

# Science and Success in Developing Countries: Holistic Programs that Work to Prevent Teen Pregnancy, HIV & Sexually Transmitted Infections

## Executive Summary

Youth in developing countries face significant threats to their health and well-being—threats that include the HIV and AIDS pandemic, high rates of sexually transmitted infections (STIs), and unintended pregnancies that may result in maternal morbidity and/or mortality. Given the need to focus limited prevention resources on effective programs, Advocates for Youth undertook an exhaustive review to find programs proven effective by rigorous evaluation and identified the 10 highly effective programs highlighted in this document. In addition, Advocates previously published a review of 19 highly effective, U.S.-based programs that may also be useful, if culturally adapted, for youth in developing countries.\*

### Criteria for Inclusion

Programs included in this document all had evaluations that:

- Were published in peer-reviewed journals (a proxy for the quality of evaluation design and analysis);
- Used an experimental or quasi-experimental design, with treatment and control / comparison groups; *and*
- Included at least 100 young people in treatment and control / comparison groups.

*Further, the evaluations either:*

- Continued to collect data from both groups at three months or later after the intervention; and
- Demonstrated that the program showed at least two beneficial behavior changes among program youth, relative to comparison / controls. [See Table A, page 2.]

*Or*

- Showed effectiveness in reducing incidence or rates of pregnancy, STIs, or HIV in program youth relative to comparison / controls. [See Table A, page 2.]

### Outcomes

Among the 10 programs, evaluations found:

- **Delayed Sexual Initiation**

Six programs demonstrated statistically significant delays in the initiation of sexual intercourse among program youth, relative to comparisons.

- **Risk Reduction for Sexually Active Youth**

In addition to the delay of first sex, *all* of the programs reduced sexual risk behaviors among sexually active youth. Eight programs resulted in an increased use of condoms; in six programs, participants reduced the number of their sex partners; in five programs, participants increased their use of modern methods of contraception; and in three programs, participants reported increased abstinence.

- **Reduced Incidence of Pregnancy or STIs**

One program demonstrated a statistically significant reduction in the incidence of pregnancy among participants, relative to comparison youth; and one demonstrated a reduction in the incidence of STIs.

### Program Strategies

All of the programs are *comprehensive*, providing information about abstinence *and* the use of contraception and condoms. In addition, eight programs provide sexual health services or referral for services; seven directly involve community members; six directly involve youth; and six rely, at least in part, on media strategies. [See Table B, page 3.]

Table A. Behavioral &amp; Health Outcomes among Youth Exposed to the Program

PROGRAMS	COUNTRY OF ORIGIN	BEHAVIORAL OUTCOMES					HEALTH IMPACTS	
		Delayed Initiation of Sex	Increased Abstinence	Reduced Number of Sex Partners	Increased Use of Condoms	Increased Use of Contraception	Decreased Incidence of STIs	Decreased Incidence of Pregnancy
1. Horizon Jeunes	Cameroon	★	★	★	★	★		
2. STI Counseling and Treatment Program	Nigeria				★		★	
3. Nyeri Youth Health Project	Kenya	★	★	★	★			
4. Promoting Sexual Responsibility among Youth	Zimbabwe	★	★	★	★	★		
5. HIV Prevention Education for High School Students	Nigeria	★		★	★			
6. School Health Education	Uganda	★		★				
7. Family AIDS Education & Prevention through Imams	Uganda			★	★			
8. Entre Nous Jeunes Peer Education	Cameroon				★	★		
9. Sexual Health Information & Services for Youth	China				★	★		
10. Adolescence: Time of Choices	Chile	★				★		★

Note: Blank boxes indicate either: 1) the program did not measure, nor aim at, this particular outcome / impact; or 2) the program did not achieve a significant positive outcome in regard to the particular behavior or impact.

## Program Summaries in Brief

### 1. Horizon Jeunes (Cameroon)

This adolescent reproductive health program, integrated into a larger, nationwide, social marketing program, includes free and reduced price condoms and oral contraceptives as well as referral to youth-friendly services. It was evaluated among male and female urban youth, ages 12 through 22, both in and out of school. *Evaluation showed that, among participants relative to comparison youth, the program delayed the initiation of sexual intercourse and, among sexually experienced youth, increased abstinence, reduced the number of males' sex partners, increased males' use of contraception, and increased females' use of condoms.*<sup>1,2</sup>

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### 2. STI Counseling and Treatment Program (Nigeria)

This comprehensive STI prevention and treatment program is designed for use in high school settings. Para-professionals and peer educators are trained to provide students with STI education and referral while health care professionals are trained to provide youth with appropriate care for STIs. The program was evaluated among urban, senior high school students, ages 14 through 18. *Evaluation found that the program resulted in a reduced incidence of STIs among participants, relative to comparison youth, and also in increased use of condoms and increased use of private physicians for STI treatment. Among participating females, the program resulted in increased notification of partners about exposure to STIs.*<sup>3</sup>

**For more information, contact**—Professor F.E. Okonofua, Women's Health and Action Research Centre, 4 Alofoje Street, Off Uwasota Street, Box 10231, Benin City, Edo State, Nigeria; e-mail [wharc@hyperia.com](mailto:wharc@hyperia.com)

### 3. Nyeri Youth Health Project (Kenya)

This culturally-based, comprehensive, sexual health program utilizes a traditional reliance on young parents in the community to 1) guide youth on sexuality-related issues; 2) advocate with adults in the community for adolescent sexual health information and

Table B. Successful Programs: Important Program Strategies

PROGRAMS	COUNTRY OF ORIGIN	INFORMATION & EDUCATION SERVICES		HEALTH SERVICES			COMMUNITY PARTICIPATION	
		Comprehensive Info on Abstinence & Contraception	IEC and/or Mass Media	Referral to Sexual Health Services	Youth-Friendly Services	Provision of Contraceptives and/or Condoms	Youth Involvement	Community Involvement
1. Horizon Jeunes	Cameroon	★	★		★	★	★	★
2. STI Counseling and Treatment Program	Nigeria	★	★	★	★		★	
3. Nyeri Youth Health Project	Kenya	★		★	★			★
4. Promoting Sexual Responsibility among Youth	Zimbabwe	★	★	★	★		★	★
5. HIV Prevention Education for High School Students	Nigeria	★		★				
6. School Health Education	Uganda	★	★				★	★
7. Family AIDS Education & Prevention through Imams	Uganda	★						★
8. Entre Nous Jeunes Peer Education	Cameroon	★	★	★			★	
9. Sexual Health Information & Services for Youth	China	★	★		★	★	★	★
10. Adolescence: Time of Choices	Chile	★		★				★

services; and 3) refer youth for youth-friendly sexual health care. The program was evaluated among urban and rural youth, ages 10 to 24, both in and out of school. **Evaluation** showed that, relative to youth in the comparison community, youth in the program community increased their sexual health conversations with parents and other community adults. Evaluation also found delays in the initiation of sexual intercourse among sexually inexperienced male youth; increased condom use among sexually experienced males; and increased abstinence and a reduced number of sexual partners among sexually experienced female youth.<sup>4,5</sup>

**For more information, contact**—Population Council, P.O. Box 17643-00500, Enterprise Road, Nairobi, Kenya; (254-2) 2713480/1/2/3; fax (254-2) 2713479; or Family Planning Association of Kenya, P. O. Box 30581, Nairobi, Kenya; 604296; e-mail info@fpak.org

#### 4. Promoting Sexual Responsibility among Youth (Zimbabwe)

This comprehensive, multimedia sexual health campaign centrally involves youth, both in its design and as peer educators. The objectives of the campaign are to 1) increase youth's reproductive and sexual health knowledge; 2) heighten approval of safer sexual behavior and of using family planning services; and 3) encourage youth to adopt safer sexual behaviors and to attend health services facilities. The program was evaluated among youth ages 10 to 24, living in cities or in small town centers in rural areas. **Evaluation** showed that, relative to youth in the comparison communities, youth in the program communities increased their communication with parents and others about sexual health. Sexually inexperienced youth in the program communities delayed initiation of sexual intercourse. Among sexually experienced youth in the program communities, females reported increased abstinence; both males and females reduced the number of their sex partners, increased their use of contraception, increased their use of condoms, and increased their use of health care services.<sup>6</sup>

**For more information, contact**—Zimbabwe National Family Planning Council (ZNFPC), Post Office Box 220, Southerton, Harare, Zimbabwe; +263 (4) 620 281/2/3/4/5 or +263 (4) 620 282; fax +263 (4) 620 280; e-mail znfpc@ecoweb.co.zw

## 5. HIV Prevention Education for High School Students (Nigeria)

This comprehensive sexual health education and HIV/STI prevention curriculum includes six sessions, one per week, each lasting two to six hours, conducted over six consecutive weeks by trained health care professionals. The program was evaluated among urban high school youth, ages 13 through 20, and living in poverty. *Evaluation found that, relative to youth in comparison schools, the program promoted delayed initiation of sexual intercourse among sexually inexperienced youth in program schools. Relative to youth in comparison schools, sexually active youth in program schools reduced the number of their sex partners and increased their use of condoms.*<sup>7</sup>

**For more information, contact**—I.O. Fawole, M.C. Asuzu, or S.O. Oduntan, Department of Preventive and Social Medicine, College of Medicine, University of Ibadan, PMB 5017 GPO, Ibadan, Nigeria

## 6. School Health Education (Uganda)

This comprehensive, peer education program is designed for use within existing school structures. The program is taught by health educators and overseen by administrators and local committees and intends to change basic attitudes about sexual intercourse and to encourage safer sexual behaviors. It was evaluated in upper primary schools, among rural and urban students, ages 10 to 18. *Evaluation found that, relative to youth in comparison schools, the program increased students' communication with teachers and peers about sexual health, delayed the initiation of sexual intercourse among sexually inexperienced youth, and reduced the number of sex partners reported by sexually active youth.*<sup>8,9</sup>

**For more information, contact**—African Medical and Research Foundation (AMREF), P.O. Box 10663, Plot 17, Nakasero Road, Kampala, Uganda; [www.amref.org](http://www.amref.org)

## 7. Family AIDS Education & Prevention through Imams (Uganda)

This culturally appropriate, community-based, HIV prevention program is taught in Muslim family homes by Family AIDS Workers (FAWs), appointed by imams (mosque leaders). Designed by the Islamic Medical Association of Uganda, the program involves regular visits by the FAWs and imams to each household, to discuss HIV and AIDS and ways to prevent transmission. It was evaluated among Muslim families in rural communities and rural trading centers, with a special focus on male and female Muslim youth. *Evaluation showed that, relative to Muslim youth in a comparison region, youth exposed to the program reduced the number of their sex partners; male youth increased their use of condoms.*<sup>10</sup>

**For more information, contact**—Magid Kagimu, MD, Islamic Medical Association of Uganda, P.O. Box 2773, Kampala, Uganda

## 8. Entre Nous Jeunes Peer Education (Cameroon)

This comprehensive, sexual health peer education program trains peer educators to work within their own community to educate their peers and to refer youth, when necessary, to reproductive and sexual health care. Peer educators arrange discussion groups and meet with their peers in existing, community-based, youth service clubs and youth associations (sports and religion). The program was evaluated among urban, in and out of school youth, ages 10 to 25. *Evaluation showed that, relative to youth in a comparison community, youth in the program community increased their use of contraception and increased their use of condoms.*<sup>11</sup>

**For more information, contact**—Family Health and AIDS in West and Central Africa Project, Tulane University School of Public Health and Tropical Medicine, Department of International Health and Development, 1440 Canal Street, Suite 2200, New Orleans, Louisiana 70112, USA; or Simon-Pierre Tegang, Researcher, Institut de Recherche et des Etudes de Comportements, Yaoundé, Cameroon

## 9. Sexual Health Information and Services for Youth (China)

This comprehensive, sexual health program for unmarried youth provides sex education and community-based sexual health counseling and contraceptive services. It was evaluated among unmarried, urban youth, ages 15 to 24, both in and out of school. *Evaluation found that, relative to youth in a comparison community, youth in the program community increased their use of contraception and increased their use of condoms. Males in the program community also reported increased partner communication about use of contraception.*<sup>12</sup>

**For more information, contact**—Department of Epidemiology and Social Science on Reproductive Health, Shanghai Institute of Planned Parenthood Research, 2140 Xie Tu Road, Shanghai 200034, Peoples Republic of China; e-mail [chaohual@yahoo.com](mailto:chaohual@yahoo.com) or [sipprem@ippr.stc.sh.cn](mailto:sipprem@ippr.stc.sh.cn)

## 10. Adolescence: Time of Choices (Chile)

This comprehensive, school-based sex education curriculum involves physicians in working with students, parents, and teachers. Medical staff works in the schools, referring youth to health services, providing educational sessions, answering students' questions, and serving as a resource for students, parents, and teachers. The program was evaluated among students, ages 12 to 17. **Evaluation showed that, relative to youth in comparison schools, sexually inexperienced youth in program schools delayed the initiation of sex. Sexually experienced female students in program schools increased their use of contraception. Evaluation also found a reduced incidence of pregnancy and incidence of imposed abortions\*\* among youth in program schools.**<sup>13,14</sup>

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\* For this full document, or for the one that highlights effective U.S.-based programs, please visit <http://www.advocatesforyouth.org/programsthatwork/>

\*\* Imposed abortions are defined in the evaluation as abortions insisted upon by parents or partners.



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