



Improving Youth Sexual and Reproductive Health in the Developing World: *An Evidence-Based Approach*

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The research is clear: comprehensive sexuality education, mass media messaging, and youth-friendly health services will help improve the sexual and reproductive health of young people in the developing world.

Half of the world's population is under 25 years old, meaning that some three billion children and young people are, or will soon be, of reproductive age. Young people, particularly those living in the developing world, suffer disproportionately from negative sexual and reproductive health outcomes, such as early and unwanted pregnancies, unsafe abortion, and sexually transmitted infections, including HIV/AIDS. These outcomes come with high emotional, social and economic costs that influence individual, community and national development. The following figures, reported by the United Nations Population Fund and in the October 2006 Lancet journal series, provide just some evidence of the tremendous needs that exist worldwide:^{1,2}

- Most youth become sexually active during their teenage years.
- Fourteen million girls between the ages of 15 and 19 give birth each year. Pregnancy is a leading cause of death for young women in the developing world; in fact, young women are four times as likely to die in childbirth than those just a few years older. Young women are less likely to receive antenatal care and more likely to undergo unsafe abortion.
- Roughly 5,000 youth become infected with HIV each day. One half of all new HIV infections occur in young people between ages 15 and 24. The majority of these are young women.
- Earlier age of puberty and a trend toward later marriage has led to an increase in the prevalence of premarital sex.
- Over 80 million girls now between ages 10 and 17 will marry before their 18th birthday, disrupting their education and limiting their opportunities. Married women often find negotiation of safer sex more difficult than do single women.
- Less than half of sexually active young people use condoms, and only a small percentage of young married women – who are increasingly at risk of contracting HIV – do so.

Young people in the developing world should not have to face the suffering caused by preventable problems of early pregnancy, sexual coercion, unsafe abortion, and sexually-transmitted infections (STIs), such as HIV/AIDS. The good news is that we are learning how to address these challenges. In the past two years alone, several comprehensive reports synthesizing the latest research findings on young people's sexual and reproductive health have been published. The renowned Lancet medical journal published in October 2006 a special *Sexual and Reproductive Health Series* which describes in great detail the most current research on these topics from around the world. A few months earlier, the World Bank issued its *World Development Report 2007: Development and the Next Generation*, which surveyed hundreds of reports to identify best practices in youth sexual and reproductive health. In 2005, an expert panel of the National Research Council (NRC) published an exhaustive accounting of the highest quality data on key issues facing young people, including education, health, and early marriage. In its 700 pages, *Growing Up Global: The Changing Transitions to Adulthood in Developing Countries*, provides findings and recommendations for addressing youth development, including sexual and reproductive health. In addition, *End of Project Report* issued by Family Health International's YouthNet project, and the World Health Organization's *Steady, Ready, Go* papers provide valuable lessons learned in programming to reduce early pregnancy and HIV infection throughout the world.

These comprehensive reports provide a sound base of early evidence to support greater access by young people to sexual and reproductive health information and services. Specifically, they encourage programs that work to change the underlying norms and attitudes that perpetuate poor health outcomes for young people, including school-based sexuality education, mass media messaging, and youth-friendly service provision. Support for such programs will improve young people's sexual knowledge, attitudes and practices, which will lead to decreased rates

of early pregnancy and HIV/AIDS infection, as well as increased gender equity (see Annex 1 for an associated logic model). Addressing these problems will, in turn, reduce needless suffering and improve community health, welfare and social development.

This accumulated evidence leads us to recommend support from both public and private sources for programs that include:

- 1. School-based comprehensive sexuality education;**
- 2. Use of mass media to provide comprehensive prevention messages to in and out-of-school youth; and**
- 3. The provision of youth-friendly health services.**

To be most effective, these strategies should be responsive to the local cultural and environmental contexts in which they operate.

Programs that include these strategies are still relatively new in the developing world, and thus, the evidence to support their sustained impacts over the *long-term* is admittedly thin, particularly at a large scale.³ Much of the evidence that does exist comes from studies of short duration, small-to-modest scale programs that measured effects within six to eighteen months of the intervention.

Given the fact, however, that most young people in the developing world will become sexually active during their adolescent years, it is critical that they understand the factors that place them at risk for pregnancy and STIs, and that they have access to services to reduce their risk.⁴ There is thus an immediate need for action to improve young people's health, and we believe that programs which have been proven to have positive impacts – even if only in the short-term - are worth replicating now.

At the same time, the evidence does strongly support the conclusion that programs with multiple components are more effective in changing behavior than single-strategy interventions. Because multi-pronged approaches can reach a greater number and diversity of youth (i.e., in and out-of-school, married and unmarried, rural and urban, and those attending clinics or not) with multiple, repeated messages from a variety of sources, a combination of the three strategies is recommended. Further, by taking account

of cultural dimensions and ensuring the involvement of youth, parents, and communities in program design and implementation, these programs will be even more successful in achieving significant improvements in the health and well-being of young people worldwide.⁵

Research Points to a Plan of Action

Let us take a closer look at each of the recommended program elements:

SCHOOL-BASED SEXUALITY EDUCATION

The evidence is strong that quality school-based sexuality education programs positively impact young people's knowledge and attitudes about sexuality and reproductive health, and increasing numbers of studies report positive behavioral impacts as well. Given the rising proportions of young people attending school in developing countries, school-based programs are a promising avenue through which to reach a large number of young people with life-saving information. James Traore's study of 21 school-based sex education programs in developing countries "found that nearly all had a positive influence on reproductive health knowledge and attitudes," and that several led to improved behaviors.⁶ Kaye Wellings and her colleagues write in *The Lancet* that "school-based sex education improves awareness of risk and knowledge of risk reduction strategies, increases self-effectiveness and intention to practice safer sex, and delays... the onset of sexual activity."⁷

In a systematic literature review conducted in 2005, Douglas Kirby analyzed 83 studies of curriculum-based programs that were published in 1990 or later, employed experimental or quasi-experimental design, and had sample sizes of 100 or more.⁸ Kirby found that

72 percent of programs in developing countries had positive impacts on changing behavior, and he was also able to identify from his research 17 characteristics of effective programs, which are listed in Annex 2. Kirby also found that "curriculum-based education should not be relied as the *sole* means of reducing risky behavior," a point to which we will return later.

In its *Steady, Ready, GO!* publication, the World Health Organization (WHO) uses the evidence base to grade programs (as "GO, Steady, Ready, or Do-Not Go") for their effectiveness in reducing HIV among young people. "Curriculum-based, adult-led sex

Comprehensive sexuality education programs have four main goals:

- To provide accurate information about human sexuality;
- To provide an opportunity for young people to develop and understand their values, attitudes, and beliefs about sexuality;
- To help young people develop relationships and interpersonal skills; and
- To help young people exercise responsibility regarding sexual relationships, including addressing abstinence, pressures to become prematurely involved in sexual intercourse, and the use of contraception and other sexual health measures.

SIECUS

education based on defined quality criteria” receives a ‘GO’ grade, signifying that “there is sufficient evidence to recommend widespread implementation” of the program.⁹

All of the above authors cite the importance of providing *comprehensive* sexuality education, the elements of which are detailed in the box above. The World Bank, in a comment often repeated in the research, notes that providing youth with “accurate and specific information” about safer sex practices, including both abstinence and condom use, “is more effective than providing vague or general information.”¹⁰

Thus, the bulk of rigorous evaluations of comprehensive school-based sexuality education programs shows a positive correlation between such programs and knowledge, attitudes and practices regarding sexual and reproductive health. By contrast, it should be noted that despite the vastly increasing levels of U.S. funding for “abstinence-only” programs in recent years, **no such results** have been found for these more limited programs.¹¹

Lastly, despite the fears of some that sexuality education may lead to the unintended consequence of an increase in sexual activity among young people, “no developing country study to date has found evidence that providing young people with sexual and reproductive health information results in increased sexual risk-taking.”¹²

MASS MEDIA MESSAGING

While the research has thus consistently found that school-based sexuality education improves adolescents’ knowledge and attitudes, and also finds a strong positive correlation between school attendance and reduced sexual risk taking,¹³ the fact is that not all young people in developing countries attend school, and thus, are able to benefit from its protective nature. Reaching these out-of-school youth with messages intended to ensure positive sexual behaviors is therefore a critical, albeit challenging area of work. For this reason, the mass media - including print, radio and television - is increasingly becoming an important venue through which to convey information to young people throughout the developing world.

The National Research Council reviewed six quasi-experimental studies of mass media-based interventions aimed at influencing knowledge, attitudes, and behaviors among young people in Africa and Latin America. The results were promising. All but one of the interventions “were successful in improving knowledge or attitudes in the intervention community, and all five of the evaluations that measured behavioral impacts found impact on at least one behavioral outcome,” such as greater use of

condoms and other contraceptive methods, delayed sexual initiation, and fewer recent sexual partners.¹⁴

The World Health Organization similarly finds that media “interventions can have an impact on knowledge and behaviors if they... are in line with cultural sensitivities” (they thus earn a “GO” grade).¹⁵ Wellings et al agree, writing that “broad spectrum strategies to achieve behavior change with mass-media communication have proved effective in increasing awareness and knowledge, and in reducing high-risk behavior.”¹⁶

One example of effective mass media programming is Population Services International’s (PSI) work

in Botswana, Cameroon, Guinea and South Africa. Using a combination of print, radio and television, as well as social marketing of condoms, evaluations conducted between 1997 and 1999 found greater use of condoms among young people, delayed sexual initiation among young women, and fewer multiple partners among young men in the intervention sites.¹⁷

YOUTH-FRIENDLY SERVICES

Youth-friendly health services are designed to make the use of existing reproductive health services more acceptable and less traumatizing to young people. Based on years of data analysis and expert consultations, WHO has found that interventions can increase young people’s use of services provided that they train service providers, ensure they health facilities are “adolescent-friendly,” and create demand and community support through actions in the community.¹⁸

Youth-Friendly Services are effective, safe and affordable, meet the individual needs of young people who return when they need to and recommend these services to friends. Characteristics include:

- Providers trained in youth reproductive health issues and communication
- Respectful, non-judgmental attitude
- Confidentiality and privacy
- Convenient hours/location
- Affordable fees
- Youth and community involvement/support

World Health Organization

The National Research Council agrees, while acknowledging that to date, “only a small number of youth-friendly service programs in developing

country settings have been rigorously evaluated.”¹⁹ Yet positive results have been identified, particularly in cases where efforts are made with local communities to attract young people to health facilities.

Matatu, et al evaluated a program providing adolescent-friendly services in Uganda and found positive changes in sexual behavior among youth, including reported delays of first sex, reduced number of partners, and higher use of family planning methods. Greater knowledge of STIs, including HIV/AIDS, was found not only among young people in the intervention sites, but also among service providers.²⁰

MULTI-COMPONENT PROGRAMS WITH COMMUNITY INVOLVEMENT

The Matatu study reminds us that while youth-friendly services may improve outcomes for those who visit health centers, many young people never make such visits, and thus require other sources of information. Indeed, while there is good evidence to support any one of the above strategies, there is stronger reason yet to believe that a combination of these components can have a greater impact. According to the NRC, the “evidence suggests that a combination of strategies” including providing youth-friendly services, implementing public education campaigns, and creating safe and supportive environments, “is more effective than any single strategy for reducing risky sexual behavior.”²¹

Several examples of programs that integrate or link school-based sexuality education, media messaging, and youth-friendly health services, all of which have led to significant positive outcomes in regard to knowledge and practices, are cited in *Growing Up Global* and in a comprehensive literature review by Speizer, et al.²²

Finally, the research discussed here also adds to the growing body of evidence that supports community and youth involvement in program design and implementation. A three-year evaluation of the Nyeri Youth Health project in Kenya “provides a promising example of a multi-component community-based model of youth services designed with input from the local community.”²³ In designing this program, trained local counselors spent a year researching and planning with the community, drawing on what young people knew and wanted. The intervention provided educational activities for youth, while also working with parents, teachers and service providers, to ensure a supportive environment for the sharing of information. Using a quasi-experimental design with one control and one intervention site, baseline and endline surveys of random samples of young people,

“researchers found that females at the project site were significantly more likely than those at the control site to adopt secondary abstinence and less likely to have had three or more sex partners. Males at the project

site were more likely to use condoms... There was no evidence that the project resulted in increased experimentation with sex or promiscuity, as many had feared.”²⁴

Erulkar, et al similarly find that “interventions that adapt to indigenous traditions can be both acceptable to communities and associated with significant changes in young people’s behavior.”²⁵ Wellings and her colleagues concur, writing that interventions must “take account of the social context” and be “culturally appropriate.”²⁶

To date, few countries have adopted comprehensive approaches to adolescent sexual and reproductive health on a large scale. In those that have, such as Brazil and Mexico, significant reductions in teen pregnancy and HIV infection have occurred. However, while it is assumed that multi-component programs will be replicable across many situations and environments, none have been methodically evaluated at the national level, and thus careful research will be needed to be conducted at appropriate scales to ensure their adaptation to their respective environment.

“Evidence suggests that a combination of strategies...is more effective than any single strategy for reducing risky behavior.”

National Research Council

Action Must Be Taken Now

We now have solid evidence to guide us in working to enhance and save the lives of millions of young people throughout the developing world. We know that if young people are provided with essential information and services, their knowledge, attitudes and, in most cases, their practices will improve. In turn, the overall health and well-being of these youth and their communities will similarly advance. While we await the results of longer-term evaluations of large-scale programs, action should be taken now to reduce the unacceptable levels of early pregnancy, unsafe abortion, STI and HIV infection among the many young people in need.

Specifically, donor countries should increase their support for the strategies discussed here, working with developing country governments and non-governmental organizations to design and implement evidence-based programs for young people. In particular, the United States, the world’s largest donor of family planning and HIV prevention services, should refocus its attention and funding away from unproven abstinence-only programs for young people in the developing world and toward ones that have been proven to work. It

should reinstate its contributions to the United Nations Population Fund, which utilizes the strategies described here in providing information and services to young people throughout the developing world. And, until the levels of government funding are adequate to meet the tremendous need, private foundations should continue to support science-based programs, while also investing in the research needed to more completely understand approaches that work over the long-term.

The implementation of these strategies may face some challenges. Even provided with the evidence that sexuality education, media messages and the provision of youth-friendly health services work to reduce early pregnancy and HIV infection, some parents and governments may oppose the introduction of such programs. To respond to these concerns, communities should be involved in the planning and implementation of projects, and government officials should be reminded of the commitments they have made at the international level, including most recently at the 2006 United Nations General Assembly Special Session on HIV/AIDS, where member states agreed:

“to ensure an HIV-free future generation through the implementation of comprehensive, evidence-based prevention strategies, responsible sexual behaviour, including the use of condoms, evidence- and skills-based, youth-specific HIV education, mass media interventions and the provision of youth-friendly health services.”²⁷

The political will has been pronounced, and the evidence has been found, yet the need remains to act on these promises. In the words of the World Health Organization, it is time to “get on and do it!”

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ENDNOTES

¹ *The Lancet*. October, 2006

² UNFPA Fast Facts

³ According to the National Research Council (in *Growing up Global*), much of the available evidence "comes from matched quasi-experimental evaluations of small to modest-scale programs and, in a few cases... from randomized trials."

⁴ Singh, et al.

⁵ National Research Council.

⁶ Traore, James T.

⁷ *The Lancet*. Wellings, et al.

⁸ Kirby found that 51% of the studies were experimental with random assignment and 49% were quasi-experimental without random assignment.

⁹ *Preventing HIV/AIDS in Young People*, World Health Organization.

¹⁰ World Bank

¹¹ World Bank

¹² National Research Council

¹³ *ibid*

¹⁴ *ibid*

¹⁵ World Health Organization, *Preventing HIV/AIDS in Young People*

¹⁶ *The Lancet*. Wellings, et al.

¹⁷ National Research Council

¹⁸ World Health Organization, *Preventing HIV/AIDS in Young People*

¹⁹ National Research Council

²⁰ Matatu, et al.

²¹ National Research Council

²² Speizer, et al

²³ National Research Council

²⁴ National Research Council

²⁵ Erulkar

²⁶ *The Lancet*. Wellings, et al

²⁷ UNGASS Political Declaration

²⁸ Kirby, Laris and Rollieri