



WHO/Shyam Thapa

The sexual and reproductive health of young adolescents in developing countries:

Reviewing the evidence, identifying research gaps, and moving the agenda

Report of a WHO technical consultation,
Geneva, 4–5 November 2010

Contents

Acknowledgements	2
Acronyms and abbreviations	2
Background and meeting objectives	3
Taking stock: what we know and don't know about the lives of young adolescents – themes and data sources	4
The evolving adolescent: social, biological and cognitive development	5
Gender socialization and sexual transitions among young adolescents	6
Measurement of risks and protective factors	6
Research methods for collecting sensitive data about and from young adolescents	7
Ethical considerations in conducting research on young adolescents	8
Research priorities and agenda setting	9
<i>Assessments of programmatic and policy interventions</i>	9
<i>Adolescents in diverse populations</i>	10
<i>Determinants and correlates of risk behaviour</i>	10
<i>Ethical guidelines for research on young adolescents</i>	10
<i>Theoretical and conceptual frameworks</i>	11
Conclusions and next steps	11
Appendix A: Agenda	12
Appendix B: List of participants	14
Appendix C: Background papers and additional resources	16

Acknowledgements

This technical consultation was organized by the World Health Organization Department of Reproductive Health and Research in partnership with the Department of Maternal, Newborn, Child and Adolescent Health, and the Department of Gender, Women, and Health. Shyam Thapa was the coordinator for the consultation.

The World Health Organization, in particular the Department of Reproductive Health and Research, would like to thank Professor Ruth Dixon-Mueller who prepared the first and final drafts of this meeting report. Also thanks to Jean Garcia Davis who assisted in taking the meeting notes.

Thanks are also due to the participants for their thoughtful comments and suggestions on the materials reviewed at the meeting, and on the report drafts. Comments and suggestion from the following were particularly helpful in finalizing the report: Akinrinola Bankole, Robert Wm. Blum, Martha Brady, Venkatraman Chandra-Mouli, Katie Chapman, Lucie Cluver, Jane Ferguson, Claudia Garcia-Moreno, Shyam Thapa, Sarah Thomsen, and Elia M. Zulu.

Acronyms and abbreviations

ACASI	audio computer-assisted self-interview
CDC	United States Centers for Disease Control and Prevention
CRC	Convention on the Rights of the Child
DHS	Demographic and Health Survey
ERC	WHO Research Ethics Review Committee
FGM	female genital mutilation
FWCW	Fourth World Conference on Women
GSHS	Global School-based Student Health Survey
HPV	human papillomavirus
ICPD	International Conference on Population and Development
PEER	participatory ethnographic evaluation and research
STI	sexually transmitted infection
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Background and meeting objectives

Among other key issues, the Programme of Action of the International Conference on Population and Development (ICPD) held in Cairo in 1994 and the Platform for Action of the Fourth World Conference on Women (FWCW) held in Beijing in 1995 drew the attention of policy-makers to the needs and rights of the world's adolescents. Declarations urged that governments, nongovernmental organizations and the private sector prioritize programmes such as education, income-generating opportunities, vocational training, and health services for adolescents, including services related to sexual and reproductive health. At the ICPD, government representatives agreed that "Full attention should be given to the promotion of mutually respectful and equitable gender relations and particularly to meeting the educational and service needs of adolescents to enable them to deal in a positive and responsible way with their sexuality" (ICPD Programme of Action paragraph 7.3).

Since that time, policy-making, programming and research initiatives at international, national and local levels have been directed to articulating and meeting the needs of adolescents living in diverse circumstances. Initiatives were directed to school retention and education (including sexuality education and life-skills training), health care (including sexual and reproductive health), and legal issues such as age of consent and minimum age for marriage. Older adolescents aged 15–19 years have drawn the lion's share of attention, while the special needs and concerns of younger adolescents aged 10–14 years – some of whom are already sexually active – have been relatively neglected. The technical consultation held by the World Health Organization (WHO) on 4–5 November 2010 was intended to identify and help fill the gaps in research, programming and policy-making for girls and boys aged 10–14 years in developing countries.

The overall objective of the WHO technical consultation was to identify and recommend to WHO (particularly the Special Programme of Research, Development and Research Training in Human Reproduction) a set of policy-relevant themes, methodologies and potential country settings for a programme of collaborative research on the sexual and reproductive health and rights of younger adolescents. The specific objectives were to (a) identify key problems, needs and proposed interventions; (b) determine which types of data would be most useful for planning and programme purposes in developing countries; and (c) propose methodologies for obtaining these data.

Participants were asked to:

- review current knowledge on the diverse situations of young adolescent girls and boys in developing countries, particularly regarding variations across and within countries in the nature and timing of sexual and reproductive transitions; in access to sexual and reproductive health information and services; in risks and protective factors, and in processes of health and life-skills asset building;
- discuss quantitative and qualitative methodologies for collecting data about and from younger adolescents, and identify the most feasible approaches to undertaking a comparative research agenda;
- identify key data needs for generating the evidence needed to inform policy and programme development that will advance young adolescents' sexual and reproductive health and rights, especially in countries where relatively high proportions of young adolescent girls or boys experience early sexual transitions (voluntary or involuntary, within or outside marriage).

This report is based on presentations and discussions by participants in the two-day consultation as well as on materials from two background papers and additional resources provided at the meeting (see Appendices A, B and C). It begins with an overview, considers three substantive areas of research, addresses methodological and ethical issues in obtaining information about and from younger adolescents, and concludes with suggestions for a research agenda.

Taking stock: what we know and don't know about the lives of young adolescents – themes and data sources

Systematic data about the lives of young adolescents in developing countries are scarce. Much of what we know comes from the Demographic and Health Surveys (DHSs) conducted in over 60 developing countries. Although information is collected from adults in the selected households about school attendance and economic activities of 10–14 year olds, questions about sexual activity, condom and contraceptive use and knowledge of HIV and other sexual and reproductive health issues are only asked of respondents aged 15–19 years and above. Nevertheless, it is possible to compare across and within countries the percentages of male and female respondents aged 15–19 years or 20–24 years who first had sexual intercourse before the age of 15 years and of females who married or cohabited and/or bore a child before that age. The Population Council has also compiled data on these and other measures, such as the percentages of 10–14-year-old boys and girls in DHS countries who are at additional risk because they are neither in school nor at work, and/or are living with one or neither parent.

A second source of systematic data is the WHO Global School-based Student Health Surveys (GSHSs) of 13–15 year olds in more than 90 developing countries. These surveys generate a national profile (and in some countries, subnational comparisons) of girls' and boys' dietary behaviour, hygiene, mental health, physical activity, alcohol use, drug use, tobacco use, violence and unintentional injuries, sexual behaviour (ever had intercourse, number of partners, condom use at last sex for some but not all countries) and protective factors (or their absence) relating to families, friendships and school settings.

The key message of these and other data sources – including country-specific surveys and qualitative studies of smaller populations – is the diversity of young adolescents' lives in different settings. Although protected in theory by international agreements such as the Convention on the Rights of the Child (CRC), many younger adolescent boys and girls lack these protections and live in environments of very high risk to their health (including their sexual and reproductive health) and their physical, social, emotional and economic well-being.

Several strategic questions arise from these observations relating to a research programme for WHO. For example:

- to what extent should (and feasibly can) a multicountry research programme initiated by WHO capture the full range of young adolescents' living conditions in different settings, including special attempts to reach girls and boys who are not in school or who are members of other especially vulnerable populations?
- to what extent should a sexual and reproductive health research programme that focuses on the correlates and consequences of young adolescents' early sexual initiation simultaneously address a wider array of issues relating to their overall health (including nutrition) and well-being and the socioeconomic and interpersonal context of their lives?

Participants in the WHO consultation agreed that research decisions should be made on the basis of what would be most useful to programmers and policy-makers in each country for the design, implementation and evaluation of age-appropriate and setting-appropriate interventions. The purpose of such interventions is a dual one: (a) to build adolescents' individual health assets (including the acquisition of sexual and reproductive health knowledge and decision-making skills); and (b) to create enabling environments for addressing the concerns and protecting the health and rights of young adolescents, ideally before they become sexually active.

This point raises two more questions which pervaded the discussions throughout the meeting:

- should a research programme initiated by WHO serve primarily to collect descriptive data on young adolescents in understudied countries or populations as a basis for selecting and designing health, educational and other needed interventions in different settings, or should it assess the impact of specific interventions that are already in place or could be put in place?

- to what extent should a research programme – or a series of interventions based on such research – focus on the knowledge and behaviour of individuals as compared with the social environments in which they live (families, schools, peer groups, communities, popular media, communication networks, religious institutions etc.)? What is the best way of establishing the relative impact of various individual and contextual factors on young adolescents' sexual and reproductive health and rights?

Early adolescence is an age category that should be divided into at least two subgroups: 10–12 years and 13–14 (or 13–15) years. But it is also a stage of life that is shaped by a series of rapid and interconnected developmental processes. Girls and boys experience these processes in different ways and at different ages overall, quite apart from individual variations that are determined by both personal and contextual characteristics. Each process is likely to affect their sexual and reproductive health and the exercise of their rights. Processes include: (a) status transitions such as leaving school, entering the labour force, moving away from or losing parents, early marriage; (b) social, sexual, reproductive and cognitive maturation; (c) the acquisition of sexual and reproductive (and other) knowledge and skills; (d) socialization into prevailing sexual and gender norms; (e) shifting combinations of opportunities, risks and protective factors; and (f) transitions into sexual and reproductive activities and their consequences. The consultation addressed each of these themes, beginning with the maturational process.

The evolving adolescent: social, biological and cognitive development

International recommendations relating to sexuality education, health services, legal protections and other programmes and policies for adolescents typically refer to “age-appropriate” interventions in recognition of young people’s “evolving capacity” to understand and protect their own interests. Yet, evidence on the chronological timing of events such as peak growth periods, first menstruation for girls (menarche) and first ejaculation for boys (semenarche), brain development (growth of the frontal lobe, in particular), and social maturation reveals extensive variations across and within populations and between girls and boys in the timing, sequencing and nature of each of these processes.

It is difficult to assess the “age appropriateness” of any intervention because developmental stages are not well synchronized with chronological ages (or with one another); because sexual maturation occurs earlier on average than cognitive maturation; because girls tend to mature earlier than boys do; and because disparities in individuals’ developmental stages are compounded by the mixing of ages (and personal experiences) in school classrooms in most if not all developing countries. When combined with the disparities in young adolescents’ socioeconomic status, rural–urban residence and living conditions noted previously, these individual and group variations create significant challenges for research as well as for the design and implementation of effective sexual and reproductive health (and other) interventions.

Studies that include 10–12 year olds and 13–14 (or 13–15) year olds typically find that younger girls and boys in particular are likely to have difficulty in understanding and answering questions, not only those relating to sexuality (which are often not asked directly in any case). Difficulties are compounded in surveys where some girls and boys may have problems with reading comprehension, or work too slowly to complete the questionnaire. In addition, young adolescents are especially sensitive to answering questions about their everyday behaviour, knowledge, family situations, relations with friends or peers and other topics that can cause anxiety. In a WHO Region of the Americas nine-country Caribbean survey of student health, for example, girls and boys ages 10–12 years had a higher non-response rate than did those aged 13–15 years and the older students. Younger adolescents’ self-reports of their attitudes and behaviour may also be less reliable than those of older adolescents.

Nevertheless, it is important to try to elicit from young adolescents information about their personal concerns (e.g. about their developing bodies and the occurrence of menstruation and other changes) and about their perceptions of the relative safety or risks of their immediate environments. Such investigations should include asking young adolescents about their own strategies for making decisions, seeking help and avoiding problems. And, because 10–14 year olds are still (by and large) under the

control or supervision of parents or guardians, however limited this may be, it would be useful to query parents or guardians, other adult family members (including older siblings), teachers, religious leaders, health-care providers and other community members about their beliefs, attitudes and assumptions relating to the needs, rights and responsibilities of girls and boys of this age.

A four-country study of 12–14 year olds and 15–19 year olds in sub-Saharan Africa initiated by the Guttmacher Institute found that younger (and older) adolescents were not well informed about sexual and reproductive matters, including the processes of puberty, in part because their major sources of information tended to be friends and other informal sources rather than schools, health-care providers and parents. Yet parents (who were also interviewed) were themselves often uninformed and preferred that their children learn from teachers or health-care workers, who in turn believed that parents should have the primary responsibility for providing this information. This observation raised the question of what could constitute a “basic package” of information and services to which all young adolescents should be entitled by, say, 12 years of age, and again at 15 years of age, when many young people are on the verge of initiating sexual activity if they have not already done so. It also raised the question of what types of interventions would be feasible for improving parenting skills so that younger (and older) adolescents could have their needs for information and emotional and social support met more effectively within their own families, which too often rely on threats and on physical or emotional punishment.

Gender socialization and sexual transitions among young adolescents

Young adolescents are immersed in multiple layers of social and informational networks – the latter being increasingly global in scope with the expansion of Internet and mobile phone technologies into rural areas and into the hands of younger users. These networks convey mixed messages about sexuality and gender that often conflict with traditional norms and practices and may challenge the control of the older generation over young people’s marital, sexual and reproductive choices, schooling, employment and other decisions in their lives.

Demographic and Health Surveys and the WHO GSHSs show marked contrasts across and within countries in the proportions of older female and male respondents who first had sexual intercourse before their 15th birthdays (DHS) and of 13–15 year olds (GSHS) who have already had sexual intercourse. The conditions of first and subsequent intercourse also differ with respect to whether sexual initiation occurred for girls within or outside marriage; whether it was voluntary, persuaded or forced; the nature of the partnership; age difference between partners; motivations for engaging in sexual intercourse; whether condoms or other forms of contraception were used at first (or most recent) intercourse; and other characteristics, all of which are strongly influenced by gender norms and by socioeconomic and cultural conditions.

The WHO Multi-country Study of Women’s Health and Domestic Violence against Women also shows significant variations across and within countries in the proportions of women who report a history of sexual violence or that their first sexual intercourse was forced, with the highest proportions typically appearing among women whose sexual initiation occurred before the age of 15 years. Context is important in this as well as in other sexual and reproductive health behaviour. In addition, childhood sexual abuse of both boys and girls has clear negative effects on their subsequent behaviour and well-being. Each of these topics is extremely difficult to address in settings where talking about them is taboo. Nevertheless, the United States Centers for Disease Control and Prevention (CDC) and the United Nations Children’s Fund (UNICEF) are currently carrying out surveys among 13–14 year olds in several countries to collect information on sexual and other forms of abuse among children. Data from these and other studies can provide the evidence base for interventions to reduce the prevalence of sexual coercion and abuse during childhood and early adolescence, and to mitigate its harmful consequences.

Measurement of risks and protective factors

As boys and girls pass through their early adolescent years, they are confronted with a variety of risks and protective factors that are inherent in the individual and the immediate environment, both of which

influence their behaviour. Making young adolescents' immediate environments more supportive may be a more effective route to changing behaviour than increasing their individual knowledge and skills. Moreover, building protective factors, such as keeping young people in school and making schools safer and more responsive to girls' and boys' needs and aspirations, may be a more effective and feasible way of maintaining safe behaviour than the attempt to reduce individual and environmental risks directly.

A number of measures of risks and protective factors have been used in studies of adolescents' changing situations across countries, including indicators of their "connectedness" to schools. Among these, the WHO GSHSs collect information on 13–15 year olds' perceptions of protective factors (or the lack of them) in schools, friendship networks and families (such as whether their parents or guardians know where they are and what they are doing when they are not in school), in addition to students' self-reports on their healthy or risky behaviour.

The question remains as to how best to identify the processes through which protective factors (variously referred to in the meeting as "social capital" or "health assets") can be strengthened among young people in communities, neighbourhoods, families and schools and to determine who does this best (e.g. teachers, social workers, parents, community leaders) and how. We need to understand the larger picture of how communities do – or could, with special programmatic initiatives – support young adolescents in their transitions from childhood to later adolescence and young adulthood. This step requires a paradigm shift away from simply thinking about how best to deliver information and services to adolescents who want and need them, towards a more global view of prevention and harm reduction that begins at the societal level and filters down through multiple institutional layers to the individual. What types of interventions can contribute most effectively to creating a more enabling environment for young adolescents' health and development? What point of entry would produce the greatest pay-off with respect to the outcomes that we are interested in? How long is this type of research likely to take to begin to show concrete evidence of causal relationships? And how are the costs likely to compare with the benefits?

Research methods for collecting sensitive data about and from young adolescents

Research methods that have been successful in eliciting sensitive information from older adolescents and young adults, such as audio computer-assisted self-interviews (ACASIs), are not necessarily appropriate for younger adolescents. Nor are these high-tech options appropriate for impoverished areas where the appearance of outsiders with computers can raise community suspicions and hostility. A possible exception is the use of mobile phone technology for eliciting personal digital information from young people. The Guttmacher four-country sub-Saharan African study used conventional (although expensive) methods for 12–14-year-old girls and boys: focus group discussions for clarifying norms and language; face-to-face interviews by same-sex adult interviewers with standardized questionnaires; and in-depth interviews of selected respondents. Younger interviewers with good training have also been successful with adolescents, and repeated in-depth interviews that build trust are useful for gradually introducing more sensitive topics.

Questions clearly need to be short, clear, and appropriate to the age, developmental stages and experiences of adolescent respondents and cannot be entirely the same for younger and older adolescents. Nevertheless, although 12–14 year olds are not likely to be sexually active in many settings, most are sexually aware. They have typically been exposed to a variety of sexual messages and images, are absorbing gender and sexual norms in their communities, and are becoming aware of themselves as sexual persons. Some have experienced "mild" sexual games such as fondling and kissing, and others will be exploring alternative sexual identities at this age. Even if questions are not asked about young adolescents' personal sexual experiences, boys and girls may be asked about what their friends are doing, what is acceptable or not acceptable sexually for boys and girls their age in their families and communities, what they would like to know about sex and reproduction (and from whom), and where they obtain such information.

As alternatives to face-to-face interviews with standard questionnaires, some studies have used less structured methods such as cognitive interviewing (“Think Aloud”, in which respondents are encouraged to express their thoughts as they try to answer questions and to suggest alternative wording) and the “PEER” method (participatory ethnographic evaluation and research) in which community members, including adolescents, interview peers in their social networks and participate in designing questions and analysing data (<http://www.options.co.uk/peer>). Experience has shown that interviewers need to be well trained and supervised to make sure that young respondents are not treated judgmentally, however, for it is not easy for some interviewers to repress their natural reactions of concern or dismay at certain responses. These reactions are certain to shut down the interview entirely.

Talking is not the only method of eliciting information about young adolescents. Observations of places where boys and girls of this age like to gather, and of school settings (in and around the school), neighbourhoods, malls, marketplaces and other settings can be useful in identifying the use of space at different times of day or night and what interactions occur there. Respondents can also be asked to identify places on local maps that they consider safe or unsafe at different times (including their own homes), and to explain why. In general, researchers have found that young people are eager to talk about their lives but are often not used to expressing themselves, and so care and patience are often needed. It can be useful for researchers to interview the interviewers as well, to identify problem areas where respondents have been reluctant to talk.

Depending on the nature of the research, it may be more feasible to obtain retrospective information from older adolescents rather than from 10–12 year olds or 13–14 year olds directly. By the ages of 15–17 years or older, girls and boys are more informed and confident. Moreover, the distance between their current selves and their younger selves can be protective and free them to speak more openly about their earlier experiences, including sexual ones. This approach may also elicit more reliable data given the heightened sensitivity and vulnerability of younger adolescents. It may also help to avoid parental or community opposition to the interviews as well as ethical issues that pertain especially to children and younger adolescents.

Ethical considerations in conducting research on young adolescents

The WHO Research Ethics Review Committee (ERC) scrutinizes all research proposals to ensure that participation in any research project – whether medical trials or social science investigations – is purely voluntary and that participants understand that they can withdraw at any time (or, in the case of interviews, refuse to answer some or all questions). The ERC also has to confirm that questions are clearly related to the purpose of the study and that the project is substantively and technically of high quality. Most countries also have ethics committees in place in addition to research centres or academic institutions, all of which makes the process of research approval a costly one in both time and funds.

For adolescents who are below the legal age of consent in their countries, formal consent must be obtained from a parent or guardian as well as “assent” from the adolescent himself or herself. This requirement can be difficult to fulfil under real field conditions, however, such as interviews with young people who are living on the streets or with girls who are employed as domestic workers far from their families. Parents or guardians may refuse to consent for many reasons, or demand to know what their children say. In some cases, consent from other adults may be obtained, especially in those cases where young people are living apart from their parents. It may also be possible to make exceptions to the age of consent regulations where young people (aged 15 or 16 years, say) are “emancipated” in the sense that they are already married (in the case of young girls), are living away from home or are self-supporting.

Generally, the approval (and, ideally, active participation and support) of other gatekeepers in the community will also be required before research can be undertaken on young adolescents: teachers, religious leaders, tribal elders, local government representatives and even health or education ministries. The way in which the research is titled and presented is crucial in this regard. Words must be carefully chosen and the project purpose explained to avoid resistance and backlash. Where feasible, young people themselves should be actively engaged in the formulation of questions, research methods, sampling, and interpretation of findings. Adolescent advisers to a research project on young HIV caregivers in

South Africa, for example, made suggestions for redesigning the questionnaire in a colourful style (with photographs and drawings) that was particularly appealing to young people. The protection of young people's right to confidentiality may also be especially challenging where family members insist on being part of the process or friends want to share in the experience. Even written questionnaires in school-based surveys can violate confidentiality if, for example, respondents who report that they have been sexually active are then referred to pages in the questionnaire that other students do not fill out (and are naturally curious about what their classmates are doing).

Research priorities and agenda setting

The main objective of the consultation was to identify and recommend to WHO (particularly the Special Programme of Research, Development and Research Training in Human Reproduction) a set of policy-relevant themes, methodologies and potential country settings for a programme of collaborative research on the sexual and reproductive health and rights of younger adolescents. Participants raised a number of themes and approaches for identifying needs and/or evaluating interventions intended to create – among other benefits – conditions that support later, safer, more informed, voluntary and protected sexual initiation among young adolescents and the reduction of sexually transmitted infections (STIs, including HIV) and unsafe pregnancy. The 10 major themes are presented next in five categories.

Assessments of programmatic and policy interventions

1. Engage in research to define and evaluate a basic health services and information package for 12 year olds to be adapted to different settings according to local needs. This package could be associated with school-based or community-based sexuality and health education and promote a universal “check-in” of 12-year-old boys and girls to primary care health centres, where they become clients on their own account. The content of this package needs to be defined with respect to its sexual and reproductive health (and other) components and the most effective manner of training, delivery and follow-up identified. Cost analysis and research on how to favourably shape the policy environment and to train and motivate service providers would also need to be conducted.
2. Engage in research on strategies for improving school enrolments, retention and progression to secondary school. Participants noted several studies of interventions that offered small financial incentives to boys and girls or their families (contributions to school costs, for example) and also involved parents and community leaders in discussions on the desirability of keeping children in school (and delaying the marriage of young girls). Research is needed on the economic sustainability of such programmes and on their selective impact on girls and boys in diverse geographic and socioeconomic circumstances.
3. Engage in research on strategies for building young adolescents' assets, defined here as a cluster of personal competencies and social support, both at the individual level and through institutional change. Schooling is important, but attention must also be paid to providing young adolescents with sexual and reproductive health knowledge, decision-making skills, critical thinking, leadership and the ability to cope with the dynamics of unequal power relations. Outcomes of interest include, but are not limited to, the prevention of early marriage, female genital mutilation (FGM), precocious, unprotected or coerced sexual activity, early pregnancy, unsafe abortion and STIs/HIV, as well as the promotion of health-seeking behaviour and the use of sexual and reproductive health services.
4. Engage in research on the effectiveness of existing adolescent policies and programmes at the national or subnational or local level in low-income and middle-income countries and identify those that are successful in reaching young adolescents with the information, services, and social and legal supports that they need. Ask practical questions about what accounts for good performance, and what individuals or organizations are holding the government to account. To what extent are adolescents reflected in national health policies and other country strategies? Are adolescence and gender a standard part of the government's equity analysis?

Adolescents in diverse populations

5. Engage in research to take advantage of and build on current initiatives in the educational and health sectors of developing countries – for example, HIV prevention, male circumcision, female human papillomavirus (HPV) vaccine programmes, school-based and community-based sexuality education, and other initiatives – as points of intervention for research on the most effective way to reach different subgroups of young male and female adolescents through these programmes. The emphasis here is on the prevention of all forms of risky behaviour (not only sexual behaviour) and the reduction of harmful consequences.
6. Engage in research that will pay special attention to marginalized or disadvantaged populations of young adolescents, such as the collection of basic data on the needs and concerns of isolated young married girls in rural areas, for example in the Sahel, where high proportions of female adolescents are not currently attending or have never attended school); boys and girls living on the city streets; female domestic workers; young adolescents living in AIDS-affected families or in slum areas; disabled young people; refugees; and other vulnerable groups. This proposal is not intended to detract from the importance of undertaking research and interventions with better-off or more mainstream populations, however, including students.

Determinants and correlates of risk behaviour

7. Engage in research to identify the social determinants of young adolescents' sexual and reproductive health along the lines of the WHO initiative on the social determinants of health. This research approach would consider questions such as the following:
 - (a) what characteristics of the institutional and social environment predispose 10–14-year-old girls and boys to health-compromising behaviour in different settings?
 - (b) why, in the face of group vulnerability, do some young people make good choices and others poor ones?
 - (c) what protective factors are most effective in buffering young adolescents' vulnerabilities, and how can these be strengthened? Analysis by single years, sex, socioeconomic and cultural characteristics is an essential part of this approach.
 - (d) how can parenting interventions that have been shown to be effective in high-income settings be delivered in low-income settings? What are potential entry points?
8. Analyse existing datasets such as the WHO Global School-based Student Health Surveys of 13–15 year olds for which information is currently available on sexual initiation in 27 developing countries, to identify the association between the various risk and protective factors included in the surveys and the sexual health outcomes of interest (sexual initiation, number of partners, condom use at most recent sexual intercourse) for boys and girls and for single years of age (13 years, 14 years and 15 years), keeping in mind the methodological limitations and the need to validate the findings.

Ethical guidelines for research on young adolescents

9. Prepare a guidance document on ethical and safety issues in research with adolescents similar to the ones prepared by WHO on sexual violence (*WHO ethical and safety recommendations for researching, documenting and monitoring sexual violence in emergencies*, WHO 2007) or on trafficked women (*WHO ethical and safety recommendations for interviewing trafficked women*, WHO 2003). At present there is no ethical or safety guidance document for researching adolescents, including younger adolescents, and such guidance from WHO would be useful to researchers, internal review boards and research funders.

Theoretical and conceptual frameworks

10. Identify and assess existing conceptual frameworks empirically for researching sexual and reproductive health issues as well as asset-building factors for adolescents, and suggest others, based on new evidence. This activity involves identifying the multiple institutional layers of influence that shape attitudes and behaviour and “naming and framing” the research question, as well as selecting illustrative indicators of some of the key dimensions of the enabling or proximate factors. Such a document could facilitate the design of a research agenda and help to strengthen research skills, particularly in low-income countries.

Conclusions and next steps

Each of these recommendations leads to different choices of countries, populations, age groups, methodologies and research approaches. In general, priority should be given to those countries in which relatively high proportions of boys and/or girls are initiating sexual intercourse (and in some cases childbearing) before the age of 15 years, either voluntarily or involuntarily, and within or outside early marriage in the case of girls. Because precocious sexual initiation tends to be associated with other risky behaviour such as alcohol or drug use or dropping out of school, or with coercive behaviour on the part of peers, adult partners, or parents who force their daughters into marriages when they are still below the age of consent, it is essential to take a holistic view of these diverse patterns and to consider the national and local context as well as the individual, both in basic research (data collection) and in assessing the effects of different types of intervention on sexual and reproductive health outcomes.

The challenge is to decide which questions and approaches are most feasible for a starting-point for research within a broader conceptual framework. Each piece of the framework can be identified, and particular segments of the young adolescent population can be selected. The question then becomes: what is known, and what do we still need to know that will be most useful for improving the health and lives of young adolescents as they pass through the developmental processes of puberty and emerge into adulthood? What interventions are most needed in different settings to make this passage a safe and productive one?

Participants emphasized that a research programme should strengthen the capacity for high-level, theory-based research on adolescent behaviour within countries, and that the research should generate findings that serve to improve policies and programmes. Study teams should be interdisciplinary, moving beyond the collection of standard demographic sexual and reproductive health data such as age at sexual initiation, contraceptive use, pregnancy, abortion, delivery and maternal morbidity and mortality, to address multiple routes to enhancing the knowledge, skills, health assets and social capital of younger adolescents in diverse settings.

There is much still to be decided with respect to the identification of a WHO-based cross-national programme of collaborative research, and many ideas and approaches to be considered. As a first step, current theoretical and conceptual frameworks need to be reviewed and adopted or adapted to frame the research agenda and the ethical guidelines established. Based on the conceptual framework developed, the next steps will require the selection of specific topics, approaches, and countries with the goal of preparing a more-or-less standardized set of questions, methodologies, sampling frames and analytic categories for eliciting research proposals and donor funding.

Appendix A: Agenda

Day 1

- 08:45 Welcome remarks – Michael T. Mbizvo, Claudia Garcia-Moreno and Shyam Thapa
Introductions
Meeting goals and objectives – The organizing team
- 09:20 **Session I:** Taking stock: what we know and don't know about the lives of young adolescents – themes and data sources
Presenters:
Martha Brady
Ruth Dixon-Mueller
Facilitated discussion:
Claudia Garcia-Moreno
- 10:40 **Session II:** The evolving adolescent: social, biological, and cognitive development and what this maturation process means for research
What measures are most useful for tracking these processes?
Presenter:
Ximena Luengo
Facilitated discussion and identification of key research questions:
Venkatraman Chandra-Mouli
- 11:30 **Session III:** Gender socialization and sexual transitions among young adolescents: what do we know, and what do we need to know?
Presenter:
Ruth Dixon-Mueller – data on sexual initiation before the age of 15 years
Claudia Garcia-Moreno – sexual coercion and violence
Facilitated discussion and identification of key research questions:
Katie Chapman
- 14:00 **Session IV:** Measurement of risks and protective factors
What are the most useful measures of risks and protection?
How is information used for in-country policy-making and programming?
Presenters:
Robert Wm. Blum – insights from studies in Viet Nam, the Caribbean, China and other settings
Sherine Shawky – insights from the Middle East and North Africa
Facilitated discussion and identification of key research questions:
Patty Alleman
- 15:00–15:50 **Session V:** Research methods for collecting sensitive data about and from young adolescents: what works, what does not? Lessons learnt
Review/critique of methodical approaches to gathering data from this age group (surveys, qualitative techniques, focus group discussions, ACASI [computer-assisted questionnaires], visual methodologies, mapping and other techniques).
Presenters:
Akinrinola Bankole
Eliya Zulu
Annabel Erulkar
Facilitated discussion and identification of key methodological issues:
Martha Brady

Day 2

- 08:45 **Session V:**
(continued from Day 1)
- 09:30 **Session VI:** Ethical considerations in conducting research on young adolescents
Overview of the issues – guidance documents
Obtaining consent – how? from whom?
Presenters:
Shyam Thapa: WHO guidelines and review processes
Lucie Cluver: Informed consent and related issues in collecting data from the young adolescents
(experiences of participants procedures followed, difficulties encountered)
Facilitated discussion and identification of key research questions:
Sarah Thomsen
- 10:50 **Session VII:** Research priorities and agenda setting
Review of key research questions
What research is needed to answer these questions, and where?
- 14:00 **Session VIII:** Research priorities and agenda setting (continued)
Clarification of age categories to be studied, e.g. exact age 15 years (including retrospective);
exact ages 12 years, 13 years and 14 years; exact ages 12 years and 15 years)?
Selection of methodological approaches
Summary recommendations of the technical working group to WHO
- 15:40 **Next steps and wrap up**
Venkatraman Chandra-Mouli
Ruth Dixon-Mueller
Claudia Garcia-Moreno
Shyam Thapa

Appendix B: List of participants

Patty Alleman

Senior Policy and Gender Technical Adviser
United States Agency for International Development (USAID)/
Global Health Bureau
Population and Reproductive Health/PEC
Washington DC
USA

Akinrinola Bankole

Director, International Research
Guttmacher Institute
New York
USA

Robert Wm. Blum

William H. Gates Sr Professor and Chair
Department of Population, Family and Reproductive Health
Director, Johns Hopkins Urban Health Institute
Johns Hopkins Bloomberg School of Public Health
Baltimore
USA

Martha Brady

Senior Associate
Population Council
New York
USA

Katie Chapman

Social Development Adviser
DFID Research and Evidence Division (Human Development
and Growth teams)
United Kingdom Department for International Development
(DFID)
London
United Kingdom

Lucie Cluver

University Lecturer
Department of Social Policy and Social Work
University of Oxford
United Kingdom

Cape Town Child Welfare Society
Cape Town
South Africa

Ruth Dixon-Mueller

Consultant in Population and Reproductive Health
Grecia
Costa Rica

Annabel S. Erulkar

Country Director
Population Council
Addis Ababa
Ethiopia

Ximena Luengo Charath

Assistant Professor
Faculty of Medicine
University of Chile
Santiago
Chile

Sudha Sharma

Secretary
Ministry of Health and Population
Kathmandu
Nepal

Sherine Shawky

Research Professor
New Cairo Campus
The American University in Cairo
New Cairo
Egypt

Sarah Thomsen

Senior Consultant
InDevelop-IPM
Stockholm
Sweden

Eliya M. Zulu

Director
African Institute for Development Policy (AFIDEP)
Nairobi
Kenya

WHO staff

Islene Araujo de Carvalho

Technical Officer

Department of Gender, Women and Health

Venkatraman Chandra-Mouli

Coordinator

Adolescent Health and Development

Department of Maternal, Newborn, Child and Adolescent Health

Jane Ferguson

Scientist

Adolescent Health and Development

Department of Maternal, Newborn, Child and Adolescent Health

Claudia Garcia-Moreno

Coordinator, a.i.

Gender, Rights, Sexual Health and Adolescence

Department of Reproductive Health and Research

Jeane Garcia Davis

Intern

Department of Gender, Women and Health, and

Department of Reproductive Health and Research

Peju A. Olukoya

Medical Officer

Department of Gender, Women and Health

Shyam Thapa

Scientist

Department of Reproductive Health and Research

Jaime Todd-Gher

Human Rights Adviser

Department of Reproductive Health and Research

Appendix C: Background papers and additional resources

Background papers

The sexual and reproductive health of younger adolescents: research issues in developing countries. Background paper for the WHO Technical Consultation of 4–5 November 2010, prepared by Ruth Dixon-Mueller for the Department of Reproductive Health and Research, April 2010.

Investing when it counts: generating the evidence base for policies and programs for very young adolescents. guide and tool kit. Report prepared by Erica Chong, Kelly Hallman and Martha Brady, published by the Population Council, New York, in conjunction with UNFPA, UNICEF and UNAIDS, 2006.

Additional resources

Seen but not heard: very young adolescents aged 10–14 years. Report by Peter McIntyre for WHO, UNAIDS and UNFPA, published by WHO, Geneva, August 2004.

Advancing promising program and research/evaluation practices for evidence-based programs reaching very young adolescents: a review of the literature. Report compiled by Louise Palmer, published by the Institute for Reproductive Health, Georgetown University, Washington DC, with support from USAID, September 2010.

Reaching very young adolescents (VYAs): advancing program research and evaluation practices. A report based on a meeting held 10–11 June 2010, in Washington, DC, organized by the Institute for Reproductive Health, Georgetown University, Washington DC, with support from USAID, published September 2010.

WHO/RHR/11.11

© World Health Organization 2011

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

For further information contact:

Department of Reproductive Health and Research
World Health Organization
Avenue Appia 20, CH-1211 Geneva 27, Switzerland

www.who.int/reproductivehealth

