Life Education
HIV	Human Immunodeficiency Virus
IATT	Inter-Agency Task Team on Education
ICASA	International Conference on AIDS and STIs in Africa
ICPD	International Conference on Population and Development
ICT	Information and Communication Technology
IIEP	International Institute for Educational Planning
ILO	International Labour Organization
IUHPE	International Union for Health Promotion and Education
LSE	Life Skills Education
MDG	Millennium Development Goal
MERG	UNAIDS Monitoring and Evaluation Reference Group
NCPI	National Commitments and Policy Instrument
OECD	The Organization for Economic Co-operation and Development
PEPFAR	President's Emergency Plan for AIDS Relief
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SERAT	Sexuality Education Review and Assessment Tool
SIECUS	Sexuality Information and Education Council of the United States
STI	Sexually Transmitted Infection
UIS	UNESCO Institute of Statistics
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCSD	United Nations Conference on Sustainable Development

UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
UN Women	The United Nations Entity for Gender Equality and the Empowerment of Women
WB	The World Bank
WFP	World Food Programme
WHO	World Health Organization

Glossary

Comprehensive Sexuality Education

Comprehensive sexuality education is an age-appropriate, culturally relevant approach to teaching about sex and relationships by providing scientifically accurate, realistic, non-judgemental information. Comprehensive sexuality education provides opportunities to explore one's own values and attitudes and to build decision-making, communication and risk reduction skills about many aspects of sexuality.

Education for All Goals

Education for All (EFA) is a global commitment to provide quality basic education for all children, youth and adults. The movement was launched at the World Conference on Education for All in 1990 by UNESCO, UNDP, UNFPA, UNICEF and the World Bank. There are six key education goals which aim to meet the learning needs of all children, youth and adults by 2015: (1) expanding and improving comprehensive early childhood care and education; (2) ensuring that all children have access to, and complete, free and compulsory primary education of good quality; (3) ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes; (4) achieving a 50 per cent improvement in levels of adult literacy; (5) achieving gender equality in education; (6) improving all aspects of the quality of education.

Global AIDS Response Progress Reporting

Global AIDS Response Progress Reporting (GARPR) is a system through which UN Member States submit reports on thirty core indicators used globally to monitor progress in national responses.

Gender Identity

Gender identity refers to a person's deeply felt internal and individual experience of gender, which may or may not correspond with the sex assigned at birth, including the personal sense of the body (which may involve, if freely chosen, modification of bodily appearance or function by medical, surgical or other means) and other expressions of gender, including dress, speech and mannerisms.[564]

HIV Education

HIV education has three main components: prevention, treatment and care, and education to address stigma and discrimination. In this book, the term refers to both HIV and AIDS education and covers these three components. While HIV education is part of comprehensive sexuality education, it can also be taught in subject areas such as social studies and civic education, for example when issues such as stigma and discrimination are addressed and when teaching about HIV transmission other than through sex.

HIV Epidemic Definitions

Low-level epidemic: HIV prevalence is not consistently ≥1 per cent in the general population nationally, nor ≥5 per cent in any subpopulation.

Concentrated epidemic: HIV prevalence is ≥5 per cent in subpopulations while remaining ≤1 per cent in the general population.

Generalized epidemic: HIV prevalence is ≥1 per cent among pregnant women attending antenatal clinics.

Hyperendemic: A generalized epidemic in which HIV prevalence is typically ≥15 per cent among pregnant women attending antenatal clinics.

Multiple epidemics: One or more concentrated epidemics within a generalized epidemic.[565]

HIV Response

In this book, HIV response is used to include actions taken by stakeholders to prevent HIV transmission and address the impact of HIV and AIDS. Some other authors may refer to this as the AIDS response.

Homophobia

Homophobia is the fear, rejection or aversion, often in the form of stigmatizing attitudes or discriminatory behaviour, towards homosexuals and/or homosexuality.

Life Skills and Life Skills Education

The concept of life skills is elastic and includes a range of skills and knowledge, especially including the personal, interpersonal and cognitive psychosocial skills that enable people to interact appropriately, manage their own emotional states, and make decisions and choices for an active, safe and productive life. Life skills education has been introduced in different ways in formal schools, either as a new subject or integrated to various degrees within the teaching practice and content of other subjects. In some cases it is offered as an extra or co-curricular provision. The psychosocial aims of life skills education require a conceptualization of the curriculum that includes not only knowledge and skills but also behaviour, attitudes and values.[566] The application of life skills in this book is focused on skills related to HIV and health.

Sex and Gender

The term 'sex' refers to biologically determined characteristics, whereas 'gender' refers to socially constructed roles, behaviours, activities and attributes that a given society considers appropriate for men and women.

Sexual Orientation

A person's capacity for profound emotional and sexual attraction to, and intimate and sexual relations with, individuals of a different gender or the same gender or more than one gender.[567]

Skills-Based Health Education

This approach to education focuses on the development of knowledge, attitudes, values and life skills needed to make and act on the most appropriate and positive decisions concerning health. Skills-based health education is a central part of life skills-based education.

Transgender

Transgender describes a person whose gender identity differs from their sex at birth.

Transphobia

Transphobia is fear, rejection or aversion, often in the form of stigmatizing attitudes or discriminatory behaviour, towards transgender people.

UNGASS Indicators

The United Nations General Assembly Special Session on HIV and AIDS (UNGASS) established 25 core indicators and 15 additional recommended indicators against which the HIV response should be measured. These help uncover strategic information that is essential in detecting changes in the HIV epidemic, monitoring the response to the epidemic and assessing the overall effectiveness of the response.[568] Five of the indicators measure the role of the education sector in the response to HIV.

Young Key Populations at Higher Risk of HIV Exposure

The term 'key populations at higher risk of HIV exposure' refers to those most likely to be exposed to HIV or to transmit it, and whose engagement is critical to a successful response. In all countries, key populations include people living with HIV. In most settings, men who have sex with men, transgender persons, people who inject drugs, sex workers and their clients, and sero-negative partners in sero-discordant couples are at higher risk of HIV exposure to HIV than other people. Young key populations are under age 25. It is important to consider different needs and vulnerability among different cohorts (those aged 10–14, 15–19 and 20–24), as well as to differentiate between the concepts of 'risk' and 'vulnerability'. Risk is defined as the likelihood that a person may become infected with HIV, which is dependent upon the behaviour of the individual. Vulnerability refers to unequal opportunities, social exclusion, unemployment or precarious employment and other social, cultural, political and economic factors that make a person more susceptible to HIV infection and to developing AIDS.

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