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Review of Sex, Relationships and HIV Education in Schools

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Acronyms

AIDS – Acquired Immune Deficiency Syndrome
ART – Antiretroviral Therapy
ASRH – Adolescent Sexual and Reproductive Health
EFA – Education for All
ERIC – Education Resources Information Centre
FLHE – Family Life and HIV and AIDS Education
HIV – Human Immunodeficiency Virus
IBE – International Bureau of Education
MDGs – Millennium Development Goals
PANCEA – Prevent AIDS Network for Cost-Effectiveness Analysis
PPAZ – Planned Parenthood Association of Zambia
PSABH – Primary School Action for Better Health
PTA – Parent-Teacher Association
SIECUS – Sexuality Information and Education Council of the United States
SRH – Sexual and Reproductive Health
STDs – Sexually Transmitted Diseases
STIs – Sexually Transmitted Infections
TOP – Trainers of Peers
UK – United Kingdom
UNAIDS – United Nations Programme on HIV/AIDS
UNESCO – United Nations Educational, Scientific and Cultural Organization
UNFPA – United Nations Population Fund
UNGASS – United Nations General Assembly Special Session on HIV/AIDS
UNICEF – United Nations Children’s Fund
USA – United States of America
WHO – World Health Organization

Table of Contents

1. Executive Summary	7
2. Introduction	9
3. History	13
4. Approaches and Curricula	15
5. Delivery	21
6. Impact	23
7. Coverage and Cost	26
8. Conclusions	28
9. Appendices	29
1. Terms of Reference	29
2. List of Key Informants	32
3. Questions for Key Informants	33
4. Suggestions for UNESCO from Key Informants	35
5. References	36

1. Executive Summary

In 2007, UNESCO commissioned this desk-based review of the global state of sex and HIV education in the formal education sector in order to inform its possible future work in this area. The review is based on twenty-two key informant interviews with experts from Africa, Europe and North and South America, together with searches of published and grey literature obtained from the internet, databases and personal recommendation, as well as manual searching of key journals. Consistent with the Terms of Reference (Annex 1), the focus of the review is upon sex, relationships and HIV education programmes within the context of poorer countries, particularly those in sub-Saharan Africa.

A draft of this review was presented to the UNESCO Global Advisory Group on Sex, Relationships and HIV Education¹ at its first meeting in Paris in December 2007. Members' comments have been incorporated in this revised version.

A basic challenge encountered in conducting this review has been the wide range of terms used to describe the educational activities, methodologies and processes that constitute sex, relationships and HIV education in schools. For the sake of clarity and simplicity, following consideration by its Global Advisory Group on Sex, Relationships and HIV Education, UNESCO has decided to use the term *sex, relationships and HIV education*.

Throughout the world, too few young women and men, including those who are living with HIV, receive anything approaching adequate preparation for adult sexual life. In many HIV and AIDS curricula, discussion of sex is simply avoided or else the focus is placed, often exclusively, upon the potential negative consequences of sex. The positive values of sexual life, such as pleasure and reciprocity, are conspicuous in their absence, despite their health-promoting potential.

Schools provide a viable means of reaching large numbers of young people with sex and HIV education in ways that are replicable and sustainable, and given their number and proximity to students, teachers are best placed to deliver sex education. Peer educators can also provide useful support. With significantly more children attending primary than secondary school, it seems appropriate that the subject should be introduced at this level. However, space needs to be made in already crowded curricula and teachers need to be given the skills, materials and confidence to undertake teaching on this topic.

Barriers to the effective implementation of sex, relationships and HIV education in schools include inadequate resources and community opposition as well as authoritarian and didactic approaches on the part of teachers. In some settings, pervasive gender bias, sexual coercion and abuse conspire to render school itself a risky environment, especially for girls. Tackling this issue requires resources and commitment that go beyond the scope of what is possible within classroom-based sex and HIV education programmes.

Negative outcomes associated with sexual behaviour are the result of both *risk* (at the personal level) and *vulnerability* (the socio-economic and cultural factors that put people at risk in the first place). While sex, relationships and HIV education can reduce risk, broader action is required over the longer term to tackle underlying issues of *vulnerability*.

A range of approaches to sex, relationships and HIV education currently exist. These vary from those that seek to eliminate risk altogether ('abstinence-only' approaches), through to those that seek to reduce risk (for example, by encouraging delay of sexual debut or condom use) to those (far fewer in number) that seek to reduce vulnerability by addressing underlying factors that contribute to sexual ill-health, such as poverty and gender inequality, abuse and violence.

Whatever the approach, it is generally accepted that effective sex education curricula include consideration of facts and information, interpersonal skills, as well as values and exploration of perceptions of peer norms, attitudes and

¹ This is the term the group unanimously adopted to describe its focus.

intentions. Specific characteristics of effective curricula have been identified in relation to curricula development, content and implementation.

Participatory and interactive methods can be employed for all aspects of the curricula and are consistent with the specific competencies that sex, relationships and HIV education is intended to develop. However, these methods may be at odds with more authoritarian and traditional (and pervasive) styles of teaching and of teacher-student relationships.

There is overwhelming evidence to demonstrate that sex, relationships and HIV education programmes can increase knowledge and affect values and attitudes. Some programmes have been successful at reducing the risk of unintended pregnancies and sexually transmitted infections (STIs).

There continues to be a debate about the focus of sex, relationships and HIV education and whether the focus should be firmly upon what can be measured in strictly behavioural terms, or whether it should be expanded to become a more all-embracing reflection of life as it is lived beyond the school gates. Clearly each approach will have implications for its design, implementation and evaluation.

2. Introduction

There are more than one billion young people² in the world today. They represent 20% of the global population – the vast majority of whom will become sexually active adults. Far too few young people will receive anything approaching adequate preparation for adult sexual health and well-being.

The catalogue of potential negative consequences of unprotected penetrative sex is long and frequently repeated: unintended pregnancy and unsafe abortion, STIs including HIV, and sexual abuse and violence. The potential positive consequences, such as mutually rewarding relationships between consenting adults, are seldom, if ever, mentioned. Indeed, our knowledge of the *positive* elements of sexual choice and fulfilment – implied in the right of all persons “to pursue a satisfying, safe and pleasurable sexual life” – is considerably less than our appreciation of the negative consequences of sexual activity, despite the fact that sexual enjoyment can be health-promoting.³

So far, no clear consensus exists regarding a universally acceptable term to describe the educational activities, methodologies and process that constitute school-based ‘sex education’. In some settings, use of the terms ‘sex’ or ‘sexuality’ in the title of a programme is simply too explicit for the comfort of parents, teachers or politicians. And yet, terms such as ‘family life education’, ‘life skills education’ or ‘population education’ may provide an opportunity to ignore discussion of sex altogether. UNESCO’s Global Advisory Group on Sex, Relationships and HIV Education has suggested the term *sex, relationships and HIV education* to describe educational activities in this area.

In many countries, the focus of discussion about sex education has been in the context of discussion of HIV and AIDS. In affected countries, it makes sense for sex education to be an important part of HIV and AIDS education because it is within the context of sexual relationships that HIV is most often transmitted. However, many HIV and AIDS curricula avoid discussions of sex,⁴ focusing instead on the scientific aspects of the epidemic or on broad approaches such as life skills education. Despite overwhelming evidence that sex education can reduce the risk of unintended pregnancies and STIs (including HIV), many countries have not adequately prioritised sex, relationships and HIV education within the formal curriculum.

Potentially, schools provide a key opportunity to reach large numbers of young people with sex, relationships and HIV education in ways that are replicable and sustainable in resource-poor settings. In many countries, young people will become sexually active while they are still attending school, making the setting even more important as an opportunity for the delivery of sex, relationships and HIV education. However chronic problems of enrolment, lack of funding and poor infrastructure development, including provision of teacher training, seriously undermine this potential.

Provision of broad-based, inclusive, equitable, contextually-relevant sex, relationships and HIV education⁵ in schools is a critical priority in the global agenda for sexual and reproductive health. Rights to information and services that protect and promote young people’s sexual health are reflected in the international agreements adopted in Cairo and Beijing, and in the 2002 World Summit for Children.

And yet, many young people still lack even the most basic information about sexual health. Evidence reveals that 25% or more of young men in some countries, particularly in Latin America and the Caribbean, have engaged in vaginal intercourse before the age of 15. A similar situation prevails for girls in parts of sub-Saharan Africa, India and Bangladesh (largely because of child marriage).⁶ Even more worrying is the fact that, in a number of countries, 20-40% of young women report that their first experience of sexual intercourse was forced.⁷ While first sex is not necessarily occurring at earlier ages than in the past, in most countries an increasing proportion of young people

² Young people are defined as young women and men aged 15 to 24 years. In: UNESCO. 2006. *UNESCO Guidelines on Language and Content in HIV- and AIDS- Related Materials*. Paris: UNESCO.

³ Global Forum for Health Research and World Health Organization (2007).

⁴ Boler, T. 2003. *The sound of silence: difficulties in communicating on HIV and AIDS in schools*. London, ActionAid International.

⁵ Germain and Kidwell, 2005; Rogow and Haberland, 2005.

⁶ Global Forum for Health Research. 2007. *Research Issues in Sexual and Reproductive Health for Low- and Middle-Income Countries*.

⁷ Jejeebhoy S.J., Bott S. *Non-consensual Sexual Experiences of Young People: A Review of the Evidence from Developing Countries*. New Delhi, India: Population Council, 2003.

are experiencing first sex before marriage, often as a consequence of older age at marriage. The changing context of first sex has implications for certain reproductive health outcomes, in particular the incidence of unintended pregnancy.⁸

In some countries, the education system itself is a source of risk, particularly for girls. For example, harassment of girls on their way to and from school, especially where travelling distances are long, may lead to parents withdrawing girls from school. Girls may also be sexually abused and coerced by boys or older men (including teachers) in exchange for educational advancement or other favours.

A recent study⁹ in four sub-Saharan countries concludes that, at any given age, girls are more likely than boys to drop out before completing primary school. Those girls who do complete primary school are less likely than boys to progress to secondary education. Typically, pregnancy leads to girls leaving school, whereas the educational careers of boys are less likely to be compromised by fatherhood. The study draws attention to the need to coordinate HIV prevention activities with those that address the poor economic conditions and unequal gender norms that encourage boys and girls to engage in risky sexual relationships. This includes, for girls, relationships with older men in which sex is exchanged for money or gifts. The researchers argue for continued investment in young women to increase educational attainment, improve financial opportunities and expand legal rights, which will in turn lead to benefits in terms of the sexual and reproductive health of young women and their male partners.¹⁰

Misunderstanding of the nature and purpose of sex education on the part of local communities can generate opposition that impedes the delivery of sex education. When the views of local communities and their leaders are solicited at the outset of a programme's design, for example, by working with Parent-Teacher Associations (PTAs), fears and concerns can be addressed and support galvanised. Opposition on the part of religious leaders can also be common.

There are currently nearly 12 million young people in the world living with HIV. More than half of these young people are female. They also have sexual and reproductive health needs that are seldom addressed in any formal sex education curricula.¹¹ In this era of expanded access to antiretroviral therapy (ART), the population of children living with HIV is growing as their life expectancy increases. There are an estimated 2.3 million children (below the age of 15) living with HIV worldwide.¹² With access to treatment, HIV-positive children can expect to develop into healthy adults who, at some point, will start having sexual relationships. For an HIV-positive young person who has never benefited from education programmes about sex, relationships and HIV, these kinds of programmes – which assume all students are HIV-negative – will not suffice. Furthermore, the implicit and pervasive assumption that all students are HIV-negative can render invisible those who are living with HIV or AIDS. It may also inadvertently increase stigma through the creation of an 'us' and 'them' mentality.

Debate also exists regarding the intended focus and outcomes of sex, relationships and HIV education. Should sex, relationships and HIV education focus narrowly on specific measurable outcomes such as condom use or delayed sexual initiation? Or should its focus be expanded to address the broader underlying issues, such as poverty, gender inequality and discrimination, which make people vulnerable to HIV, STIs and unintended pregnancy?

This review considers sex education and HIV education in schools (with a focus on the prevention of the *sexual* transmission of HIV). Effective delivery of each is unimaginable without discussion of the other. Clearly, sex education must address the prevention of HIV infection, given that the overwhelming majority of HIV infections in the world are sexually acquired. Effective prevention of HIV, of necessity, will also involve discussion of sex.

⁸ C.B. Lloyd. 2007. *The Role of Schools in Promoting Sexual and Reproductive Health Among Adolescents in Developing Countries. Poverty, Gender and Youth Working Paper no. 6.* New York: Population Council.

⁹ Biddlecom, A., Gregory, R., Lloyd, C.B. and Mensch, B.S. 2007. *Premarital sex and schooling transitions in four sub-Saharan African countries. Poverty, Gender and Youth Working Paper no. 5.* New York: Population Council.

¹⁰ Amuyunzu-Nyamongo, M. et al. 2005. *Qualitative Evidence on Adolescents' Views on Sexual and Reproductive Health in Sub-Saharan Africa, Occasional Report No. 16.* New York: The Alan Guttmacher Institute.

¹¹ See the website of the International Community of Women living with HIV/AIDS for more information about the sexual and reproductive health needs of HIV-positive women: <http://www.icw.org/>

¹² UNAIDS. 2006. *AIDS Epidemic Update.* Geneva: UNAIDS.

It is against this background that UNESCO has commissioned this initial review of sex, relationships and HIV education, the Terms of Reference for which can be found in Appendix 1. This document is a background document for the first meeting of UNESCO's Global Advisory Group on Sex, Relationships and HIV Education, which held its first meeting in Paris in December 2007.

In relation to HIV and AIDS, UNESCO's overarching goal is to support Member States to move towards universal access to comprehensive HIV prevention programmes, treatment, care and support.¹³ Education has been identified as a key element and an area of UNESCO's comparative advantage in efforts to scale up to universal access, and will remain a priority in UNESCO programming. UNESCO also recognises that universal access is a major milestone in efforts to achieve the Millennium Development Goal (MDG) of halting and reversing the spread of HIV by 2015 and other MDGs, including those relating to poverty eradication, child mortality, maternal health and environmental sustainability, as well as the two education-related goals.

HIV-specific objectives are to:

- Strengthen the evidence base and improve the policy and programmatic responses of Member States through the documentation and dissemination of good practices and support for their use and application; the monitoring and evaluation of progress, trends and impact; and advocacy and technical assistance for evidence-informed responses to HIV and AIDS.¹²
- Enhance the capacity of Member States to implement comprehensive and scaled-up responses to HIV and AIDS, particularly in the education sector, that are informed by available evidence, based on widespread consultation with key stakeholders, undertaken through strategic alliances and partnerships at all levels, and evaluated for impact.¹²
- Promote full and effective multisectoral engagement and coordinated and harmonised AIDS responses by Member States within the framework of the agreed UNAIDS division of labour and other recommendations to improve harmonisation and alignment with national priorities.¹²

This review of literature is intended to address the following question:

Globally, what is the current state of sex, relationships and HIV education within the formal education sector?

Supplementary questions included the following:

History

What is the overall history of sex education in schools? How is it linked to HIV and AIDS education? When and why was sex education first introduced in schools?

Typologies of Sex Education

What are the typologies of sex education described in HIV and AIDS curricula (pedagogical approaches, components, content (e.g. condoms, context)? What is the known coverage of sex, relationships and HIV education in schools to date?

Methods and Approaches

How is sex, relationships and HIV education taught in primary and secondary school? What are the specific learning outcomes by age, gender, level and social class? What constitutes a basic minimum package of quality sex, relationships and HIV education in school?

¹³ UNESCO. 2006. UNESCO's Strategy for Responding to HIV and AIDS. Paris: UNESCO.

Cost Issues

What is the cost of a basic minimum package of quality sex, relationships and HIV education in schools in low-income, middle-income and high-income countries?

Promising Approaches

What are the most promising approaches for sex, relationships and HIV education in schools in developing countries (with a focus on sub-Saharan Africa)? What are some of the factors that have enabled their success?

Clearly, this is an enormous task. With the time and resources available, it has been possible to answer some questions more than others and most only partially. It has also meant identifying further questions that could be usefully considered.

The Terms of Reference stipulate that the focus of the review, as far as possible, should be upon sex and HIV education programmes within the context of developing countries, particularly those in sub-Saharan Africa, with material from Europe and North America included only when the programmes described are particularly innovative or when the only available evidence comes from more economically developed countries.

Process and Methodology

The review is based upon two specific and complementary methods. In the first instance, key informant interviews were conducted with a broad range of experts in the field (the full list can be found in Appendix 2). Many of these interviewees either shared documentation or suggested where relevant material could be found. The review draws on information from both published and grey literature. Grey material was identified via personal recommendation and through searches of both the internet and of specific institutional websites. Database searches were also conducted. These included: Medline, PsycInfo, ERIC and Social Science Abstracts. Hand searches were also made of key journals including Sex Education and AIDS Prevention and Education.

Given the sheer volume of documentation that exists, together with the time allocated for the review task, this review is selective rather than exhaustive. Consistent with the Terms of Reference, the review has a strong emphasis on sub-Saharan Africa. In comparison, very little material has been sourced so far for other geographic regions.

Inevitably, this review raises more questions than it answers. Nonetheless, it is intended that the questions it does raise can be framed in such a way as to assist UNESCO in clarifying how it can most effectively support the development and implementation of quality sex, relationships and HIV education within the scope of its institutional remit through the next programming cycle.

3. History

A 2005 conference on the history of sex education¹⁴ concluded that the history of sex education is still relatively unexplored. Sex, relationships and HIV education material and policy are culturally and historically contingent: in other words, their content and focus are shifting rather than fixed and are indicative of preoccupations that are particular to time and place.

The UK provides a useful example of a country where the history of sex education is gradually being documented.¹⁵ Little attention appears to have been paid to the topic in the school setting prior to the Second World War. However, the period following 1945 appears to have witnessed an increase in school sex education with a strong emphasis on the prevention of syphilis and gonorrhoea. Throughout the 1950s and 1960s, the focus appears to have been on non-human reproduction. The location of sex education within biology allowed for a gradual shift in emphasis to human reproduction. However, with biology perceived to be a more suitable subject for girls than boys, fewer boys received sex education. By the 1970s, sex education was changing and beginning to provide more complete accounts of human reproduction together with teaching about contraception and learning about relationships. The influence of feminist thinking meant that, by the 1980s, at least some sex education curricula included consideration of gender. Also, interest in participatory methods of teaching and learning meant that the notion of skills began to feature in sex education. Nonetheless for the majority of young people, their experience of sex education continued to be 'too little, too late'. A number of issues coincided during the 1980s to make sex education a contested political issue, not least of which was recognition of the importance of education about HIV and AIDS and disputes about how this should be done in the classroom.

While the situation in the UK shares many similarities with the USA, the situation in the Netherlands – a much closer neighbour – is quite different. In the Netherlands, sex education has not been politicised and this may, at least in part, explain their more coherent and rational approach to the topic. It may also partly explain why their teenage pregnancy rate is lower than that of either the UK or the USA.

Globally, since the late 1960s, the United Nations Populations Fund (UNFPA) has been a key player in promoting the concept and practice of population education.^{16,17} By the 1980s, around 80 countries were implementing population education programmes in schools. The main goals of population education were to promote the linkages between population dynamics and development, to improve family welfare and to reduce adolescent pregnancy. The 1994 International Conference on Population and Development created a paradigm shift in terms of goals and a corresponding move away from fertility reduction towards greater access to reproductive health services and family planning in the context of human rights and women's empowerment. This has since been reflected in population education, which has gone on to place greater emphasis on sex education, HIV prevention and the promotion of gender equality and equity. In many countries, the HIV epidemic has justified the introduction of sex education.

In Africa, some countries began with population education before shifting the focus towards family life and sex education. For example, the Government of Uganda, with assistance from UNFPA and UNESCO, introduced population education in the formal education system in 1988. Since then, the programme has shifted to address reproductive health more explicitly, as well as HIV and AIDS. In the 1990s, Nigeria, with technical assistance from the Sexuality Information and Education Council of the United States (SIECUS), developed and implemented a comprehensive sexuality education curriculum. More recently, an electronic resource¹⁸ based on the Nigerian Family Life and HIV and AIDS Education (FLHE) curriculum has been made available online.

Sex education has had a long history in Latin America and the Caribbean, developing from a biological approach in the 1960s to STI prevention in the 1980s, to consolidation in the 1990s with formative objectives and competencies

¹⁴ Davis, G. 2005. Conference report Sex Education of the Young in the Twentieth Century. *The Gazette*. Society for the Social History of Medicine. No.36.

¹⁵ http://www.open2.net/healthliving/body_mind/thehistoryp.html (accessed 1 December 2007).

¹⁶ Also known as: Population Education, Family Life Education, Quality of Life Education, Adolescence Education.

¹⁷ UNFPA. 2004. Education is Empowerment: Promoting Goals in Population, Reproductive Health and Gender. Report of a Technical Consultation on UNFPA's Role in Education. 8-10 December 2003, New York.

¹⁸ <http://www.learningaboutliving.com/>

for the exercise of healthy, free, responsible and enjoyable relationships. Sex education now includes information about sexual and reproductive health and the promotion of attitudes and values for practising gender equity.

While the majority of country or region-specific material considered for this review concerns sub-Saharan Africa, a useful overview of school-based HIV and AIDS education in the Asia-Pacific region was conducted by Smith and Kippax et al. (2003). While all the countries surveyed appeared to have sexual and reproductive health education at some stage in the school career, the content tended to focus on the biology of reproduction within an overall context of married life and there was notable reluctance to discuss sexual and drug-related HIV transmission. In Asia, HIV and AIDS and sexual relationships are rarely discussed at primary school level, with the notable exceptions of Papua New Guinea and Cambodia, where discussion of condoms was included. This was despite the fact that, in some countries, the majority of children would not progress to secondary school. The authors also note that when cross-ministerial policy support exists for primary education on HIV and AIDS, and where this is implemented alongside community-based education of adults (generating local support for school-based education), primary curricula can be introduced successfully. They conclude that there is a need to reassess the age at which education on sexual and reproductive health is provided to students and the content of that education together with the mode of its delivery.

4. Approaches and Curricula

Negative outcomes associated with sexual behaviour are the result of *risk* (at the personal level) and *vulnerability* (the socio-economic and cultural factors that put people at risk in the first place). While sex education can reduce risk, broader action is required over the longer term to tackle underlying issues of vulnerability.

Approaches to sex, relationships and HIV education can be conceptualised as a continuum from risk reduction to risk elimination and vulnerability reduction. At one end of the continuum is 'abstinence-only', which seek to eliminate risk through promotion of sexual abstinence until marriage, often within an explicit framework of religious or ideological values and beliefs.

At the other end of the continuum are approaches that seek to reduce vulnerability through broader changes at the whole school or community level. Between these two ends of the continuum lie the majority of approaches best described as 'risk reduction', which focus on reducing risk to HIV prevention and other STIs through, for example, consistent and correct use of condoms. Throughout the continuum, sex, relationships and HIV education can range from didactic learning methodologies (provision of relevant information) through to participatory approaches (exploration of values and attitudes) and acquisition of skills through skills-based approaches.

In terms of the specific content included within these different approaches, there may be considerable overlap; the key differences being in relation to emphasis and intended outcomes. Thus, skills acquisition could be an important element of an abstinence-only programme, but within this approach the emphasis would be narrow and focus on learning how to refuse sex. In broader programmes that seek to reduce risk, skills-based programmes might be included with a view to learning the skills to negotiate non-penetrative sex or how to use a condom or challenging sexual harassment.

Programmes draw from a range of social science theories.¹⁹ These theories focus on individuals and the assumption that, with support, individuals have the ability to adopt safer behaviours. However, this is contrasted with theories that believe individual change is not possible without affecting broader socio-economic, cultural and political factors. Moreover, these behaviour change approaches have mostly been developed by social scientists in developed countries and do not appear to have been empirically tested in other settings.²⁰ Researchers who have done this in the contexts of South Africa and Tanzania have highlighted the importance of traditional belief systems rather than simply the knowledge acquired through formal schooling.²¹

Other researchers²² draw attention to the need for sex, relationships and HIV education to be grounded in a clear appreciation of the different (and sometimes conflicting) ways in which sex and sexuality are discussed and understood within a given community or society, together with awareness of the differences between these 'discourses' of sex and the realities of sex as it is lived in everyday life.

Evidence-based Sex and Relationships Education

Experts suggest that a good curriculum for sex and relationships education covers three areas: facts and information, relationship and interpersonal skills and values.²³ Others add that it should also address perceptions of peer norms, attitudes and intentions.²⁴ While some programmes continue to focus on human biology, reproduction, hygiene and marriage, others have expanded to include information on physical and emotional development and STIs and HIV and AIDS. More broad-based curricula also cover contraception, abortion and sexual abuse.

¹⁹ Stone and Ingham, 2006.

²⁰ Danny Wight: personal communication.

²¹ Aarø and Flischer et al., 2006.

²² Tarr and Aggleton, 1999 and Maticka-Tyndale et al., 2005.

²³ Stone and Ingham, 2006.

²⁴ Doug Kirby (personal communication).

Some programmes give young people the opportunity to consider diversity, marriage and partnership, love and commitment, and the law as it relates to sexual behaviour and relationships, together with consideration of social, religious and cultural aspects of sexuality.²⁵ The development of critical thinking, for example about rights and gender, is also often encouraged, and skills developed in communication and decision-making. However, it is important that the content remains focused on sexual relationships and the sexual transmission of HIV if the programme is to have measurable impact on HIV infections.

All sex and relationships education programmes are values-based. The key questions concern which (or whose) specific values, the extent to which these are made explicit, and whether or not they are open to scrutiny. Processes that clarify values about sex and relationships can be useful not only for students but also for teachers, school authorities, parents and communities.

Sex and relationships education is delivered through a range of named programmes, including: sex education, family life education, population education, sex and relationships education, sexuality education and life skills education. The title of the programme may be a reflection of political or cultural sensitivity, indicative of the emphasis of its content, or a combination of the two.

Experience in Kenya and Tanzania suggest that, even in contexts of severe resource constraints, it is possible to implement good quality sex and relationships education within primary school curricula. The Mema Kwa Vijana ('Good Things for Young People') programme in Tanzania touched on community-based activities including condom distribution, health service and in- and inter-school elements. The most intensive component was a participatory, teacher-led, peer-assisted, in-school programme, comprising an average of twelve forty-minute sessions per year, held during school hours in Years Five to Seven of primary school.

In Kenya,²⁶ groups comprising head teachers, resource or senior teachers and community representatives were trained to deliver HIV and AIDS education with a particular focus on prevention and care for those affected by HIV by infusing and integrating lessons across the entire school curriculum, with a focus on students aged between 12 and 14. Upon their return to school, graduates of the training provided training for their colleagues, delivered HIV and AIDS education in the classroom and implemented co-curricular activities, such as drama, music, art, public speaking, writing, sports and exhibitions, within and across local schools.

The HIV epidemic has significantly raised the profile of the condom, which has become the most popular method of contraception for sexually active people. However, some argue the association between condoms and HIV also stigmatises condoms (and their users).²⁷ Given that two-thirds of young women whose partners use condoms are motivated by the desire to avoid pregnancy, and that it is more socially acceptable to raise the issue of condom use with a sexual partner in relation to pregnancy rather than HIV, more attention needs to be paid to highlighting the contraceptive benefits of condoms.

The issue of condoms highlights some of the key tensions that can compromise the effectiveness of sex and relationships education, including community and religious sensitivities and teacher discomfort.

A study of the condom component of the Primary School Action for Better Health (PSABH) programme in Kenya²⁸ highlighted how inconsistent information about condoms was provided to young people. Teachers and community and church leaders believed in and presented abstinence as the only effective way to prevent sexual transmission of HIV. As a result, they had difficulty developing a clear position on the use of condoms, a situation exacerbated by government silence on the topic and the conflicting positions taken respectively by social marketing campaigns and churches and leaders. This led teachers to often repeat negative and inaccurate messages on condoms. Students recognised the contradictions in what they heard from teachers and other adults in their communities and turned towards peers with sexual experience and particular teachers who were more comfortable with the subject. Following training, there was evidence that an increasing number of young people were receiving information about

²⁵ Stone and Ingham, 2006.

²⁶ Source: <http://www.psabh.info/> and http://www.odi.org.uk/RAPID/Tools/Case_studies/PSABH.html

²⁷ John Cleland (personal communication).

²⁸ Brouillard-Coyle, C. et al. 2005. *The Inclusion of Condoms in a School-Based HIV Prevention Intervention in Kenya*. Abstract 17th World Congress of Sexology, July 10-15. Montreal, Canada.

condoms within their schools. By addressing the concerns raised by community disseminators of HIV information, it was possible for them to become more comfortable with condom messages, for the number of contradictory messages to decrease together with a corresponding change in the attitudes of young people towards condoms.

Characteristics of Effective Evidence-based Curricula

The characteristics of effective sex, relationships and HIV education curricula have been identified, reviewed and updated. These comprise seventeen key features in relation to curricula development, content and implementation.

Curricula Development

1. *Included people with expertise in different areas*

For example, development teams often included those with backgrounds in: health behaviour theory, young people's sexual behaviour, theory of instructional design, development of activities to teach young people about sexual topics, experience teaching about sex or HIV education, cultural knowledge, and evaluation.

2. *Assessed the needs and assets of the young people they were targeting*

Curriculum developers typically reviewed data on HIV, sexually transmitted diseases (STDs), pregnancy and young people's sexual behaviour, which helped to determine the specific health goals on which to focus, together with the types of behaviour to address and the grade levels at which to do so. As necessary, this data was supplemented with further qualitative data gathering.

3. *Used a logic model approach*

Teams used theory to develop logic models that: specified health goals; identified behaviour affecting those goals; identified factors affecting the behaviour; and developed activities to change these.

4. *Designed activities consistent with community values and available resources*

For example, in communities that valued abstinence, teams developed a curriculum that emphasised this. Teams also took into account community resources such as availability of facilities and staff, staff skills, supplies and time.

5. *Conducted pilot tests on some or all activities*

Many curriculum developers pilot-tested and modified activities implementing the final version of the curriculum.

Content of the Curriculum²⁹

6. *Focused on at least one of three health goals: the prevention of HIV, the prevention of other STDs, the prevention of unintended pregnancy*

Curricula typically focused on susceptibility to HIV, other STDs, pregnancy, or a combination of these, emphasised messages about health goals and motivated young people to avoid STDs and unintended pregnancy.

7. *Focused narrowly on specific types of behaviour that cause or prevent HIV, other STDs, or pregnancy and gave clear messages about them*

Effective curricula repeated clear and consistent messages about sexual and protective behaviour. They involved explicit discussion of sex or condom use, identified specific situations that might lead to unwanted or unprotected sex, discussed how to avoid or get out of such situations, and practised saying no to sex or insisting on condom or contraceptive use. They described how to use condoms or contraceptives correctly and how to overcome barriers to obtaining and using them. Messages were appropriate to the age, sexual experience, gender and culture of the young people targeted by the programme.

²⁹ Kirby, D., 2007

8. *Focused on specific sexual psychosocial factors that affect the specified types of behaviour and changed some of those factors*

These risk and protective factors were selected through a combination of theory and research on factors affecting young people's sexual behaviour. Programmes that *reduced sexual activity* and *increased condom use* focused on:

- Knowledge, including knowledge of sexual issues, HIV, other STDs and pregnancy (including methods of prevention)
- Perception of HIV risk
- Personal values about sex and abstinence
- Attitudes toward condoms (including perceived barriers to their use)
- Perception of peer norms and behaviour about sex
- Confidence in the ability to refuse sex and to use condoms
- Intention to abstain from sex or to restrict frequency of sex or number of partners
- Communication with parents or other adults about sex, condoms, or contraception.

Also, programmes that *reduced sexual activity* focused on and improved:

- Confidence in ability to avoid STD/HIV risk and risky behaviour
- Actual avoidance of places and situations that might lead to sex.

Programmes that *increased condom use* focused on and improved:

- Intention to use a condom.

Implementing the Curricula

9. *Created a safe environment*

Effective programmes started by creating ground rules for class involvement. Some also separated the class into same-sex groups for certain topics, or less frequently, limited the entire course to only one sex.

10. *Included multiple instructionally sound activities to change each of the targeted risk and protective factors*

In order to increase knowledge about modes of transmission of HIV and other STDs, symptoms, susceptibility to and consequences of STDs, and methods of preventing STDs and pregnancy, curricula included a variety of delivery methods: short lectures; class discussions; competitive games; simulations; drama sketches; videos, and other techniques. Many of these activities required students to obtain, share and personalise information. To increase perceptions of risk, effective curricula provided data on incidence of STDs and pregnancy, included videos of HIV-positive or pregnant teens, or involved HIV-positive or pregnant speakers together with simulations to demonstrate STD or pregnancy risk and consequences. To change personal values and attitudes about sex and the use of condoms or other contraceptives, effective curricula included group discussions that emphasised the advantages of abstinence or condom/contraceptive use, voting activities and survey data to demonstrate peer support for abstinence or condom use and included methods of resisting pressure to have sex. To teach students how to refuse unwanted, unintended, or unprotected sex or to insist on using condoms or contraception, effective curricula commonly used role-playing, providing each student with multiple opportunities to practise important verbal skills. To increase self-efficacy to use condoms, curricula demonstrated how to use condoms, for example, by having students identify the correct order and steps for using condoms.

11. *Employed instructionally sound teaching methods that actively involved the participants, that helped participants to personalise the information, and that were designed to change specific risk and protective factors*

Interactive teaching methods included short lectures, class discussions, small group work, video presentations, stories, live skits, role-playing, risk simulations, competitive games, forced-choice activities, surveys of attitudes and intentions with anonymous presentation of results, problem-solving activities, worksheets, homework assignments (including assignments to talk with parents or other adults), question boxes and condom demonstrations.

12. *Employed activities, instructional methods and behavioural messages that were appropriate in terms of culture, developmental age and sexual experience*

Some curricula were designed for specific racial or ethnic groups and emphasised the high rates of HIV, other STDs, or pregnancy among those groups. Some curricula were designed specifically for girls. Programmes for younger, less sexually experienced young people focused more on abstinence, while those for older, more sexually experienced young people focused more on condoms.

13. *Covered topics in a logical sequence*

Effective curricula presented topics in a logical order and included basic information including susceptibility and severity; behaviour that reduce vulnerability; knowledge, values, attitudes, and barriers to protective behaviour; and skills needed to adopt protective behaviour.

Implementation of the Curriculum

14. *Secured at least minimal support from appropriate authorities*

Effective programmes obtained approval from relevant authorities in order to access support, obtain approval or authorise research.

15. *Selected educators with desired characteristics (whenever possible), trained them, and provided monitoring, supervision, and support*

Some programmes were implemented by classroom teachers while others recruited educators with a relevant professional background. Neither the age (adult versus peer) nor gender nor the race of the educator is important. What makes a difference is the ability of the educator to relate to young people. Almost all programmes provided training for educators in the implementation of the curriculum.

16. *Implemented activities to recruit and retain young people*

If necessary, effective programmes actively recruited students and avoided or overcame obstacles to participation. For example, parents were notified and students were informed about the programme and provided with transport.

17. *Implemented curricula with reasonable fidelity*

Effective programmes implemented all or nearly all of the activities in the curriculum.

Approaches that Address Vulnerability

In the context of sex, relationships and HIV education, addressing vulnerability means going beyond the development of a curriculum to address the sexual and social realities that exist beyond the classroom. It means, for example, giving consideration to contextual issues such as the school institution itself, including power relations that exist among pupils and between teachers and pupils. Sexual vulnerability is also linked to other forms of risk and vulnerability, such as racism and homophobia, drug and alcohol use and gender inequality in the household as reflected in decision-making, use of household expenditure and violence.

In recognition of the social nature of sexual relations, there have been calls for a paradigm shift in relation to sex, relationships and HIV education.³⁰ Proponents of this approach argue that the content of sex, relationships and HIV education curricula has tended to neglect consideration of issues of gender, equity and rights, together with the underlying power inequities that these reflect. To this end, the Population Council's *Rethinking Sexuality Education* initiative has been working towards a 'social studies' approach to sex, relationships and HIV education. This kind of approach promotes the development of critical thinking skills and learning and reflection about the ways in which gender, rights and other aspects of social context (e.g. race, ethnicity and class) affect sexual experience. In so doing, it may also promote the active, informed participation of young people in civil society.

³⁰ Rogow and Haberland, 2005.

Other approaches to addressing vulnerability in school settings include 'Stepping Stones',³¹ a programme for HIV prevention that aims to improve sexual health through building stronger, more gender-equitable relationships with better communication between partners. It uses participatory learning approaches to build knowledge of sexual health, awareness of risks and the consequences of risk-taking and communication skills, and provides opportunities for facilitated self-reflection on sexual behaviour. Stepping Stones was developed in Uganda and has since been used in more than 40 countries and translated into 13 languages. Key features of Stepping Stones include its community action orientation and time-limited delivery (thirteen three-hour sessions), use of highly participatory learning approaches including critical reflection, role play, drama and its facilitation by skilled leaders of the same sex and slightly older age than participants.

In Zambia,³² the International HIV/AIDS Alliance, Planned Parenthood Association of Zambia (PPAZ) and the Ministry of Education are working with teachers and pupils in Grades Four to Nine³³ in twenty basic schools to analyse why schools are high-risk places for HIV transmission and unintended pregnancy and to identify what can be done about it. Teachers have been engaged in a participatory process to explore their own experience and concerns regarding HIV, reproduction, gender, sexuality, pleasure and harm and their role in the creation of sexual risk and its prevention in the school. Teachers have received two specific training inputs. The first helped them to explore their own attitudes and values while the second focused on the development of skills and materials. Teachers acknowledged the problem of sexual abuse and made plans to address it. They then facilitated a participatory assessment with pupils, using many of the same tools to analyse the situation with them and elicit their ideas on how to respond. This produced a wealth of material that revealed high levels of sexual activity and sexual abuse and fed into the development of an initial set of lessons aimed at the creation of a safe environment for teaching about sex and relationships. Working in partnership with the Curriculum Development Centre and Ministry of Education, a set of materials was developed. This included a curriculum, two manuals for teacher training and three books for pupils.

The successful development of these kinds of approaches to tackling vulnerability is likely to require long-term planning and investment in human and material resources together with innovative evaluation methodologies.

Recognising that knowledge alone is usually insufficient to bring about behaviour change, the concept of *life skills* has gained popularity and is another approach aimed at reducing underlying vulnerability. Rooted in North American and European psychology, the notion of life skills is based upon the assumption that unproductive (or completely absent) behaviours can be replaced with specific behavioural skills such as decision-making, communication, or condom use and that these can be acquired through structured learning.

With a broad generic (i.e. non-sexual) orientation, the adoption of life skills curricula proved popular in settings where opposition to sex education was likely. So much so that it was incorporated into Article 53 of the United Nations General Assembly Special Session on HIV and AIDS (UNGASS) Declaration, which requires that young people have access to information and education necessary: 'to develop the life skills required to reduce their vulnerability to HIV infection'. Relevant skills include critical thinking and decision-making, for example, about initiating or delaying sexual intercourse or negotiating safer sex, including condom use.

While the title 'life skills', without reference to either sex or HIV, may make it uncontroversial and politically acceptable, lack of clarity in terms of definition and the absence of an explicit theoretical and evidence base, may leave life skills open to the broadest interpretation, with the possible result that mention of both sex and HIV prevention are removed. Also, too narrow a focus upon the level of the individual without consideration of broader contexts and power relations within these will affect the extent to which young people will be able to utilise various life skills.

³¹ Stepping Stones was developed in 1995 by Alice Welbourn. See <http://www.steppingstonesfeedback.org>

³² Gordon, Gill and Cornwall, Andrea. 2004. *Schools as Risky Places*. PLA Notes 50:73-80; Gill Gordon (personal communication).

³³ The age range should be 10-15 year olds but actually includes young people up to 20. Small group work in focused age groups is used to address this issue.

5. Delivery

Teachers

Given their number and proximity to students, teachers are best placed to deliver sex, relationships and HIV education. Pre-service training provides an opportunity to familiarise all teachers with the basic concepts and elements of a sex, relationships and HIV education curriculum and to 'mainstream' its delivery across the curricula. In addition, targeting trainee teachers (in pre-service teacher training) is likely to be more successful, not only in terms of scaling-up, but also because young teachers are probably more likely to be open to teaching sex, relationships and HIV education, with older more experienced teachers being more resistant. The same applies for introducing some of the participatory teaching methodologies that are expected of many sex education programmes. However, teachers will not be equally interested or adept at teaching the subject. Their interest and aptitude may only emerge after some time spent in the classroom, making the provision of in-service training a likely necessity.

Teacher training should be supported by national ministries, local school management and communities.³⁴ Curricula should include content on sexual and reproductive health and HIV, teaching methodologies and teacher skills, personal attitudes, and teachers' own HIV-risk behaviours. Attention should also be paid in such curricula to policies, administrative practices and cultural norms that can affect teaching. Those involved in teaching sex, relationships and HIV curricula should include both men and women who are motivated and willing and perceived as trustworthy by students. Finally, they argue that there should be a policy of zero tolerance of exploitation of students.

Experience in Tanzania³⁵ suggests that problematic teacher–pupil relationships create one of the most significant barriers to potential programme success. In many settings in sub-Saharan Africa, established teaching culture and practice are authoritarian and didactic and hardly conducive to the trusting relations and participatory approach required by many sex and HIV education programmes.

Effective delivery of sex, relationships and HIV education is also hampered in some settings by sexual harassment or abuse of schoolgirls,^{36, 37} a phenomenon that has been reported in a number of sub-Saharan African countries.³⁸ This is a significant problem that seriously undermines the potential credibility of sex, relationships and HIV education in schools. In addition, mandatory pregnancy examinations and the punishments imposed on those who fail them can undermine the success of such programmes.

Despite these barriers, school-based programmes have potential if they can be adapted to the realities of the local educational system by such means as simplification of subject matter, pre- and in-service training on teaching methods, improvement of teacher-pupil and teacher-community relationships, and close supervision and appropriate responses to abusive or exploitative practices.

Implementation of sex, relationships and HIV education can be promoted through provision of teacher training; appropriate screening and selection of teachers charged with delivery of the programme; supporting schools in the development of an HIV and AIDS policy, and developing school-based health programmes that go beyond HIV or sexual health and are embedded in broader school development programmes that improve school functioning. The

³⁴ James-Traore et al., 2004.

³⁵ Plummer, Wight et al., 2007.

³⁶ Gill Gordon (personal communication) reports that, in Zambia, some boys also reported being abused by both male and female teachers.

³⁷ According to research conducted by the Uganda HIV/AIDS Control Project in eleven secondary schools, 8% of the 1,041 questioned 16-17 year-old students (55% of whom were girls) reported having had sex with teachers and 12% with non-teaching staff. Reasons given included male teachers promising good marks, money and clothing. Some girls reported promises made by teachers for marriage or paying school fees. With male teachers as their role models, male students also took advantage of economically less privileged girls to have sex with them. Sexual abuse of girls mainly took place in rural schools where the majority of teachers were young. In Uganda, a law against sexual abuse of children provides for high penalties to be imposed on abusers; however, abusive teachers are rarely brought to court. (Source: Young People's Voices on HIV/AIDS Prevention Programmes in Schools. The Uganda HIV/AIDS Control Project, Plot 113 Buganda Road, P.O. Box 25589, Kampala, Uganda; fax: +256-41-34.74.47, e-mail: uac@infocom.co.ug)

organizational characteristics of schools and a supportive community are important determinants of the success of HIV prevention programmes.³⁸

As well as having to compete in a crowded curriculum, sex, relationships and HIV education does not have the same status as other subjects, either for students or teachers. In part this is because it is usually non-examinable, but also because of the sensitive nature of the content, despite its potential importance to students' well-being. For teachers of sex, relationships and HIV education there is rarely, if ever, a tradition of advanced training. Teachers are sometimes instructed to teach sex, relationships and HIV education despite lack of training, experience or interest. Taken together, these issues raise a question as to whether or not sex, relationships and HIV education is in need of professionalisation.³⁹

Peer Education

While many students may relate more easily to their peers, peer educators are less likely to be equipped with the depth of knowledge and skills required to deliver effective sex and HIV education independently of any adult-led intervention.⁴⁰ Regular turnover of peer educators, together with the sustainability and cost implications for training and supervision, may make peer education less suitable as the principal mode of delivery of a sex education curriculum.

Critical reflection on an unsuccessful HIV and AIDS peer education project in South Africa highlights a number of important issues in relation to the delivery of peer education in school settings.⁴¹ Through the project, 120 young people aged between 13 and 25 were interviewed on their perceptions of health, sexuality and HIV. Twenty young volunteers were recruited from the community and received training and information on HIV and other STIs, as well as participatory learning techniques. They were also provided with condoms for distribution among their peers. However, when the educators began to implement the programme, they encountered authoritarian rules, didactic teaching methods, and a negative attitude toward autonomy or critical thinking on the part of students. Firm control over the peer education programme was held by the guidance teacher and principal. This included scrutiny of activities, schedules, message content, and access to resources. Furthermore, male pupils dominated the activity and decisions that were made within the programme, and marginalised and bullied their female counterparts. After a few months, the guidance teacher summarily dissolved the peer education team. The authors highlight the need to develop supportive school environments as well as a unified governmental position on HIV and AIDS; to raise community and parental awareness of the importance of open communication about sex; better understanding of peer educators' need to think critically about the issues and messages they are conveying; and the need for materials that are explicit, focused and promote discussion of the ways in which gender impacts upon sexual health.

There is more evidence to support the effectiveness of adult-led over peer-led programmes. There is some evidence to support the value of suitably trained peer educators complementing the work of teachers, but there are serious constraints vis-à-vis scaling-up and sustainability.

In addition to the methods outlined above some schools subcontract specialist groups, such as local NGOs and networks of people living with HIV, to deliver sex, relationships and HIV education.

³⁸ Mathews, Boon et al., 2006.

³⁹ Based on: David Plummer (personal communication) and Warwick, Aggleton and Rivers, 2005.

⁴⁰ Kirby et al., 2006.

⁴¹ C. Campbell and C. MacPhail. 2002. Peer education, gender and the development of critical consciousness: Participatory HIV prevention by South African youth, *Social Science and Medicine*. 55 : 331–345.

6. Impact

In recent years, a number of reviews have considered the impact and effectiveness of sex, relationships and HIV education. In view of the effectiveness of different HIV prevention strategies in resource-poor settings, researchers argue that, while sex and relationships education can affect sexual behaviour, nonetheless their effect on biological outcomes (such as HIV and STIs) may be relatively insignificant.⁴²

Authors of the most comprehensive review so far⁴³ argue that the choice and implementation of school-based programmes in poorer countries is constrained by the availability of teachers together with lack of access to necessary financial, material and technical resources. In addition, the culture and norms of local communities and schools themselves may prohibit open discussion of sexual matters and actively discourage condom use in an attempt to promote abstinence. A total of twenty-two intervention evaluations were included in the study.⁴⁴ Results indicated that sixteen out of twenty-two programmes significantly delayed sex, reduced the frequency of sex, decreased the number of sexual partners, increased the use of condoms or contraceptives, or reduced the incidence of unprotected sex. Several studies also measured positive impacts on personal values, peer norms, communication about sex and condoms and decreased use of alcohol. In terms of the duration of impact, the positive effects of some programmes lasted from a few months to a few years. Mema Kwa Vijana was the only evaluated programme to investigate the impact of the school-based education on STI and HIV prevalence. The authors found no significant impact on HIV, genital herpes, syphilis and chlamydia and no measurable impact on either pregnancy or childbearing. Further long-term evaluations of Mema Kwa Vijana are currently underway.

Nonetheless, these studies strongly support the argument that sex and HIV education do not increase sexual behaviour and a substantial number of programmes actually significantly decrease one or more types of sexual activity. The review determined that programmes led by both teachers and other adults had strong evidence of positive impact on reported behaviour. Programmes were found to be effective irrespective of their implementation in primary, secondary or night school settings. Similar proportions of the curriculum-based programmes were effective regardless of whether they were taught by teachers or other adults and they were effective for both male and female students. The reviewers argue that the similarity in terms of intervention impact in both developed and developing country settings bodes well for effective implementation regardless of the degree of economic development and HIV prevalence.

Reviews have also been produced that refer specifically to different types of programmes. These are discussed below before considering the broader reviews.

‘Abstinence-Only’

It is not yet possible to draw firm conclusions regarding the effectiveness of abstinence-only approaches because of the diversity of programmes included under this heading, the range of cultures in which they are implemented and the fact that only a few programmes have been evaluated. Nonetheless, available evidence indicates that some programmes clearly do not reduce sexual risk and while there is weak evidence that a small number of programmes may be promising, there is no strong evidence to support the argument that any particular programmes are effective.⁴⁵

In theory, ‘abstinence only’ programmes should be more effective in more affluent societies, where people have more freedom to decide whether and how they have sex. However, researchers reviewed several such studies, including more than 15,900 participants, and found that in comparison with control groups, there was little evidence that risky sexual behaviour, incidence of STIs, or pregnancy was reduced among young people in abstinence-only

⁴² Wegbreit, Bertozzi et al., 2006.

⁴³ Kirby, Obasi et al., 2006.

⁴⁴ Curriculum is defined by the authors as: “an organized set of activities or exercises designed to convey specific knowledge, skills or experiences in an ordered or incremental fashion. Such activities may be implemented either in the classroom during the school day or after school.”

⁴⁵ Doug Kirby, 2007 (personal communication).

programmes.⁴⁶ Abstinence-only programmes did not increase primary abstinence (prevention) or secondary abstinence (decreased incidence and frequency of recent sex).

Life Skills

A critical review of life skills education has drawn attention to the need to define life skills, to identify which skills are to be included in a curriculum and both why and how they should be taught.⁴⁷ They propose that life skills approaches need to be more educationally driven, building on educational processes that have 'transformative capacity'. A 'whole-school approach' is recommended with life skills curricula developed and reviewed as part of wider curriculum reform. Life skills require skilled and motivated teachers and this in turn requires considerable resources.

A review of life skills education in sub-Saharan Africa also highlights difficulties in terms of defining life skills and its introduction into the traditional, didactic and authoritarian style of teaching that is the norm in many schools in poorer countries.⁴⁸ The reviewers also point out that few life skills programmes in sub-Saharan Africa have been rigorously evaluated. Assuming these difficulties can be overcome, they recommend that life skills education begin early in primary school, be taught by suitably trained teachers and become a separate topic rather than integrated across the curriculum.

Some of the challenges associated with the implementation of life skills education are identified in a study of an HIV and AIDS life skills programme with secondary school students in KwaZulu Natal, South Africa.⁴⁹ Evaluation discovered a significant increase only in relation to knowledge about HIV and AIDS in the intervention group. No effects were reported on safe sex practices (condom use, sexual intercourse) or on measures of psychosocial determinants of these practices, such as attitude and self-efficacy. Process evaluation among teachers revealed that, while some had implemented the programme in full (in terms of time spent, the number and content of lessons), others did so only partially. Also teachers relied upon a didactic style more and reported comfort with teaching more fact-based rather than skill-based topics. The authors argue that, in addition to knowledge, positive attitudes and beliefs about condom use, effective programmes need to include skills that address the more proximal determinants of safe sexual behaviour, such as self-efficacy beliefs and skills related to actual condom use, together with relevant communication skills. In turn, this depends significantly upon equipping suitably selected teachers with the ability, skills and confidence (and materials) to move away from information-giving to methodologies that engage students through active student participation. The study draws attention to the need to address broader issues of school reform such as school culture, communication between and among stakeholders, teacher efficacy and behaviour.

⁴⁶ Underhill et al., 2007.

⁴⁷ Boler and Aggleton, 2005.

⁴⁸ Tiendrebéogo et al., 2003.

⁴⁹ James and Reddy et al., 2006.

Recommendations for programmes in schools⁵⁰

For policy-makers

There is a sufficiently strong evidence base to support widespread implementation of school-based programmes that incorporate the characteristics of effective programmes that have been found to be potentially important throughout the world and that are led by adults.

There is strong evidence that these programmes reduce sexual risk behaviour. Nearly all school-based programmes have strong evidence for increasing knowledge.

For programme development and delivery staff

To increase the chances of reducing sexual risk behaviour, school-based programmes should include as many of the characteristics of effective programmes as possible because these have been found to be potentially important throughout the world.

For researchers

Better designed studies of school-based programmes need to be completed, particularly in rural areas in developing countries. If possible, these studies should use randomised designs, have sufficiently large sample sizes and measure the impact on rates of STIs, HIV and pregnancy.

Studies also need to examine more thoroughly the impact of programmes on important mediating factors. Improvements also need to be made in documenting and evaluating intervention processes.

While this review provides important behavioural data, other kinds of evaluation focus are suggested by others. For example, some researchers argue for more research to increase understanding of outcomes for teachers in relation to their own knowledge, attitudes, skills and behaviour.⁵¹

Proponents of a 'social studies' approach to sex education argue that they would seek to influence a wider range of outcome measures than those included in standard programme evaluations. For example, changes might be measured in relation to specific attitudes and behaviours related to gender equality and human rights such as gendered leadership in school activities; girls' participation in sports; age at marriage; attitudes regarding male and female roles in the sexual, domestic and economic spheres; and prevalence of or attitudes toward gender-based violence, sexual harassment, homophobic bullying and harmful practices. Similarly, measuring the effectiveness of programmes that seek to tackle vulnerability would require different focus and methods of evaluation.

Others challenge altogether the relevance of randomised controlled trials and other experimental methods for the evaluation of sex and relationship education programmes, arguing that what are needed are well-designed longitudinal and cross-sectional studies that shed light upon the ways in which people actively engage with sexual health education and that capture and describe social change.⁵²

A different kind of challenge to evaluation is posed by those⁵³ who argue that the domination of public health outcomes renders invisible other aspects that also warrant attention, in particular, the role of pleasure in sexual development and relations. Acknowledging that, in most cultures, it may be unacceptable to teach young people how to achieve sexual pleasure, nonetheless there are indications from richer and poorer countries that public health outcomes may benefit from greater acceptance of positive sexual experiences. Few programmes appear to consider or take seriously issues of sexual pleasure, intimacy and reciprocity.

⁵⁰ Kirby et al., 2006.

⁵¹ James-Traore et al., 2004.

⁵² Kippax, S. and Stephenson, N., 2005.

⁵³ Ingham, R., 2005.

7. Coverage and Cost Issues

Singh et al (2005) suggest that, in some countries, such a high proportion of young people do not attend school that school-based sex, relationships and HIV education, when it exists at all, is available to only a minority of young people. However, 60-75% of 10-14-year-olds in sub-Saharan Africa are currently attending school. Furthermore, school attendance appears to be a protective factor in itself in relation to young people's sexual health. For example, levels of contraceptive use in sub-Saharan Africa increase with years of education, and attendance in school is associated with less sexual activity. However, many young people, particularly girls, do not progress beyond primary school and for girls there is a rapid decline in school attendance after the age of 15.⁵⁴

According to the 2007 report of the Global HIV Prevention Working Group, globally, half or more of school attendees receive no school-based HIV education. Five of fifteen countries reporting to UNAIDS in 2006 said HIV education coverage in schools was below 15%. In all eighteen countries in which standardised health surveys were administered between 2001 and 2005, fewer than 50% of young people (15-24) had accurate knowledge about HIV.

Costs

The published literature on costs and cost-effectiveness of school-based sex education and HIV prevention is sparse, including two US-based studies, one from Tanzania and the Prevent AIDS Network for Cost-Effectiveness Analysis study (PANCEA), a multi-country intervention in Mexico, Uganda, South Africa, India and Russia.

The cost-effectiveness of a programme will depend to a considerable extent on the HIV rate among the targeted population. For example, the Safer Choices programme (see below) was implemented in states where HIV rates among young people were very low. Thus, it prevented less than one case of HIV. However, if the same programme were implemented in sub-Saharan Africa, it would prevent many cases of HIV and be dramatically more cost-effective. Thus, cost-effectiveness depends not only on costs and on ability to change behaviour, but also on incidence among the target group.

Published work from the US includes a study of the US-based Safer Choices programme, a school-based HIV, STD and unintended pregnancy prevention intervention for high school students. This study⁵⁵ included estimation of intervention costs, calculation of cases of HIV, STDs and pregnancies averted, which were then translated into medical and social costs averted. The net benefit of the programme was then calculated. The authors concluded that, at an intervention cost of \$105,243, the programme achieved a 15% increase in condom use and an 11% increase in contraceptive use within one year among 354 sexually active students. It is estimated that 0.12 cases of HIV, 24.37 cases of Chlamydia, 2.77 cases of gonorrhoea, 5.86 cases of pelvic inflammatory disease and 18.5 pregnancies were averted. The authors calculate that, for every dollar invested, \$2.65 were saved in terms of medical and social costs and conclude that the Safer Choices programme is both cost-effective and cost-saving.

Detailed cost-related information is available from a study undertaken to estimate the annual costs of the multifaceted Mema Kwa Vijana young people's sexual health intervention in Tanzania.⁵⁶ This study is the first detailed cost analysis of a large-scale multi-component, multi-year young people's sexual and reproductive health intervention. Costs were assessed by input (capital and recurrent), component (in-school, community activities, youth-friendly health services, condom distribution), and phase (development, start-up, trial implementation, scale-up). The in-school component consisted of the development and implementation of a teacher-led and peer-assisted reproductive health curriculum for Standard Five to Seven in all primary schools in the intervention communities. Overall, 15,000 students were reached in a total of 62 schools, 432 teachers and 1,124 peer educators were trained. The curriculum comprised ten to fifteen classroom sessions per year. Teachers from each school received an annual week-long training in the delivery of a participatory curriculum, including the use of drama, games and stories. In each school, six pupils per school year were elected to act as class peer educators. Their main role was to perform

⁵⁴ Biddlecom (personal communication).

⁵⁵ Wang, Davis et al., 2000.

⁵⁶ Terris-Prestholt et al., 2006.

short drama discussion starters during the classroom sessions, for which they received two days' training each year. Two or three slightly older young people from each community were elected by the advisory committee and trained for three weeks to act as Trainers of Peers (TOP). They were responsible for training the class peer educators in the first two years of the programme and for supporting the class peer educator during after-school Mema Kwa Vijana clubs. These clubs provided a more informal forum for addressing young people's sexual and reproductive health issues.

The three-year costs of trial implementation were \$879,032, of which 70% was for the school-based component. Initial development and start-up costs were relatively substantial at 21% of the total costs. Nonetheless, annual costs per school child reduced from \$16 in 1999 to \$10 in 2001. The incremental scale-up cost is one-fifth of ward trial implementation running costs. The authors argue that annual costs can be reduced by almost 40% as project implementation matures. Once the intervention is scaled up, only \$1.54 more is needed per pupil per year to continue the intervention. The authors conclude that the costs of developmental and start-up phases of any comprehensive package of programmes are likely to be substantial and that even the recurrent costs of a more integrated model would still be likely to require donor support.

However, few studies of sex, relationships and HIV education programmes include cost-effectiveness analyses. Nonetheless, if programmes are effective at reducing risk, then they also have the potential to be cost-effective. Cost elements include development of effective curricula and teacher training and classroom delivery. However, subsequent costs can be reduced, for example, through the incorporation of the curriculum within the provision of new teacher training. Careful selection of suitable and appropriate materials can also reduce costs.

8. Conclusions

Too few young people reach their adult sexual life with anything approaching adequate preparation. As a result, too many young people experience the consequence in terms of unintended pregnancy and STIs, including HIV.

It is perhaps inevitable that a review as ambitious as this should raise questions and identify gaps rather than provide definitive answers. While the volume of documentation of some programmes in sub-Saharan is to be welcomed, a clear gap exists in relation to the lack of material from Asia and South America and the Caribbean.

Rather than repeating the content of the Executive Summary, it seems apposite at this point to flag some key questions for future consideration:

- What should be the goals of sex, relationships and HIV education?
- What are the key elements of a core sex, relationships and HIV education curriculum?
- How should the impact of sex, relationships and HIV education be measured?
- What needs to exist (in a school, among teachers, in a local community) for school-based sex, relationships and HIV education to be feasible?
- What does sex, relationships and HIV education cost?
- What can be learned from experiences in scaling up successful sex education programmes?
- What quality standards should exist in relation to school-based sex, relationships and HIV education?

This review has resulted in encouraging action led by UNESCO. A Global Advisory Group has been established that will serve to steer UNESCO's programme on sex, relationships and HIV education, as well as act as a leadership forum for strategic development and increased prioritisation of the issue. UNESCO's Global Advisory Group on sex, relationships and HIV education is composed of eight global experts in interdisciplinary topics relating to the field. When the advisory group first met in December 2007, they identified the urgent need to develop guidelines for standards in sex, relationships and HIV education and a study on the costing and cost-effectiveness of school-based sex, relationships and HIV education.

9. Appendices

Appendix 1 – Terms of Reference

Terms of Reference for Global Expert on Sex, Relationships and HIV education

Background

Within the global move towards universal access to HIV and AIDS prevention, care, treatment and support, and the UNAIDS technical support division of labour, UNESCO's roles are to promote comprehensive education sector responses to HIV and AIDS, contributing to overall national HIV and AIDS responses, and to provide policy and programmatic leadership in the area of HIV and AIDS education for young people in schools. In light of the devastating effects of the HIV epidemic, sex, relationships and HIV education is also an important aspect in achieving Education for All (EFA). The underlying foundation to school-based HIV and AIDS education must be sex education⁵⁷ – education about biology, education about reproduction and family life, and education about inter-personal sexual relations – simply because over 75 per cent of all HIV infections are caused by sexual transmission⁵⁸ and therefore, at some stage, HIV and AIDS education must introduce the subject of sexual transmission of the virus and provide choices on how to minimise risk.

Furthermore, sex education must be an important part of HIV and AIDS education because it is within the context of sexual relationships that HIV is most often transmitted. However, many HIV and AIDS curricula for schools avoid discussions around sex,⁵⁹ alternatively focusing on wider vulnerability factors (such as poverty or gender inequality) or through science or school health. Despite overwhelming evidence that sex education reduces chances of unintended pregnancies and STIs (including HIV), many countries have not adequately prioritised sex, relationships and HIV education within the formal curriculum.

Research Questions

To date, there has been little research to document the beneficial effects of sex, relationships and HIV education within a wider curriculum for HIV and AIDS education. In this context, UNESCO is commissioning a desk-based literature review and seeking advice from a global advisory group in order to document the state of sex, relationships and HIV education. The literature review will address the following research questions.

Principal research question:

Globally, what is the current state of sex, relationships and HIV education within the formal education sector?

Additional research questions:

1. What is the overall history of sex education in schools? How is it linked to HIV and AIDS education? When and why was sex education first introduced in schools?

⁵⁷ Smith, G., Kippax, S., Aggleton, P., 2000. *HIV and Sexual Health Education in Primary and Secondary Schools: Findings from Selected Asia-Pacific Countries*. Sydney: The University of New South Wales. This publication distinguished three broad kinds of sex education: that which focused on anatomy, biology and physiology; that concerned with reproduction and family; and that dealing with interpersonal sexual relations. Throughout the following discussion, the authors attempt to keep these three aspects of 'sex education' separate, as the manner in which HIV and AIDS education is positioned with respect to each is of crucial importance to their argument. In general, they used the term 'sexual and reproductive health' education to refer to the first two – HIV and AIDS education is more often than not framed within sexual and reproductive health. They used the term 'sex' education to refer to education that focuses on interpersonal sexual relations and sexual practice.

⁵⁸ UNAIDS, 2006. *Report on the Global Epidemic. Chapter six* (Comprehensive HIV Prevention). Geneva: UNAIDS.

⁵⁹ Boler, T., 2003. *The sound of silence: difficulties in communicating on HIV and AIDS in schools*. London, ActionAid International.

2. What are the typologies of sex education described in HIV and AIDS curricula (pedagogical approaches, components, content (condoms), context)? What is the known coverage of sex, relationships and HIV education in schools to date?
3. How is sex taught in primary and secondary school? What are the specific learning outcomes by age, gender, level, social class?
4. What constitutes a basic minimum package of quality sex, relationships and HIV education in school?
5. What is the cost of a basic minimum package of quality sex, relationships and HIV education in schools in low-income, middle-income and high-income countries?
6. What are the most promising approaches for sex, relationships and HIV education in schools in developing countries (with a focus on sub-Saharan Africa)? What are some of the factors that have enabled their success?

Where possible, the focus will be on sex and HIV education programmes in developing countries, particularly in sub-Saharan Africa. However, where particularly innovative approaches exist in Europe and North America, these should also be included. This is also the case where a lack of evidence exists in developing countries.

Process and Methodology

The objective of the literature review is to address the principal and additional research questions stated above. UNESCO will commission a global expert in sex, relationships and HIV education for a total of thirty-four days to conduct a comprehensive review of the literature. The search strategy will be limited to the English language and for the period from 1997 to 2007. Search strategies will include:

- Database searches of the peer-reviewed literature e.g. Medline, PsycInfo, ERIC, Social Science Abstracts.
- Hand-searching key journals e.g. Sex Education, Health Behaviour and Education, Journal of School Health, Journal of Adolescent Health.
- Database searches of the grey literature e.g. Popline, University of Leeds database.
- Websites e.g. IBE, UNESCO, UNICEF, WHO, National Electronic Library for Health.
- Interviewing a minimum of ten key stakeholders and experts.

Publications and reports will be included if they match certain specified criteria, which will be determined by the consultant. The consultant will then conduct an analysis of the selected studies. The analysis will be complemented with the information gathered during stakeholder interviews.

The Global Advisory Group will be sent the draft literature review to comment on a minimum of seven days before the first advisory meeting in November 2007.

Timeframe

The consultant will be hired for 34 days during the period of September 2007 until January 2008 (see below for detailed schedule).

Expected outputs

The consultant is expected to produce the following deliverables:

- a draft literature review, which will be circulated for comments to be submitted within a specified timeframe;
- a final literature review incorporating reviewers' comments;
- a PowerPoint presentation of the literature review findings;
- an Action Plan for UNESCO's work in 2008/9;
- a conference abstract;
- a manuscript for a peer-review journal.

See below for detailed schedule.

Part I: Desk review on the state of sex, relationships and HIV education

Steps	Notes	Deliverables	Number of days	Indicated Dates
Desk-based literature review	The consultant is expected to conduct a comprehensive literature review of sex, relationships and HIV education in the context of HIV and AIDS. The review is expected to address the principal and additional research questions. The search strategy should include database searches of the peer-reviewed literature and grey literature, hand-searching key journals, and contacting experts in the field.	Literature search strategy Preliminary search results Copies of correspondence List of potential key informants Draft report outline	15	September–November 2007
Key informant interviews	The consultant is expected to have completed a maximum of ten key informant interviews with international experts in sex and relationship education (a potential list of interviewees will be developed collaboratively between the consultant and UNESCO HIV section).	List of key informants Interview schedule Summary of interview transcripts	3	September–November 2007
Literature review report	The consultant is expected to draft a thirty-page interim report to present the findings of the literature review and key informant interviews.	1st payment: Draft literature review	5	Early November 2007
Global advisory meeting	The consultant will review and provide input into the agenda for this meeting on the basis of the literature review and any other commissioned presentations. The consultant is expected to present the findings from literature review on sex, relationships and HIV education. The consultant is expected to spend one day to prepare for and two days to attend the global advisory meeting scheduled for 15-16 November 2007. The consultant is also expected to document and incorporate the suggestions and comments made by members of the advisory group relating to the findings of the literature review.	2nd payment: Power Point Presentation Final literature review*	3	15-16 or 19-20 November 2007
Publications	The consultant is expected to develop one abstract for the International AIDS Conference in Mexico and a manuscript for a peer-reviewed journal describing the findings of the literature review.	Abstract for IAS Manuscript for peer-reviewed journal	4	December 2007-January 2008

* The consultant is expected to incorporate up to a maximum of two rounds of revisions before the final report is submitted.

Appendix 2 – Key Informant Interviewees

Leif Aarø	University of Bergen
Beatrice Bainomugisha	Straight Talk Foundation
Anne Biddlecom	The Alan Guttmacher Institute
John Cleland	London School of Hygiene and Tropical Medicine
Nanette Ecker	SIECUS
Uwem Esiet	Action Health Incorporated
Gill Frances	National Children’s Bureau
Gill Gordon	International HIV/AIDS Alliance
Roger Ingham	University of Southampton
Susan Kippax	University of New South Wales
Doug Kirby	ETR Associates
Malika Ladjali	UNFPA
Elliot Marseille	University of California
Kitila Mkumbo	University of Southampton (PhD Student)
Christine Panchaud	UNESCO – International Bureau of Education
David Plummer	University of the West Indies
Vera Paiva	University of Sao Paulo, Brazil
Jo Reinders	World Population Foundation
Herman Schaalma	University of Maastricht
Fern Terris-Presholt	London School of Hygiene and Tropical Medicine
Alice Welbourn	UNAIDS Global Coalition on Women and AIDS, Founder of Stepping Stones
Danny Wight	University of Glasgow

Appendix 3 – Questions for Key Informants

Opening

- What do you see as the relationship between HIV prevention and sex education in schools?

Development of sex, relationships and HIV education

- How has sex education in schools evolved or developed within your country/region of expertise? What have been the major influences?
- Prompt: Family planning, HIV and AIDS education, religion
- How is sex education regarded by religious leaders and other key stakeholders?
- What examples exist of collaborations with, for example Parent-Teacher Associations, faith-based organizations and other key stakeholders on the development of sex education in schools?

Any key documents you recommend in this regard?

Content of sex, relationships and HIV education

- Developmentally appropriate
- At what age/level does or should sex education in schools begin?
- How do approaches to sex education differ in primary versus secondary school?
- How do you think they should differ?
- In many countries, children/young people (especially girls) will not go on to secondary education. So, in terms of sex, relationships and HIV education, what knowledge (attitudes, skills and behaviours) should they possess by the time they leave school?
- What specific examples can you share of developmentally appropriate sex, relationships and HIV education?

Curriculum

- Is sex education included in the national school curriculum?
- Under what subject(s) is sex education taught?
- What are the main components of the sex education curriculum?
- What are the assumptions about human sexual relationships, young people and gender relationships?
- How can sex education explicitly address gender issues?
- What is taught about HIV?
- Is sex education taught in single sex or mixed classes?
- Is sex education taught in mixed age group classes?
- What is taught – if anything – about condoms?
- What is taught – if anything – about contraception?

Teacher support

- What training and support do teachers receive (if any) to prepare them to teach sex education?
- What are the main challenges for training teachers? And what are the most promising approaches?
- Who are the outside resource people that could assist with teacher training? How does one ensure quality?

Policies

- What policies are in place to support sex, relationships and HIV education in schools?
- To what extent is sex education linked to sexual and reproductive health (SRH) services?

Any key documents you recommend in this regard?

Coverage, Quality and Intensity

- What would you estimate is the coverage of sex education in schools in your country/region of expertise?
- Prompt: quality (e.g. gender-specificity), intensity/exposure.
- What are the main challenges/successes to implementation of sex, relationships and HIV education in schools?
- Can you share any evidence to support this?

Any key documents you recommend in this regard?

Learning Outcomes

- To what extent is sex, relationships and HIV education changing learning outcomes?
- Prompt about knowledge, skills and behaviours.
- Which behaviours is it trying to change? How successful it is in trying to: delay sexual debut, encourage abstinence until marriage, decrease number of partners, increase condom use? Is there any evidence to support decreased pregnancies and/or STIs and HIV incidence?
- How should these outcomes differ by age, gender, education level?
- What do you think are realistic outcomes for sex, relationships and HIV education?

Any key documents you recommend in this regard?

Basic Minimum Package

- Can you share with us any studies, initiatives, anecdotes that define a basic minimum prevention package in schools?

Any key documents you recommend in this regard?

Costs

- Could you share with us any studies or resources that address costing of quality sex, relationships and HIV education in schools?

Promising Approaches

- What do you feel are the most promising approaches for sex, relationships and HIV education in schools?
- What do you feel are the key barriers to sex, relationships and HIV education in schools? How does one overcome them?
- What are some of the factors that have contributed to the success of these approaches?

Any key documents you recommend in this regard?

Closing

- What are the key knowledge gaps in terms of using sex education for HIV prevention in schools?
- What would you like to see the international HIV community do with regards to sex, relationships and HIV education?
- What would you like to see UNESCO to do with regards to sex, relationships and HIV education?

Appendix 4 – Suggestions for UNESCO from Key Informants

- Push for investigation of innovative and effective approaches e.g. linking schools and health services.
- Develop a database of curricula content – what should be taught and what is being taught.
- Promote the link between condoms and pregnancy avoidance and in general put reproductive health back on the agenda.
- Place more emphasis on challenging harmful gender roles and stereotypes.
- Promote delaying rather than abstaining from sex.
- Provide opportunities for exchange of experience among practitioners and researchers.
- Support long-term development of local competence, avoiding as far as possible the use of external technical support agencies.
- Emphasise skills in the context of relationships.
- Organise high-level meetings to share experiences in creating educators and gaining acceptance for sex education at community level.
- Build capacity to do local research into problem identification and generation of locally relevant solutions.
- Identify best practice.
- Invest in institutions rather than individuals.
- Promote programmes that incorporate the seventeen characteristics of effective sex education programmes.
- Explore issue of how to adapt programmes to different settings without diluting impact.
- Explore what it takes to train teachers to be able to deliver sex education properly so they are comfortable with content and methods.
- Investigate how to get Ministries of Education and Health to support the roll-out of effective programmes.
- Clarify the division of labour among the different UN agencies.
- Support research and evaluation.
- Support professionalisation of sex education as a recognisable (and examinable) subject and support development of a career path for teachers in this area.
- Collect evidence about what young people say they want from sex education.
- Commission work on the use and abuse of religious texts as they relate to sex education.
- Advocate for infrastructure support.
- Gather and disseminate research findings.
- Arrange a policy-oriented sex education forum.
- Investigate the cost aspect of sex education.
- UNESCO has the potential to promote the implementation of effective programmes, such as life skills interventions that clearly address sexual risk reduction.

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