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IN HEALTH EDUCATION

BOOKLET

9

Puberty Education & Menstrual Hygiene Management



GOOD POLICY AND PRACTICE IN HEALTH EDUCATION

Booklet 9

**PUBERTY EDUCATION &
MENSTRUAL HYGIENE MANAGEMENT**

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BZgA	German Federal Centre for Health Education
CHW	Community Health Worker
CBO	Community-Based Organization
CSE	Comprehensive Sexuality Education
CSO	Civil Society Organization
CSTL	Care and Support for Teaching and Learning
EFA	Education for All
EFPA	Egyptian Family Planning Association
ESA	Eastern and Southern Africa
FAWEU	Ugandan Forum for African Women Educationalists
FGC	Female Genital Cutting
FRESH	Focusing Resources on Effective School Health
GCN	Girl Child Network
GEM	Girls' Education Movement
HIV	Human Immunodeficiency Virus
ICT	Information and Communication Technology
IEC	Information, Education, Communication
IRC	International Water and Sanitation Centre
JMP	Joint Monitoring Programme of WHO and UNICEF
MDGs	Millennium Development Goals
ME	Menstruation Education
M&E	Monitoring and Evaluation
MHM	Menstrual Hygiene Management
MHR	Menstrual Hygiene Reader
MoE	Ministry of Education
MoES	Ministry of Education and Sport
MoH	Ministry of Health
NGO	Non-Governmental Organization
NOPE	National Organization of Peer Educators Kenya
P&G	Procter & Gamble
PHC	Primary Health Care
PMS	Premenstrual Syndrome
PTA	Parent-Teacher Association
SERAT	Sexuality Education Review and Assessment Tool
SHE	Sustainable Health Enterprises
SHN	School Health and Nutrition
SNV	Netherlands Development Organization
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
UKS	School Health Programme Indonesia
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WSSCC	Water Supply & Sanitation Collaborative Council

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FOREWORD

Every year a new cohort of learners reaches puberty. Yet, despite the urgent and recurring need, there is little systematic and comprehensive guidance on this vital subject for the education sector. UNESCO and partners have teamed up to fill this gap by developing the next volume in the UNESCO series on Good Policy and Practice in Health Education. This volume is designed to articulate a rationale for the education sector to improve school health by addressing puberty education and menstrual hygiene management; to describe good policies and practices from different global contexts; and to provide clear action steps for administrators, practitioners and advocates to take on these issues in their education sector.

This document is the product of an extensive literature review, key informant interviews and an international technical consultation. The consultation was held in Nairobi, Kenya in July 2013 and included participants from UN agencies, government, civil society, academia and the private sector. The majority of the examples in this volume were discussed and debated over three days. They are provided here to show that in every context, no matter how challenging, there are actions teachers and other education staff can take to improve learning and health outcomes.

Through this document, UNESCO reaffirms its position that comprehensive sexuality education is part of the skills-based health education that young people require. Puberty should not be taught in isolation, rather it should be delivered through an age and developmentally appropriate skills-based health education curriculum framework that starts as early as age five and continues into young adulthood. Sadly, many learners do not receive any education on puberty or sexuality, which leaves them vulnerable to infection and unintended pregnancy. This document uses puberty education as an entry point to effect change.

This volume is part of a popular UNESCO series on good policy and practice. It consolidates UNESCO's contribution to school health by addressing teaching and learning, the school environment, and linkages to health services. School health is an evolving field: we welcome any feedback and encourage readers to contribute to the development of the series by sharing their comments and experiences.

We in the education sector have a duty to prepare learners for life changes and to provide them with a secure environment. We invite you to use this volume and to encourage your colleagues and partners to use it as well. Together, we can achieve a high quality of education for all.



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Booklet 9

PUBERTY EDUCATION & MENSTRUAL HYGIENE MANAGEMENT



1. INTRODUCTION

The education sector is responsible for contributing to the healthy development of its learners; it must help them respond to and manage the changes and challenges they face in life. One of the most challenging times for learners is puberty, when the body goes through multiple changes all at once as it makes the transition to adulthood. These developments can be accompanied by the added pressure of cultural expectations for starting a family life. Yet many learners enter puberty unprepared. The information they receive is often selective and surrounded by taboos. Often the education sector avoids the issue by considering it a private matter or a problem to be addressed within the family.

Puberty is not a problem to be solved; it is simply a time of accelerated physical growth and sexual development experienced by every human. But by facing this pivotal phase of life unprepared, learners are left confused and unsupported, which in turn affects the quality of their education. In some cases it may directly affect school

attendance, especially for girls. It is incumbent on the education sector to make sure all learners are prepared for these changes. Achieving this goal calls for education about puberty, sometimes approached within a wider programme of comprehensive sexuality education, but it also requires ensuring that the educational setting is a safe and clean space to support healthy practices. A health-promoting school is central to providing a high quality education for all, including learners going through puberty.

Menstruation is a particularly salient issue because it has a more pronounced effect on the quality and enjoyment of education than do other aspects of puberty. It involves a learning component as well as elements affected by the school environment and infrastructure. These include access to menstrual hygiene materials, latrines and places to change, safe water and sanitation, and good hygiene practices like hand washing with soap. Without these, the school environment is unhealthy, gender discriminatory and inadequate.

The onset of puberty, occurs in a time frame when many learners are still attending school. It is marked by first menstruation (menarche) for females and the development of sperm (spermarche) and the first ejaculation (semenarche) for males. On average, females begin puberty between 10 and 11 years of age (the age varies depending on such factors as nutrition), males a year later. In many countries, primary school officially starts around the ages of 6 to 8 (although a number of learners will start later due to financial and other constraints), while the number of years spent in school varies from six years in low income countries to eight years in lower middle income countries.

There are 650 million primary school-age young people in the world. Considering that 57 million of them do not attend school,¹ this leaves 593 million who can be reached through school-based programmes, making schools the ideal location to reach a large proportion of learners before puberty. Given also that only 75 per cent of learners who started primary school reached the last grade (with the figure decreasing in regions such as sub-Saharan Africa where the proportion was only 58 per cent²), primary school is thus the right place and the right time to reach young people with puberty education.

Furthermore, the education sector has a large educated workforce that can, if properly trained, provide accurate knowledge and develop a relationship of trust with students. The school setting promotes relationships and social interaction with peers and teachers or other school staff, which can lead to a feeling of school connectedness

¹ Education for All Global Monitoring Report, 2013/14, *Teaching and Learning: Achieving quality for all*. Paris, UNESCO.

² Ibid.

(the feeling that someone in a young person's school cares about his or her well-being). This factor can have a positive impact on school performance; it can mitigate school drop-out, early sexual initiation, risky sexual activity, violence and substance use.³ In addition, education can challenge the gendered roles of girls and women, and boys and men, and provide resources and support to alleviate the increased physical and social vulnerability associated with puberty.

A healthy school environment – one in which healthy norms and practices can be created and reinforced – covers both the physical and the social setting. It refers to facilities such as safe water, latrines, sanitation and hygiene, but also to an educational setting where learners and staff feel secure and comfortable. The efforts necessary to improve infrastructure to meet the physical needs of learners and staff have been covered in detail by UN agencies, for example in the empirical work by WHO and UNICEF's WASH in Schools initiative, and by non-governmental organizations (NGOs) and other civil society organizations such as WaterAid. This volume will not replicate the solid and comprehensive work done by those partners, but will rather build on it by covering the areas inadequately addressed by the education sector and in which UNESCO has a comparative advantage. These are the spheres of individual and social learning.

This book describes good policies and practices around puberty education and menstrual hygiene management (MHM). It encourages a holistic approach to health promotion, starting with education, creation of healthy environments, and linkages to health services. For this volume, puberty education refers to the teaching and learning about physical and psychosocial maturation within the cultural context of the learning community.

Puberty education is a crucial aspect of adolescent development and to be effective it should be age-appropriate and culturally relevant. It should be situated within the framework of broader life development curricula, with sequenced lessons from pre-adolescence to young adulthood. It should employ learner-centred methods to develop the knowledge, attitudes, values and – crucially – skills needed to adopt healthy and safe practices as learners make the transition to adulthood, and thus prepare them for healthy sexual lives. Therefore the book puts forth **a vision of puberty education that is skills-based, inclusive and comprehensive. It is part of a comprehensive sexuality education curriculum, which is part of a larger health curriculum, which is an integral part of a comprehensive school health approach.**

This book takes a normative approach to puberty education in that it prescribes what learners should be taught. Adaptation of information and skills to the local cultural context is necessary, but not at the expense of putting the health of learners at risk. The book offers alternatives to a dominant narrative that presents puberty as shameful for girls while in contrast celebrating male virility.

To be a safe and secure environment, the school needs policies that protect individuals from harassment and bodily harm. But creating such an environment takes more than just policy; it is a product of attitudes and skills related to empathy and respect. The aim is to develop lifelong health-seeking behaviours, while at the same time promoting skills for understanding and supporting others, and mitigating gender-based violence, teasing, bullying and other anti-social behaviours.

The volume was created through an extensive literature review, key informant interviews, an international technical consultation and peer reviews. The consultation convened by UNESCO in July 2013 brought together a broad range of international stakeholders from government, UN agencies, academia, civil society and the private sector. The participants reviewed evidence and discussed the challenges of puberty education, MHM and its impact on providing a quality education. They also shared good practices, tools and resources and identified the characteristics of good programmes. The guidance they agreed on and the examples they provided formed the basis for this book.

The book touches upon a range of issues to help the education sector address puberty education and menstrual hygiene management systematically and effectively. Examples of good practices are provided concerning curricula content and delivery, community and parental involvement, policy development, advocacy and teacher training. Sustainability, which includes quality, coverage and partnerships, is similarly covered.

³ Fatusi, A. O. and Hindin, M. J. 2010. Adolescents and youth in developing countries: health and development issues in context, *Journal of Adolescence*, Vol. 33(4), pp. 499-508.



PUBERTY



A time of rapid physical, psychological and cognitive changes

When gender norms and identity are being shaped



Girls report experiencing stress, shame, embarrassment, confusion and fear due to a lack of knowledge and inability to manage their menstruation



Boys report feeling low self-esteem and feeling out of control of events in their lives, which manifests itself through unhealthy behaviours

2. CONTEXT AND RATIONALE

This section defines puberty and related key concepts. It also explains the rationale for education sector involvement by examining theory and empirical work. Finally, it proposes a conceptual framework in the form of Focusing Resources on Effective School Health through which to organize the rich set of case examples that follow in the next two chapters.

2.1 What is puberty?

Puberty is a key process of human development into adulthood, involving the most rapid physical growth the human undergoes except for pre-natal and neonatal growth.⁴ Hormonal changes lead girls to experience their first menstruation (menarche), while boys will have their first ejaculation (semenarche). The physical growth of puberty is accompanied by new and complex emotions, including sexual desire and gender identity. These changes are also associated with peer pressure to behave in a certain way.

The differences between boys and girls become more pronounced.⁵ An important dimension of puberty is that young adolescents be able to integrate bodily changes into their self-identity, and to incorporate others'

⁴ Brooks-Gunn, J. 1988. The impact of puberty and sexual activity upon the health and education of adolescent girls and boys. *Peabody Journal of Education*, Vol. 64, No. 4, pp. 88-113.

⁵ WHO and BZgA. 2010. *Standards for Sexuality Education in Europe. A framework for policy makers, educational and health authorities and specialists*, Cologne. <http://www.bzga-whocc.de/?uid=072bde22237db64297daf76b7cb998f0&id=Seite4486> (Accessed 7 January 2014.)

responses to these changes into that self-identity.⁶ Same-sex peers become important during the early stages of puberty as someone to talk to, and bonding between peers increases to the possible detriment of the relationship with parents.⁷

Puberty is also the time when adolescents increase their intellectual capacities and experience moral development.⁸ Social identity is supplemented by the search for a psychological identity. Adolescents reflect on their personal qualities and significance and consider their place in the world. Forming an identity is closely linked with self-image, and many problems related to the search for self-image can arise during puberty. Some of these manifest as nutritional problems such as anorexia or bulimia, substance misuse and violence, risky sexual behaviours, or bullying toward peers perceived as different.

For girls, puberty means the onset of menstruation. In many contexts menstruation is considered a private issue, making it difficult to speak about it in public, for instance in a classroom. Many girls are not properly prepared: Numerous studies, particularly from low-income countries, show that a very high number of girls start menstruating without having any idea what is happening to them or why.^{9,10,11} Since parents can find it difficult to speak of sensitive and sexual issues with their children, even while admitting it is also their responsibility,^{12,13} schools have a central role in puberty education. This role involves more than just educating girls; boys are also undergoing changes and educating boys creates understanding that can lead to a healthier social environment and gender equality.

Menstruation is an issue that goes beyond learning, because it concerns the educational setting. Menstrual hygiene materials must be made available, linkages

to health services must be formed, and safe latrines, clean water and soap, adequate sanitation and disposal mechanisms must be provided. These objectives are for the benefit of all members of the school community, including learners and staff; furthermore, failure to meet them puts girls at risk of not having a high-quality educational experience.

2.2 Why ministries of education should get involved

The role of education

Much has been written on the purpose of education. Though there are debates and disagreements, a clear line has developed from classical theorizing on education to UNESCO's strategic vision of education for the 21st century. Many thinkers, from diverse contexts, have revisited and reinforced the theme of educating for the purpose of 'learning to know, to be, to do, and to live together'. Practically, we can find the idea of an education to enhance one's life and make sense of day-to-day realities in works by authors, researchers and practitioners all over the globe. It is from this tradition that we draw the mandate for the education sector to teach about puberty.

With this understanding of education we can see the importance of puberty education. Learners need to understand the profound change they are experiencing and be equipped with the skills to cope with it. Thus, education should develop the knowledge, attitudes, values and skills needed to live a healthy life.¹⁴ These skills are aimed at raising self-esteem and self-confidence,¹⁵ helping young people to resist peer pressure and increase their health-seeking behaviours. Additionally, these skills have a social dimension, in that they aim to build empathy, tolerance and understanding of gender diversity.

Teaching puberty in schools can help learners better understand themselves and deal with the changes they are experiencing, and hence gain the self-esteem to overcome daily challenges they may face with teachers and peers in school. Adolescents also become more conscious of socially-constructed myths and taboos built around puberty, such as negative perceptions of menstruation or dismissal of emotion as un-masculine. A better understanding of puberty and life skills helps young people to make independent decisions and better cope with pressure from peers, family, community and media messages.

⁶ Ibid.

⁷ Brooks-Gunn, J. 1988. The impact of puberty and sexual activity upon the health and education of adolescent girls and boys. *Peabody Journal of Education*, Vol. 64, No. 4, pp. 88-113.

⁸ WHO and BZgA. 2010. *Standards for sexuality education in Europe. A framework for policy makers, educational and health authorities and specialists*, Cologne. <http://www.bzga-whocc.de/?uid=072bde22237db64297daf76b7cb998f0&id=Seite4486> (Accessed 7 January 2014.)

⁹ Neginhal, V. S. 2010. *Knowledge, Attitude and Practices of Menstrual Hygiene among Secondary School Girls in Semi Urban Area, Belgaum District - A Cross Sectional Study*, Master of Public Health thesis, KLE University.

¹⁰ Jothy, K. and Kalaiselvi, S. 2012. Is menstrual hygiene and management an issue for the rural adolescent school girls? *Elixir International Journal*, Vol. 44, pp. 7223-7228.

¹¹ McMahon, S. et al. 2011. The girl with her period is the one to hang her head: Reflections on menstrual management among schoolgirls in rural Kenya, *BMC International Health and Human Rights*, Vol. 11(7), pp. 1-10.

¹² Risi, L. 2000. *Parents ignoring sex education*, <http://news.bbc.co.uk/2/hi/health/988353.stm> (Accessed 5 December 2013).

¹³ Goldman, J. 2008. Responding to parental objections to school sexuality education: A selection of 12 objections, *Sex Education*, Vol. 8, pp. 415-438.

¹⁴ Mérieu P. 2002. Transmettre, oui... mais comment ? *Sciences Humaines*, Special issue No. 36. 'Qu'est-ce que transmettre ?'

¹⁵ Elliot, J. 1996. School effectiveness research and its critics: Alternative visions of schooling, *Cambridge Journal of Education*, Vol. 26, pp. 199-223.

Similarly, understanding the development of gender and sexual identity during puberty can encourage youth to feel more confident and also enhance respectful attitudes toward peers in general, including young people perceived as gender non-conforming. This can lead to a more positive perception of puberty (especially in relation to girls), and change girls' and boys' roles and images in favour of greater gender equality and female empowerment.

It is necessary for educators to help learners understand the sexual desires they first experience in puberty and deal with them in a healthy way, for example by delaying their sexual debut. Without the correct information, adolescents are at risk of sexually transmitted infections (STIs), unintended pregnancies and abuse. Yet the provision of meaningful, in-depth explanations to young people of the consequences of increased sexual desire is often neglected in school curricula: the sexual implications of puberty are frequently explained only in terms of reproductive functions.¹⁶ Puberty education should therefore also offer learners useful information on relationships, feelings, contraception and STIs including HIV, inter alia. A review of sexuality education programmes in schools has shown they do not hasten sexual initiation or increase sexual activity; on the contrary, they can delay sexual initiation and decrease the frequency of sexual intercourse and the numbers of sexual partners, as well as increase condom use.¹⁷

In many curricula, there is emphasis on the reproductive process but not on the practical issues girls need to learn to manage menstruation.¹⁸ Menstruation is a vital sign of reproductive health, yet the main message is often that it is a 'problem' that must be managed privately, with an implicit suggestion that it is unpleasant and shameful, and should be hidden. This portrayal of female puberty reinforces negative attitudes around menstruation and can have negative psychological repercussions on girls.¹⁹ At the same time, the lack of legitimization of female sexuality can implicitly suggest that girls who naturally experience awareness of their awakening sexuality do not have proper control of their bodies; this can lead to anxiety or self-doubt. Furthermore, it confines girls and women to traditional gender roles as future mothers. Adding the

'pleasure' dimension to girls' puberty education brings balance and normalizes the issue. It can help girls to feel, and be perceived as, equal to men and to be more conscious of their sexuality and its implications in their life, beyond reproduction.²⁰

Male puberty, in contrast, is often exemplified as the onset of sexual desire and 'power' that boys can enjoy.²¹ Erections and wet dreams, while also potentially embarrassing occurrences, are not usually embedded in the same narrative of shame that girls experience. The transition from boyhood to manhood is presented as exciting, and puberty for boys is much more explicitly linked to sexual feelings in a positive way. Complex discussion of masculinity has been absent in many puberty education programmes because it is perceived as unproblematic:

*They [the teachers] don't talk about the differences between sexual love and other kinds of love. They don't talk about emotions and they don't encourage you to talk about your desires or how they come about. Most boys go through all their school life without ever discussing how they feel about other people. I mean in a positive way. All the aggression and anger is allowed and expected really, if you're a real man. That's why men are so emotionally under-developed. When you think about it, girls and boys come out of school like two separate tribes not really understanding each other and then they're expected to live together."*²²

This has repercussions on how boys react to the puberty education curriculum. Teachers report that boys use aggressive responses to sexual material and language designed to intimidate girls and female teachers. The behaviour enables them to assert their stereotypical masculinity and therefore their power and supposed superiority.²³ In some studies, however, boys highlight the need to learn how to manage feelings of love and difficult emotions.²⁴ In some contexts, the often-accepted gender identity traits of male aggressiveness and female

¹⁶ Otieno, A. 2006. *Gender and sexuality in the Kenyan education system: Is history repeating itself? An exploratory study of information on sexuality within Nakuru town*, Masters dissertation, Southern & Eastern African Regional Centre for Women's Law. http://www.searcwl.ac.zw/index.php?option=com_docman&task=cat_view&gid=57&limit=5&order=date&dir=ASC&Itemid=96 (Accessed 5 February 2014.)

¹⁷ UNESCO. 2009. *International Technical Guidance on Sexuality Education. An evidence-informed approach for schools, teachers and health educators. Vol. 1 The rationale for sexuality education*, Paris, UNESCO.

¹⁸ Diorio, J. and Munro, J. 2000. Doing harm in the name of protection: menstruation as a topic for sex education, *Gender and Education*, Vol. 12, pp. 347–365.

¹⁹ Johnston-Robledo, I. and Chrisler, J.C. 2013. The menstrual mark: Menstruation as social stigma, *Sex roles*, Vol. 68(1-2), pp. 9-18.

²⁰ Otieno, A. 2006. *Gender and sexuality in the Kenyan education system: Is history repeating itself? An exploratory study of information on sexuality within Nakuru town*, Masters dissertation, Southern & Eastern African Regional Centre for Women's Law. http://www.searcwl.ac.zw/index.php?option=com_docman&task=cat_view&gid=57&limit=5&order=date&dir=ASC&Itemid=96 (Accessed 5 February 2014.)

²¹ Ibid.

²² Wood, A. 1998. Sex education for boys. *Health Education*, Vol. 3, pp. 95–98.

²³ Hilton, G.L.S. 2001. Sex education – the issues when working with boys. *Sex Education*, Vol. 1(1), pp. 31-41.

²⁴ Hilton, G.L.S. 2007. Listening to the boys again: An exploration of what boys want to learn in sex education classes and how they want to be taught, *Sex Education*, Vol. 7, 161-174.

submission contribute to both poor sexual negotiation skills for women and violent behaviours among males.²⁵

Gender-based violence, including bullying in schools, is a serious issue; it includes teasing, taunting and the use of hurtful nicknames, psychological manipulation, physical and sexual violence or social exclusion. Bullying becomes more common in schools during puberty and can affect not only girls experiencing menses but also learners viewed as different. Since puberty is also the age when sexual and gender identity are becoming more defined, learners whose sexuality is perceived to differ, or whose gender identity or behaviour differs from their biological sex, are especially vulnerable to abuse.²⁶

The role of teachers in puberty education has been insufficiently documented to date and needs additional research. What evidence is available, primarily from qualitative studies, indicates that both female and male teachers are not prepared to discuss the topic of puberty and menstruation with their students. In many countries, even if the curriculum includes puberty, menstruation and related topics, teachers reportedly skipped over or minimized such material, either being uncomfortable covering such topics due to local sensitivities and taboos, or not sufficiently prepared to cover them.^[27,28,29] There are also findings suggesting teachers, males more than females, may not be adequately sensitized to girls' menstrual-related needs, may not be supportive of girls' requests to use sanitation facilities and may not understand girls' reluctance to participate (or hesitancy to stand and respond to a question) during monthly menses.^[30,31,32]

A final consideration is accommodating learners with special needs. This includes infrastructure changes for learners with physical disabilities, for instance using tactile

learning devices for the visually impaired. Educators must ensure the content and methodology are developmentally appropriate for learners with learning disabilities, by being aware, for example, of the difference between the learner's mental and physical ages. These issues demand specific expertise and go beyond the scope of this book.

Effect of menstruation on girls and their education

Many myths and taboos still hover around menstruation and lead to negative attitudes toward this biological phenomenon and women experiencing it. After menarche, girls are faced with challenges related to management of menstruation in public places. UNICEF estimates that 1 in 10 school-age African girls 'do not attend school during menstruation'.³³ World Bank statistics highlight absences of approximately 4 days every 4 weeks.³⁴ Partly due to the difficulties in measuring absenteeism and its causes, especially when linked to menstruation, there are differing opinions on the impact of lack of menstrual hygiene materials.

For example, a study of 198 girls in Nepal³⁵ reported menstruation has a very small impact on school attendance, estimating that girls miss a total of 0.4 days in a 180-day school year, while improved sanitary technology had no effect on reducing this (small) gap. In the randomized study, girls who received sanitary products (a menstrual cup) were no less likely to miss school during menstruation. In a study in Ghana³⁶ 120 girls between the ages of 12 and 18 were enrolled in a non-randomized trial of sanitary pad provision with education. Girls either received puberty education alone, puberty education and sanitary pads, or nothing (the control group). After three months, providing pads with education significantly improved attendance among participants, and after five months, puberty education alone improved attendance to a similar level. The total improvement through pads with education intervention after five months was a 9% increase in attendance. While this study is small-scale, it indicates that puberty education even if unaccompanied by menstrual hygiene materials can have an impact on education. A larger-scale cluster randomized trial to confirm the findings of this study has begun, although its data is not currently available.

25 Fatusi, A. O., & Hindin, M. J. (2010). Adolescents and youth in developing countries: health and development issues in context. *Journal of Adolescence*, Vol. 33(4), pp. 499-508.

26 UNESCO. 2012. *Good Policy and Practice in HIV and Health Education – Booklet 8: Education Sector Responses to Homophobic Bullying*. Paris, UNESCO.

27 McMahon, S. et al. 2011. The girl with her period is the one to hang her head: Reflections on menstrual management among schoolgirls in rural Kenya. *BMC International Health and Human Rights*, Vol. 11(7), pp. 1–10.

28 Haver, J. et al., 2013. *WASH in Schools Empowers Girls' Education in Masbate Province and Metro Manila, Philippines: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

29 Long, J. et al., 2013. *WASH in Schools Empowers Girls' Education in Rural Cochabamba, Bolivia: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

30 Kirumira, E. (Ed.). 2004. *Life skills, maturation, and sanitation: What's (not) happening in our schools? An exploratory study from Uganda*. Zimbabwe, Women's Law Center Weaver Press.

31 Caruso, B. A. et al., 2013. *WASH in Schools Empowers Girls' Education in Freetown, Sierra Leone: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

32 Haver, J. et al., 2013. *WASH in Schools Empowers Girls' Education in Masbate Province and Metro Manila, Philippines: An assessment of menstrual hygiene management in school*. New York, UNICEF.

33 WHO and UNICEF. 2013. *Progress on sanitation and drinking-water - 2013 update*. Geneva, WHO.

34 World Bank. 2005. *Toolkit on Hygiene Sanitation & Water in Schools: Gender Roles and Impact*. <http://www.wsp.org/Hygiene-Sanitation-Water-Toolkit/BasicPrinciples/GenderRoles.html> (Accessed 5 February 2014.)

35 Oster, E., and Thornton, R. 2010. Menstruation, Sanitary Products and School Attendance: Evidence from a Randomized Evaluation. *American Economic Journal: Applied Economics* 3, pp. 91-100.

36 Montgomery P., Ryus C.R., Dolan C.S., Dopson S., Scott L.M. 2012. Sanitary Pad Interventions for Girls' Education in Ghana: A Pilot Study, *PLoS One*, Vol. 7(10), pp. 1-10.

Despite difficulties in measuring girls' school attendance during menses, both girls and parents confirm it is a common habit for girls to stay home during at least some days of their monthly menstruation.³⁷ Existing qualitative studies conclude that the full engagement of girls in school activities is negatively affected, with many girls reporting they stayed home from school due to menstrual cramping, insufficient menstrual hygiene materials, inadequate water and sanitation facilities in schools, unsupportive environments, and fear of a menstrual accident.^{38,39} Additionally, some girls also avoid standing up to answer teachers' questions because of stress over leakage or smell and discomfort;⁴⁰ or they hesitate to write on the blackboard for fear of menstrual accidents and others seeing blood on their clothes, and the subsequent shame and embarrassment this causes.^{41,42}

Furthermore, in some settings parents may encourage girls to drop out of school because puberty and menstruation are associated with reproduction; they may prefer girls to get married to contribute to the family's income, and may prioritize knowledge not taught in school, such as how to maintain a household.⁴³ In addition, perceiving that after menarche a girl becomes desirable and able to procreate, parents and girls become increasingly fearful of potential sexual harassment by boys and male teachers at school.⁴⁴ Parents may withdraw girls from schools to avoid pregnancies resulting from consensual or non-consensual sex.⁴⁵ The issue of safety for girls is significant in relation to the onset of menses and the subsequent need for menstrual hygiene management in schools. Three facets of post-pubescent girls' safety are of particular relevance here:

- *The safety of existing sanitation facilities within school grounds.* Studies from South Africa and elsewhere have documented the risks of sexual violence and harassment in latrines, and the importance of including schoolgirls in the planning of latrine location and structures within schools. Toilet facilities must also have doors and locks inside, to ensure girls can privately and

safely manage their menses.⁴⁶ Soap and safe water should be available.

- *Pubescent girls' low level of knowledge about their bodies and about sexual and reproductive health and rights.* This ignorance affects their sense of empowerment to manage monthly menses and to make informed decisions about sex after menarche. Without guidance on these topics, adolescent girls run an increased risk of becoming pregnant or acquiring HIV (or other sexually transmitted infections) from unsafe sexual relations, linked to their vulnerabilities because of uneven gender power in intimate relationships.⁴⁷
- *Access to menstrual hygiene materials* for girls who cannot afford to buy them. Although evidence on this issue is primarily anecdotal, risky behaviours have been reported such as girls engaging in transactional sex, particularly in sub-Saharan Africa, to acquire the funds to purchase disposable sanitary pads so they can continue to attend school comfortably during monthly menses.^{48,49} More research is required to determine the extent of this problematic dynamic, and solutions must be found to eliminate the need for such transactional relations.

Several studies have described how too few safe, private, clean latrines, insufficient water supplies and soap, and absent mechanisms for disposal, such as a closed dustbin inside a stall and/or an incinerator on school grounds for burning used menstrual hygiene materials, detracts from schoolgirls' enjoyment and quality of learning.^{50,51,52}

For girls, hygiene during menstruation becomes particularly important. While scientific evidence is currently inconclusive, the risk of vaginal and reproductive tract infections may increase during menstruation.⁵³ In

37 McMahon, S. et al. 2011. The girl with her period is the one to hang her head: Reflections on menstrual management among schoolgirls in rural Kenya. *BMC International Health and Human Rights*, Vol. 11(7), pp. 1–10.

38 Ibid.

39 Sommer, M. and Ackatia-Armah, T. 2012. The gendered nature of schooling in Ghana: Hurdles to girls' menstrual management in school. *JENdA*, Vol. 20, pp. 63–79.

40 House, S. et al. 2012. *Menstrual hygiene matters. A resource for improving menstrual hygiene around the world.* London, WaterAid.

41 Kirumira, E. (Ed.). 2004. *Life skills, maturation, and sanitation: What's (not) happening in our schools? An exploratory study from Uganda.* Zimbabwe, Women's Law Center Weaver Press.

42 Kirk, J. and Sommer, M. 2006. Menstruation and body awareness: Linking girls' health with girls' education. *Special on Gender and Health.* Amsterdam, Royal Tropical Institute (KIT), pp. 1–22.

43 Ibid.

44 Ibid.

45 McMahon, S. et al. 2011. The girl with her period is the one to hang her head: Reflections on menstrual management among schoolgirls in rural Kenya. *BMC International Health and Human Rights*, Vol. 11(7), pp. 1–10.

46 Mitchell, C. 2009. *Geographies of Danger: School Toilets in Sub-Saharan Africa.* In *Ladies and Gents: Public Toilets and Gender*, edited by Olga Gershenson and Barbara Penner. Philadelphia, PA, Temple University Press, pp. 62–74.

47 Sommer, M. 2009. Ideologies of sexuality, menstruation and risk: girls' experiences of puberty and schooling in northern Tanzania. *Cult Health Sex*, Vol. 11, pp. 383–398.

48 Crofts, T. and Fisher, J. 2012. Menstrual hygiene in Ugandan schools: An investigation of low-cost sanitary pads. *Journal of Water, Sanitation and Hygiene for Development*, Vol. 2(1), pp. 50–58.

49 Mason, L. et al. 2013. 'We keep it secret so no one should know' – A qualitative study to explore young schoolgirls' attitudes and experiences with menstruation in rural western Kenya. *PLoS One*, Vol. 8(11), e79132, pp.1–11.

50 Tazeen Saeed, A., Karmaliani, R., Salam, A., Ladak, R., Moss, N., Harris, H., McClure, E. and Goldenberg, R.L. 2006. Hygiene practices during menstruation and its relationship with income and education of women in Hyderabad, Pakistan. *Pakistan Journal of Women's Studies*. Vol. 13(2), pp. 185–199.

51 Sommer, M. 2010. Putting menstrual hygiene management on to the school water and sanitation agenda. *Waterlines*, Vol. 29(4), pp. 268–277.

52 Mason, L. et al. 2013. 'We keep it secret so no one should know' – A qualitative study to explore young schoolgirls' attitudes and experiences with menstruation in rural western Kenya. *PLoS One*, Vol. 8(11), e79132, pp.1–11.

53 Sumpter C. and Torondel B. 2013. A systematic review of the health and social effects of menstrual hygiene management. *PLoS One*. Vol. 8(4):e6, pp.1–15.

addition, prolonged use of the same pads and rolling up pads to insert them in the vagina may also increase the risk of infection.⁵⁴ The danger is higher for women living in communities where female genital cutting (FGC) is practised. The vaginal aperture of a woman who has experienced genital cutting or particularly infibulation may be inadequate for menstrual flow, increasing chances of blockage and build-up of blood clots behind the infibulated area.⁵⁵

Lack of information, misconceptions and adverse attitudes to menstruation may lead to a negative self-image among girls who are experiencing menses for the first time, and can result in a lack of self-esteem as they develop their personality as women. The culture of 'silence' around menstruation increases the perception of menstruation as something shameful that needs to be hidden, and may reinforce misunderstandings and negative attitudes toward it.^{56,57} While we are not implying that exactly the same curriculum should be provided for girls as for boys, one of the aims of puberty education should be to sensitise. Therefore educating boys – and male teachers – on menstruation is aimed at creating a less stigmatizing educational environment for girls, as boys' lack of understanding is likely to underpin much of the teasing and shaming behaviour that is widely prevalent in schools (and elsewhere).⁵⁸

Global development targets

Puberty education and menstrual hygiene management in schools relate to international agreements about access to education, the quality of education, and sexual, reproductive and gender equity and rights. While the international development community prepares to set post-2015 goals, the core issues remain. Governments are responsible for the delivery of education, gender equality, access to safe water and sanitation, and sexual and reproductive health rights, among others.

Moreover, in July 2010, the UN General Assembly adopted a resolution that 'recognized the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human

rights'. It is therefore likely the post-2015 development agenda will include targets on achieving universal access to water and sanitation. It will be essential to make sure the health and hygiene needs of boys and girls in school settings is explicitly integrated into the specific content and targets for this goal.

A number of human rights conventions and programmes of action⁵⁹ provide a rights-based argument for the education sector to ensure quality puberty education and MHM in schools.

The Convention on the Rights of the Child (CRC) can be used to demonstrate how children's rights are not being met when schools do not take steps to improve puberty education and MHM.

- (i) Art. 24 (*Health and health services*) points to children's right to good quality health care – the best health care possible – and to safe drinking water, nutritious food, a clean and safe environment, and information to help them stay healthy;
- (ii) Art. 28 (*Right to education*) addresses the right of all children to a primary education, in schools that protect their dignity and which are orderly and well managed;
- (iii) Art. 29 (*Goals of education*) asserts that children's education should develop each child's personality, talents and abilities to the fullest, while encouraging children to respect others' human rights and their own and other cultures.

Poor and inadequate water, sanitation and hygiene facilities that do not offer private or safe spaces for boys and girls at school violate these rights. Equally harmful are the long-term consequences of not preparing young people adequately, by not giving them the knowledge and skills to understand the changes they will experience or teaching them to manage basic bodily functions with comfort, confidence and awareness. Without sound information, delivered in an accessible manner at the appropriate age, the onset of puberty can be frightening and upsetting. Especially for girls: The high levels of stigma and disgust associated with menstruation signal to girls that this is a shameful and taboo topic. The negative message can seriously undermine girls' confidence and self-esteem, particularly when they become the target of teasing.

⁵⁴ House, S. et al, 2012. *Menstrual hygiene matters. A resource for improving menstrual hygiene around the world*. London, WaterAid.

⁵⁵ Kirk, J. and Sommer, M. 2006. *Menstruation and body awareness: Linking girls' health with girls' education. Special on Gender and Health*, Amsterdam, Royal Tropical Institute (KIT), pp. 1–22.

⁵⁶ Diorio, J. and Munro, J. 2000. Doing harm in the name of protection: menstruation as a topic for sex education, *Gender and Education*, Vol. 12, pp. 347–365.

⁵⁷ Kirk, J. and Sommer, M. 2006. *Menstruation and body awareness: Linking girls' health with girls' education. Special on Gender and Health*, Amsterdam, Royal Tropical Institute (KIT), pp. 1–22.

⁵⁸ Haver, J. et al. 2013. *WASH in Schools Empowers Girls' Education in Masbate Province and Metro Manila, Philippines: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

⁵⁹ International Convention on Economic, Social and Cultural Rights (General Comment 14); International Conference on Population and Development Program of Action; UN Fourth World Conference on Women, Platform for Action; UN Declaration of Commitment on HIV/AIDS.

2.3 Focusing Resources on Effective School Health

As we have already noted, the education sector's effective engagement with the subject of puberty transcends the classroom; it concerns multiple aspects of the educational setting and notably menstrual hygiene management. This book therefore presents a rationale for puberty education and menstrual hygiene management set within a comprehensive school health approach.

It should be noted that a large number of adolescents and young people are out of school; meeting their needs requires community involvement and partnerships with civil society and the health sector. The focus of this book, however, is on educational settings.

At the World Education Forum in Dakar in 2000, international agencies agreed on a common framework for school health: FRESH (Focusing Resources on Effective School Health). FRESH supports efficient, realistic and results-oriented implementation of school health programmes to make educational settings healthier for learners and staff. These programmes help ensure children enrol and stay in school, learn more while they are there, and develop skills, knowledge and healthy behaviours to protect themselves and their future children from disease.

FRESH is a comprehensive, overarching framework for promoting health through schools. It can be used with or instead of other well-known school health frameworks, such as Health-Promoting Schools, Child-Friendly Schools, or school health and nutrition programmes to promote

the health and well-being of students, their families and school staff. The FRESH Framework identifies four key pillars as the basis for school health responses: equitable school health policies, skills-based health education, safe learning environment, and school-based health and nutrition services. It is through these four mutually reinforcing components that an effective school health response can be implemented.

Equitable school health policies

National- and local (school)-level school health policies are necessary to promote effective programming. At school level, policies set priorities, objectives, standards and rules to protect and promote the health and safety of both students and staff. School health policies should address physical safety issues, such as ensuring the school has adequate water and sanitation facilities as well as a safe environment to protect students and staff from physical and sexual abuse, harassment, discrimination and bullying. The policies should respond to local priorities and the needs of all, including marginalized children. In addition, the process of developing and agreeing upon policies draws attention to the salient issues.

At national level, a policy framework articulates expectations for schools across the country. For example, the national school health policy may recommend that all schools have a sufficient number of safe and separate water and sanitation facilities for girls and boys and that child health clubs be set up in every school to improve child participation in school health.

The **FRESH** Framework identifies

4 KEY PILLARS

as the basis for school health responses:

EQUITABLE
SCHOOL HEALTH
POLICIES

SKILLS-BASED
HEALTH
EDUCATION

SAFE LEARNING
ENVIRONMENT

SCHOOL-BASED
HEALTH AND
NUTRITION
SERVICES

Skills-based health education

Skills-based health education uses participatory activities to help students acquire knowledge and develop the attitudes and skills required to adopt healthy behaviours. These can include cognitive skills such as problem-solving, creative and critical thinking, and decision-making; personal skills such as self-awareness, anger management and emotional coping; and interpersonal skills such as communication, cooperation and negotiation. For example, skills-based health education can clarify students' perceptions of risk and vulnerability, which can help them avoid becoming infected with HIV, increase their understanding of the importance of washing hands after going to the latrine or before eating, or realize their own role in the use of resources and their impact on the environment. It therefore has the potential to empower individuals to protect and improve their own and others' health, safety and well-being, leading to better health and educational outcomes for children and their communities now and in the future.

A safe learning environment

The school environment refers to aspects of the school or learning space that affect both the physical and psychosocial well-being of students, teachers and other school staff. To promote psychosocial well-being, the school should be a place where all are free from fear and exploitation, where codes against misconduct exist and are enforced. For physical well-being, the school should be a place where all individuals are free from danger, disease, physical harm or injury; where sufficient safe water and sanitation facilities are provided; and where physical structures (buildings, paths and latrines) are sound, welcoming and secure.

Provision of safe water, sanitation and hygiene are essential first steps towards a healthy physical learning environment. The school environment can damage the health and nutritional status of students if it exposes them to hazards such as infectious diseases carried by an unsafe water supply, lack of hand washing facilities or unsanitary latrines.^{60,61} For hygiene education to be effective, safe water, soap and adequate sanitation facilities must be made available. These in turn can reinforce the health and hygiene messages, and act as an example to both students and the wider community. They make the school more welcoming and can increase school attendance,

especially among girls who require the privacy of single sex toilets (particularly during their menses).⁶²

School-based health and nutrition services

Many common health problems students face in school can be managed effectively, simply, and inexpensively through school-based health and nutrition services. School-based counselling services can help identify and support children and young people during difficult times and prevent school absenteeism and drop-out. A strong referral system to health service providers, child protection services and community support groups is also essential to ensure that children with more serious health problems receive the appropriate care. While the school system is rarely universal, coverage is often superior to health systems; and it has an extensive skilled workforce in daily contact with children and the community. Schools are therefore in a unique position to promptly and cost-effectively address common health problems that prevent children from attending and participating in school, and to improve follow-up with existing health and social services.

While extensive work has been carried out by other agencies on water, sanitation and hygiene in schools, as well as adolescent health services, the consultation that informed this document stressed the lack of both individual and social learning around puberty and menstrual hygiene management, and the need for skills-based health education to promote a healthy school environment.

The examples in the next two chapters will illustrate the many entry points and creative methods the education sector can use to tackle the issues. But these alone cannot suffice; a comprehensive approach is needed for teaching and learning, creating a safe environment, linking to health services, and sustaining norms and standards through policy.

60 Vernon, S., Lundblad, B., Hellstrom, A. L. 2003. Children's experiences of school toilets present a risk to their physical and psychological health. *Child Care Health Dev.* Vol. 29(1), pp. 47-53.

61 Koopman, J. S. 1978. Diarrhea and school toilet hygiene in Cali, Colombia. *Am J Epidemiol.* Vol. 107(5), pp. 412-420.

62 Freeman, M. C., Greene, L. E., Dreibelbis, R., Saboori, S., Muga, R., Brumback, B., & Rheingans, R. 2012. Assessing the impact of a school-based water treatment, hygiene and sanitation programme on pupil absence in Nyanza Province, Kenya: a cluster-randomized trial. *Trop. Med Int. Health.* Vol. 17 (3), pp. 380-391.



3. PLANNING FOR ACTION

As we have seen, puberty entails rapid physical, psychological and cognitive changes. It is a time when gender norms and identity are being shaped and young people need education on health, hygiene, love, sex, relationships, gender and rights.

“Studies, suggest some 66 per cent of girls know nothing about menstruation until confronted with their first menstruation event, making it a negative and sometimes even traumatic experience.”⁶³ The absence of knowledge transfer from older women, parents and teachers to young girls is caused by such factors as cultural taboos, discomfort in discussing the topic and lack of information. Urbanization and HIV, which separate the extended family, can also remove traditional sources of guidance, and when adults are themselves not well-informed about biological facts or recommended hygiene practices, cultural taboos and restrictions (such as isolation or not bathing during menstruation) may be perpetuated, making it difficult for young girls to manage their menstruation. Girls need to be aware of the changes their bodies are experiencing, and what constitutes good menstrual hygiene practices. Boys require education on puberty and the changes they are going through. Both sexes need to understand what the other is facing during puberty, how their experiences

are related, and how to negotiate the social relationships between girls and boys.

Addressing the needs of girls and boys through skills-based health education, including puberty education, will require concerted action by a number of stakeholders including governments, civil society and the private sector. Action must be taken at all levels, from the national level to develop school health policies and curricula, down to school-level interventions. This chapter highlights some key features and modalities for good quality puberty education.

3.1 The characteristics of good quality puberty education

School curricula and puberty readers

As the 2010 report *Strengthening Water, Sanitation and Hygiene in Schools*⁶⁴ highlights, school curricula at present typically do not cover the topic of menstruation and puberty in a very girl-friendly way, therefore not helping girls understand the changes in their maturing bodies. Yet girls and boys should have access to reproductive health education within formal education programmes, focused not only on reproduction's biological and technical aspects, but also on the social and emotional issues. Adolescents particularly need to explore feelings and

⁶³ Mooijman, A. et al. 2010. *Strengthening Water, Sanitation and Hygiene in Schools. A WASH guidance manual with a focus on South Asia*. IRC, the Netherlands. http://www.irc.nl/redir/content/download/149102/493695/file/TP53_WASH_in_Schools_10.pdf (Accessed 7 January 2014.)

⁶⁴ Ibid.

relationships as well as feminine and menstrual hygiene, male hygiene, body awareness, the maturation process and changes during puberty. The gap between need and availability in school curricula must be filled.

Where to place puberty education in a curriculum will depend on the country and its existing curriculum. It could be included in life skills, health education or biology, for example.

The complete package will be dependent on the country context. Some topics will only be applicable in certain countries but should nonetheless be included, such as female genital cutting (FGC).

Puberty education should be provided in the context of a comprehensive sexuality education which is integrated into a broader skills-based health education curriculum. Comprehensive sexuality education covers a broad range of topics including decision-making about sex and relationships, sexual health, and STI and pregnancy prevention. It should be gender-sensitive, contextually

adapted, rights-based, scientifically accurate and age-appropriate. As previously noted, a large number of girls do not know what menstruation is or how to manage it at menarche, demonstrating the need to start puberty education at an early age (from 5-8 years old) and to continue providing it until 15-18 years old. Puberty education must be adapted to the target age group to ensure optimal learning. Concepts and skills for younger children should be more basic, and with each new age group, concepts and skills should build upon what has already been taught. This building-block approach to learning ensures that key concepts and skills are integrated effectively.

A number of different stakeholders have developed age-appropriate learning objectives that can be used in different country contexts. The table on the next page gives some examples of learning objectives and key ideas for the four main age groups. While this list is not exhaustive, it does provide an idea of topics to cover and at what ages they need to be taught.

Puberty education should cover a number of different topics including:

- What is puberty?
- When does puberty start? When does it end?
- What changes take place in female and male bodies? Body image.
- Hormonal and psychological changes and how to manage them.
- The male and female reproductive systems, i.e. sexual and reproductive anatomy and physiology, the maturation process.
- What emotional changes are experienced?
- Ejaculation, erections, wet dreams, male hygiene.
- What is menstruation? What is premenstrual syndrome (PMS)? Does menstruation hurt? How do you manage pain? How do you manage your menstruation? Menstrual hygiene materials, hygiene around menstruation and how to dispose of menstrual materials. Menstrual calendar for tracking monthly menstrual flow, as well as identification of signs that a girl is going to have her period (e.g. breast sensitivity or changes in vaginal discharge).
- Cultural and religious beliefs, social norms and myths surrounding menstruation and puberty (location-specific).
- Gender roles.
- Privacy and bodily integrity.
- Adult perceptions - changing expectations and roles, the way girls and boys are viewed as a result of reaching puberty (context-specific).
- How puberty affects a young person's role and relationship with family and friends.

Some examples of puberty learning objectives by age group⁶⁵

LEARNING OBJECTIVES FOR LEVEL I (5-8 YEARS)

Describe how bodies change as people grow

Describe the key features of puberty

Key Idea:

- Puberty is a time of physical and emotional change that happens as children grow and mature

“Teaching on puberty can influence beliefs, lifestyles and societal perceptions of adolescents. Boys get to hear about the changes affecting girls and girls get to hear about the changes affecting the boys. ... If young girls (10 - 13 years old) don’t learn about menstruation and don’t have access to affordable sanitary pads and other products to cope with it, their emotions, social behavior, education and leadership development is highly likely to be impacted negatively”

Mr Evans Ademo Masese, Heart
NGO, Kenya

LEARNING OBJECTIVES FOR LEVEL II (9-12 YEARS)⁶⁶

Describe the process of puberty and the maturation of the sexual and reproductive system

Key Ideas:

- Puberty signals changes in a person’s reproductive capability
- Young people experience a range of social, emotional and physical changes during puberty
- As the body matures, it is important to maintain good hygiene (e.g. washing the genitals, menstrual hygiene, etc.)
- During puberty, young women need access to and knowledge about the proper use of sanitary pads and other menstrual hygiene materials
- Male hormonal changes regulate the beginning of sperm production
- Young men may experience wet dreams during puberty and later in life

LEARNING OBJECTIVES FOR LEVEL III (12-15 YEARS)

Describe the similarities and differences between girls and boys in relation to the physical, emotional and social changes associated with puberty

Distinguish between puberty and adolescence

Key Ideas:

- Puberty is a time of sexual maturation which leads to major physical and emotional changes and can be stressful
- Puberty occurs at different times for different people, and has different effects on boys and girls
- Adolescence is the time between the beginning of sexual maturation (puberty) and adulthood

LEARNING OBJECTIVES FOR LEVEL IV (15-18 YEARS)

Describe the key emotional and physical changes in puberty that occur as a result of hormonal changes

Key Ideas:

- Male and female hormones differ and have a major influence on the emotional and physical changes that occur over one’s lifetime
- Hormones can affect body shape and size, body hair growth, and other changes

⁶⁵ UNESCO. 2009. *International Technical Guidance on Sexuality Education. An evidence-informed approach for schools, teachers and health educators*, Vol. II, Topics and learning objectives. Paris, UNESCO.

⁶⁶ Topics need to be addressed before they are experienced, e.g. menarche, to ensure learners are prepared.

Keeping girls in school - Uganda's comprehensive approach

Drop-out and low completion rates for girls persist in Uganda, and absenteeism and quality of education are being affected by the start of menstruation, a lack of ability to manage it, as well as other issues related to puberty. To foster gender equality and accelerate girls' full and equal participation and retention in primary schools, the Uganda Ministry of Education and Sport (MoES) developed the National Strategy for Girls' Education (NSGE), which acts as a point of reference for all stakeholders intervening in girls' education and supports districts in implementation and monitoring of education policies.

Studies supported by UNICEF and research conducted by The Netherlands Development Organization (SNV) and International Water and Sanitation Centre (IRC) on menstrual management in 120 primary schools highlighted the need for comprehensive MHM and education. To address this need, the MoES initiated the development of a Menstrual Hygiene Reader (MHR) for primary schools, aiming to provide information to girls on understanding and managing menstruation. The MHR, which can easily be read by girls themselves, was designed through a national workshop bringing together all stakeholders including the Ministry of Health (MoH) school heads, school student representatives, parents, school matrons, senior female and male teachers, CSOs, NGOs, and education development partners. Task teams were created to develop the different sections of the reader, and the whole document was reviewed by stakeholders. The reader is divided into three sections:

- What I need to know about menstruation (including Frequently Asked Questions and answers)
- How do I manage menstruation (including myths and misconceptions)
- Supporting girls and peers to manage menstruation

The MHR will be published and disseminated to all schools in the country and teachers will be trained to support girls to read and use the reader as a day to day guide.

The MHR, however, is only one intervention among others to help girls manage their menstruation and other issues related to puberty in educational settings. These include:

- Establishment of Girls' Education Movement (GEM) clubs. These clubs also include boys who are empowered to understand and support girls through their menstrual challenges.
- Distribution of sanitary towels to girls in vulnerable and disadvantaged/poor areas by the Ugandan Forum for African Women Educationalists (FAWEU) and Makerere University (MakaPads project).
- Development of guidelines on the construction of girl-friendly sanitation facilities in schools for all MoES school constructions, i.e. incinerators, separate toilets, bathroom for girls, rest and changing rooms for girls, etc. GEMs are raising awareness of the need for school tanks with flowing water and WASH.
- Development and distribution of guidelines by the Guidance and Counselling department of MoES. These include the need to have soap, extra sanitary towels, and an extra skirt or dress in the changing room in case of emergencies (i.e. if girls soil their uniforms during school time).
- Training of senior female and male teachers to support girls through their maturation process, including menstruation.
- Development of a manual and handbook for teachers on creating a safe school environment, to help girls stay in school even during menstruation
- Awareness-raising through GEM clubs
- Work with girls by several NGOs to make their own sanitary towels from locally available materials.
- Implementing the advocacy campaign Go Back to School, Stay in School and Complete School (GBS), promoted by UNICEF and aimed at helping rebuild sustainable education systems. Specific campaign actions facilitate MHM, e.g. building separate girls' latrines to ensure female students have proper sanitation facilities and feel safe enough to stay in school.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10–12 July 2013, Nairobi, Kenya.

A more complete list of learning objectives by age group can be found in UNESCO's *International Technical Guidance on Sexuality Education*.⁶⁷ Another curriculum resource is the Population Council's *It's All One Curriculum*,⁶⁸ which places gender issues and human rights at the heart of comprehensive sexuality education. More recently, WHO's Regional Office for Europe and the German Federal Centre for Health Education (BZgA)

published a document on sexuality education⁶⁹ (including puberty education) that separates topics according to three broad learning objectives: providing information, imparting skills and developing attitudes. It sets standards and learning objectives for the age groups 0 to 4 years old, 4 to 6, 6 to 9, 9 to 12, 12 to 15, and 15 and up.

Countries have responded to the need for improved puberty education in different ways, by initiating

67 UNESCO. 2009. *International Technical Guidance on Sexuality Education. An evidence-informed approach for schools, teachers and health educator*, Vol. II, Topics and learning objectives. Paris, UNESCO.

68 Population Council. 2009. *It's All One Curriculum: Guidelines and activities for a unified approach to sexuality, gender, HIV, and human rights education*. New York, Population Council.

69 WHO and BZgA. 2010. *Standards for sexuality education in Europe. A framework for policy makers, educational and health authorities and specialists*. Cologne. <http://www.bzga-whocc.de/?uid=072bde22237db64297daf76b7cb998f0&id=Seite4486> (Accessed 7 January 2014).

curriculum changes, developing puberty-specific materials and using more comprehensive approaches (see p.23).

While Uganda is implementing a comprehensive approach to keeping young people, especially girls, in schools, there are a number of challenges. Chief among them is the limited inclusion of sexual and reproductive health and life skills in the school curriculum, and the need for more teachers to be trained. Uganda is not the only country with weaknesses in its curriculum, as highlighted by an assessment of curricula in ten Eastern and Southern Africa (ESA) countries⁷⁰ which found that:

- References to sexuality tended to be negative and fear-based.
- Key aspects of sex and sexual health were lacking, including information about reproduction, STI, abortion, and where to access condoms and sexual health services.
- Most curricula addressed the experience of puberty strictly as a biological process without acknowledging the changed social environment (for example increased harassment, parental monitoring) that can also generate considerable confusion and difficult feelings for pubescent girls.
- Most curricula did not pay enough attention to empowering young people or teaching advocacy skills.
- Most curricula did not address sexual rights and none addressed sexual diversity in an appropriate way.
- Most curricula included at least some information on gender; however, these sections were not always adequate and sometimes contradictory, e.g. some messages challenged gender inequality while others reinforced it. Gender-based violence and intimate partner violence were often overlooked.
- School safety was not addressed adequately in most curricula, which is of particular concern given the vulnerability of many girls to abuse by boys, teachers and other trusted adults in the current learning environment.

The way curricula deal with puberty sets the tone for relationships between boys and girls. There is a distinct contrast between the message given to girls (that the biggest physical sign of puberty, menstruation, is inconvenient, painful and embarrassing) and the way in which puberty is frequently portrayed to boys as a positive and exciting change marking their transition into adolescence and adulthood and the development of their sexuality.

While some curricula attempt to frame menstruation in a positive way – emphasizing it is a natural biological process demonstrating the onset of puberty and the beginning of adulthood – this is undermined by the wide range of negative messages, both implicit and explicit. In societies where there are strong cultural and religious messages

that exclude menstruating girls from, for example, participating in religious rituals, preparing food and washing, this ‘unclean’ message is reinforced. Frequently girls report their mothers reinforce these ideas by telling their daughters they can no longer play with boys, they need to be generally more careful in public, and implying that information about and management of menstruation should be hidden from boys and men. One notable consequence is that boys have too little information about menstruation, which a number of studies suggest might be at the root of the teasing and bullying that frequently happens at co-ed institutions.

Some authors who have looked specifically at how menstruation is addressed within puberty education suggest the values and messages underpinning the framing of current approaches may be inadvertently undermining girls’ self-esteem,^{71,72} as menstruation is often portrayed as a ‘curse’, a threat to public hygiene. Seeking to incorporate more positive, nuanced teaching about menstruation as a valuable and healthy biological process, coupled with deliberately challenging ideas of the stigma and disgust about menstrual blood, would go a long way to help girls build self-confidence in their bodies and bodily functions, facilitating their healthy transition from puberty to adolescence and adulthood.

The curriculum review⁷³ in ESA, mentioned earlier, found that while content is often age-appropriate, the most common exception is the delayed delivery of information about puberty. Presenting puberty at age 14 and above is too late; it should be present at primary levels. In many curricula, topics were also placed out of order. Covering topics too early or too late reduces the effectiveness, as knowledge, attitudes, values and skills are not built on coherently.

Research in the Philippines⁷⁴ shows the content teachers are supposed to teach can contradict common beliefs in the community. As a result, teachers doubt the value of teaching it, and in some cases their personal beliefs can mean topics are not covered, or only partially. Because of lack of accountability and enforcement mechanisms, the authors point out, it is teachers who determine what is taught and how within the puberty education curriculum.

When cultural, religious and political sensitivities exist, curricula and its teaching are affected. For instance in the

⁷⁰ UNESCO and UNFPA. 2012. *Sexuality education: A ten-country review of school curricula in East and Southern Africa*. Paris, UNESCO.

⁷¹ Diorio, J. and Munro, J. 2000. Doing harm in the name of protection: menstruation as a topic for sex education, *Gender and Education*, Vol. 12, pp. 347–365.

⁷² Kirk, J. and Sommer, M. 2006. *Menstruation and body awareness: Linking girls’ health with girls’ education*, Amsterdam, Royal Tropical Institute (KIT), *Special on Gender and Health*, pp. 1–22.

⁷³ UNESCO and UNFPA. 2012. *Sexuality Education: A Ten-Country Review of School Curricula in East and Southern Africa*. Paris, UNESCO.

⁷⁴ Haver, J. et al. 2013. *WASH in Schools Empowers Girls’ Education in Masbate Province and Metro Manila, Philippines: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

Girls' and boys' puberty readers – a complement to puberty education and WASH in schools

In Tanzania, puberty readers were developed, aimed at empowering boys and girls and guiding them through puberty. The existing school curriculum did include lessons on reproduction but no guidance for girls on how to manage their menses or how to feel comfortable with the emotional and physiological changes they were undergoing. One aim of the readers was to provide girls (and then boys) with learning materials enabling them to look up information whenever they needed to. Another was for teachers and parents to use the readers as an entry point into discussions about reproduction and other pubertal issues before the initiation of sexual activity.

The readers were based on research findings and the draft (at the time) puberty curriculum being developed by the government. The girls' reader (the first) was developed to be complementary to the draft curriculum and ensure the information would be consistent with the government's planned content. Content was adapted to the reading and cognitive comprehension level of girls in the last years of primary school. A 'book committee' reviewed the appropriateness of the content, ensuring it was socially and culturally acceptable, especially regarding parental comfort with the content.

The readers are designed for 10- to 14-year-olds and cover emotional and physical changes, with strategies on how to manage them. The girls' book is a useful guide about physical changes and menstruation (including menstrual hygiene management); the boys' book focuses on the emotional

and physical changes of puberty, covering arousal of sexual desire (erection and ejaculation) and ways not only to cope with peer pressure but also to respond to the changes experienced by girls (respect and empathy). The books are bilingual, in Swahili and English, to ensure comprehension, and are illustrated with culturally appropriate images to enrich understanding and increase the books' appeal. To date 320,000 girls' books and 15,000 boys' books have been distributed; UNICEF hopes to raise the funds to guarantee all girls 10-14 years old receive a copy.

The Ministry of Education, after reviewing the final content, endorsed the readers for use in primary schools, which increased interest among different stakeholders and partners (the UN, NGOs, and even the private sector) in funding and distributing them.

The girls' book has since been integrated into the WASH in Schools national strategy. The strategy, the result of collaboration between the health, education, water, and sanitation ministries, integrates menstrual hygiene management interventions – e.g. sufficient latrines, access to water and disposal mechanisms for used sanitary materials – with the puberty reader. Teacher training materials for the girls' book have also been developed and included in the toolkit.

The original Tanzania book has now been adapted, through careful country-specific research with girls and local stakeholders, to the Ghana, Ethiopia and Cambodia contexts, and the ministries of education in all three countries have now approved the books.

For further information please visit <http://www.growandknow.org/> or contact marni@growandknow.org

Middle East and North Africa, 'coverage of reproductive health issues in school curricula is generally very limited. Too often, the information is extremely basic or skipped altogether as teachers are unwilling or ill-prepared to discuss these issues in class.'⁷⁵ However, there are examples of curricula being implemented. In 2010 the Turkish government ran the Puberty Project, which provided sexuality education in the last three years of the eight-year primary school cycle. Students were given a textbook on sexual health; trained health experts visited their classrooms, which were divided by sex and grade. In addition, in each grade, a male and a female teacher were identified and trained to answer students' questions, should any arise, during the rest of the year. While this project was a very positive development, a number of topics affecting girls' and boys' health and well-being were not included, such as gender issues and how to prevent sexually transmitted infections and unintended pregnancy.⁷⁶

To address the gaps in educational systems operating in difficult environments, partnerships with NGOs are increasingly being used to provide learners with puberty education (please see p.46 for more details).

The wider school health context

As described in Section 2.3 of this book, the four pillars of Focusing Resources on Effective School Health (FRESH) provide a good framework for addressing puberty, and the needs of young people experiencing it, within a school health programme. The topic is often neglected within the skills-based health education curriculum, partly because teachers are uncomfortable teaching what they perceive as a sensitive and perhaps culturally inappropriate topic. More work must be done to assist teachers in this task, including the development of appropriate and effective curricula, teaching materials, training and support structures.

⁷⁵ Roudi, F. 2011. *Facts of Life: Youth Sexuality and Reproductive Health in the Middle East and North Africa*. Washington, D.C., Population Reference Bureau.

⁷⁶ Mater, N. 2010. Sex Education Welcomed by Students, Families in Turkey. Inter Press Service. http://www.unesco.org/education/efa/know_sharing/grassroots_stories/turkey.shtml (Accessed 16 December 2013).

Indonesia – a whole school approach to health

Indonesia pursues a whole-school approach to health. It is based on the assumption that knowledge, skills, attitudes and values that are essential for young people to make healthy sexual and reproductive decisions can also have a positive impact on other health issues such as drugs and violence. The School Health Program (UKS) comprises three parts: health education, health services and fostering a healthy school environment.

Regarding health education, Indonesia includes menstruation education as part of comprehensive sexuality education (CSE), which in turn is integrated into different subjects within the official curriculum, e.g. biology, sport and health education, social studies and religious education, and into extracurricular, personal development and/or life skills-based activities, such as Little Doctor (Dokter Kecil), in which primary school students pretend to be doctors. The role-playing enables learners to ask questions and get answers in a non-threatening environment. To avoid embarrassment, teasing and harassment on sensitive subjects such as menstruation, wet dreams, libido, etc., girls and boys are separated for portions of the CSE curriculum and life skills-based activities. To assist teachers, guidelines for implementing the HIV/AIDS and Life Skills Education programme were developed by the MoE for junior secondary school teachers.

Health centre staff conduct periodic health examinations in class. In addition, a large number of schools have rooms where learners who are not feeling well can go and lie down on a bed, and some schools provide emergency sanitary pads.

The third part of UKS revolves around creating a clean and healthy environment for learners and staff. Work on this aspect is led by a cadre of school health staff, and includes cleaning bathrooms and toilets, nutrition consultations, etc.

Implementation of the school health programme is thus carried out in close collaboration with the community health centres (PUSKESMAS), involving doctors, community nurses, dental workers, nutritionists, sanitation workers and other health professionals, all coordinated by the Chief of the Health Centre at the district level.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10–12 July 2013, Nairobi, Kenya.
For further information please contact the Ministry of Education and Culture, Indonesia

Schools may also provide adolescents, and particularly girls, with places they can share information about pubertal changes and ways to cope with new challenges. Regarding MHM, especially in developing countries, schools should make rooms available for girls where they can change if necessary and rest in case of pain. Some form of a common room would also allow girls to

exchange experiences and advice. Some schools may have the capacity to host proper clubs where girls can discuss puberty and their experiences or train other girls in MHM. The involvement of boys in certain groups/activities is likely to increase awareness and communication, with positive impact on the development of gender norms.

Girls' clubs

In Kenya, Asante Africa Foundation educates in- and out-of-school girls on puberty and reproductive health through the Wezesha Vijana Project. This extracurricular activity, in the form of workshops, most often takes place within educational institutions. Young skilled mentors teach a very comprehensive curriculum, covering body and emotional changes, reproductive systems, hygiene and menstruation management, but also love and relationships, sexual arousal, prevention of STIs and unintended pregnancy. As part of this holistic approach to puberty, girls learn about peer pressure and decision-making. The goal is to make girls more aware of their environment and culture and thus better able to make healthy choices. The Project emphasizes helping girls share their doubts and feelings with parents and friends. As an unexpected result, the girls themselves expressed their desire to continue puberty education. They voluntarily formed clubs and started running them once a week to educate other girls who had not been Project participants. An evaluation highlighted the girls' improved knowledge, increased self-confidence and positive attitudes toward coping with peer pressure, talking to friends and parents and also attending school during menses.

For further information please visit <http://www.asanteafrica.org/> or contact info@asanteafrica.org

Beyond lecturing, alternative teaching methods

Nearly 593 million⁷⁷ learners attend primary school, making schools the ideal location to access young people in an efficient and cost-effective way. With increasing numbers of learners entering formal education, schools will continue to be the most important setting for puberty and health education.

How puberty education is taught can be as important as its content. However, a crowded curriculum, limited teaching materials, an emphasis on the examinable knowledge-based components of subjects as well as teachers' discomfort, mean that traditional didactic approaches prevail.

Learner-centred participatory teaching methods – such as peer-led activities, group problem-solving and dramatization – are needed to go beyond knowledge to address values, attitudes and skills. It is a challenge with large classes, but it is possible. Teachers will need to set clear ground rules and procedures, introduce new activities slowly and deliberately,

⁷⁷ Education for All Global Monitoring Report, 2013/14, *Teaching and Learning: Achieving quality for all*. Paris, UNESCO.

and consider using peer leaders to facilitate small-group learning. Each school will need to review its situation, choose the best individuals to provide the education, identify safe locations and, if culturally appropriate, separate the sexes for certain sessions.

Research from HIV and sexuality education has shown that although teachers are generally viewed as neutral transmitters of information,⁷⁸ in reality they bring their life experiences, attitudes and values to the process. 'Selective teaching', when teachers avoid content they feel uncomfortable with, does take place.⁷⁹ Similarly, girls report feeling uneasy and uncomfortable discussing menstruation and menstrual hygiene with male teachers.^[80,81,82]

The curriculum review in ten ESA countries cited earlier points out that some teachers 'preferred single-sex sessions for discussing puberty, sex, reproduction or gender specific relationship issues'. Yet it notes 'mixed-sex sessions encouraged respect and communication between peers and should begin at an early age'.⁸³ In one study in a high income country, boys expressed the wish to know 'about what it's like to be a girl' from the girls themselves, so as to increase their understanding of girls' issues such as menstruation and premenstrual tension.⁸⁴

Peer education can fill a gap in more traditional curriculum-based education. Peer education is training provided by people who share characteristics with the target group. It generally takes place in settings where target groups are gathered (e.g. schools, work sites, parks or clubs), and where a peer is much more likely to appear credible than a non-group member. It allows young people to ask questions in a non-threatening, non-embarrassing setting and get answers they might not get in a traditional classroom.

Some studies have found that teacher-led education works better for focusing on biological and scientific processes of puberty; but peer education is more effective in terms of students' engagement, and for talking about relationships,

contraception and STIs.⁸⁵ According to a systematic review of peer education on sexuality in developing countries, its positive effect on behavioural outcomes is moderate and it has no impact on biological outcomes (i.e. STIs). Yet knowledge increases and the levels of trust and comfort seem to be high in peer education.⁸⁶ These factors alone offer a good argument for implementing a peer education programme to cover puberty.

Peer education can provide knowledge, increase awareness and contribute to skills development and attitude change. But as a peer educator is unlikely to be as knowledgeable as a professional, it represents a complementary intervention and not a stand-alone option. It also requires an investment as the peer educators must be identified, trained and supported.

Peer education

The Kasiisi Project in Uganda used a Community Health Worker (CHW) to train girls and female teachers to mentor other girls in their schools. The CHW provided peer educators with knowledge on menstrual hygiene, sexually transmitted diseases and strategies to avoid unintended pregnancy. There are now 42 trained peer educators supported by 14 female teachers. The experience has been successful as evidenced by evaluations that found girls in schools with peer educators are better informed about reproductive health and more comfortable discussing issues around menstruation, puberty and relationships with boys.

Peer education can also be particularly effective in multicultural settings, where individuals from a different culture/country might feel uncomfortable discussing certain topics. Shine SA, a sexual health organisation in South Australia, promotes multicultural peer education, training youth from different origins to provide puberty education to their community-peers in schools. Peer educators report girls opening up during sessions and comparing their community's practices with Australian ones.

The National Organization of Peer Educators (NOPE) in Kenya, runs the peer education aspect of the Healthy Outcomes through Preventive Education (HOPE) project that aims to improve students' HIV/AIDS knowledge, attitudes, and practices in primary and secondary schools in Nairobi. The four-year program (2012- 2015) includes peer education activities, trains teachers to integrate life skills and HIV prevention education into the classroom, and encourages greater involvement of parents and community members in school health activities.

For further information please visit <http://www.kasiisiproject.org/>; <http://www.shinesa.org.au/>; <http://www.nope.or.ke/>

78 Bhana, D. 2009. 'They've got all the knowledge': HIV education, gender and sexuality in South African primary schools. *British Journal of Sociology of Education*, Vol. 30(2), pp. 165-177.

79 Scott, J. 1985. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven, Yale University Press.

80 Haver, J. et al. 2013. *WASH in Schools Empowers Girls' Education in Masbate Province and Metro Manila, Philippines: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

81 Caruso, B. A. et al. 2013. *WASH in Schools Empowers Girls' Education in Freetown, Sierra Leone: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

82 Long, J. et al. 2013. *WASH in Schools Empowers Girls' Education in Rural Cochabamba, Bolivia: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

83 UNESCO and UNFPA. 2012. *Sexuality Education: A Ten-Country Review of School Curricula in East and Southern Africa*. Paris, UNESCO.

84 Hilton, G.L.S. 2007. Listening to the boys again: An exploration of what boys want to learn in sex education classes and how they want to be taught. *Sex Education*, Vol. 7, 161-174.

85 Forrest, S. et al. 2002. A comparison of students' evaluations of a peer-delivered sex education programme and teacher-led provision. *Sex Education*. Vol. 2, pp. 195-214.

86 Medley, A. et al. 2009. Effectiveness of peer education interventions for HIV prevention in developing countries: A systematic review and meta-analysis. *AIDS Education and Prevention*. Vol. 21, pp. 181-206.

Information and Communication Technology

A number of different stakeholders (non-profit organizations, the private sector, universities, etc.) have used ICT to provide reproductive and sexual education through websites, apps and mobile content. Websites often offer stories, question & answer sections, advice, forums, but also material to download such as games and videos, which can be used by young people or teachers at home or in the classroom.

Many online resources address reproductive and sexual health issues as a whole, dividing material by topics. 'Go ask Alice!', a website developed by Columbia University, offers information on contraception, reproduction, safer sex, etc. and a section on Women's Sexual Health (where issues about menstruation are addressed). Similarly 'Sex, etc.', designed by the New Jersey-based national organization Answer, provides an interactive sex dictionary that also includes menstruation, puberty and all topics related to body change. Planned Parenthood Federation (of America) offers a specific page titled 'Our Bodies', where teens can easily find information concerning puberty, genitals and menstruation.

Besides these websites in the United States, other countries have developed online resources that include menstruation information. 'SexualityandU.ca' (available also in French as maSexualite.ca) is a Canadian website providing knowledge and tools for teachers and teens. In India, the website 'Menstrupedia' was launched in 2012 and offers an online guide helping girls and women to stay healthy and active during their periods.

In China, UNESCO in partnership with Baidu and the Communication University of China has developed an online interactive knowledge-sharing platform aimed at improving HIV prevention and sexual and reproductive health education for youth. Baidu is the country's largest search engine, used by 94% of all internet users in the country including 80 million adolescents. 'YouthKnows' or 青春知道, hosted on 'Baidu Knows', is an online Q&A platform that collects expert contributions by

a network of professionals, and an online educational video channel on health education. A series of 24 video episodes covering a variety of HIV and sexuality-related topics are being developed and will be uploaded onto 'Youth@Knows'. Both the Q&A channel and the video lessons will be available through mobile applications to cater to young people who use mobile devices to get information. The project was initiated as nearly two out of three young Chinese aged 10 to 29 (232 million) are online and 66% of young males and 54% of young females use the internet to access HIV and sexual health information.⁹⁰

Private sector brands such as Always|Whisper have developed a number of on-line platforms focusing on education, where girls can learn more in an intimate setting (e.g. 'BeingGirl'); access informational videos (the 'Always Diaries'); or find mobile phone applications to use, for instance, as period calendars. Engagement via social media is also crucial and platforms such as 'BeingGirl' national Facebook pages have been developed to further puberty and menstruation discussion (please see p.49 for more details).

Puberty and menstruation education are part of the eLearning programme to be launched in Cambodia by OneWorld's partner Butterfly Works, in collaboration with the Reproductive Health Association of Cambodia (RHAC), the People Health Development Association (PHD), and UNESCO. The online materials, based on the national curriculum, will include audio and video content, interactive games, quizzes and other resources adolescents can use as they interact with virtual peer educators. The online platform opens a safe space for students and teachers to feel free to discuss sensitive topics.

For further information please visit:

<http://goaskalice.columbia.edu/>

<http://sexetc.org/>

<http://www.plannedparenthood.org/info-for-teens/our-bodies-33795.htm>

<http://sexualityandu.ca/>

<http://menstrupedia.com/>

<http://www.beinggirl.com/>

<http://zhidao.baidu.com/topic/UN/index.html>

Mobile learning technology also offers opportunities. In less than a decade, mobile technology has spread to the furthest corners of the planet. Of the estimated 7 billion people on earth, 6 billion now have access to a mobile device. Africa, which had a mobile penetration rate of just 5% in the 1990s, is now the second largest and fastest growing mobile phone market in the world with a penetration rate of over 60%. Collectively, mobile devices are the most successful and ubiquitous information and communication technology (ICT) in history.^{87,88}

ICT can facilitate personalised learning, enable anytime-anywhere learning, provide immediate feedback and assessment, build new communities of learners, ensure the productive use of time spent in the classroom, and

maximize cost-efficiency.⁸⁹ It can enable learners to access information and improve their knowledge in an easy, user-friendly way, and to find out about sensitive topics and get answers to embarrassing questions in private. This can be very valuable in countries or communities where discussion of puberty such as menstruation is considered difficult or taboo. Social media also permits 'group' or 'peer' experiences that can be anonymous and therefore very open.

In addition, teachers can use ICT to dispense life skills education: It has the potential to improve teaching and learning by making the process more interactive. Classroom time can thus be used for more than just knowledge transfer. As using ICT for education and

⁸⁷ See UN article: <http://www.un.org/apps/news/story.asp?NewsID=44452&Cr=sanitation&Cr1=#.UztIbU1j5r>

⁸⁸ GSMA. 2011. African Mobile Observatory 2011. Executive Summary. <http://www.gsma.com/publicpolicy/wp-content/uploads/2012/04/africamoewebfinal.pdf> (Accessed 5 February 2014)

⁸⁹ UNESCO. 2013. *UNESCO Policy Guidelines for Mobile Learning*. Paris, UNESCO.

⁹⁰ <http://www.unescobkk.org/education/ict/online-resources/databases/ict-in-education-database/item/article/unesco-launched-youthknows-virtual-classroom-to-promote-hiv-and-sexuality-education-in-china-1/> (Accessed 3 February 2014.)



health is a new phenomenon and few evaluations have been conducted, very little empirical evidence exists about optimal use of ICT for puberty and health education. As more information is made available, programmes and projects will have to be adapted.

While access to ICTs in most high income countries is quite extensive, this is not true in middle and low income countries, where it might be possible in the major cities but not in rural areas. In addition, in some countries young people and especially girls may have very little agency over any technology, thus limiting the possible impact of their use.

According to Barak and Fisher,⁹¹ the internet has the advantage of being affordable, available (easy to access), acceptable (it has legitimization as a source of information), and anonymous. These characteristics, together with the offer of interactive ways of learning, personalized information and constant updates, make internet an inviting educational tool. But although ICT has become a very useful source of knowledge, there are risks. Content on the web and different social media cannot be controlled for accuracy, nor to ensure it does not perpetuate unhealthy social and gender norms. Hence a key role for teachers is providing their pupils with the knowledge and skills to navigate through the available information as they pass through puberty.

⁹¹ Barak, A. and Fisher, W.A. 2001. Toward an internet-driven, theoretically-based, innovative approach to sex education, *The Journal of Sex Research*, Vol. 38(4), pp. 324-332.

Including boys and men

Puberty affects both girls and boys, and addressing one without the other will reduce the effectiveness of any programme. Including boys is essential for a number of reasons. First, they too are going through radical changes, psychological and cognitive as well as physical, which they might not understand. Second, because the attitudes of boys will have a direct impact on girls. Third, knowledge acquired in school could have a positive impact on future health-seeking behaviour such as using sexual and reproductive health (SRH) services. This is particularly important as take-up of SRH services does not only depend on women. Regarding schools, the teasing, discomfort and embarrassment girls experience during puberty, especially around menstruation, is partly caused by boys' behaviour and community norms. This, coupled with the small percentage of female teachers in secondary schools in a number of countries, suggests the need for increased attention to educating boys and male teachers on puberty in general and menstruation in particular, in order to create less stigmatizing school environments for girls.

Not properly engaging with boys about a major topic of puberty, menstruation, allows them to misunderstand (and hence devalue) an essential part of womanhood, reducing it to something unpleasant that should be concealed and invisible. In one of very few published articles on how boys and young men learn about menstruation,⁹² the authors demonstrate how boys obtain their limited

⁹² Allen, K. et al. 2011. More than just a punctuation mark: how boys and young men learn about menstruation, *Journal of Family Issues*, Vol. 32(2), pp. 129-156.

Involving boys in Guatemala

The Abriendo Oportunidades project implemented by the Population Council in Guatemala helps indigenous girls to reach their full potential. More than 20 Mayan groups in Guatemala live in isolated rural areas with limited access to basic services (water, sanitation, passable roads, schooling, health care, etc.) and girls are often the last group to be reached by social programmes. By age 15, over 60% of rural indigenous girls are out of school.

A study conducted by the Ministry of Education on a sample of 78 schools (indigenous/non indigenous, rural/urban), found that both boys and girls consider sexual and reproductive health education important in primary school. Focus groups organized by the Population Council showed that both had an interest in better understanding each other's body changes. Notably, boys described girls' changes in terms of what they could easily see; they had little information about menstruation (even if they knew more about anatomy). In addition, boys had a positive memory about reaching puberty, but girls felt embarrassment and fear. Given that:

- programmes aimed at empowering girls implemented in supportive environments appear to be more effective (though further research is needed);
- boys understand gender equality better in 3rd grade (with a dramatic decrease by 6th grade);
- girls who graduate have difficulty finding a male partner who supports gender equality; and
- mothers and community leaders both recognize the importance of sexuality education,

the Abriendo Oportunidades project includes activities aimed at boys in primary school. The ultimate aim is to reinforce girls' self-confidence and promote changes in social norms that hinder girls' empowerment.

The project offers a mentorship model, ongoing training and a curriculum guide for both girls and boys. In-school girls (aged 8-12) and out-of-school girls (aged 13-17) meet once a week, while boys aged 8 to 12 meet after school once a week. They are taught about sexual education, reproductive health, gender norms and gender-based violence. Boys notably learn about the importance of safe spaces (understanding their relations with girls in different spaces, school, house, work etc.); self-esteem and ideas around masculinity; differences between gender and sex (understanding risky behaviours); sexual and reproductive health; and community services (identifying positive female and male role models, basic rights of boys and girls). Meetings for boys include content, skills development and recreational time they share with girls, and help them become more aware of puberty's various dimensions.

A review⁹³ of the programme identified a number of highly positive effects on Abriendo girl leaders including:

- 100% had completed the sixth grade, compared to 81.5% of girls nationally.
- More were in school at the close of the 2009-10 programme cycle (72%) compared to the national average for indigenous girls (53% for ages 13-15 and 29% for ages 16-17).
- 97% remained childless during the programme cycle, compared to the 78.2% national average for girls in their age range (15-19).
- 94% reported experiencing greater autonomy and feeling more comfortable expressing opinions, and 84% said their role at home improved during the programme cycle.
- 88% reported having a bank account and 44% had found paid employment when the programme cycle finished.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10-12 July 2013, Nairobi, Kenya.

For further information please visit <http://www.popcouncil.org/countries/guatemala.asp#Projects>

information mainly through observation at home (with many unanswered questions) and from friends (with many myths reinforced), rather than from their parents or school. This may account for the disdainful attitudes of at least half of the men in the qualitative study, captured by the following written comments from participants:

'I don't exactly remember who told me or how old I was when I found out about menstruation. However I do remember my feelings about this new-found knowledge. I thought it was disgusting and I still think it's disgusting.'

'The first time I can remember hearing about menstruation was probably around sixth grade. I remember my peers joking about periods and blood often. It always seemed like something that guys could make jokes about to make girls seem embarrassed or to seem superior to them.'

Teasing can be same-sex and is not restricted to girls. Boys can also be the recipients of teasing as a result of uncontrolled erections, bodily changes etc. Thus, it is very important for boys and girls to understand the changes occurring with each sex, and to be able to act with respect

towards each other. Puberty is a time when gender norms and identity are being shaped. It is a key moment to reach girls and boys with positive messages to prevent harmful gender norms and perceptions from becoming ingrained.

As puberty can be a confusing time for both sexes, it is vital to provide both with the knowledge, skills, attitudes and values necessary to navigate through it to adolescence and adulthood. Recognition of both sexes' need to understand the changes they experience is now growing, as exemplified by the puberty reader for boys⁹⁴ developed in Tanzania. It also covers menstruation, how boys and girls should behave towards each other and the need for respect. Other programmes are also targeting boys, especially those addressing sexual and reproductive health and gender-based violence.

⁹³ Plan (ed). 2012. *Because I am a Girl. The State of the world's Girls 2012. Learning for life.* <http://planCanada.ca/Downloads/BIAAG/GirlReport/2012/BIAAG2012EnglishFullReport.pdf> (Accessed 5 February 2014)

⁹⁴ Sommer, M. et al. 2013. *To become a man.* Dar es salaam, Aidan Publishers Ltd.

Factors Impacting Menstrual Hygiene Management

“CREATING A SUPPORTIVE ENVIRONMENT for all women and girls to be able to manage their menses hygienically, safely, in privacy and with dignity”

▶ Accurate and Timely knowledge

▶ Informed and comfortable professionals

▶ Sanitation and washing facilities

▶ Safe and Hygienic Disposal

▶ Available, safe and affordable materials

▶ Referral and access to health services

▶ Positive Social Norms

▶ Advocacy and Policy

3.2 Good practices in menstrual hygiene management

A recently-developed definition of menstrual hygiene management, proposed by the Joint Monitoring Program (JMP) of WHO and UNICEF, helpfully describes the range of factors to take into consideration when thinking about MHM.⁹⁵ This definition delimits good MHM practice as a hygiene behaviour; it does not, however, set out all that is needed for the behaviour to be practiced.

Women and adolescent girls are using a clean menstrual management material to absorb or collect blood, that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials.⁹⁶

The definition makes it possible to understand the critical MHM practices necessary for girls and women to manage

monthly menses with dignity and comfort. But it does not speak to the broader issues regarding girls’ knowledge and understanding of menarche and MHM, which are equally important in assuring girls’ well-being and healthy transition through puberty. These issues encompass adequate, appropriate curricula and pedagogies to inform girls (and boys) about sexual and reproductive health and rights, and the best delivery mechanisms to strengthen the critical thinking and practical life skills of adolescents maturing into young adults (please see section 3.1 for more details).

The following factors impacting menstrual hygiene management, are adapted from WaterAid’s comprehensive examination of MHM.⁹⁷ They lay out the specific needs that must be tackled for girls and women to manage their menstruation in a dignified and hygienic manner.

Accurate and timely knowledge

Providing accurate, timely information for young girls is critical to the supportive environment needed for healthy, dignified management of menstruation. Despite all the possible sources of information, studies regularly show that in a range of countries, many girls begin menstruating

⁹⁵ UNICEF and WHO. 2012. *Report of the Second Consultation on Post-2015 Monitoring of Drinking-Water, Sanitation and Hygiene*. The Hague, 3-5 December 2012. http://www.unosd.org/content/documents/151Report%20on%20WHO%20UNICEF%20Hague%20Consultation%20December%202012_28Mar_final%20draft.....pdf (Accessed on 10 June 2013)

⁹⁶ Ibid.

⁹⁷ House, S., Mahon, T., Caville, S. 2012. *Menstrual hygiene matters. A resource for improving menstrual hygiene around the world*. London, WaterAid.

without knowing anything about it.^[98,99,100,101] Meanwhile, an analysis of rigorously-evaluated sexuality/HIV education programmes strongly suggests that curricula encouraging critical thinking about gender norms and power in intimate relationships are more likely to show positive health outcomes than 'gender-neutral' curricula.¹⁰² This underscores the importance of linking education on menstruation to a rights-informed, skills-based health education curriculum.

Informed and comfortable professionals

Teachers and health workers should be able to talk in an informed, accessible and comfortable way about menstruation to both boys and girls. Sanitation and water planners have to understand all the issues surrounding effective menstruation management so that requirements can be incorporated in the planning and building.

Sanitation and washing facilities

Access to menstrual hygiene materials is not enough: There is a parallel need for safe, hygienic and private spaces to change menstrual hygiene materials and clean and/or dispose of them. Basics such as soap and safe water to wash hands and body before and after changing or disposing of used materials for hygiene, and privacy, are all too often not available in schools, poor households and communities (please see p.35 for more details).

Safe and hygienic disposal

Disposal has to be safe and hygienic as well as take the environment into account. For example, where water is scarce, a disposal and/or re-use option that requires a certain quantity of safe water might not be the best option.

Available, safe and affordable menstrual hygiene materials

Affordable, safe protective materials need to be available to girls and women during their monthly menses. Many materials can be used (please see below for more details).

98 Sommer, M. 2009. Where the education system and women's bodies collide: The social and health impact of girls' experiences of menstruation and schooling in Tanzania. *Journal of Adolescence*, Vol. 33(4), pp. 521-529.

99 McMahon, S. et al. 2011. The girl with her period is the one to hang her head: Reflections on menstrual management among schoolgirls in rural Kenya. *BMC International Health and Human Rights*, Vol. 11(7), pp. 1-10.

100 Sommer, M. and Ackatia-Armah, T. 2012. The gendered nature of schooling in Ghana: Hurdles to girls' menstrual management in school. *JENdA*, Vol. 20, pp. 63-79.

101 Kirk, J. and Sommer, M. 2006. Menstruation and body awareness: linking girls' health with girls' education, Royal Tropical Institute (KIT), *Special on Gender and Health*, pp. 1-22.

102 N. Haberland, 2010. What happens when programs emphasize gender? A review of the evaluation research, Presentation at Global Technical Consultation on Comprehensive Sexuality Education, 30 November to 2 December, Bogota, Colombia.

Referral and access to health services

A strong referral system with health service providers, child protection services and community support groups is also essential to ensure care for children with serious health problems that cannot be resolved at school.

Positive social norms

As long as 'menstruation' remains a taboo and shameful issue poorly understood by both men and women, it will be very difficult to develop good public policy and practice around it. Myths and misconceptions will continue to flourish, making it hard to engage health and educational professionals.

Advocacy and policy

Good policy on MHM will only be won through advocacy – not only by making an invisible problem more visible, but also by offering sensible, affordable and sustainable solutions to the range of challenges faced by girls and women.

Menstrual hygiene materials

The use of menstrual hygiene materials is extremely important to girls, who need to manage their menses safely in order to stay healthy and avoid physical discomfort and leakages. Girls need to know what options exist and how to use and dispose of different protective materials hygienically. Even if an education sector does not have the resources to provide the materials even in an emergency, it can provide the information to enable girls to select appropriate materials for their circumstances, and the knowledge to use and dispose of them for maximum personal and environmental hygiene. In response to the need expressed by girls for protective materials, some countries such as Kenya have initiated a sanitary pad distribution programme (please see p.39 for greater detail). While opinions differ and findings conflict on the impact of providing menstrual hygiene materials on attendance (please see the discussion in section 2.2), girls have reported worry about leaks and stains, distraction, reduced concentration and participation, and changes in behaviour when they lack effective menstrual hygiene materials. This detracts from the enjoyment of education and the ability to assimilate it. Cost, sustainability, equitable distribution, supply chains and disposal options need to be taken into account when deciding on whether to prioritise the availability of menstrual hygiene materials in the school setting.

In high-income countries, girls have relatively easy access to different types of products. In low-income countries, costs, availability and social norms can limit girls' choices of menstrual hygiene materials. As a result, in many

low-income countries, especially in rural areas, girls still use rags or cloths. A focus group conducted among women in Nigeria, for instance, highlighted that almost all adult women, young women and girls used rags during menstruation. Many older women had tried disposable pads but did not find them comfortable, and therefore preferred using rags.¹⁰³ Habits and traditions may also play a role in the choice of commodities. However, cloths require that women wash, dry and reuse them, which is possible in schools where separate latrines and a private room for girls are available. A study in Sierra Leone found that girls preferred sanitary pads for managing menses because they felt confident and less worried about possible leakages. They appreciated being able to dispose of pads instead of washing and reusing cloths, and reported frequent leaks onto their clothes or school uniform when using cloths. Some girls, though, could not afford disposable pads; they were obliged to use cloths and felt uncomfortable drying them in the sun.^{104,105}

A study in Bolivia also found that girls with financial restrictions use multiple strategies, for instance sanitary pads for heavier days or school days, and cloth at home where they can change and wash as needed.¹⁰⁶ In a study in India, adolescent, menstruating girls were given subsidies on both new falalin cloths (locally available, absorbent, reusable cloth for 10 rupees per piece) and disposable sanitary pads (5 rupees per eight-pack). The study found absenteeism, skin abrasions, stains on clothes and smell were reduced with falalin cloths and sanitary pads, but also that more girls felt comfortable using the falalin cloths compared to the sanitary pads or old cloths/rags. Falalin cloths were preferred because of low cost, availability and absorptive capacity, and girls felt less shame drying them in the open compared to old cloths because they are red.

A number of programmes in low-income countries have provided girls with sanitary pads free of charge with the aim of increasing attendance in school during menstruation. Some are implemented by NGOs and governments and have a longer-term sustainability; others run by NGOs partnering with the private sector have often been more time-bound.¹⁰⁷ In emergency situations free

provision of appropriate materials has to be ensured, but in development contexts more sustainable solutions need to be found.¹⁰⁸ Locally-made, biodegradable disposable pads may be one option; they are available locally, environment-friendly and need no washing and drying, difficult in many contexts where washing resources, or private drying spaces that allow exposure to the sun, are lacking. However, these pads are not currently available in many places, and must be developed in the future. Furthermore, despite their biodegradable components, disposal options must still be considered with these products.

Girls should be able to decide what product they want to use, based on their context and considering cultural acceptability, accessibility, affordability, comfort and ease of use, among others. The education sector must therefore ensure that schools provide girls with comprehensive knowledge about the range of menstrual hygiene materials available, to allow girls to individually and consciously decide what to use.

Menstrual hygiene materials can be roughly divided into two groups, according to whether they are for external or internal use. In some locations, materials for internal use are not culturally appropriate.

In some contexts, girls use natural materials such as mud, leaves, dung or animal hides and skin. While these may be locally available and free, they are ineffective, uncomfortable and unhygienic. These materials can be used only once and then must be discarded. Other single-use materials – toilet paper, tissue, or cotton wool – tend to be locally available and relatively easily disposable, but can be costly, depending on location and quantities needed. Cloth is often easily accessible and low-cost, usually recycled from sheets, clothes etc., but can be uncomfortable and unhygienic if not properly washed and dried. Commercially-made, disposable, single-use pads tend to be more comfortable and can offer better protection than natural materials, tissue/cotton wool and cloth, if changed as often as recommended. They are not always available, however, and affordability depends on context. Improper disposal can damage sanitation facilities, e.g. flushing solid waste down a faecal waste management system. Reusable pads, made either locally or commercially, have a cost implication and require safe water and soap to wash them, as well as a drying area. Biodegradable pads, whether made locally or commercially, are single-use materials with a cost implication, and are not currently available in all contexts. Some of the external menstrual hygiene materials mentioned above require underpants, which also have a cost implication; others, either homemade or commercial, use a belt.

103 House S., Mahon T., Caville S. 2012. *Menstrual hygiene matters. A resource for improving menstrual hygiene around the world.* London, WaterAid

104 Drying in the sun has been promoted as good practice to kill bacteria. But as the link between MHM and infection has not been studied sufficiently, the possible risk of not drying in the sun has not been quantified.

105 Caruso, B. et al. 2013. *WASH in Schools Empowers Girls' Education in Freetown, Sierra Leone: An assessment of menstrual hygiene management in schools.* New York, UNICEF.

106 Long, Jeanne, Bethany A. Caruso, Diego Lopez, Koenraad Vancraeynest, Murat Sahin, Karen L. Andes and Matthew C. Freeman. 2013. *WASH in Schools Empowers Girls' Education in Rural Cochabamba, Bolivia: An assessment of menstrual hygiene management in schools.* New York, UNICEF.

107 House S., Mahon T., Caville S. 2012. *Menstrual hygiene matters. A resource for improving menstrual hygiene around the world.* London, WaterAid

108 Ibid.

Internal menstrual hygiene materials are culturally inappropriate in some contexts as they require insertion into the vagina. Tampons are single-use internal materials, while the menstrual cup and sponge are reusable. (Note, the menstrual sponge is not approved in the United States because of safety concerns.) All internal materials require clean hands for insertion, and the opportunity to wash reusable materials and hands after use, necessitating a supply of safe water and soap.

All non-natural materials have a cost implication depending on location, quantities needed, accessibility, market costs and the individual's financial resources. In addition, according to context, some or all of these materials may not be currently available. Disposal needs will vary according to the menstrual hygiene material used. In many school contexts, sanitation facilities may not be equipped with disposal systems for menstrual hygiene materials, such as incinerators or a waste collection and disposal process. In all cases safe water and soap are required for girls to wash their hands and if needed their bodies, clothing and menstrual hygiene materials. Ideally, safe water and soap are located within sanitation facilities that offer privacy.

This list of menstrual hygiene materials is not exhaustive, nor does it spell out all the pros and cons, but it does give an idea of the criteria to consider. The role of the education sector is to provide girls with knowledge of the products, hygiene requirements and disposal mechanisms relevant to their context, so that they can manage their menstruation in a dignified and hygienic manner.

A number of organizations have started making either disposable or re-usable pads locally, for example Maka pads and AFRIPads. Some schools have also initiated pad production within the schools by the girls themselves (please see p.45 for more details). And some organizations such as SHE in Rwanda are using pad manufacturing to generate income, raise awareness and provide education.

Rwanda: a social entrepreneurship approach to MHM

SHE pairs a market-based approach with health and advocacy components to ensure long-term sustainability. SHE's first advocacy campaign 'Breaking the Silence' brought the taboo of menstruation to national attention, and as a result the Rwandan government included in its 2010 budget a new sanitation line item of US\$35,000 to procure sanitary pads for schools. The Ministry of Education further pledged to include MHM as part of the national school health and nutrition plan.

SHE also invests in a scalable franchise model employing women entrepreneurs to manufacture and distribute affordable, eco-friendly menstrual pads by sourcing local, inexpensive raw materials (e.g. banana fibres). SHE has created a new market, thereby creating jobs all across the value chain, from the banana farmer through the pad assembler to the pad distributor.

One of the key challenges in the field of MHM is delivering effective, affordable and sustainable menstrual hygiene products for girls and women. SHE notes that in Rwanda, it is estimated that 36% of the girls who miss school do so because pads are too expensive. The rags they use, combined with the lack of an accessible safe water supply, are unhygienic and potentially harmful, making menstrual management difficult. Pads in Rwanda cost about \$1 for a box of 10 and are taxed at 18%, making them unaffordable to a large number of girls and women. Rwandan schoolgirls also reported their need for menstrual hygiene materials, preferably disposable pads, because these help bridge the gap between product efficacy and proper menstrual hygiene.

With its market-based approach, SHE is responding to this demand and strengthening capacity in Rwanda to improve access, quality and affordability of disposable sanitary pads. Its SHE LaunchPad is a feminine care product that significantly reduces the negative environmental impact of typical pads and at the same time creates local jobs. It will be priced at 50% less than the regionally-produced brands.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10–12 July 2013, Nairobi, Kenya. For further information please visit <http://www.sheinnovates.com/index.html>

Sanitation facilities

“Water, sanitation and hygiene education in schools – WASH in Schools – provides safe drinking water, improves access to clean sanitation facilities and promotes lifelong health.”¹⁰⁹

Numerous studies, particularly in South East Asia and Sub-Saharan Africa, demonstrate that many schools have very poor sanitation facilities. UNICEF estimates, based on surveys in nearly 50 low-income countries, that on average only 51 per cent of schools have adequate water sources and only 45 per cent have adequate sanitation facilities.¹¹⁰ Thus a large number of schools have no formal toilets or access to water. Where toilets do exist, studies^[111,112,113] have shown that often students, girls especially, choose not to use them as they are unpleasant and unsafe with little or no privacy. Many schools also continue to have toilets that are not segregated by sex, making it a particular challenge for girls to have some privacy. Where there is water, it may not be available inside the latrine, and there may be no soap. In addition, there are often an insufficient number of functioning toilets, and poor maintenance. In many schools, especially in low-income countries, there are no disposal mechanisms for menstrual hygiene materials. Particular challenges are faced by girls in boarding schools where showers and other bathing options are shared facilities, offering almost no privacy for girls wishing to wash themselves or their reusable protective cloths.

One of the pillars of FRESH is a safe learning environment, and the provision of safe water and adequate sanitation is an essential first step towards a healthy physical learning environment for both girls and boys. The education sector is therefore responsible for reviewing current needs and ensuring infrastructure development plans are in line with the UNICEF/WHO recommendations¹¹⁴ for water sanitation and hygiene. WaterAid and other stakeholders have also worked extensively on this topic,

particularly on integrating the needs of menstruating girls into the design of the WASH infrastructure (please see Bibliography for further resources).

WaterAid: Features of menstrual hygiene-friendly infrastructure in schools¹¹⁵

- Separate latrines are available for boys and girls, and male and female teachers.
- Latrines have doors with locks, and are secure and private with a privacy wall.
- Latrine, water supply and hand-washing facilities are in a safe location.
- Hand-washing facilities are inside the latrine unit, with soap and safe water available at all times.
- Safe water is available (from a tap or bucket) inside latrines, bathing units and changing rooms.
- Latrines are easily cleanable and there is an efficient mechanism for sustaining cleanliness and maintenance.
- The facilities are accessible for all girls, boys and staff, including those with mobility limitations.
- Each unit has a washable container with lid for collecting sanitary protection materials, and wrapping materials.
- A small mirror (even a broken piece of mirror) is present in the latrine to help girls check for spotting or leaking and ensure everything is in order before leaving.
- A mechanism is established for the collection and disposal of sanitary protection materials, such as in a pit or incinerator.
- In boarding schools, private bathing facilities are available and there is somewhere to wash and dry sanitary cloths. Shelves or hooks are provided for hanging cloths and placing pads while changing.
- Changing facilities are provided in a larger latrine cubicle that can be used by all girls, so that sanitary protection materials can be changed discreetly.
- In boarding schools, latrines and bathing units have lights and are near the dormitories.
- A financing mechanism is established to sustain the operation and maintenance of the water supply, latrine and hand-washing facilities.

For further information please read the WaterAid book *Menstrual Hygiene Matters* http://www.wateraid.org/what-we-do/our-approach/research-and-publications/view-publication?id=02309d73-8e41-4d04-b2ef-6641f6616a4f&sc_lang=en

109 UNICEF. 2012. *Raising Even More Clean Hands: Advancing Health, Learning and Equity through WASH in Schools*. New York, UNICEF.

110 Ibid.

111 Caruso, B.A., Fehr, A., Inden, K., Sahin, M., Ellis, A., Andes K.L. and Freeman, M.C. 2013. *WASH in Schools Empowers Girls' Education in Freetown, Sierra Leone: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

112 Haver, J., Caruso, B.A., Ellis, A., Sahin, M., Villaseñor J.M., Andes K.L. and Freeman, M.C. 2013. *WASH in Schools Empowers Girls' Education in Masbate Province and Metro Manila, Philippines: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

113 Long, J., Caruso, B.A., Lopez, D., Vancraeynest, K., Sahin, M., Andes, K.L. and Freeman M.C. 2013. *WASH in Schools Empowers Girls' Education in Rural Cochabamba, Bolivia: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

114 UNICEF and WHO. 2009. *Water Sanitation and Hygiene Standards for Schools in Low-Cost Settings*. Geneva, WHO.

115 House, S. et al. 2012. *Menstrual hygiene matters. A resource for improving menstrual hygiene around the world*. London, WaterAid.

This good policy and practice publication focuses on puberty education and MHM in schools and points to what the education sector can do. It is not intended to be an exhaustive examination of health, sanitation or water sectors. Yet it is worth noting the growing literature focused on the intersection of MHM and sanitation systems in low-resource contexts. The UNICEF-led WASH in Schools programme has brought much-needed attention, expertise and resources to the challenge of providing basic sanitation facilities, including MHM needs. In addition, the WaterAid

publication *Menstrual Hygiene Matters* provides a comprehensive resource for MHM programming in different contexts – schools, communities, emergencies and other vulnerable contexts – as well as advocacy, research and monitoring. The book synthesizes learning from the practical experiences of many organizations around the world, so that others can adapt the findings to their context.

For further information please see UNICEF's Wash in Schools Program and WaterAid's MHM resources

3.3 Key issues for programme development

Community and parental involvement

Experience from the implementation of school-based comprehensive sexuality education (CSE) programmes shows that those linked to, and supported by, parents and communities are more effective than those that are not.¹¹⁶ This is largely because teachers and the school need to feel mandated by the community in which they live.¹¹⁷ In some contexts, like Bolivia,¹¹⁸ teachers do not teach the content because they feel parents would not approve and would blame them if, for example, their daughters became pregnant. Involving parents and communities in puberty education is therefore essential. It not only improves the child's health and wellbeing but also the parents', as knowledge and awareness are transferred. The central role of schools may be teaching and learning, but they are also a unique community resource to promote health and development for children, families and teachers.¹¹⁹

The main link between a school and the community tends to be the parent-teacher association (PTA). The first action to take is to sensitise the PTA to the need for puberty education and, if it exists, the components of the school health programme. A teacher might not feel in a position to take this on, but a school principal, in many communities, has the social standing and gravitas to initiate a dialogue with the PTA. Once the PTA is on board and understands the importance of puberty education, they can advocate in the community and with the elders to ensure greater buy-in. Different techniques

can be used, from presentations to witnessing a class, and more interactive methodologies can be included.

Parental and community involvement can be initiated by schools, or by the communities themselves, or by organizations working within the community. For example, in response to requests from the communities in Chipata District, Zambia to train primary school teachers in sexuality and life skills, NGOs, in collaboration with the ministries of education and health, initiated the 'Training Teachers to Teach Pupils aged 10-15 about Sexuality and Life Skills' programme.¹²⁰

A number of other NGOs have been active in developing dialogue between children and parents. Since 2005 loveLife in South Africa has been implementing the Born Free Dialogues (BFDs) to encourage parent-child communication about a range of important issues including sex and sexuality.¹²¹

The Connections programme described on the following page has been very successful¹²² and is being implemented in a number of countries by different stakeholders. It has been adapted for use in different ways. In Papua New Guinea, it inspired a programme to reduce corporal punishment.¹²³ Using Connections as a base, the programme developed a 'whole school approach' covering curriculum, teacher training, policy, creating a safe environment and partnership with communities. The community partnership component, which includes training, has proven key, as corporal punishment is widely accepted. Addressing it only in the school setting would reduce the programme's ultimate effectiveness.

The evaluation of the Kenyan Families Matter Programme showed that when parents (mostly women) are provided with protective parenting skills and the knowledge and

¹¹⁶ See International Planned Parenthood Federation's The Viiv Healthcare Effect. <http://www.viivhealthcare.com/community-partnerships/the-viiv-healthcare-effect.aspx> (Accessed 21 October 2013)

¹¹⁷ McMahon, S. et al. 2011. The girl with her period is the one to hang her head: Reflections on menstrual management among schoolgirls in rural Kenya. *BMC International Health and Human Rights*, Vol. 11(7), pp. 1–10.

¹¹⁸ Long, J. et al, 2013. *WASH in Schools Empowers Girls' Education in Rural Cochabamba, Bolivia: An assessment of menstrual hygiene management in schools*. New York, UNICEF.

¹¹⁹ WHO. 2007. *Schools for Health, Education and Development – A Call for Action*. WHO & Joint Consortium for School Health Technical Meeting: Building School Partnership for Health, Education Achievements and Development. Vancouver, Canada.

¹²⁰ UNESCO. 2013. *Good Policy and Practice in HIV and Health Education: Gender Equality, HIV and Education*. Paris, UNESCO, pp. 52-53.

¹²¹ <http://www.lovelife.org.za/lovelife-programmes/born-free-dialogues-bfds/> (Accessed 5 February 2014.)

¹²² Beadle, S. and Cahill, H. Talking about sexual and reproductive health: Promoting better communication between parents and children in Asia. UNESCO. 2013. *Good Policy and Practice in HIV and Health Education – Booklet 7: Gender Equality, HIV and Education*. Paris, UNESCO, pp. 54-55.

¹²³ UNICEF presentation at Asia-Pacific Roundtable Meeting on School-Related Gender-based Violence (SRGBV). 11–13 November 2013, Bangkok, Thailand.

confidence to communicate with their children about sexual risk prevention, the relationship between parents and children improves communication about sex increases and parents start monitoring their children's behaviour.¹²⁴

Peer-led male involvement in India

In Uttar Pradesh the organization Vatsalya, supported by WaterAid, is implementing the 'Breaking Silence' project aimed at empowering women and adolescent girls by addressing MHM. A study conducted in five Gram Panchayats (rural village government areas) around Lucknow showed a perceived need among girls for education on menstruation and MHM. Only 6.9% of women and girls were found to use sanitary pads and 78.6% of girls reported they would have attended school during menstruation had there been separate latrines. The project included community meetings; capacity-building of frontline workers and community leaders; identification and training of women to run sanitary pad outlets; training of teachers and improving infrastructure in schools; setting up the supply chain management for sanitary pads; developing information, education and communication (IEC) tools for training and community mobilization; and disseminating learning with policy-makers and media.

The biggest challenge turned out to be the social taboos and myths related to menstruation that were widespread in the community. Notably, women are considered 'dirty' during menstruation and are socially excluded: They are not allowed to handle food and are not supposed to bathe, which can lead to hygiene and health problems.

A central thrust of the intervention therefore became educating boys and men on menstruation and working with them to change outlooks on the subject. Given the patriarchal nature of the target communities, it soon became obvious the project would only succeed if the elders, men and boys were brought on board. Male peer educators were identified and supported to conduct community meetings with adolescent boys and men, where they discussed menstruation and the needs of girls and women to manage their menstruation in a hygienic and dignified manner. The boys and men were resistant at first, but over time talking through the issues with the peer educator has changed perceptions. Since the power to make decisions about infrastructure (e.g. girls' toilets, washing/changing rooms) lies with the elders, older men were involved in the process, and started promoting education on menstruation, MHM in schools, and the importance of availability of pads for girls. The intervention was key to changing the mentality of some village leaders who are now actively promoting pad distribution and safe disposal.

Men's involvement, which at the project's beginning was a major challenge, is now one of its biggest strengths.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10–12 July 2013, Nairobi, Kenya.

For further information please visit <http://www.vatsalya.org/> or contact vatsalyaa@rediffmail.com. Also see <http://www.youtube.com/watch?v=x59RGOaDKOQ>

Connecting young people and parents

'Connections' is a programme to improve intergenerational dialogue so that girls and their mothers are better informed and more confident and comfortable talking about sexual and reproductive health.¹²⁵ The programme provides information and life skills around issues including puberty, growing up, relationships, dating, sexuality, pregnancy prevention, gender rights, alcohol use and parent-to-adolescent communication. It covers both the biological aspects of sex and broader relational aspects including peer and romantic relationships, love, reproduction, gender rights, HIV, risk-taking and peer influence.

The curriculum is covered over 12 separate sessions each for girls and for mothers, followed by a shared session where they can practice talking to each other as well as discuss issues. Sessions are led by a trained facilitator who uses participatory methods to enable development not only of knowledge but also skills.

The programme also focuses on local capacity-building, through training provided to mothers and young girls and also to teachers, local NGOs, CBOs, boys and men, in order to improve local skills to lead and manage mother-daughter workshops autonomously. Training has mostly done in Asia and includes:

- Student training to provide information and increase confidence to discuss the issues (Myanmar)
- NGO and CBO training on how to educate women and young people (Myanmar)
- Teacher training (on sensitive content) (Myanmar)
- Training of Trainers (Cambodia)
- NGO training on participatory approaches (Cambodia)
- Workshop hosted by the Cambodian Ministry of Women's Affairs and including participants from Bangladesh, Cambodia, Myanmar, Nepal and Viet Nam (Cambodia)

A participative approach is used during training sessions. Puberty and menstruation are covered through role-playing and discussions, aimed at increasing information-sharing among participants and promoting critical thinking about attitudes and behaviours. During training for male and female teachers in Myanmar, participants reflected on how their parents had explained puberty and reproductive issues to them, and how they are now behaving the same way with their children. Evaluation of the training highlighted changes in knowledge and attitudes toward sex and reproductive health topics.

For further information please contact aids@unesco.org

124 Vandenhoudt, H. et al. 2010. : Evaluation of a U.S. evidence-based parenting intervention in rural western Kenya: from parents matter! to families matter! *AIDS Education and Prevention*, Vol. 22(4), pp. 328-43.

125 Beadle, S. and Cahill, H. Talking about sexual and reproductive health: Promoting better communication between parents and children in Asia. UNESCO. 2013. *Good Policy and Practice in HIV and Health Education – Booklet 7: Gender Equality, HIV and Education*. Paris, UNESCO, pp. 54-55.



Culture and communities

Qualitative research has shown that in some cultures across South Central Mindanao, Philippines, mothers, grandmothers, aunts, cousins and religious groups serve as important information sources for girls regarding menstruation and puberty. Boys reported learning about puberty and menstruation from their mothers. Fathers also serve as key puberty information sources for boys.

Both fathers and mothers expressed shyness in talking to their opposite sex children about menstruation and puberty. Parents' beliefs relate to stigma attached to menstruation.

Teachers lacked cultural understanding of the beliefs, attitudes and knowledge of their students. Teachers' own attitudes or beliefs affect what and how they teach about menstruation, puberty and adolescence. Teachers may choose not to address students' beliefs out of cultural 'respect', or they may not know the beliefs of the students. For either reason, they may fail to offer appropriate hygiene

education to counter beliefs that can contribute to harmful health practices.

Teachers in this community felt that because of the cultural variances, the topic of menstruation was more sensitive to teach. Involving parents and communities in addressing menstrual hygiene management could help incorporate traditional beliefs and practices into lessons provided at the school level.

Save the Children will be using the findings of this situational analysis to effectively integrate MHM into their existing School Health and Nutrition (SHN) programmes. Through SHN, the organization works closely with school management committees (SMCs), PTAs, teachers and students, alongside the local government, departments of education and health, and partners.

Source: Save the Children Philippines. 2013. *Situational Analysis on Menstrual Hygiene Management in Schools: Metro Manila and South Central Mindanao*. Manila, Save the Children.

Strategies to engage ministries of education and political support

Advocacy plays an important role in efforts to ensure that a comprehensive puberty education programme is implemented in schools. Given other priorities and sometimes a discomfort with the subject, some ministries of education may need to be persuaded to tackle the issue. As discussed earlier, puberty education is an essential aspect of education to enable a healthy transition into adolescence and through to adulthood. This in turn will contribute to the educational status and achievement of the individual and affect the development of the country. While the macro arguments are strong, implementation

is affected by competing priorities. Therefore it is essential to build political support within government and the ministries to ensure implementation. Such support not only facilitates resource allocation, but also legitimizes a programme at the school level, providing teachers and principals with the mandate to implement it. Kenya is a prime example of how political support was created through different channels, including civil society, the parliament, the ministry of education and the prime minister's office, culminating in the recognition of the need for puberty education, teacher training and sanitary pads, and the allocation by parliament of additional funds for the ministry of education to implement the programme.

National Sanitary Towels Programme – Kenya

The overall goal of the Ministry of Education, Science and Technology in Kenya is to provide equal access to education for both boys and girls irrespective of their socio-economic status. This aim reflects the recognition that education has a critical role to play in addressing issues of gender equality and equity. It also aligns with the Government's commitment to achieve Millennium Development Goals (MDGs) and Education for All (EFA) by 2015 and with the Kenya Vision 2030, the Constitution of Kenya 2010 and the Basic Education Act 2013.

It is estimated some 2.6 million girls (2.2 million primary and 400,000 secondary school girls) require support to obtain menstrual hygiene materials. Approximately 300,000 of them, owing to cultural practices particularly in arid and semi-arid regions, would require both sanitary towels and underwear at an estimated cost of 2.6 billion Kenyan shillings.

To address this problem, the Ministry of Education, Science and Technology initiated the Schools National Sanitary Towels programme with the objective of 'keeping girls in school' and increasing their access, participation and performance in education.

The Sanitary Towels Programme has the following components:

- Provision of sanitary towels to school girls
- Training of teachers on hygienic usage and disposal of sanitary towels
- Monitoring and evaluation

This programme has been in place since 2010 and a total of 678,700 disadvantaged girls have benefited as of 2013.

Challenges

- Cost of sanitary towels, which remains high
- Lack of underpants to support use of sanitary towels
- Inadequate support on sexuality education and reproductive health in schools
- Cultural practices that hinder girls from pursuing education, e.g. Female Genital Cutting (FGC), early marriages and early/unplanned pregnancies

Way forward

- The government intends to increase the budget allocation for provision of sanitary towels and other menstrual hygiene materials for girls in both primary and secondary schools.
- Teachers, parents and the community must be encouraged to provide education and open up discussions about menstruation freely to both girls and boys.
- The Ministry of Education should strive to improve infrastructure in schools, e.g. ensure toilets have taps and disposal bins and girls' toilets are more private.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10–12 July 2013, Nairobi, Kenya.

For further information please contact the Ministry of Education, Science and Technology in Kenya

Policy environment

A supportive policy environment is essential; a proliferation of policies on a number of different topics, however, can have a negative effect by diluting the messages. Thus, in some cases, the best option might be a school health policy broad enough so that a number of different issues can fall within it, including puberty education and MHM, but not so vague it leads to inaction. Policies are crucial because they can:

- provide highly visible opportunities to demonstrate commitment to equity, non-discrimination, gender issues and human rights and be a positive model for the whole society.
- give a clear structure to a safe, protective and inclusive school environment.
- provide rules on how to behave and what is accepted or not in the school setting.
- be more effective if actively accepted and endorsed by the PTA, the school management committee and the community. In cases when policies are not followed, there will be a demand for change and stricter monitoring will be possible.¹²⁶

Content of school policies is likely to vary from country to country based on the health and development needs of the learners. Some content should be present in all countries, for example regarding puberty and sexual and reproductive health; bullying and sexual harassment (creating a safe learning environment); hygiene and sanitation; and nutrition. But content about malaria, for instance, will only be included in malaria-endemic countries. In addition, each policy must clearly delineate roles and responsibilities of the different stakeholders at national and district levels (e.g. ministries of education, health, sanitation; organizations working on school health issues, etc.), as well as at the school level (teachers, community health workers, community based organizations, etc.).

A policy alone is insufficient. It requires adequate support, enforcement and monitoring to be effective. A policy needs to support implementation and to facilitate the development of infrastructure and services and the provision of skills-based health education. Increasingly, countries have gravitated towards an integrated school health policy such as South Africa's.

¹²⁶ Visit FRESH <http://www.freshschools.org/Pages/HealthRelatedSchoolPolicies.aspx>

South Africa's Integrated School Health Policy

In 2012, South Africa released its Integrated School Health Policy, developed jointly by the ministries of health and education, and including a 'more comprehensive package of services, which addresses not only barriers to learning, but also other conditions which contribute to morbidity and mortality amongst learners during both childhood and adulthood.'

The school health policy is provided as part of the primary health care (PHC) package within the Care and Support for Teaching and Learning (CSTL, a regional initiative) framework. The main strategies to achieve its objectives include:

- Health promotion and health education
- Provision of an essential package of health services in schools
- Coordination and partnership
- Capacity-building
- Community participation

The package's main options are provided on-site and are divided into health screening (e.g. vision, hearing etc.), on-site services (e.g. immunization, deworming, etc.) and health education (hygiene, puberty including menstruation, sexual and reproductive health, abuse, drugs, nutrition etc.). For services not available on-site, follow-up and referrals are to be provided.

Roles and responsibilities have been clearly delineated, with the DOH responsible for the provision of health services and the Department for Basic Education (DBE) responsible for creating an enabling environment, which includes planning, managing and monitoring of the programme, facilitating access to schools and services, and liaising with other partners at all levels of the system. The policy recognizes the importance of collaboration and linkages among the different government departments including sanitation, as well as communities, civil society, the private sector, academia and other stakeholders. It therefore provides a breakdown of roles and responsibilities by level – national, provincial, district, primary healthcare facility and school – and the training requirements at these different levels.

For further information please see Department of Health and Department of Basic Education South Africa. 2012. *Integrated School Health Policy*. Pretoria, Government Printer.

Cross-sectoral linkages

As discussed in the policy section above, cross-sectoral linkages are key to increasing efficiency and impact. This is particularly applicable when providing learners with the knowledge, skills and attitudes for a successful transition through puberty. The linkage to the health sector is particularly important, as it is usually responsible for children's health while the education sector is in charge of implementing and funding school health programmes. Linkages and referrals to existing health services are vital and possible only through close cross-sectoral collaboration. This is especially relevant to issues such as menstruation and pain management, and sexual and reproductive health.

Linkage to water and sanitation is another imperative. Sanitation and hygiene facilities and access to safe water and disposal mechanisms are essential for girls to manage their menses in a dignified and hygienic manner. Linkages with this sector are not only key to developing required infrastructure, but also to ensuring any guidelines established are in line with needs and relevant to schools' context.

Multi-sectoral approach to MHM in Tanzania

A multi-sectoral approach to MHM can potentially increase the chance to achieve long-lasting results by enhancing the effects of each sector's intervention. MHM is a topic that concerns many sectors, including WASH, health, education, engineering (e.g. infrastructures), and business (e.g. pads, tampons). Cooperation among different ministries should therefore be promoted.

The case of Tanzania, illustrated in the WaterAid resource book,¹²⁷ provides a good example of collaboration among education, health, water and local government. Supported by WaterAid and UNICEF, they developed a set of guidelines on water, sanitation and hygiene through a participatory process. The guidelines included integration into school management, infrastructure, curriculum and monitoring systems.

At the same time, a national NGO (TWESA), Dr Marni Sommer of Columbia University, the Ministry of Education and Vocational Training, and UNICEF started developing teacher training guidance notes to support girls' learning, based on a puberty booklet distributed to girls (see Case Study: Boys' and Girls' puberty readers – a complement to puberty education and WASH in schools). The partners also explored disposal and incineration options in schools.

This approach, which fosters the action of different sectors and actors sharing a common mission to improve MHM, should be encouraged on a larger scale.

¹²⁷ House, S., Mahon, T., Caville, S. 2012. *Menstrual hygiene matters. A resource for improving menstrual hygiene around the world*. London, WaterAid.



4. IMPLEMENTATION AND SUSTAINABILITY

At present, most puberty education or menstrual hygiene management programmes tend to be ad hoc and small-scale. Relatively few countries have implemented at scale because of lack of political commitment, weak long-term planning and investment, and lack of clarity about how to implement comprehensive sexuality education, as well as wider education system and capacity challenges.¹²⁸ In countries that have concentrated on increasing primary school enrolment to achieve Education for All, issues such as puberty education and life skills may not be given priority.

4.1 Curriculum development

The topics of puberty education that should be covered within a school curriculum were discussed in the School curricula and puberty readers section. In many current curricula, some or all of these topics are already addressed, but not necessarily at the right age or in the right order. MoEs will be responsible for ensuring, during their curriculum reviews, that the topics are covered within the context of skills-based health education, and that they are gender-sensitive, contextually adapted, rights-based, scientifically accurate and age-appropriate. How to do this, e.g. inclusion in carrier subjects vs. stand-alone, will be dependent on the country context, as will be the decision of whether to develop a reader or what teaching materials will be required. Countries regularly review curricula, although the review cycle, the topics and extent of the review are variable. These reviews could be replicated and/or adapted for a review of a curriculum's puberty content.

¹²⁸ UNESCO. 2012. *Comprehensive sexuality education: the challenges of scaling up*. Conference-ready version. http://hivaidsclearinghouse.unesco.org/search/resources/CSE_scaling_up_conference_ready_version.pdf (Accessed 21 October 2013.)

Tanzania's curriculum review

The Tanzania Institute of Education, with support from UNESCO, conducted an assessment of sexuality education in Tanzania. The review,¹²⁹ using the Sexuality Education Review and Assessment Tool (SERAT), found that although there were strong features in the existing curricula across different subject areas, and teachers were teaching some important aspects of sexuality education, content was inconsistent and incoherent in some areas and thus inadequate. In response to these findings, a number of focus-group discussions and interviews were conducted with teachers, learners, parents, district officers working in the education, health or SRH/HIV fields, and school inspectors. The discussions covered what is currently being taught and what respondents felt should be taught.¹³⁰ On the basis of this information, the Tanzania Institute of Education developed a guide for integrating required components of sexual and reproductive health, HIV, AIDS and life skills in the primary and secondary curricula, thus strengthening the overall delivery of sexuality education. An updated teacher training curriculum is now in development based on the guide.

While the Tanzania experience described above might not be replicable in all contexts, a faster and lighter approach could consist of simply reviewing the existing curriculum using the UNESCO International Technical Guidance on Sexuality Education¹³¹ and the WHO and BZgA Standards for Sexuality Education in Europe.¹³²

4.2 Teacher training

Teachers are often unprepared to teach puberty and MHM. Just asking female teachers to talk to girls and male teachers to talk to boys about puberty and menstruation will not adequately address young people's needs; instead, teachers should be sufficiently trained to deliver skills-based puberty education and to promote health in the school environment.

Studies indicate teachers may feel uncomfortable with modules relating to sex and sexuality, or overworked.¹³³ In addition, the topic is not always a priority in schools and is generally taught as part of an after-school club or not covered at all by curricula, leading teachers to spend less time on it compared to topics on which students will be tested.¹³⁴ Some teachers may disapprove of young people expressing interest in sexuality,¹³⁵ or be embarrassed by having to provide comprehensive knowledge of sex, sexuality and gender.

The discourse about 'childhood innocence' that can be present especially in primary schools may limit teachers' efforts to engage with reproductive and sexual education.¹³⁶ A UNICEF life skills evaluation highlighted that teachers may be inadequately equipped with the knowledge, attitudes and skills required to teach some topics effectively and with confidence.¹³⁷ In addition, teachers may choose to cover topics that are sanitized and safe, and to leave discourses of sexuality ignored, overlooked and silenced.¹³⁸ A study conducted in Mozambique found teachers in lower primary school particularly lacked the skills to talk about sensitive sexual and reproductive issues. There were also challenges at secondary level, where learners were more experienced than younger children and often asked difficult questions.

One reason that teachers feel uncomfortable is that they are members of the community and may have concerns about what parents will think, how far they should go in discussing a topic, and how they should accommodate differences in students' maturity, knowledge and comfort.¹³⁹ Teachers are not immune to the influence of community norms, culture and religion on attitudes towards young people's sexuality.¹⁴⁰

A qualitative research study on teachers in Australia highlighted topics they found more difficult to explain. These included wet dreams, masturbation (especially in

129 Tanzania Institute of Education. 2012. *Strengthening existing components of SRH/HIV/LS Curricula in Primary and Secondary Education in Tanzania Mainland. A report on Sexuality Education Review and Assessment*. Dar es Salaam, Tanzania Institute of Education.

130 Tanzania Institute of Education. 2012. *Review of the Components of HIV, AIDS, SRH and LS education in the Current primary and secondary education Curricula*. Needs assessment report, draft project report.

131 UNESCO. 2009. *International Technical Guidance on Sexuality Education. An evidence-informed approach for schools, teachers and health educators*, Vol. II, Topics and learning objectives. Paris, UNESCO.

132 WHO and BZgA. 2010. *Standards for Sexuality Education in Europe: a framework for policy makers, educational and health authorities and specialists*. Cologne. <http://www.bzga-whocc.de/?uid=072bde22237db64297daf76b7cb998f0&id=Seite4486>

133 Hughes J. and McCauley A.P. 1998. Improving the fit: Adolescents' needs and future programs for sexual and reproductive health in developing countries. *Studies in Family Planning*, Vol. 29(2), pp. 233-245.

134 James-Traore, T. et al. 2004. *Teacher training: essential for school-based reproductive health and HIV/AIDS education: focus on sub-Saharan Africa*. Arlington, VA, Family Health International, YouthNet Program.

135 Hughes J. and McCauley A.P. 1998. Improving the fit: Adolescents' needs and future programs for sexual and reproductive health in developing countries. *Studies in Family Planning*, Vol. 29(2), pp. 233-245.

136 Bhana, D. 2009. 'They've got all the knowledge': HIV education, gender and sexuality in South African primary schools. *British Journal of Sociology of Education*, Vol. 30(2), pp. 165-177.

137 UNICEF. 2012. *Global evaluation of life skills education programmes*. New York, UNICEF.

138 Bhana, D. 2009. 'They've got all the knowledge': HIV education, gender and sexuality in South African primary schools, *British Journal of Sociology of Education*, Vol. 30(2), pp. 165-177.

139 Ibid.

140 Milton, J. 2003. Primary school sex education programmes: views and experiences of teachers in four primary schools in Sydney, Australia. *Sex Education*, Vol. 3(3), pp. 241-256.

primary school), gender and sexual diversity. Terminology was also sometimes a challenge.¹⁴¹

'You've got to be very comfortable with the terminology and you need to practice that before you get there ... I don't have a problem now but when I first started we'd all practice together and say "vagina, vagina, vagina" and "penis, penis, penis" so usage depersonalized the words.'

Certain barriers can be universal, such as the lack of teaching materials, but a number of studies have shown that some are country and location specific. A study in Tanzania noted teachers were unable to discuss sexuality, sex, condom use and family planning. Tanzanian teachers were afraid talking about sexuality could encourage sexual activity, and felt discussing issues such as homosexuality, masturbation, condoms and sexual pleasure was counter to community norms, culture and religion. Evidence from the Caribbean also suggests teachers experience challenges in teaching about sensitive topics.¹⁴² In Bolivia, one study¹⁴³ showed that difficulties also included: teachers in some cases teaching from personal beliefs rather than facts; many teachers believing girls in colder regions of the country reached menarche at a later age, and therefore teaching about menstruation at age 13 was early enough (while data from girls suggested otherwise); male teachers feeling they made their female pupils uncomfortable when menstruation was taught in class, therefore glossing over it as quickly as possible to reduce girls' embarrassment; and data suggesting when teachers were not from the same region as the girls, they did not teach menstrual cloth use and care (they taught only about using sanitary pads). Therefore, while girls might have received MHM information, it was not necessarily applicable to their situation.

Teachers often have 'anxiety concerns' and 'resistance concerns'.¹⁴⁴ Anxiety concerns refer to fears of violating taboos, giving offence to parents, being accused of encouraging promiscuity and loose moral practices in the young, or being regarded as using their teaching in this area as a form of personal sexual outlet. Resistance

concerns relate to doubts about whether sexual and reproductive health education, the formation of appropriate sexual attitudes and the transmission of very specific behavioural guidelines really belong to their work as teachers, when their whole training and orientation were directed towards essentially academic areas. This points to the need to review and adapt current pre- and in-service training to include an understanding of the importance of so-called 'soft' or non-examinable subjects, knowledge of the content itself, and the skills to teach in a participatory way. This is especially important as the concerns expressed by teachers act as barriers, preventing pupils from learning appropriately about puberty.

Teachers can be role models, advocates for healthy school environments, guides for students in need of services, resources for accurate information, mentors and effective instructors.^{145,146} To fulfil these key functions, they need the ability to forgo passing judgment and to gain the trust of their students. Students can then feel comfortable opening up, knowing what they say will remain confidential. Teachers also need to examine, and periodically re-examine, their own values and attitudes, and to update and extend their knowledge, developing awareness and objectivity about topics in specific sociocultural contexts.^{147,148} Indeed, programmes appear to be more effective when teachers have a positive approach based on awareness of values, assertiveness, relationship skills, decision-making, real-life situations, and self-esteem.¹⁴⁹

More opportunities are needed for teachers to participate in pre- and in-service training. In one study, students whose teachers had received training reported a significant decline both in the frequency of sexual intercourse in the past month and in the average number of sexual partners.¹⁵⁰ Research has also found that training can positively affect teachers' attitudes toward sexuality education and participatory techniques. In Thailand, teachers were found after training to have more knowledge and understanding, more positive attitudes toward young people's sexuality and toward people living with HIV, an increased willingness to

141 Matungwa, D. J. et al. 2012. *Rethinking the 'teacher' in school-based, teacher-led sexuality education programmes in rural and urban Tanzania*. 19th International AIDS Conference: Abstract No. THAD0306. <http://www.iasociety.org/Abstracts/A200747331.aspx> (Accessed 19 December 2013.)

142 Milton, J. 2003. Primary school sex education programmes: views and experiences of teachers in four primary schools in Sydney, Australia. *Sex Education*, Vol. 3(3), pp. 24-256.

143 Long, J. et al. 2013. *WASH in Schools Empowers Girls' Education in Rural Cochabamba, Bolivia: An assessment of menstrual hygiene management in schools*, New York, UNICEF.

144 Kelly, M. J. 2000. Standing education on its head: aspects of schooling in a world with HIV/AIDS. *Current Issues in Comparative Education*, Vol. 3, pp. 28-38.

145 Plummer, D. 2010. HIV in Caribbean schools: the role of HIV education in the second most severely affected region in the world, M. Morrissey et al. (eds) *Challenging HIV/AIDS: A New Role for Education*. Kingston, UNESCO and Ian Randle Publishers.

146 Fatusi, A. O., and Hindin, M. J. 2010. Adolescents and youth in developing countries: health and development issues in context. *Journal of Adolescence*, Vol. 33(4), pp. 499-508.

147 UNICEF. 2012. *Global evaluation of life skills education programmes*. New York.

148 Haver, J., Caruso, B.A., Ellis, A., Sahin, M., Villasenor J.M., Andes K.L. and Freeman, M.C. 2013. *WASH in Schools Empowers Girls' Education in Masbate Province and Metro Manila, Philippines: An assessment of menstrual hygiene management in schools*. New York, UNICEF, pp. 44-45.

149 James-Traore, T. et al. 2004. *Teacher training: essential for school-based reproductive health and HIV/AIDS education: focus on sub-Saharan Africa*. Arlington, VA, Family Health International, YouthNet Program.

150 Ibid.

Supporting teacher training

In Kenya, the Girl Child Network (GCN), an umbrella organization comprising over 300 organizations supporting girls' education and empowerment, has been working on puberty education and menstrual hygiene management for a number of years. Its programmes include work on curricula, infrastructure, teacher training, awareness raising and sensitization. The GCN was tasked by the MoE to train teachers on menstrual education and MHM. The MoE did not have the resources and capacities to rapidly roll out teacher training, but numbered it among its priorities. The training aims to equip teachers with knowledge and skills to educate girls and boys on puberty and MHM. The GCN is currently working with 24,000 teachers across the country.

The training is based on a human rights and development approach; it covers education-related articles of the UN Convention on the Rights of the Child (art. 24, art. 28, art. 29) and MDG 2, the achievement of universal primary education. It ensures teachers understand the importance of the FRESH framework to improve quality and equity of education. It gives the teachers an introduction to adolescent reproductive health: the sexual maturation process, terms and their definitions, menstrual myths and facts, and MHM, among other topics. The GCN sees the role of teachers as *inter alia*:

- Providing knowledge and skills relevant to a successful transition through puberty to adolescence and adulthood

- Being mentors and points of reference for girls and boys
- Providing sensitive teaching pedagogy
- Supporting girls and boys in establishing health/rights of the child clubs, where peer learning on topics such as menstruation is discussed openly
- Encouraging girls and boys to embrace their sexual maturation process
- Supporting girls in MHM
- Educating fellow teachers and parents on puberty and menstrual hygiene

The GCN has also found that trained teachers are active in monitoring the education attainment and impact of other components of their interventions (e.g. the provision of sanitary pads); supporting the schools' development of a mechanism for safe and hygienic sanitary pads disposal; and advocating for puberty education and MHM in the curriculum.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10–12 July 2013, Nairobi, Kenya.

For further information please visit <http://www.girlchildnetworkworldwide.org/>

use participatory methods, stronger facilitation skills, increased communication and better relationships with students, and a greater commitment toward teaching about sexuality and HIV.¹⁵¹

There is strong demand for additional teacher training and support, but limited evidence of approaches to teachers' engagement and professional development that effectively address the specific demands of life skills education delivery beyond knowledge content.¹⁵² Effective delivery is commonly seen as dependent on the introduction of participatory teaching and learning methodologies, but significant challenges exist to the implementation of such methodologies in the context of resource-constrained systems and more traditional didactic modes of delivery. Teachers need quality pre-service training¹⁵³ as well as follow-up in-service training and support,¹⁵⁴ though evidence indicates higher levels of in-service training.¹⁵⁵ A key element is the lack of resources: life skills education including comprehensive sexuality education has often been donor-driven and may not be part of the general curriculum. Teacher training

¹⁵¹ Ibid.

¹⁵² UNICEF. 2012. *Global evaluation of life skills education programmes*. New York, UNICEF.

¹⁵³ UNESCO. 2011. *Good Policy and Practice in HIV & AIDS Education. Booklet 6: Pre-service Teacher Training*. Paris, UNESCO.

¹⁵⁴ UNESCO. 2014. *Charting the Course of Education and HIV*. Paris, UNESCO.

¹⁵⁵ UNAIDS IATT. 2013. *2011–2012 Education Sector HIV and AIDS Global Progress Survey. Progression, Regression or Stagnation?* Paris, UNESCO.

supported by NGOs or international organizations should be linked to governments in order to ensure acceptability and consistency of messages as well as commitment for sustainability.¹⁵⁶

According to the UNAIDS IATT on Education Global Progress Survey, 'The evidence relating to the quality and scale of HIV and life skills delivery in the classroom would suggest that there are still significant gaps between training and delivery: there is continuing concern that effective and comprehensive HIV education within the context of life skills is not receiving adequate attention or delivery in the classroom.'¹⁵⁷ Teachers must be supported to clarify their values and attitudes so that they can teach their learners effectively. Teacher training for puberty education should at a minimum cover the content of puberty education (see p.21) so that teachers understand what they will have to teach, and skills for addressing sensitive topics and for using participatory methods in a classroom setting. Teacher training should increase the confidence and knowledge of teachers in their own health-promoting behaviours; it should address the prejudices teachers may have about teaching puberty education to their learners; and it should provide them

¹⁵⁶ James-Traore, T. et al. 2004. *Teacher training: essential for school-based reproductive health and HIV/AIDS education: focus on sub-Saharan Africa*. Arlington, VA, Family Health International, YouthNet Program.

¹⁵⁷ UNAIDS IATT. 2013. *2011–2012 Education Sector HIV and AIDS Global Progress Survey. Progression, Regression or Stagnation?* Paris, UNESCO.

with the confidence to talk about these issues with their learners. While cultural adaptation is a very important principle, it should not be applied at the expense of putting a learner's health at risk. Teachers and school heads will therefore need to learn to adapt to circumstances and be taught the skills to communicate the reasons and policies for dealing with sensitive issues to parents and other community members who may be resistant.

To facilitate teachers' work and ensure all topics including sensitive ones are covered, a policy framework outlining what is expected of teachers should be developed and communicated to their supervisors and inspectorates. Certification should also be based on assessment of content as well as teaching skills. Support mechanisms, at the school and regional level, should be made available to help teachers implement when they arrive at their teaching post.

4.3 Increasing coverage through partnerships

Ensuring the curriculum covers all the necessary topics, materials are available and teachers are trained represents a medium- to long-term investment essential to scaling up. However, in the short to medium term other options need to be pursued to ensure the greatest number of young people receive the knowledge, skills, attitudes and values they need to navigate puberty. A number of UN agencies, NGO's and private sector partners are currently active in this field and are key to rapidly increasing coverage.

United Nations agencies

A number of different UN agencies are currently working on different issues to facilitate young people's transition through puberty to adolescence and adulthood. As mentioned earlier, UNICEF's WASH in Schools programme has been essential in improving access to water and sanitation. It has driven the integration of life skills into the curriculum and considerably scaled up implementation of programmes through its partnerships and advocacy to governments. WHO has been active in researching not only access to information but also the medical impacts of the lack of information and knowledge about puberty, MHM, and sexual and reproductive health. UNFPA has been active around the world with programmes to address adolescent sexual and reproductive health and rights.

Implementation through partnerships – UNFPA's support to tribal schools

UNFPA India uses diverse approaches to reach out to adolescents in schools. These include integration of comprehensive sexuality education in syllabi and text books; life skills-based co-curricular activities and state-specific intensive interventions. In the state of Odisha and Bihar, around 50,000 tribal and disadvantaged students in residential schools and 35,000 adolescents are being reached. In Rajasthan, life skills education is being imparted as a separate subject across 4,276 state board schools and the capacities of teachers are being strengthened through pre-service training of teachers in 7 universities.

It is worth noting here the work being done at the Kalinga Institute of Social Sciences, a tribal boarding school of 15,000 learners in Odisha, where a life skills-based adolescent reproductive and sexual health programme has been on-going since 2010. Trained teachers, and around 150 peer educators, transact curricular and co-curricular activities. Other components include adolescent-friendly health services, counselling support, as well as promotion of menstrual hygiene. The MHM component includes providing information and education through activity-based sessions; ensuring access to clean toilets and availability of water; facilitating menstrual management through the production of sanitary pads; and enabling the safe disposal of used sanitary pads. With support from UNFPA, the Institute has made the initial investments for machinery, raw materials, incinerators for disposal of used pads and training of selected teachers and peer educators in manufacturing of pads. Girls in the Institute have now begun manufacturing pads for their own use. On average, about 6 girls from the high school spend 3-4 hours every day and are able to produce 400 pads; this activity is taking place after school hours.

The success of the Life Skills programme at the Institute has strengthened the partnership between UNFPA and the state government. The programme is currently being scaled up and is expected to cover all the residential schools. UNFPA has also been advocating actively for the government's integration of this programme into the school curriculum.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10–12 July 2013, Nairobi, Kenya.
For further information please visit www.unfpa.org

Non-governmental organizations (NGOs)

NGOs, be they international, national or community-based, have been highly active in the fields of puberty education, sexual and reproductive health, and menstruation. A number of case studies have been presented in this document. Partnering with NGOs offers a number of advantages; for one, while teachers may not feel comfortable or mandated to address these topics, NGO staff do. In addition, NGOs tend to work very closely with communities and to have developed a relationship enabling them to tackle difficult issues and bring the community on board. Working in partnership with NGOs can thus be especially useful in culturally, religiously and politically sensitive environments.

Sexual and reproductive health in Egypt – expanding access

The cultural, religious and political environment in Egypt makes it difficult to provide education on puberty and sexual and reproductive health. The Egyptian Family Planning Association (EFPA) runs a number of youth-friendly clinics. As an extension to these clinics, an SRH education project was rolled out in schools close to the clinics in 22 governorates.¹⁵⁸ The project aims to provide accurate and appropriate reproductive health information to adolescent students, correct their misconceptions, and respond to their questions and concerns. Trained physicians and/or peer educators discuss topics such as puberty, life skills, reproductive anatomy and physiology, nutrition, anaemia and smoking with the students.

Two physicians from each governorate — one male and one female — were trained in communication skills and a participatory approach to teaching. More than 2,000 seminars were conducted between 2010 and 2012 in 667 schools, and attended by almost 32,500 students of which more than 17,000 were girls.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10–12 July 2013, Nairobi, Kenya. For further information please visit <http://efpa-eg.net/en/home.php>

Partnerships with NGOs are also key in countries where the demand and numbers to reach are high, resources both human and financial are scarce, and where the geography of the country either through sheer scale or difficulty of access means that governments cannot reach everyone in an appropriate and timely manner.

The loveLife model: empowering the future

In South Africa, loveLife has harnessed youth leadership to promote healthy lifestyles and HIV-free living among young people aged 12 to 19 through youth and community engagement. Its comprehensive approach combines school programmes, community programmes (e.g. clinical services, psycho-social call centre, extracurricular programmes, community meetings, etc.) for youth, parents and the community, coupled with a mass media campaign (radio, TV, print, online).

loveLife's modular programmes cover healthy sexuality, personal development and the psychosocial factors of development and body changes. These programmes are implemented in schools, community-based organizations (franchises), youth-friendly clinics (Adolescent and Youth-Friendly Services), Y-Centres and other community hubs by groundBREAKERS, youth aged 18 to 25 who hold a matric qualification or equivalent. groundBREAKERS, as well as their collaborators (mpintshis) are trained on healthy living, team-building skills, development and implementation of programmes, and community mobilization.

One of loveLife's modular programmes, love4life, is implemented in schools and community hubs; it lasts at least 9 weeks and is targeted at youth aged 12 to 19. Among the subjects covered by the curriculum are sexual and reproductive health including puberty education, HIV and AIDS and sexually transmitted infections, and life skills to deal with life transitions.

loveLife's programmes alone reach over 1.7 million young people. The organization has achieved this success by developing active partnerships to maximize reach and impact. It is linked to 6,500 schools as well as churches, clinics and youth centres, and has formed franchises with other NGOs/CBOs.

Partnerships are developed to extend reach by deepening impact, building capacity in communities and fostering youth leadership, enabling a concentration on programming. The model thus maximizes resources.

By building partnerships between clinics, schools, NGOs/CBOs and its Y-Centres, loveLife creates a continuum of services for young people. Its approach enables community ownership in the long term.

The main limitations to the loveLife scale-up model are insufficient resources and the shortcomings of standardization versus different cultural perspectives.

Source: Country presentation at the International Technical Consultation on Menstrual Hygiene Management (MHM) and the Education Sector, 10–12 July 2013, Nairobi, Kenya. For further information please visit <http://www.lovelife.org.za/>

¹⁵⁸ Wahba, M., Roudi-Fahimi, F. 2012. *The need for reproductive health education in schools in Egypt*. Washington D.C., The Population Reference Bureau. <http://www.prb.org/pdf12/reproductivehealth-education-egypt.pdf> (Accessed 5 February 2014.)

Private sector

The private sector has been actively engaged in developing and implementing puberty hygiene education programmes in schools. Early programmes tended to focus exclusively on girls and young women, providing basic biological descriptions of menstruation in a very matter-of-fact tone. Today, there is much greater diversity and depth in these programmes, in terms of content and tone, audience, learning approaches and product options. A number of private sector companies that produce menstrual hygiene supplies have developed some educational materials; their content, aims and reach vary.

One example is Always|Whisper, a global brand present in more than 120 countries and currently reaching about 230 million women. Always|Whisper has developed a puberty education programme which provides sensitive, scientific and age appropriate information about menstruation and puberty in a variety of different formats. It is active in 65 countries in North America, Europe, the Middle East, Africa, Asia and China, reaching between 17 and 20 million¹⁵⁹ girls a year between the ages of 10 and 15, at the threshold of their first period. The programme goals are to (a) expand access to sanitary pads, particularly in countries where these were not available previously; (b) provide in accessible ways the most up-to-date scientific information and hygiene best practices related to menstruation, primarily to girls but also to boys; (c) support educators and health workers by providing supplementary materials about puberty and menstruation they can use in their work; (d) address stigma by actively challenging myths and misconceptions about menstruation, particularly with mothers and influential stakeholders in the wider community; (e) reach out to senior policy makers in education and health ministries to develop long-term sustainable programmes that benefit all concerned.

Always|Whisper has more than 30 public/private national partnership agreements with ministries of education to facilitate its entry and implementation in their countries. It is developed in partnership with professionals, and delivered by well-trained professional nurses, doctors and school teachers or hygienists. In addition, teaching aids have been developed to strengthen teachers' capacity to engage with their local curriculum on menstruation. More than half a million professional educators and health care workers around the world are now using materials from the Always|Whisper programme.

Additionally, a mass communications campaign is implemented that helps to demystify and reduce the taboos around menstruation, as well as enable a dialogue between the various stakeholders in society – girls, mothers, teachers and peers, including boys.



“We liked P&G’s strong involvement and commitment ‘as a real partner’ in the implementation of the program and the continuous improvements we do year on year (as well as) the support offered to schools in terms of educational teaching materials. The Ministry’s commitment and the strong support provided by P&G is strengthening the Public-Private Partnership and allow private companies to participate in the social development of the country. ”

Ministry of National Education Morocco, School Life & Health Team

“(The Always|Whisper teaching program) is quality material. ...We like the modular structure and flexibility. ...Teachers find what they need - material for an extensive lesson as well as for a short input. the Always Puberty Education program offers very good material for very relevant - and sometimes neglected – topics.”

Lehrer Online, a teacher from Germany



“I heard about puberty and menstruation at school. ...It helped me handle the situation better when I started my periods and I appreciated the information more. ...It will help me to know how to talk to my daughter when I get one.”

Ms Melanie Nyambura, a student from Kenya

¹⁵⁹ Procter & Gamble data of December 2013.

7 LESSONS FROM THREE DECADES (1984-2014) OF THE GLOBAL ALWAYS|WHISPER PUBERTY EDUCATION PROGRAM



KEY LESSON NO. 1

One of the most effective and efficient ways to address the challenges of effective MHM and ME in schools is through thoughtful partnerships between the public and private sectors. These partnerships provide the scale and continuity that are making a real difference to the lives of millions of girls, which would be very hard to achieve outside of this approach.



SCALE & CONTINUITY

The Always|Whisper Puberty Education program is **active in more than 65 countries** in North America, Asia, China, Middle East, Europe and Africa. In school year 2012-2013, over **17 million First Period Kits were distributed**, primarily in schools but also through a variety of different mechanisms. **More than 500,000 educational professionals around the world make use of the materials developed by the program.**



KEY LESSON NO. 2

Adaptable programs, with multiple entry points, are important in order to respond appropriately to the different needs, capacities and opportunities that individual countries offer. Program development needs to take into account the particular strengths (and weaknesses) of both the private sector partner and the public sector partner.



ADAPTING TO DIFFERENT CONTEXTS

The Always|Whisper Puberty Education program only operates in countries where there is direct or indirect support from Education Ministries. It works as:

- 1) a formal school-based program.** This program provides public&private school teachers with a modular curriculum, with lesson plans and interactive materials for students.
- 2) an extra-curricular program** that is delivered by specially trained health and education professionals that visit individual schools that are participating in the program. A session of 45 minutes is planned with the girls and makes extensive use of audio-visual teaching aids.
- 3) the self-directed learning** for individual students, and out-of-school girls, is available through a variety of web-based platforms developed and managed by Always|Whisper, (see Key lesson No. 5).



KEY LESSON NO. 3

Civil society can play an important complimentary role in public/private partnerships, by being an 'on the ground' enabler and liaison between individual schools and the public/private partnership. Similarly it is important to involve the wider community, particularly parents, in the implementation of both school-based and out-of-school programs.



ENGAGING THE WIDER COMMUNITY

The Always|Whisper Puberty Education program has developed a range of ways in which to partner with civil society and to engage parents. These include:

- 1) working with NGOs** and professional agencies to deliver the extra-curricula program.
- 2) outreach to mothers** through direct mailings, in-home meetings or school based distribution of information leaflets to assist them to provide timely and sensitive information to their daughters.



KEY LESSON NO. 4

High quality education materials, based on the most sound, scientific evidence and shaped by the national curriculum are an essential cornerstone of an effective program. Providing creative ideas about teaching methods and approaches encourages teachers and educators to take up this difficult topic.



INNOVATIVE TEACHING APPROACHES

The Always|Whisper Puberty Education Program includes classroom kits for teachers that have a range of teaching modules. For example, there is an online reference platform on puberty education designed for teachers, it provides free aids and materials on puberty and adolescent health. **Based on the school curriculum in most european countries it provides modular lesson plans, worksheets and audio visual teaching aids.**



KEY LESSON NO. 5

New technology, particularly provision of on-line information and social media community building can be very effective at reinforcing curriculum based content, as well as reaching out-of-school girls. The privacy offered by self-directed and peer-to-peer learning opportunities helps girls overcome the shyness and embarrassment that can make asking questions about menstruation and puberty difficult.



HARNESSING NEW TECHNOLOGY

On-line platforms provide an important opportunity for a much more interactive and entertaining means for girls to learn about puberty and menstruation:

1) The largest on-line platform (www.beinggirl.com) under the Always|Whisper Brand is used by more than 12 million unique visitors a year worldwide. It allows girls to get more information in the intimacy of a web connection and in safe environment.

2) A recent initiative harnesses the possibilities of peer-to-peer education. The Always Diaries have been viewed approximately 30 million times since their launch in several countries. These short videos, posted online at YouTube, provide feminine hygiene tutorials by girls, for girls.

3) Mobile phone applications, such as period calendars, have been developed and released in a number of countries to respond to the high level of usage of smart phones by teenagers.

4) Finally, a supportive global community for girls is being developed through **Social Media** that allow girls to initiate their own conversations and responses. There are more than 30 Always|Whisper and BeingGirl national Facebook pages with over 5.5 million 'fans'.



KEY LESSON NO. 6

A deep understanding of local context, particularly cultural sensitivities, are essential if programs are to be embraced and widely used.



CULTURAL SENSITIVITIES

Adapting content, topics and visualization to different cultural sensitivities.



EUROPE

MIDDLE EAST & NORTH AFRICA

AFRICA



KEY LESSON NO. 7

Extensive investment in product innovation by the private sector ensures that more girls can be reached by providing a range of choices that respond to different needs, preferences, and resources of students.



INVESTMENT IN PRODUCT INNOVATION

The Always|Whisper Puberty Education Program ensures that **girls are aware of the range of options available to them for protection, and what factors should inform their choices, such as type of protection (pads, tampons or liners); flow (light, heavy and overnight). But also, how to use these products and their safe disposal.** The advantages and downsides of using traditional methods such as cloth, tissue or cotton, are also covered as part of the session to enable the girls to make the right choice for their protection.

There are two main advantages to partnerships with the private sector, the ability to scale up and increase sustainability, as the costs are borne by the private sector. The high demand in nearly all countries, whether for additional direct puberty education or support to teachers to provide it, constitutes a strong argument for developing a partnership. Limitations include the fact that private sector projects are not accountable to the public and most of the projects are only available in countries with a possible market share. In addition, programmes tend to concentrate in urban and semi-urban areas, with high population concentrations; rural and difficult to reach areas are often not served. However, public private partnerships can act as trailblazers. This is especially true in sensitive environments, where the private sector can initiate programmes and provide a proof of concept and acceptance which can then be used by government to justify its programme. Use of mass media and other media channels for communications can also affect social norms by demystifying and reducing taboos especially around menstruation. This in turn can affect acceptability and make implementation of government programmes easier. While public private partnerships play an important role in implementation, they should never take away from the responsibility of ministries of education.

4.4 Quality assurance through monitoring & evaluation (M&E)

Systematically collecting data on programmes and policies will help decision-makers and implementers improve processes and outcomes. Monitoring and reporting these data encourage learning and accountability and inform decision-making. Monitoring can also help set benchmarks by which to evaluate. Evaluation, an objective assessment, will help stakeholders determine the validity, efficacy and sustainability of a given policy and programme. Quality control is a circular process of implementation, monitoring, assessment and revision, then starting over again.

The FRESH indicators provide a good framework for this process. There are eight core indicators to assess and monitor a comprehensive school health programme, and over 150 thematic indicators, including ones relating to Water, Sanitation and Hygiene (WASH), Sexual and Reproductive Health, and HIV that are the most relevant to the subject of puberty education and MHM. While these indicators are not exhaustive, they form part of a package for a comprehensive approach to promote health through schools. More specific MHM specific indicators are planned for the next version of the FRESH Thematic Indicators.¹⁶⁰

¹⁶⁰ Visit UNESCO Monitoring & Evaluating School Health Programmes. <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/health-education/fresh/me-indicators/> (Accessed 13 January 2014)

The main purpose of the FRESH indicators is to assess and monitor school-level progress in implementing a school health programme. They attempt to answer the following question: To what extent are specific health topics addressed in your school? They focus therefore on programme-level M&E. The thematic indicators are largely drawn from existing M&E guidance and organized by health topic (or thematic area). The variety of health topics and indicators acts as a menu from which the user can select the most appropriate indicators to monitor.

The FRESH M&E Guidance intends to help programmes in low- and middle income countries to ensure their implementation is more standardized and evidence-based. In addition it allows easier comparative benchmarking and monitoring across countries. It is hoped the FRESH M&E Guidance will help lead to better coordination between programmes and the priorities they address, ultimately contributing to better health and education outcomes.

There are a number of FRESH thematic indicators¹⁶¹ that apply to puberty education and MHM, for example: minimum standards for education on WASH in schools are defined at national-level; percentage of schools with separate toilets or latrines for girls to use; and percentage of students who have received at least 45 minutes of comprehensive sexuality education per week in the last year. The FRESH indicators also measure outcomes for example: the percentage of students who know and understand specific facts about hygiene and menstruation; the percentage of students who always washed their hands after using the toilet or latrine during the past 30 days; or gender equity: ratio of girls to boys in school attendance (access to education). This is by no means an exhaustive list as there are over 150 thematic indicators.

The FRESH indicators provide a framework for evaluating implementation, but do not make it possible to review curriculum directly. In response to the many challenges of assessing a sexuality education programme – a lengthy and often costly procedure – UNESCO developed a Sexuality Education Review and Assessment Tool (SERAT) to analyse school programmes in depth (including curriculum content and age-appropriateness) and inform capacity strengthening, intervention improvement and advocacy. It is a relatively easy-to-use Excel-based tool; data collection is rapid; results are easy to read and relatively easy to analyse and interpret (charts, report template); it makes it simpler to understand where changes need to be made in the programme; it is cost-effective; and it was designed using international best practice and evidence (*International Technical Guidance on Sexuality*

¹⁶¹ FRESH Monitoring and Evaluation Coordinating Committee. 2013. *Monitoring and Evaluation Guidance for School Health programs*. Two volumes: Core Indicators, Thematic Indicators. <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/health-education/fresh/me-indicators/> (Accessed 13 January 2014)

Education,¹⁶² *It's All One Curriculum*¹⁶³). SERAT supports analysis by producing colour charts based on comparisons between international best practice standards and programme components (e.g. content, teacher training, implementation, and integration into curricula). (Please see p.42 for an example of in-country use.)

A number of other resources (see Bibliography) are available for monitoring and evaluating; for example, the WaterAid resource manual¹⁶⁴ provides checklists and other tools to monitor and assist the implementation of menstrual hygiene programmes.

162 UNESCO. 2009. *International Technical Guidance on Sexuality Education. An evidence-informed approach for schools, teachers and health educators.* Vol. II Topics and learning objectives. Paris, UNESCO.

163 Population Council. 2009. *It's All One Curriculum: Guidelines and Activities for a Unified Approach to Sexuality, Gender, HIV, and Human Rights Education.* New York, Population Council.

164 House, S. et al. 2012. *Menstrual hygiene matters. A resource for improving menstrual hygiene around the world.* London, WaterAid.



5. CONCLUSION

Every year a new cohort of learners reaches puberty. Each and every one of these learners has a right to a high-quality education and to the benefits such an education affords. Because the majority of learners enter puberty while in school, the education sector has a responsibility to prepare them to face and manage the associated changes. Furthermore, every learner has a right to a safe and healthy environment in which to develop. By delivering these, the education sector contributes to the quality of education. This in turn means young people are better equipped for positive health and well-being outcomes across their lifespan.

This book has demonstrated a range of ways the education sector can engage with the issues of puberty education and menstrual hygiene management. It has covered aspects such as curricula, teacher training, community involvement, peer education, and public-private partnerships, among others.

The approach to school health taken in this book requires skills-based teaching and learning for health promotion, a safe and healthy physical and psychosocial environment, and links to health services. The work of other UN agencies and other development partners has provided a wealth of experience in improving the physical environment and health services. This book was created to fill the gap by focusing on individual learning and also social learning, because puberty is not just a private issue, it is a social one.

Ministries of education and their partners are responsible for adapting (if necessary) existing curricula, teaching materials and teacher training curricula to align with the requirements for providing quality puberty education as laid out in this book. They should ensure that parents and the communities are enlisted and are supportive of the provision of puberty education. They are also responsible for establishing a safe physical and social environment, which requires not only addressing infrastructure needs but also defining protective policies. Given the task at

hand, ministries of education in some countries may not have sufficient capacity and resources to take on all the work. Therefore cross-sectoral linkages and partnerships will be key to reaching all learners. Specifically, this document calls on ministries to do the following:

1. **Educate all learners about puberty:** Provide them with a skills-based health education that develops their knowledge, attitudes, skills, and behaviours for their health now and throughout their lifespan. The topics should include hygiene, sanitation and sexual and reproductive health, including puberty. These topics should be imbedded in a larger health curriculum that promotes healthier lives, relationships and gender equity. It should be age and developmentally appropriate, should properly prepare learners for life changes before they experience them and thus should start as early as five years old and continue through to young adulthood.
2. **Provide a safe environment:** Equip all schools with clean and safe water and hand-washing facilities, adequate sanitation facilities, and clean and safe latrines. In addition to a safe physical environment, skills-based health education and policies should be in place to create a safe social environment. Thus, healthy individual behaviours can collectively contribute to a health promoting social environment which values respect, tolerance and non-violence.
3. **Connect learners to health services:** Provide school-based health, counselling, and nutrition services, where possible. An effective referral system, to health service providers, child protection services and community support groups, is also helpful to fill the needs of learners beyond what the school can provide. Thus strong cross-sectoral linkages with the ministry of health should be created.

The wide range of examples presented in this book provides ideas for translating concepts into action in diverse contexts. The comprehensive approach to school health that we describe underscores that these examples are not sufficient by themselves, but they illustrate the many options we have to address challenges. Implementers can thus be creative and adapt these to their context. Together, these examples serve to move the education sector toward comprehensive, systemic and sustainable policies and programmes for a high-quality education for all.

Puberty education should begin before learners reach puberty, and it should connect to other skills-based health education that continues throughout adolescence. Puberty education is the foundation for a healthy adulthood and it should be part of, and connected to, comprehensive sexuality education and related life skills. Lessons to discuss gender norms, roles and relationships, diversity and tolerance are essential elements. In this way, human rights frameworks are introduced and a culture is created that rejects violence, respects human rights and is empowered to defend these rights.

To dispel secrecy, confusion and shame, this book affirms the right of learners to learn how to promote their health. This work is driven by a vision of education that prepares learners for life by teaching them to embrace change, both in themselves and in their environment. Thus, at puberty, when learners experience one of their first profound life changes, they will be ready. Rather than a barrier to education, puberty is an opportunity to help learners to understand human development and to begin building skills for creating a healthy future.

If the education sector fails to take this opportunity, it is failing learners, and not only at puberty; it is potentially disadvantaging them for the rest of their lives. Puberty education and MHM are core education sector issues. This book is designed to contribute to better programmes and policies to give all learners a better chance of reaching their full potential.

“I felt quite comfortable [talking to my daughters about menstruation for the first time]. I knew the school had done a good job of providing some basic information, so I was just answering questions and confirming what they knew. ...They learn with their friends in the classroom, which allows for an opening of dialogue between them as well.”

Ms Kathy Buckworth, a mother from Canada

BIBLIOGRAPHY

- Allen, K., Kaestle, C. and Goldberg, A. 2011. More than Just a Punctuation Mark: how boys and young men learn about menstruation. *Journal of Family Issues*, Vol. 32(2), pp. 129-156.
- Barak, A. and Fisher, W.A. 2001. Toward an internet-driven, theoretically-based, innovative approach to sex education. *The Journal of Sex Research*, Vol. 38(4), pp. 324-332.
- Beadle, S. and Cahill, H. 2013. Talking about sexual and reproductive health: Promoting better communication between parents and children in Asia. *Good Policy and Practice in HIV and Health Education – Booklet 7: Gender Equality, HIV and Education*. Paris, UNESCO, pp. 54-55.
- Bhana, D. 2009. 'They've got all the knowledge': HIV education Gender and Sexuality in South African Primary Schools. *British Journal of Sociology of Education*, Vol. 30(2), pp. 165-177.
- Brooks-Gunn, J. 1988. The impact of puberty and sexual activity upon the health and education of adolescent girls and boys. *Peabody Journal of Education*, Vol. 64, pp. 88-113.
- Caruso, B. A., Fehr, A., Inden, K., Sahin, M., Ellis, A., Andes K.L. and Freeman, M.C. 2013. *WASH in Schools Empowers Girls' Education in Freetown, Sierra Leone: An assessment of menstrual hygiene management in schools*. New York, UNICEF.
- Crofts, T. and Fisher, J. 2012. *Menstrual hygiene in Ugandan schools: An investigation of low-cost sanitary pads*. *Journal of Water, Sanitation and Hygiene for Development*, Vol. 2(1), pp. 50-58.
- Department of Health and Department of Basic Education South Africa. 2012. *Integrated School Health Policy*. Pretoria, Government Printer.
- Dimitriadis, G. and Kamberelis, G. 2006. *Theory for Education*, Vol. I, II, III, New York, Routledge.
- Diorio, J. and Munro, J. 2000. Doing harm in the name of protection: menstruation as a topic for sex education. *Gender and Education*, Vol. 12, pp. 347-365.
- Education for All Global Monitoring Report. 2013/14. *Teaching and Learning: Achieving quality for all*. Paris, UNESCO.
- Elliot, J. 1996. School effectiveness research and its critics: Alternative visions of schooling. *Cambridge Journal of Education*, Vol. 26, pp. 199-223.
- Fatusi, A. O. and Hindin, M. J. 2010. Adolescents and youth in developing countries: health and development issues in context. *Journal of Adolescence*, Vol. 33(4), pp. 499-508.
- Forrest, S., Strange, V., Oakley, A. and the RIPPLE Study Team. 2002. A comparison of students' evaluations of a peer delivered sex education programme and teacher-led provision. *Sex Education*, Vol. 2, pp. 195-214.
- Freeman, M. C., Greene, L. E., Dreibelbis, R., Saboori, S., Muga, R., Brumback, B., and Rheingans, R. 2012. Assessing the impact of a school-based water treatment, hygiene and sanitation programme on pupil absence in Nyanza Province, Kenya: a cluster-randomized trial. *Tropical Medicine & International Health*, Vol. 17(3), pp. 380-391.
- FRESH Monitoring and Evaluation Coordinating Committee. 2013. *Monitoring and Evaluation Guidance for School Health programs*. Two volumes: Core Indicators, Thematic Indicators. <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/health-education/fresh/me-indicators/>
- Goldman, J. 2008. Responding to parental objections to school sexuality education: A selection of 12 objections. *Sex Education*, Vol. 8, pp. 415-438.
- GSMA. 2011. *African Mobile Observatory 2011. Executive Summary*. <http://www.gsma.com/publicpolicy/wp-content/uploads/2012/04/africamoewebfinal.pdf> (Accessed 5 February 2014)
- Haberland, N. 2010. What happens when programs emphasize gender? A review of the evaluation research. Presentation at Global Technical Consultation on Comprehensive Sexuality Education. 30 November to 2 December, Bogota, Colombia.
- Haver, J., Caruso, B.A., Ellis, A., Sahin, M., Villasenor J.M., Andes K.L. and Freeman, M.C. 2013. *WASH in Schools Empowers Girls' Education in Masbate Province and Metro Manila, Philippines: An assessment of menstrual hygiene management in schools*. New York, UNICEF.
- Hilton, G.L.S. 2001. Sex education – the issues when working with boys. *Sex Education*, Vol. 1(1), pp. 31-41.
- Hilton, G.L.S. 2007. Listening to the boys again: An exploration of what boys want to learn in sex education classes and how they want to be taught. *Sex Education*, Vol. 7, 161-174.
- House, S., Mahon, T., Caville, S. 2012. *Menstrual hygiene matters. A resource for improving menstrual hygiene around the world*. London, WaterAid.
- Hughes J. and McCauley A.P. 1998. Improving the fit: Adolescents' needs and future programs for sexual and reproductive health in developing countries. *Studies in Family Planning*, Vol. 29(2), pp. 233-245.

- James-Traore, T., Finger, W.R., Ruland, C.D. and Savariaud, S. 2004. *Teacher training: essential for school-based reproductive health and HIV/AIDS education: focus on sub-Saharan Africa*. Arlington, VA, Family Health International, YouthNet Program.
- Johnston-Robledo, I. and Chrisler, J.C. 2013. The Menstrual Mark: Menstruation as Social Stigma. *Sex roles*, Vol. 68(1-2), pp. 9-18.
- Jothy, K. and Kalaiselvi, S. 2012. Is menstrual hygiene and management an issue for the rural adolescent school girls? *Elixir International Journal*, Vol. 44, pp. 7223-7228.
- Kelly, M. J. 2000. Standing education on its head: aspects of schooling in a world with HIV/AIDS. *Current Issues in Comparative Education*, Vol. 3, pp. 28-38.
- Kirk, J. and Sommer, M. 2006. *Menstruation and Body Awareness: Linking Girls' Health with Girls' Education*. Royal Tropical Institute (KIT), Special on Gender and Health, pp. 1-22.
- Kirumira, E. (Ed.). 2004. *Life skills, maturation, and sanitation: What's (not) happening in our schools? An exploratory study from Uganda*. Zimbabwe, Women's Law Center Weaver Press.
- Kjellén, M., Pensulo, C., Nordqvist, P., Fogde, M. 2012. *Global Review of Sanitation System Trends and Interactions with Menstrual Management Practices*. Stockholm, Stockholm Environment Institute.
- Koopman, J. S. 1978. Diarrhea and school toilet hygiene in Cali, Colombia. *American Journal of Epidemiology*, Vol. 107 (5), 412-420.
- Long, J., Caruso, B.A., Lopez, D., Vancraeynest, K., Sahin, M., Andes, K.L. and Freeman M.C. 2013. *WASH in Schools Empowers Girls' Education in Rural Cochabamba, Bolivia: An assessment of menstrual hygiene management in schools*. New York, UNICEF.
- Mahon, T. and Fernandes, M. 2010. Menstrual hygiene in South Asia: A neglected issue for WASH (water, sanitation and hygiene) programs. *Gender and Development*, Vol. 18(1), pp. 99-113.
- Mason, L., Nyothach, E., Alexande, K., Odhiambo, F.O., Eleveld, A., Vulule, J., Rheingans, R., Laserson K.F., Mohammed, A., Phillips-Howard P.A. 2013. 'We Keep It Secret So No One Should Know' – A Qualitative Study to Explore Young Schoolgirls' Attitudes and Experiences with Menstruation in Rural Western Kenya. *PLoS One*, Vol. 8(11), e79132, pp.1-11.
- Mater, N. 2010. *Sex Education Welcomed by Students, Families in Turkey*. Inter Press Service. http://www.unesco.org/education/efa/know_sharing/grassroots_stories/turkey.shtml (Accessed 16 December 2013).
- Matungwa, D. J., Chenha, C., Kachuchuru, J., Visser T., van Reeuwijk, M., Maro, G., Massawe, A., Kalongola, I., Francis, J., Chagalucha, J. and Mshana, G. 2012. *Rethinking the 'Teacher' in School-Based, Teacher-Led Sexuality Education Programmes in Rural and Urban Tanzania*. 19th International AIDS Conference: Abstract No. THAD0306. <http://www.iasociety.org/Abstracts/A200747331.aspx> (Accessed 19 December 2013.)
- McMahon, S., Winch, P., Caruso, B., Obure, A., Ogutu, E., Ochari, I. and Rheingans, R. 2011. The girl with her period is the one to hang her head: Reflections on menstrual management among schoolgirls in rural Kenya. *BMC International Health and Human Rights*, Vol. 11(7), pp. 1–10.
- Medley, A., Kennedy, C., O'Reilly, K. and Sweat M.D. 2009. Effectiveness of peer education interventions for HIV prevention in developing countries: a systematic review and meta-analysis. *AIDS Education and Prevention*, Vol. 21, pp. 181–206.
- Mériéu P. 2002, Transmettre, oui... mais comment ? *Sciences Humaines*, Special issue No. 36. 'Qu'est-ce que transmettre ?'
- Milton, J. 2003. Primary school sex education programmes: views and experiences of teachers in four primary schools in Sydney, Australia. *Sex Education*, Vol. 3(3), pp. 241–256.
- Mitchell, C. 2009. Geographies of Danger: School Toilets in Sub-Saharan Africa. *Ladies and Gents: Public Toilets and Gender*. Gershenson, O. and Penner, B. (eds). Philadelphia, PA, Temple University Press, pp. 62–74.
- Montgomery P., Ryus C.R., Dolan C.S., Dopson S., Scott L.M. 2012. Sanitary Pad Interventions for Girls' Education in Ghana: A Pilot Study. *PLoS One*, Vol. 7(10), pp. 1–10.
- Mooijman, A., Snel, M., Ganguly, S. and Shordt, K. 2010. *Strengthening Water, Sanitation and Hygiene in Schools. A WASH guidance manual with a focus on South Asia*. IRC, the Netherlands. http://www.irc.nl/redir/content/download/149102/493695/file/TP53_WASH_in_Schools_10.pdf (Accessed 7 January 2014)
- Neginhal, V. S. 2010. Knowledge, Attitude and Practices of Menstrual Hygiene Among Secondary School Girls in Semi Urban Area, Belgaum District – A Cross Sectional Study. Master of Public Health Thesis. KLE University.
- Oster, E., and Thornton, R. 2010. Menstruation, Sanitary Products and School Attendance: Evidence from a Randomized Evaluation. *American Economic Journal: Applied Economics*, pp. 1-13.
- Otieno, A. 2006. *Gender and sexuality in the Kenyan education system: Is history repeating itself? An exploratory study of information on sexuality within Nakuru town*. Southern & Eastern African Regional Centre for Women's Law.

- http://www.searawl.ac.zw/index.php?option=com_docman&task=cat_view&gid=57&limit=5&order=date&dir=ASC&Itemid=96 (Accessed 5 February 2014.)
- Plummer, D. 2010. HIV in Caribbean schools: the role of HIV education in the second most severely affected region in the world. M. Morrissey et al. (eds). *Challenging HIV/AIDS: A New Role for Education*. Kingston, UNESCO and Ian Randle Publishers.
 - Population Council. 2009. *It's All One Curriculum: Guidelines and Activities for a Unified Approach to Sexuality, Gender, HIV, and Human Rights Education*. New York, Population Council.
 - Risi, L. 2000. *Parents ignoring sex education*. <http://news.bbc.co.uk/2/hi/health/988353.stm> (accessed 5 December 2013).
 - Roudi, F. 2011. *Facts of Life: Youth Sexuality and Reproductive Health in the Middle East and North Africa*. Washington, D.C., Population Reference Bureau.
 - Scott, J. 1985. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven, Yale University Press.
 - Sommer, M. 2009. Ideologies of sexuality, menstruation and risk: girls' experiences of puberty and schooling in northern Tanzania. *Culture, Health & Sexuality*, Vol. 11, pp. 383–398.
 - Sommer, M. 2009. Where the education system and women's bodies collide: The social and health impact of girls' experiences of menstruation and schooling in Tanzania. *Journal of Adolescence*, Vol. 33(4), pp. 521–529.
 - Sommer, M. 2010. Putting menstrual hygiene management on to the school water and sanitation agenda. *Waterlines*, Vol. 29(4), pp. 268–277.
 - Sommer, M. 2011. Global review of menstrual beliefs and behaviors in low-income countries: Implications for menstrual hygiene management. Unpublished report for the Bill & Melinda Gates Foundation.
 - Sommer, M. and Ackatia-Armah, T. 2012. The gendered nature of schooling in Ghana: Hurdles to girls' menstrual management in school. *JENdA*, Vol. 20, pp. 63–79.
 - Sommer, M., Kjellen, M. and Pensulo, C. 2013. Girls' and Women's Unmet Needs for Menstrual Hygiene Management (MHM): The Interactions between MHM and Sanitation Systems in Low-Income Countries. *Journal of Water, Sanitation and Hygiene for Development*, pp.283–297.
 - Sommer, M., Likindikoki, S., Kaaya, S. 2013. *To become a man*. Dar es salaam, Aidan Publishers Ltd.
 - Sumpter, C. and Torondel, B. 2013. A systematic review of the health and social effects of menstrual hygiene management. *PLoS One*. Vol. 8(4):e6, pp.1–15.
 - Tanzania Institute of Education. 2012. Review of the components of HIV, AIDS, SRH and LS education in the current primary and secondary education curricula. Needs assessment report. Draft project report.
 - Tanzania Institute of Education. 2012. *Strengthening existing components of SRH/HIV/LS Curricula in Primary and Secondary Education in Tanzania Mainland. A report on Sexuality Education Review and Assessment*. Dar es Salaam, Tanzania Institute of Education.
 - Tazeen Saeed, A., Karmaliani, R., Salam, A., Ladak, R., Moss, N., Harris, H., McClure, E. and Goldenberg, R.L. 2006. Hygiene practices during menstruation and its relationship with income and education of women in Hyderabad, Pakistan. *Pakistan Journal of Women's Studies*. Vol. 13(2), pp. 185–199.
 - UN. 2013. *Deputy UN chief calls for urgent action to tackle global sanitation crisis*. <http://www.un.org/apps/news/story.asp?NewsID=44452&Cr=sanitation&Cr1=#.UulqohU1jcv> (Accessed 7 January 2014.)
 - UNAIDS IATT. 2013. *2011–2012 Education Sector HIV and AIDS Global Progress Survey. Progression, Regression or Stagnation?* Paris, UNESCO.
 - UNESCO and UNFPA. 2012. *Sexuality Education: A Ten-Country Review of School Curricula in East and Southern Africa*. Paris, UNESCO.
 - UNESCO. 2009. *International Technical Guidance on Sexuality Education. An evidence-informed approach for schools, teachers and health educators*. Vol. II Topics and learning objectives. Paris, UNESCO.
 - UNESCO. 2011. *Good Policy and Practice in HIV & AIDS Education. Booklet 6: Pre-service Teacher Training*. Paris, UNESCO.
 - UNESCO. 2012. *Comprehensive sexuality education: the challenges of scaling up*. Conference ready version http://hivaidsclearinghouse.unesco.org/search/resources/CSE_scaling_up_conference_ready_version.pdf (Accessed 21 October 2013.)
 - UNESCO. 2012. *Good Policy and Practice in HIV and Health Education – Booklet 8: Education Sector Responses to Homophobic Bullying*. Paris, UNESCO.
 - UNESCO. 2013. *Good Policy and Practice in HIV and Health Education – Booklet 7: Gender Equality, HIV and Education*. Paris, UNESCO.
 - UNESCO. 2013. *UNESCO Policy Guidelines for Mobile Learning*. Paris, UNESCO.
 - UNESCO. 2014. *Charting the Course of education and HIV*. Paris, UNESCO.

- UNICEF. 2012. *Global Evaluation of life skills education programmes*. New York, UNICEF.
- UNICEF. 2012. *Raising Even More Clean Hands: Advancing Health, Learning and Equity through WASH in Schools*. New York, UNICEF.
- UNICEF and WHO. 2009. *Water Sanitation and Hygiene Standards for Schools in Low-Cost Settings*. Geneva, WHO.
- UNICEF and WHO. 2012. *Report of the Second Consultation on Post-2015 Monitoring of Drinking-Water, Sanitation and Hygiene*. The Hague, 3-5 December 2012 http://www.unosd.org/content/documents/151Report%20on%20WHO%20UNICEF%20Hague%20Consultation%20December%202012_28Mar_final%20draft.....pdf (Accessed on June 10, 2013)
- Vandenhoudt, H., Miller, K.S., Ochura, J., Wyckoff, S.C., Obong'o, C.O., Otwoma, N.J., Poulsen, M.N., Menten, J., Marum, E. and Buve, A. 2010. Evaluation of a U.S. evidence based parenting intervention in rural western Kenya: From parents matter! To families matter! *AIDS Education and Prevention*, Vol. 22(4), pp. 328-43.
- Wahba, M. and Roudi-Fahimi, F. 2012. *The need for reproductive health education in schools in Egypt*. Washington D.C., Population Reference Bureau. <http://www.prb.org/pdf12/reproductivehealth-education-egypt.pdf> (Accessed 21 January 2014)
- WHO and UNICEF. 2013. *Progress on sanitation and drinking-water - 2013 update*. Geneva, WHO.
- WHO. 2007. *Schools for Health, Education and Development – A Call for Action. WHO & Joint Consortium for School Health Technical Meeting: Building School Partnership for Health, Education Achievements and Development*. Vancouver, Canada.
- WHO and BZgA. 2010. *Standards for Sexuality Education in Europe: a framework for policy makers, educational and health authorities and specialists*. Cologne. <http://www.bzga-whocc.de/?uid=072bde22237db64297daf76b7cb998f0&id=Seite4486> (Accessed 7 January 2014.)
- Wood, A. 1998. Sex education for boys. *Health Education*, Vol. 3, pp. 95–98.
- World Bank. 2005. *Toolkit on Hygiene Sanitation & Water in Schools: Gender Roles and Impact*. <http://www.wsp.org/Hygiene-Sanitation-Water-Toolkit/BasicPrinciples/GenderRoles.html> (Accessed 7 January 2014.)
- WSSCC. 2013. *Celebrating Womanhood - How better menstrual hygiene management is the path to better health, dignity and business*. Geneva, WSSCC. http://www.wsscc.org/sites/default/files/publications/wsscc_celebrating_womanhood_report_final_lowres_2_june_version.pdf (Accessed 5 February 2014.)
- WSSCC. 2013. *Evidence to Policy: The Great WASH Yatra and WSSCC's 3-Prong Approach to Menstrual Hygiene Management*. Geneva, WSSCC. <http://www.wsscc.org/resources/resource-publications/briefing-note-evidence-policy-great-wash-yatra-and-wsscc%E2%80%99s-3-prong> (Accessed 5 February 2014.)
- WSSCC. 2013. *MHM Lab Convenor's Manual*. Geneva, WSSCC. http://www.wsscc.org/sites/default/files/e-resources/LabManuals/WSSCC_LAB_Manual_2_LoRes.pdf (Accessed 5 February 2014.)
- WSSCC. 2013. *Sanitation and reduced inequalities in South Asia*. Geneva, WSSCC. http://www.wsscc.org/sites/default/files/publications/wsscc_sanitation_and_reduced_inequalities_in_south_asia.pdf (Accessed 5 February 2014.)
- WSSCC. 2013. *WASH and Health for MHM Training of Trainer Manual*. Geneva, WSSCC. http://www.wsscc.org/sites/default/files/e-resources/ToTManuals/WSSCC_ToT_Manual_2_LoRes.pdf (Accessed 5 February 2014.)
- WSSCC. 2013. *WASH and Health Practitioners MHM Training Manual*. Geneva, WSSCC. http://www.wsscc.org/sites/default/files/e-resources/ToPManuals/WSSCC_ToP_Manual_2_LoRes.pdf (Accessed 5 February 2014.)

Websites consulted

- Asante Africa Foundation
<http://www.asanteafrica.org/>
- Girl Child Network
<http://www.girlchildnetworkworldwide.org/>
- Go ask Alice!
<http://goaskalice.columbia.edu/>
- Grow and Know
<http://www.growandknow.org/>
- International Planned Parenthood Federation
<http://www.ippf.org/>
- IRC
<http://www.irc.nl/>
- loveLife
<http://www.lovelife.org.za/>
- Menstrupedia
<http://menstrupedia.com/>
- Planned Parenthood Federation 'Our Bodies'
<http://www.plannedparenthood.org/info-for-teens/our-bodies-33795.htm>
- Procter & Gamble
<http://www.pg.com>
- Procter & Gamble programmes
<http://www.pgschoolprograms.com>
- Save the Children
<http://www.savethechildren.org/>
- Sex, etc.
<http://sexetc.org/>
- SexualityandU.ca
<http://sexualityandu.ca/>
- SHE
<http://www.sheinnovates.com/index.html>
- Shine SA
<http://www.shinesa.org.au/>
- The Kasiisi Project
<http://www.kasiisiproject.org/>
- The Population Council
<http://www.popcouncil.org/>
- UNESCO Institute for Statistics
<http://www.uis.unesco.org/Pages/default.aspx>
- UNFPA
<http://www.unfpa.org/public/>
- UNGEI (United Nations Girls' Education Initiative)
<http://www.ungei.org/>
- UNICEF WASH in Schools
<http://www.unicef.org/wash/schools/>
- Vatsalya
<http://www.vatsalya.org/>
- WaterAid
<http://www.wateraid.org/>
- WHO
<http://www.who.int/en/>
- WSSCC
<http://www.wsscc.org/>

BOOKLET

9

Puberty Education & Menstrual Hygiene Management

GOOD POLICY AND PRACTICE IN HEALTH EDUCATION

This booklet is the ninth in a series of publications that address key themes of UNESCO's work in HIV and health education. It is one of several contributions to school-based health promotion that UNESCO has produced to complement our work in HIV and sexuality education. The booklet lays out the context and rationale for education sector involvement, the characteristics of good quality puberty education and menstrual hygiene management, as well as key issues for programme development, implementation and sustainability.

Booklet 1 of the series provides an overview of why HIV and AIDS are important issues for the education sector, identifies weaknesses in current policy and programming responses, and highlights evidence gaps. Booklet 2 discusses issues affecting learners in the context of HIV and AIDS, including rights and access to education, protection, knowledge and skills, and care and support. Booklet 3 discusses issues affecting educators in the context of HIV and AIDS, including training, conduct, and care and support. Booklet 4 concentrates on the role and importance of strategic partnerships in developing education sector responses to HIV and AIDS, while Booklet 5 focuses on the topic of effective learning using illustrative examples. Booklet 6 discusses the key role of pre-service teacher training for the delivery of effective sexuality educations and HIV prevention education. Booklet 7 illustrates the links between gender, HIV and education, and highlights current thinking and experiences, innovative approaches and lessons learned, in order to inform policy and programming. Booklet 8 lays out the context, extent and impact of homophobic bullying in education contexts and synthesizes lessons learned as well as good policies and practices for an education sector response to homophobic bullying.

This booklet is intended mainly for education sector policy-makers, planners and managers. We hope it will also be useful for school governing bodies, administrators, head teachers, teachers and other educators who are tackling some of the challenges to create healthy learning environments.



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