Advancing Young Adult Reproductive Health: Actions for the Next Decade

FOCUS on Young Adults

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End of Program Report
2001

Pathfinder International

The Futures Group International

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Acknowledgments

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FOCUS ON YOUNG ADULTS STAFF, 1995–2001

Although core FOCUS staff numbered approximately a dozen in our Washington office at any one time, the following staff members (in alphabetical order by last name) served with FOCUS over the years: Birsen Bayazit, Jane Bertrand, Katherine Bond, Gerard Bowers, Katharine Buek, Vanessa Carroll, Charlotte Colvin, Jose de Codes, Indrani de Silva, Sharon Epstein, Rita Feinberg, Lynne Gaffikin, Emily Zielinski Gutierrez, Ian Hawkins, Bethany Hickman, Tijuana James-Traore, Roxanne Johnson, Joanne Jones, Ali Mehryar Karim, Carl Kendall, Ann Klofkorn, Michelle Lin, Varja Lipovsek, Dorothy Lohmann, Laurel MacLaren, Robert Magnani, Ann McCauley, Catherine McKaig, Anameli Monroy, Carolyn Moore, Gwen Morgan, Stephanie Mullen, Nancy Murray, Robin Needleman, Kristin Nelson, Tone Nunes, Barbara O'Hanlon, Pamela Onduso, Gladys Pozo, Lilian Quah, Amara Robinson, Eric Seiber, Barbara Seligman, Stephan Sosler, Ilene Speizer, Christine Stevens, Lindsay Stewart, Dorina Vereau, and Lisa Weiss.

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Acronyms and Abbreviations

AGI	Alan Guttmacher Institute, USA
AIDS	Acquired Immune Deficiency Syndrome
AIDSCAP	AIDS Control and Prevention Project, USA
AIDSCOM	Communication for HIV/AIDS Prevention Project, USA
APROFA	Asociación Pro Bienestar Familiar Chilena (Chilean FPA)
ARFH	Association for Reproductive and Family Health, Nigeria
BEMFAM	Asociação Bem Estar Familiar do Brasil (Brazilian FPA)
BFPA	Bahamas Family Planning Association
CARE	Cooperative for Assistance and Relief Everywhere, USA
CBD	Community-based distribution
CEDPA	Centre for Development and Population Activities, USA
CEMERA	Centro de Medicina Reproductiva y Desarollo Integral del Adolescente, Chile
CEMOPLAF	Centro Médico de Planificación Familiar, Ecuador
CENTRID	Center for Research, Information, and Documentation, Nigeria
CFPA	China Family Planning Association
CINI	Children in Need Institute, India
CMS	Commercial Market Strategies, USA
CRLP	Center for Reproductive Law and Policy, USA
EsSalud	El Seguro Social de Salud, Peru
FOCUS	FOCUS on Young Adults, USA
FPA	Family Planning Association (IPPF affiliate)
HIV	Human Immunodeficiency Virus
HRP	Human Reproduction Program (WHO)
ICDDR, B	International Center for Diarrhoeal Disease Research, Bangladesh
ICPD	International Conference on Population and Development
ICRW	International Center for Research on Women, USA

IEC	Information, Education, and Communication
ILO	International Labour Organization, Geneva
IPPA	Indonesian Planned Parenthood Association
IPPF/WHR	International Planned Parenthood Federation/Western Hemisphere Region
INPPARES	Instituto Peruano de Paternidad Responsable, (Peruvian FPA)
JSI/SEATS	John Snow International/Family Planning Service Expansion and Technical Support Project, USA
MEXFAM	Mexican Family Planning Association
NGO	Nongovernmental organization
PAHO	Pan American Health Organization
PATH	Program for Appropriate Technology in Health, USA
PCS	Population Communications Services, Johns Hopkins University,
PLA	Participatory Learning and Action
PRB	Population Reference Bureau, USA
PROMESA	Promoción y Mejoramiento de la Salud, Paraguay
PSI	Population Services International, USA
RFPA	Russian Family Planning Association
RHO	Reproductive Health Outlook (http://www.rho.org/)
SESAB/SEC	Secretaria de Saúde do Estado de Bahia/Secretaria da Edução da Bahia
SIECUS	Sex Information and Education Council of the United States
SMASH	Social Marketing for Adolescent Sexual Health, Africa
STI	Sexually transmitted infections
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
WHO	World Health Organization, Geneva
YARH	Young adult reproductive health
YMCA	Young Men's Christian Association

Special Terms Used in This Report

Approach, effort, initiative, intervention, program, project—This report uses these terms interchangeably to mean any organized activity that intends to improve some aspect of a young person's life. These efforts can be short or long, have a defined length or be open-ended, undergo evaluation or not.

First sex—The first experience with sexual intercourse (see also, sexual debut).

Last sex—The most recent experience of sexual intercourse.

Risk and protective factors—As used in this report, factors in a young person's life that can either increase (risk factor) or decrease (protective factor) the chances of sexual risk taking, pregnancy, and HIV infection.

Self-efficacy—A person's sense that he or she has the power or capacity to act or make a decision such as whether or not to have sex or whether or not to use contraception.

Sexual debut—The first experience with sexual intercourse (see also, first sex).

Sexual health—FOCUS has incorporated sexuality and sexual health issues into its definition of reproductive health. Thus, this document uses the term "reproductive health" to refer to both sexual and reproductive health.

Sexual intercourse—Coitus, usually meaning penile-vaginal penetrations or penile-anal penetrations. This paper uses the terms sex and sexual intercourse interchangeably, unless otherwise specified.

Sexual partner—The person with whom a young man or woman has or may have a sexual experience or relationship, whether a boyfriend or girlfriend, spouse, friend, casual acquaintance, or sex worker.

Young adult—This document uses the terms *young people*, *young adults*, *youth*, *adolescents*, and *young people*, interchangeably. All are defined as people from the ages of 10 to 24 unless otherwise specified.

Young adult reproductive health (YARH)—In this report, reproductive health refers to the health and well-being of women and men in terms of sexuality, pregnancy, and birth, as well as their related conditions, diseases, and illnesses. Reproductive health care for young adults includes primarily the following:

- information, education and counseling on human sexuality, reproductive health and parenthood
- information, counseling and services for pregnancy prevention
- prevention and treatment of HIV/AIDS and other sexually transmitted infections (STIs)
- management of abortion-related complications and, where legal, safe abortion services
- prenatal, postnatal and delivery care

Executive Summary

Over the past six years, the FOCUS on Young Adults program has worked on young adult reproductive health (YARH) issues, policies, and programs in all regions of the developing world. This report summarizes what we have learned. Chapter 1 describes the most critical YARH issues and identifies important factors that influence YARH knowledge, attitudes, perceptions, skills, and behaviors. Chapters 2 through 5 summarize what we know about the effectiveness of YARH policies and programs. Chapter 6 describes key operational factors that influence program effectiveness. Chapter 7 presents recommendations to improve YARH programs, fill gaps in our knowledge of effective programs, and—ultimately—extend access to YARH services.

Main Findings and Recommendations

Chapter 1: The Context of Young People's Lives

Adolescence is a period of dynamic change representing the transition from childhood to adulthood and is experienced differently in every society. Most young people start having sex before age 20, and many consequently become pregnant and have children or undergo abortion as adolescents. Relatively few youth use reliable contraception. Young people are better educated than ever, but many either never enter school or drop out before completing primary or secondary education. Many eventually enter the labor force, but even those who work remain poor for the most part.

Adolescence is generally a healthy time, but many youth face risks from unwanted pregnancies as well as HIV/AIDS and other sexually transmitted infections (STIs). Approximately half of all new HIV/AIDS infections occur in young people under age 25, the majority of them young women. Young people are at high risk of contracting HIV and other STIs because they often have multiple, short-term sexual relationships and do not consistently use condoms. They also tend to lack sufficient information and understanding of HIV/AIDS, which affects their vulnerability to it, their attempts (if any) to prevent it, and their levels of self-confidence to protect themselves from it. In a few countries, including Uganda for example, HIV infection rates in young people have declined significantly. These data are important because they show that behavior change for youth is possible at a societal level.

A wide range of individual, social, and cultural factors—also known as "risk and protective factors"—influence the reproductive health behaviors of young people. Peers, families, institutions, and communities all may have an impact—positive or negative—on young people's decisions and actions. Understanding these factors and their relative importance is critical in designing effective YARH policies and programs. Although the risk and protective factors model is a potentially powerful tool in program design, knowledge of the important factors is still very limited, our methods to analyze these factors are too crude, and findings are often too contradictory to draw clear conclusions. Thus, further study of risk and protective factors is needed.

Chapters 2 through 5: What Works to Promote Young Adult Reproductive Health

Many different policy and program approaches attempt to help youth practice healthier sexual and reproductive behaviors. To determine what works, FOCUS reviewed the best available research and evaluation and came to the following conclusions.

Only a small proportion of YARH interventions have included a relatively strong impact evaluation component and, thus, some promising approaches have yet to be rigorously evaluated. Only a few of the strong evaluation studies reviewed by FOCUS assessed effects on the use of health services, and none examined the impact on behaviors of creating a supportive environment. Of those studies looking at impacts on knowledge, attitudes, and practices, most look at just one type of program—school interventions. Furthermore, much of the available evidence from strong studies is for small-scale programs that are carried out over short periods of time, and little evidence is available on long-term effects on behaviors.

Although not all YARH programs have been effective at influencing reproductive health behaviors, all of the approaches examined—with the exception of those attempting to increase the use of clinical services—have been effective in at least one study. It is impossible to say, however, that certain models are more effective than others because the period of observation and the behaviors that were influenced varied by study. Moreover, further replications in multiple settings are necessary to provide a basis for identifying the key features or elements of successful interventions.

Programs appear to be more effective in influencing knowledge and attitudes than behaviors. Almost all rigorously evaluated programs reviewed by FOCUS improved reproductive health knowledge and selected attitudes. A smaller but still encouraging percentage of programs significantly changed at least one important adolescent reproductive health behavior. Often, however, programs tried and failed to improve many important behaviors, and the magnitude of effects was modest in many cases. This finding likely reflects the difficulty of changing behaviors that are influenced by a large number of factors, factors that go beyond knowledge and attitudes related to reproductive health alone.

Chapter 6: Key Operational Issues Related to YARH Policy and Program Effectiveness

Three key operational issues cut across regional and cultural boundaries: (1) capacity building, (2) scaling up and sustainability, and (3) youth participation and involvement in YARH policy and programming. These issues hold significant implications for all policy and program initiatives.

Capacity Building. The needs of young people, their access to information and services, and their abilities to think and act are different by virtue of their age. Those working with youth thus need to acquire specialized skills to effectively provide reproductive health care. Four important areas where such capacities need strengthening follow:

- *National strategic assessments and planning.* Reproductive health groups generally know little about the special characteristics of youth. Assessment and planning thus play a key role in the many countries where YARH programs are new and have not yet become routine elements of a country's reproductive health and youth efforts. Although FOCUS and other organizations have developed a variety of assessment and planning techniques, more needs to be done to evaluate their effectiveness in developing and implementing realistic policies and strategic plans.

- *Performance improvement.* Values and beliefs affect those working in YARH programs to a greater extent than they affect professionals in other fields of work. As a result, YARH training has needed to go beyond imparting the standard technical knowledge and abilities that may be sufficient in other areas of work and, instead, has needed to help institutions and individuals become more effective by coming to terms with their personal feelings and potential biases. In its work, FOCUS has found a tremendous need for YARH training. Particular emphasis should be placed on follow-up and technical assistance after training to assist program staff in making changes and applying newly acquired knowledge.

- *Information exchange and sharing.* Many developing country professionals and young people themselves desire to exchange (rather than merely receive) information on YARH programs and to explore opportunities to adapt approaches through interaction with others involved in YARH. Moreover, field programs want practical, "how-to" information and descriptions of successful program approaches in other countries and settings.

- *Monitoring and evaluation.* Monitoring and evaluation offer program managers, decision makers, funders, and others the means to determine whether programs are working or not. Unfortunately, monitoring and evaluation often are not built into YARH programs from the very beginning. Funding agencies must ensure that money is set aside not only for monitoring and evaluation efforts but also for the dissemination of results, both positive and negative.

Scaling up and sustainability. With key support such as leadership, staff, funding sources, and advocates, programs can move beyond local origins to operate at scale. To be sustainable, programs need to adapt to changing circumstances and changing resources. Moreover,

sustainability, especially in a time of health-sector reform in many countries, requires cooperation and collaboration among different levels of government and among different organizations.

Youth participation and involvement in YARH policy and programming. Clearly, many YARH programs recognize the value of youth involvement and participation, and they have incorporated youth in several ways. Peer-education programs—an important type of youth involvement—can successfully improve youth knowledge, attitudes, and behavior related to prevention of pregnancy and STIs. However, few other means of youth involvement, for example, governance, program design, and evaluation, have been rigorously evaluated for their impact on sexual and reproductive behaviors.

Chapter 7: Recommendations for Improving and Expanding YARH Initiatives

With resources still limited and political will to support YARH efforts still weak in many countries, countries must choose their YARH actions judiciously according to the best available knowledge of effective policies and programs. They must also be willing to adopt a flexible approach that takes into account local needs.

To support these efforts, FOCUS offers three sets of recommendations. The first summarizes findings on effective YARH policy and program approaches, based on the review of research and evaluation presented in this report. The second set articulates important principles critical to the expansion of effective YARH policies and programs. The third recommends future priority actions to improve programs and fill important gaps in our current knowledge.

Recommendations for Effective YARH Policies and Programs

1. **Carry out continuous and broad-based advocacy to support YARH efforts.** Advocacy efforts are key to building multisectoral support for policies that promote YARH programs. Advocacy groups that widely involve adolescents and the community and that speak on behalf of the needs of adolescents are particularly effective in desensitizing YARH issues and in pushing for positive change. Funding and technical assistance are required to improve monitoring and evaluation of policy efforts, to disseminate policies, and to allow for effective follow-up.

2. **Carry out well-designed reproductive health education in schools.** Well-designed school-based programs appear to be almost universally effective in improving young peoples' knowledge of sexual and reproductive health, including contraception and HIV/AIDS prevention, and often are effective in promoting positive YARH behavior changes. Where school enrollment is fairly high, a comprehensive approach should include schoolwide reproductive health education to reach large numbers of young people. Ideally, governments should scale up these efforts to be national in scope; should begin them, with age-appropriate

information, in primary school; and should adequately train and support teachers to impart reproductive health education. Further research is needed to determine how to strengthen connections among school programs and commercial sources as well as among other nonclinical sources of reproductive health care.

3. **Promote condom use through social marketing programs and mass media.** Condom use is effective for pregnancy prevention as well as for prevention of HIV/AIDS and other STIs. Social marketing approaches directed at youth appear to hold significant promise for promoting condom use on a relatively large scale and for making regular condom use more socially acceptable. Media promotion efforts should be coordinated with pharmacies and other private sector outlets that young people prefer for reasons of confidentiality and convenience and should be combined with training to make these service sites more youth friendly.

4. **Carry out broad-based community initiatives.** Community programs influence youth at multiple levels and can reach the many youth who are not in school. A broad range of these programs—including youth development, peer promotion, mobilization of youth and adults, and community-based distribution of contraceptives—have been successful in improving youth reproductive health behaviors. Further research is needed on the effectiveness of outreach programs for referring youth to clinics; the type of community service delivery that is most appealing to different groups of young people; and the impact of broader youth development approaches on reproductive health.

5. **Build on the promise of youth-friendly services.** Evidence from the relatively rigorous studies discussed in chapters 4 and 5 did not show conclusively that a youth-friendly approach is more effective in attracting young people to clinical services. Nonetheless, combined with the evidence from supportive studies, the youth-friendly approach is clearly a promising one, particularly when such programs also actively work to build broad support within communities for providing information and services to young people. Youth-friendly services in community, social, recreational, and commercial settings also represent a promising—though largely untested—approach to improving young adult reproductive health.

   The idea of youth centers—which were intended to offer reproductive health as one of many recreational and other services—was and is still very appealing. However, several evaluations have found that youth centers are a relatively expensive and ineffective way to provide reproductive health care to young people.

6. **Enhance peer programs.** Peer programs are culturally appropriate initiatives that can help change community norms and individual reproductive health behavior in diverse settings. Peer networks and network mobilization strategies also show promise in promoting positive and protective reproductive health behaviors. Despite the promise of peer programs, a number of important questions remain about their effectiveness, including how to address high turnover, how to improve supervision and training, and what impact incentives have on peer educator

effectiveness and continuation. More information is also needed about effective ways to reach hard-to-reach youth populations such as HIV-positive youth, refugees, street children, and commercial sex workers.

Recommended Principles for Effective Policies and Programs

The following principles of program design, delivery, and evaluation are grounded in the experience that FOCUS and others have gained in carrying out YARH programs in the developing world. Although, in most cases, their impact on YARH outcomes has not been rigorously measured, many evaluations have shown that programs adhering to these principles are more likely to succeed.

1. **Involve young adults in meaningful ways in YARH policy dialogue and programming.** Involving young people in designing, carrying out, and evaluating YARH policies and programs enhances the relevance of these efforts and increases the sense of "ownership" that young people feel toward the program. In whatever capacity it occurs, youth participation must be real, meaningful, and sustained rather than token.

2. **For HIV/AIDS and pregnancy prevention, emphasize condom use and other means of dual protection.** An emphasis on dual protection, condom use, and abstinence—especially for unmarried youth—is an effective way to address the twin risks of unwanted pregnancy and HIV/AIDS. Mass media and social marketing strategies have shown some success in reducing the stigma of condom use, but more of these efforts are needed because many adolescents continue to view condom use negatively.

3. **Explicitly address gender inequality.** Gender inequality increases the vulnerability of girls and young women to coerced sexual intercourse, unwanted pregnancy, as well as HIV/AIDS and other STIs. Policy and program efforts need to help change prevailing social norms when they are harmful to girls and young women. Accomplishing this kind of change also requires an increased focus on changing the attitudes and behaviors of boys and young men.

4. **Identify the policy and program mix best suited to the target population.** The context in which youth mature varies considerably within and across countries. Regardless of the setting, assessment that is based on good information should precede any program effort. This assessment is necessary to understand this cultural context and to identify the program mix best suited to the target population. Programs need to use their limited resources, first, to provide services to those youth in greatest need and, then, to use different strategies that take into account differences in age, sex, and marital status.

5. **Design comprehensive programs that address multiple youth needs.** Comprehensive, multicomponent programs, by simultaneously addressing the different categories of risk and protective factors that influence young people, may be more effective than narrowly focused

programs in improving reproductive health. An example of a multicomponent program is one that works in both schools and communities, includes a clinical services component, and uses mass media to promote positive YARH messages.

6. **Design projects with expansion in mind.** To meet the needs of the large and growing youth population, the YARH community must move from small pilot projects to larger-scale YARH programming. Efforts to scale up should be based on knowledge about effective YARH policy and programs and should take into account information on cost and financial feasibility.

7. **Incorporate monitoring and evaluation from the start.** Programs should establish clearly defined indicators and costing mechanisms to measure achievement of program goals and cost-effectiveness and to better understand project dynamics to ensure necessary midcourse corrections. Programs must also try to better measure changes in behavior, using experimental research designs or other, less-rigorous methods.

Recommended Future Actions

The following list identifies key future directions for the YARH community that have been determined after considering the FOCUS experience of the last six years.

1. **Pursue additional research.** Additional research is needed on critical influences and factors affecting reproductive health behaviors that are actionable through policy and programmatic interventions.

2. **Assess programs to alter social norms.** Better assessment is needed of programs that influence attitudes and practices with respect to gender roles and equity, women's status and opportunities, as well as sexual behaviors and responsibility.

3. **Document the nexus between policy and effective YARH programming.** In particular, efforts to identify these connections should study how policy can be influenced and changed to result in greater acceptance of and support for YARH programming.

4. **Through policy action, address the contextual factors that influence young adult reproductive health.** YARH advocates can help show policymakers the importance of connections among young adult reproductive health, education, income levels, and job opportunities and can encourage policies that address allocation of resources for youth programs outside the health sector.

5. **Identify the most important linkages between YARH programs and other youth activities, and study practical and effective strategies to achieve these linkages.** Effective links must be established with efforts that have goals related to YARH programs,

including general youth development activities, programs such as micro-enterprise and job training that try to improve youth livelihoods, and efforts to expand educational opportunities.

6. **Develop cost-benefit analysis methodology for YARH programs.** This methodology should be used to identify and select project activities, especially in resource-poor settings, and to guide decisions with respect to scaling up YARH projects.

7. **Leverage the private and commercial sector for greater participation in and contributions to YARH programming, including workplace programs and private health care delivery.** The added participation and contributions would raise the level of available financial resources and create broader reach to clients and consumers.

8. **Undertake studies of the effects of scaling up proven projects.** At a minimum, this effort should include in-school reproductive health education and social marketing.

9. **Set realistic goals for sustainability.** These goals should not handicap the survival of emerging YARH programs. Donors should define sustainability in a way that supports YARH program objectives and that takes into account young people's limited ability to pay for reproductive health care relative to adults.

10. **Assess how existing public health structures can be made more youth friendly and become more effectively used by youth.** In particular, assessments can begin studying these efforts in many developed countries and, increasingly, in Latin America. It is critical to build on these extensive existing networks to reach large numbers of youth.

11. **Establish more effective and sustainable mechanisms to provide technical assistance, training, and other capacity-building measures to organizations that are planning to reach youth with reproductive health programming.** A top priority is to strengthen host country organizations that can carry out this needed work.

12. **Conduct operations research in different national contexts to identify a minimum package of YARH interventions.** Research should compare the effectiveness and cost of different combinations of intervention components in different contexts. At the same time, research should continue to explore new and innovative approaches to meeting YARH needs.

13. **Expand investment in young adult reproductive health.** To reach even a modest proportion of the developing world's youth with effective YARH programs requires a much greater investment on the part of governments, donors, and communities. Moreover, improving the effectiveness of YARH programs requires longer-term donor support, better coordination among donors, and the creation of more flexible funding mechanisms to encourage effective partnerships and linkages among groups working in education, employment, young adult reproductive health, and youth development.

Introduction

About the FOCUS on Young Adults Program

Activities and Objectives

With funding and support from USAID[1] for a period of six years beginning in late 1995, the FOCUS on Young Adults program has studied the current state of young adult reproductive health (YARH) in developing countries, integrating population, maternal health, child survival, HIV/AIDS, and youth development concerns.

FOCUS identified collaborators for each of our planned activities from among other organizations, institutions, and individuals involved in young adult reproductive health at the national and international levels. Working with them, we reviewed evidence of "what works" in protecting and improving young adult reproductive health in terms of program experience, research, and evaluation. FOCUS reviewed policy and program efforts, training and program materials, and evaluation and research studies. In addition, USAID and developing country partners invited FOCUS to carry out technical assistance, strategic assessments and reviews, training, evaluation, and research.

Program Results

USAID expected FOCUS to achieve three program results[2] (see appendix A):

- Increase awareness about both the reproductive health needs of young adults and successful initiatives to serve them.
- Improve the capability of organizations to design and carry out youth initiatives through training, suggesting effective methods of program design, policy analysis, and service delivery.
- Identify what works by collaborating with organizations to document past experience as well as to evaluate and undertake practical research on promising programs and policies.

To achieve the results, FOCUS worked in 28 countries (see box 1). The choice of countries was based on (a) the expected potential contribution of each to ongoing and planned YARH programs as well as to evaluation and research and (b) the respective interest of each expressed through invitations to FOCUS for its involvement.

[1] Includes US$17.1 million in core, bureau, and field support funding, received by FOCUS from USAID's Population, Health and Nutrition Center; Regional Bureaus (Asia and the Near East as well as Africa); and USAID field missions in nine developing countries plus two regional missions in Africa.

[2] And contribute indirectly to four other program results of the Center for Population, Health and Nutrition.

Box 1. Countries in Which the Focus on Young Adults Program Worked, 1995–2001

Asia/Near East	Africa	Latin America/Caribbean
Bangladesh	Benin	Brazil
Cambodia	Burkina Faso	Bolivia
Indonesia	Cameroon	Dominican Republic
Thailand	Cote d'Ivoire	El Salvador
	Ethiopia	Jamaica
	Ghana	Paraguay
	Kenya	Peru
	Madagascar	
	Malawi	
	Mali	
	Mozambique	
	Nigeria	
	South Africa	
	Tanzania	
	Togo	
	Zambia	
	Zimbabwe	

Many FOCUS products and activities contributed to achievement of the three intended results. Efforts to increase awareness included technical expert group exchanges, conferences and workshops, as well as FOCUS staff consultations and field visits in developing countries. FOCUS published and disseminated a wide range of materials including InFocus Briefs, Project Highlights, handbooks in the YARH Tool Series, and the FOCUS Research, Policy, and Program Series (appendix L includes a complete list of FOCUS materials). FOCUS also helped to develop NewGen, a computer simulation model that assists in YARH policy and planning. Efforts to improve capability included technical assistance on YARH program design and evaluation, state-of-the-art and training-of-trainers workshops, project site visits, FOCUS-sponsored evaluation and research studies, and discussions with USAID and other donors.

Frameworks

FOCUS developed a basic framework of factors influencing young adult reproductive health (see appendix B) and a framework of key questions in young adult reproductive health (see appendix C). Both have helped FOCUS establish parameters of work and interpret our analysis of YARH policies, strategies, program experience, evaluation, and research. This paper uses both frameworks and adds further conceptualization based on our thinking and discussions with collaborating organizations.

Key YARH Outcomes

Although a broad range of YARH outcomes have been studied over time, FOCUS has concentrated on the following reproductive health outcomes:

- Reduced sexual activity (including postponing age at first intercourse and promoting abstinence)
- Reduced number of sexual partners
- Increased contraceptive use, especially use of condoms for both pregnancy prevention and prevention of STIs, including HIV/AIDS
- Lower rates of pregnancy (and resulting abortions) and parenthood among adolescents

- Lower rates of infection of HIV/AIDS and other STIs among young people
- Improved nutritional status

Indicators for each of these outcomes have been developed and presented in our FOCUS tool, *Monitoring and Evaluating Adolescent Reproductive Health Programs* (Adamchak et al. 2000).

About This Paper

Purpose

In this paper, FOCUS summarizes the critical elements of what we have learned since 1995. We present major conclusions and recommendations to influence the direction of future YARH policies, strategies, programs, evaluation, and research.

Intended Audiences and Users

At its inception, USAID directed FOCUS to address "USAID and partners" as a primary audience or user group. USAID partners include both the community of U.S.-based population and reproductive health organizations funded by USAID; other institutions that provide technical assistance or funding to developing countries, including the various United Nations (UN) bodies and other donor agencies; and YARH expert groups or individuals. These groups serve as a bridge to governments, private sector organizations and institutions, and individuals in developing countries and are the primary audience for FOCUS publications, including this paper.

Sources of Information

The conclusions and recommendations of this report reflect our best efforts at integrating contributions and ideas from a wide range of sources, including research conducted at various levels of rigor and the broader experience with YARH programs. The breadth and depth of the work that FOCUS and collaborating organizations have done is also reflected in other FOCUS on Young Adults publications, available on the FOCUS website (www.pathfind.org/focus). The FOCUS team salutes everyone working on young adult reproductive health in developing countries and takes full responsibility for the views and recommendations offered in this paper.

Chapter 1
The Context of Young People's Lives

What is Adolescence and Young Adulthood?

More than a quarter of the world's population—1.7 billion people—is between the ages of 10 to 24, and the numbers are growing. This group is the largest generation of young people in history. The vast majority of these young people—86 percent—live in developing countries where, in many places, they represent 30 percent of the population (Population Reference Bureau [PRB] 2000).

Adolescence is a period of dynamic change representing the transition from childhood to adulthood. Whether defined as a phenomenon of modern industrial societies or as a universal stage of human development, adolescence is recognized as a time when both boys and girls build critical capabilities, regardless of whether they are married or have children (Mensch et al. 1998). Adolescence includes physical and sexual maturation, movement toward social and economic independence, and development of identity. Behavior patterns that are established during this process, such as drug use or nonuse and sexual risk taking or protection, can have long-lasting positive and negative effects on future health and well-being (Adamchak et al. 2000).

Adolescence is experienced differently in every society, and even within societies, individual youth may experience adolescence very differently. Similarly, the lives of young males and females are usually experienced quite differently. Although a diverse group, adolescents share many characteristics that define their lives and affect their use of reproductive health information and services.

Adolescents differ from very young children and from adults. Adolescents have distinct needs at different stages of their development process and, therefore, different approaches are required for reaching and serving them. The youngest adolescents are still boys and girls, most not yet sexually active. The oldest are young women and men, most sexually active, some married, and some parents. Even across this span of a few years of age, the lives of youth vary enormously, and this variation has important implications for their reproductive health and for programs that address their reproductive health needs.

What Do We Know about the Reproductive Health Experience of Youth?

Globally, puberty is occurring earlier for both boys and girls, and the age of marriage is rising. Thus, young people face a longer

period of time when they are sexually mature before marriage and are thus more susceptible to out-of-wedlock pregnancy and the risk of contracting a sexually transmitted infection (Zabin and Kiragu 1998; Mensch, Bruce, and Greene 1998). Overall, marriage before age 18 is less common than it was a generation ago. However, a great deal of regional variation occurs. Early marriage has declined substantially over the past 20 years in many parts of Asia, in many sub-Saharan countries, and in some parts of the Middle East. Only in countries within Latin America and the Caribbean has age at marriage remained relatively stable (PRB 2000; Blanc and Way 1998).[3]

Most young people throughout the world will have sexual intercourse by age 20, but the circumstances of that sexual activity will vary tremendously. In many cultures, sex begins with marriage. However, premarital sex is common and apparently rising worldwide (PRB 2000). Many societies encourage boys to engage in sexual activity when they reach puberty.

For a substantial minority of young women—and some young men—early sexual activity is unwanted or coerced. Youth are particularly vulnerable to sexual violence and exploitation.[4] Many young women who are poor exchange sex for support from older men, especially in sub-Saharan Africa. In Malawi, for example, two-thirds of girls who reported having sexual intercourse were accepting money or gifts for sex (Weiss, Whelan, and Rao Gupta 1996).

Box 2. Addressing Anemia in Young People

Anemia is the most significant nutritional issue for both male and female adolescents in many countries, hampering physical growth and mental development. Girls enter active reproductive years with poor iron status. Anemia becomes particularly significant as a problem in pregnancy.

Young people and their caregivers first need accurate, understandable information on anemia. Many channels, settings, and programs can convey messages on anemia and the need for iron supplementation. Schools and peer-education programs can promote healthy eating practices, although it is difficult to affect behavior. Iron supplementation is often a component of prenatal care and family planning programs. But programs need to sustain iron supplementation for it to be effective. Frequent messages are necessary to reinforce the need for daily consumption of iron.

Community-based programs such as CEDPA's New Horizons program in Egypt, which is based on life-skills training for girls who are no longer in school, are an effective approach for nutrition education. In Indonesia, the MotherCare project worked with the Ministry of Health to expand distribution of low-cost iron folate tablets in poor communities. One component of the effort used marriage registrars to counsel young engaged couples and refer them to private commercial sources of iron supplementation. Dietary approaches to combat anemia can be effective where iron-rich foods are available and affordable and where adolescents and adults can be made aware of the benefits of increasing intake of iron-rich foods. Fortifying food with iron has also been tried in some countries, for example, in Iran, Kuwait, Oman, and Saudi Arabia. In Iran, after six months of fortifying food with iron, anemia rates were reported to have been cut in half.

A recent review recommended the following approaches to improving adolescent nutrition: providing integrated health services that are accessible and acceptable to adolescent girls and boys; improving iron status of adolescents within existing programs; increasing interventions that increase productivity and income of poor people; and promoting girls' access to education.

Sources: Senderowitz (July 1998a); Kurz and Johnson-Welch (1994); Shaheen et al. (1999); MotherCare (2000).

[3] See Alauddin and MacLaren (1999).

[4] See Shanler (1998).

Women's and men's sexual lives and, thus, their vulnerability to pregnancy and disease are profoundly influenced by gender (Weiss and Rao Gupta 1998). Gender attitudes often mean that young women are expected to be virgins until they are married—and to marry early—whereas, in many places, young men are encouraged to be sexually active and to gain sexual experience before marriage. Girls with less education, money, and power have little ability to negotiate either sex or contraceptive use, often leaving them vulnerable to unwanted pregnancy and STIs (Weiss et al. 1996). In fact, gender inequality has been shown to be an important factor in the spread of HIV. Recent evidence from a number of African countries shows a vicious cycle of HIV-infection patterns. Young girls are infected before marriage through sexual partnerships with older males. These girls, in turn, infect their spouses after marriage, and the spouses, in turn, infect younger women (Stanecki 2001).

Adolescent boys—who generally engage in more risky sexual behaviors than girls—also face significant problems and risks related to their healthy development. Societal norms that expect men to be dominant and aggressive also can be unhealthy for many boys. Societies expect young men to be already familiar with everything about sex, which, thus, makes them reluctant to seek information or advice. Young men are often pressured to start having sex at an early age, to have sex with multiple partners, and to visit commercial sex workers. These behaviors also can have a negative impact on the health of adolescent girls.

Although rates of adolescent childbearing are declining in many countries, more than 13 million adolescent girls give birth each year in the developing world (PRB 2000). Many societies encourage women to marry and bear children at a young age. Many cultures place great value on fertility. Young women often desire children to affirm their value and identity and to gain social status and recognition as adults. More than one-third of all adolescent girls in the developing world will give birth before age 20. Regional differences are large, ranging from 8 percent in East Asia to 55 percent in West Africa. Many of these pregnancies are unplanned. Although most births occur within marriage, a significant number of first births take place or are conceived before marriage, particularly in sub-Saharan Africa where this proportion has risen in recent years (Bongaarts and Cohen 1998; Singh 1998).

Most sexually active young people do not use contraception. Despite progress in some countries, an estimated 29 million women worldwide ages 15 to 19 lack the contraceptive protection they need to prevent unwanted pregnancy. Notable differences also occur among countries in terms of married and unmarried adolescents' use of contraception. In several Latin American and Caribbean countries, unmarried adolescents are just as likely to use contraception as their married counterparts. In sub-Saharan Africa, unmarried adolescents are more likely to use contraception than married adolescents; less is known about contraceptive use by young adults in Asia. Rates of use vary widely. Only 11 percent of married adolescents in Haiti use contraceptives, compared with 51 percent of those in Colombia. In India, a mere 7 percent

of married adolescents use contraceptives, compared with 42 percent in Indonesia. Reasons for lack of contraceptive use include lack of information; misinformation; fear of side effects; desire for pregnancy; and geographic, social, cultural, and economic barriers to access and use of contraception. Typically, health and contraceptive services are designed to serve married, adult women—not young women and, especially, not young men. Also, the sporadic, unplanned nature of adolescent sexual activity—especially outside of marriage—can be an obstacle to consistent contraceptive use (PRB 2000).

Adolescents experience higher contraceptive failure and are more likely to discontinue use than older women. In Egypt, 47 percent of adolescent users discontinue whereas only 29 percent of adult women do. Relatively large differences are also found in other countries. Failure rates are higher in all countries for adolescents than for adult women (Blanc and Way 1998), which highlights the need for greater access to emergency contraception (see box 3).

Many youth have an unfavorable view of condoms. For many adolescents, condom use signals a lack of trust and intimacy and, thus, limits their use, even for prevention of HIV/AIDS and other STIs. For example, in Malawi, more than half the girls in one study of 10 rural villages reported they would rather risk pregnancy than ask a boy to use a condom. Youth in Brazil, Nigeria, and Thailand have similar views (Weiss et al. 1996).

Many young people still lack good information on sexuality. Young people have traditionally learned about sex and reproduction through the extended family or by means of a network of neighbors or friends, often in conjunction with well-defined rituals or rites of passage. These traditions are in flux, particularly in areas of the developing world that are undergoing rapid economic and social change (Rosen 2000). New means of transmitting this information have not yet developed in many areas. Thus, many young people still lack basic information on sexuality (Weiss et al. 1996). In Venezuela, for example, 90 percent of callers to a hotline believed they could not get pregnant the first time they had sex (Panos 1999).

Box 3. Emergency Contraception

Emergency contraception refers to contraceptive methods that can be safely used by women to prevent unwanted pregnancy in the first few days after unprotected intercourse. Emergency contraception is an important option for young adults. Adolescent sex is often unprotected sex, and many adolescent pregnancies are unplanned and unwanted. In some cases, contraception fails. In some cases, sex is coerced. Because so many adolescent pregnancies end in abortion, the use of emergency contraception also averts abortions, which can result in illness and death if performed under unsafe conditions. In addition, emergency contraception can help adolescents as they make the transition to regular use of contraception.

Emergency contraception does not protect against HIV/AIDS or STIs, so sexually active young people still need to use condoms regularly. Programs that serve sexually active adolescents should make emergency contraception and condoms a fundamental component of an essential reproductive health package. Many health providers are still often uninformed about emergency contraception. In particular, private sector health workers, whom adolescents tend to approach for services, need better information and training on the appropriate use of emergency contraception.

Sources: Klofkorn (1998); NGO Networks for Health (2001).

What Do We Know about Other Aspects of Young People's Lives?

Young people are better educated than ever. As enrollment has expanded, schools are an increasingly important influence on adolescents. Girls ages 15 to 19 are two to three times more likely than their mothers to have at least seven years of education (Alan Guttmacher Institute [AGI] 1996). Despite these improvements, more than one-third of youth in the developing world—approximately 400 million young people—are not in school (PRB 2000). Moreover, girls still lag behind boys in school enrollment rates in many countries. Many schools have policies that require the expulsion of unmarried, pregnant girls. (PAI 1998). Education is critically important to young adult reproductive health because, on average, girls who are better educated are less likely to be infected with HIV and more likely to postpone childbearing and have smaller families as well as healthier children.

Many adolescents work and earn income.[5] A large proportion of adolescents—61 percent in Asia and 32 percent in Africa—is already employed (Population Council and International Center for Research on Women [ICRW] 2000). In the developing world, approximately 13 percent of 10–14-year-olds—73 million children—work for wages (UNICEF 1997 in Mensch et al. 1998). Many girls are in domestic service. The labor of many young people is often not counted by official statistics. For example, approximately 100 million young people work on the streets (PRB 2000). Although circumstances force many youth into exploitative and dangerous jobs, legitimate, nonharmful work may be the best option for youth whose educational opportunities are extremely limited.

Urbanization and modernization are changing adolescence. Almost half the world's population now lives in cities (Hinrichsen et al. 2001). Urbanization and modernization have increased influences on youth from outside the family and community as well as heightened their exposure to risky behaviors. At the same time, some of these influences—including greater schooling and job opportunities and increased exposure to mass communications and new ideas—have fostered better use of protective reproductive health care and less risky behaviors.

Some adolescents are socially marginalized and have special needs.[6] Marginalized youth are vulnerable to sexual exploitation and are at a disproportionately high risk of unintended pregnancies and STIs, including HIV/AIDS. Some have been displaced as a result of war and civil unrest. Others have become heads of households because of the absence of parents, have become orphaned because of AIDS, or have been forced into the commercial sex industry to support themselves or their families. Furthermore, their circumstances often place them beyond the reach of traditional institutions and support systems (James-Traore 2001). AIDS orphans, now numbering 13 million, are often shunned by their communities or neglected (PRB 2000). Gay and lesbian youth are also marginalized.

[5] See Rosen (2001e).

[6] See Stevens (1999).

Why Does the Reproductive Health of Young Adults Matter?

Youth represent a tremendously valuable asset to the world. Working with them to make a healthy transition to adulthood is critical to the world's development now and in the future. Adults have the responsibility to help youth acquire the skills they need to navigate life, obtain an education and a livelihood, and gain access to reproductive health information and services.

Youth, on the whole, are healthy, but behaviors that begin during adolescence are crucial to current and future health. Many of the behavioral patterns acquired during adolescence (such as gender relations and sexual conduct) will last a lifetime. Fortunately, adolescents are receptive to new ideas and are eager to make the most of their growing capacity to make decisions. Thus, the period of adolescence provides opportunities to prevent the onset of health-damaging behaviors and their repercussions.(WHO 1997a).

Approximately half of all people infected with HIV are under age 25, the majority of them being young women.[7] An estimated 10 million adolescents are now living with HIV or are likely to develop AIDS during the next 3 to 15 years (WHO 1998). HIV/AIDS is especially prevalent among adolescent girls and young women. African data show that HIV/AIDS infection is twice as frequent among women ages 15 to 24 than among males of the same age. In many African countries, the group with the highest level of HIV infection is women in their 20s (Stanecki 2001). Young people are at high risk of contracting HIV and other STIs because they often have multiple, short-term sexual relationships and do not consistently use condoms. They also tend to lack sufficient information and understanding of HIV/AIDS, which affects their vulnerability to it, their attempts (if any) to prevent it, and their levels of self-confidence to protect themselves from it. AIDS also affects millions of adolescents in developing countries, especially in sub-Saharan Africa, who must care for their HIV-positive parents and their younger siblings, often cutting short their education and other attempts to acquire job skills.

In a few countries, HIV infection rates in young people have declined significantly. The decline in Uganda, from 22 percent among 15–19-year-old girls in the early 1990s to 8 percent by 1998, was associated with strong political leadership, public awareness campaigns, social marketing of condoms, and voluntary counseling and testing (USAID 2000b). Key elements in the drop in HIV infection rates are the decision by many Ugandan youth to delay their first experience with sexual intercourse and to have fewer sexual partners. These behavioral changes are thought to be related to widespread personal knowledge of someone who has died of AIDS and to a more open public discussion of the epidemic relative to other countries in sub-Saharan Africa (Stoneburner et al. 2000). These data from Uganda—now bolstered by data from additional countries—are important

[7] See Senderowitz (1997b)

because they show that behavior change for youth is possible at a societal level.

Adolescents also suffer from other STIs. At least one-third of the estimated 333 million new cases of curable STIs each year are found in people under the age of 25 (WHO 1998, cited in Panos 1999). As with HIV, both biological and social factors increase young people's vulnerability to STIs. Untreated STIs cause both short- and long-term health problems, including infertility. Youth are often reluctant to seek treatment, even when services are available, because they prefer not to face the often judgmental attitudes of health workers (PRB 2000).

Young women and their children face serious health risks from early pregnancy and childbearing. Adolescent girls in the developing world have twice the chance of dying from maternal causes as do women in their twenties (PRB 2000). For the youngest adolescents—those ages 10 to 14—this risk is five times higher (World Bank 1998). The higher risk is a result of their physical and emotional immaturity and relative inability to seek and use adequate health care during and after pregnancy and childbirth (Zabin and Kiragu 1998). Children born to adolescents also are, in many countries, one and a half to two times as likely to fall ill and die than those born to older mothers (PRB 2000).

Young, unmarried women are more likely than older women to have clandestine or illegal abortions for legal, social, and financial

Box 4. Postabortion Care for Adolescents

For a variety of reasons, pregnant adolescents are particularly likely to experience spontaneous abortion at young ages and to seek induced abortion more often than adult women. Adolescents not only have a special vulnerability, but they also often lack information and resources and delay seeking care. As a result, they experience disproportionately high rates of abortion-related complications, considered to be about one-third of all abortion complications. Unmarried—and some married—adolescents may

- have difficulty resisting sexual pressure and coercion from an adult or adolescent male and, thus, face a higher rate of unwanted pregnancy;
- fear the stigma of pregnancy and having to leave school if pregnant;
- lack support from a sexual partner, parent, or family member;
- attempt unsafe abortion as an only option;
- be shunned by service providers for reasons of law, regulations, culture, and attitudes;
- present later in pregnancy at a clinic, increasing the chance of health complications.

Improving access to postabortion care—including care for abortion complications, counseling by nonpunitive, nonjudgmental providers, and making contraceptive services easily available—is crucial for preventing repeat abortions among adolescents. Making postabortion care available at the community level is critical for adolescents who, more than adults, are likely to lack the means to travel to higher-level health facilities like hospitals. In Kenya, for example, the Postabortion Care Pilot Project found a demand for postabortion care to be provided beyond the district hospital level and closer to the community. The project showed that women, including adolescents, preferred community services and that nurse-midwives could provide safe emergency care using manual vacuum aspiration. Effective follow-up to postabortion clients is also important, as contraceptive continuation has been shown to be a problem in Kenya, for example. Despite the large numbers of adolescents seeking abortions, for the most part, postabortion care programs have neglected to provide adolescent-specific services, while at the same time, many YARH programs have neglected to address the special needs of those young women who have abortions. Thus, it is important to increase and enhance linkages between postabortion care facilities serving young women and youth-friendly reproductive health services, as well as community-based youth development programs.

Sources: Yumkella and Githiori (2000); FRONTIERS (1998); WHO (1997b); Herrick (2001).

reasons. Adolescents have between 1.0 and 4.4 million abortions annually, most of them unsafe. Youth suffer disproportionately from unsafe abortion (see box 4) because they tend to wait longer, thus increasing the medical risks of the procedure (Panos 1999). Even in places where safe abortion exists, access is often restricted for unmarried adolescents (Zabin and Kiragu 1998).

Early motherhood usually cuts short a girl's education and increases poverty. Adolescent mothers who are poor work more and earn less than other mothers, and their children are less well nourished. Schools typically expel pregnant girls (but not adolescent fathers). School dropouts are unlikely to resume their education, so their job opportunities and earning potential are restricted. Also, the children of teen mothers do less well in school (Buvinic 1998).

Practices such as the tradition of older relatives giving adolescents sexuality education, help adolescents. Other traditional practices, however, jeopardize the health of adolescents. Every year, approximately 2 million girls undergo female genital cutting, mostly in Africa and in a few Middle Eastern countries. Often seen as a rite of passage, the cutting can have both immediate and long-lasting negative effects on health. Early marriage is another harmful tradition that is still encouraged and practiced in many countries. Young brides typically discontinue their education and have relatively little power compared to their older husbands. They bear children earlier and have larger families than those women who marry later (Weiss et al. 1996).

What are Important Factors that Influence Young Adult Reproductive Health?

The magnitude of YARH issues and needs requires a careful examination of factors that determine how young people navigate—successfully or not—the transition to adulthood.

Social and cultural factors can influence how young people experience this critical period of their lives, and young people's sexual and reproductive health behavior reflects a variety of societal norms and expectations. Understanding and responding to these "risk and protective" factors may be an important step in developing effective young adult reproductive health programs.

Emerging evidence—both from the United States and the rest of the world—shows that a number of factors directly and indirectly influence adolescent sexual and risk-taking behaviors (WHO 2000a; Kirby 1997b, 1999a; Miller 1998; Murray 2001b). These factors fall broadly into five categories:

- The individual characteristics of young people, including their knowledge, attitudes, beliefs, values, motivations, and experiences
- Peers and sexual partners with whom youth interact
- Families and adults in the community
- Institutions such as schools, workplaces, and religious organizations that support youth and provide opportunities

- Communities through which social expectations about gender norms, sexual behavior, marriage, and childbearing are transmitted.

Although our knowledge of these influences—especially in developing country settings—remains incomplete, a number of findings have emerged:

- The relative importance of these factors will vary, depending on a number of determinants. Some factors may be relatively more important than others depending on the stage of adolescence (early, middle, or late); for example, younger adolescents are more affected by familial factors than by peer-related influences. Later in adolescence, peers seem to assume increasing importance in young people's decision-making processes and resulting behaviors whereas familial context may be less important (Zabin and Hayward 1993; Murray 2001a). At least in some societies, girls seem to be more affected by familial and educational influences than boys (Murray et al. 1998).

- Each of these factors can also change as the social and cultural context changes and may gain or lose importance as a determinant of reproductive health outcomes. The direct effects of each of these factors and the interactions among them can influence whether or not a young person becomes sexually active, whether he or she uses contraception, and even the numbers of sexual partners a young person has once he or she has become sexually active.

- Finally, different factors can exert opposite effects on a single individual. For example, peer norms about the appropriateness of boy-girl relationships may be quite different from those of the family or community.

To broaden knowledge of the influences of these risk and protective factors, FOCUS carried out research in 10 countries.[8] The section below summarizes findings on two key reproductive health outcomes of importance to program managers and policymakers: sexual debut and condom use during last sex (see appendices E, F, G, and H for a description of FOCUS-sponsored studies and findings). Suggested YARH program responses follow each finding.

The Impact of Various Factors on Sexual Debut

Finding 1. In most countries, adolescent boys start having sex earlier than girls, although the older the individual, the more likely both boys and girls are to have experienced sexual intercourse.

Program response. Address the issue of sexual norms and behaviors of boys at an earlier age and try to affect boys' sexuality through changing community norms.

Finding 2. In four of the five countries where this variable was measured, girls in school are significantly more likely not to have experienced sexual intercourse than girls who are not attending school. Boys' school attendance did not emerge as strongly as a predictive factor for sexual experience as it

[8] FOCUS sponsored research in Brazil, Ghana, Jamaica, Paraguay, Peru, South Africa, Togo, Zambia, and Zimbabwe. The Ford Foundation and Johns Hopkins University funded research in Chile.

did for girls; it was significant in only two of the five countries in which it was measured.

Program response. Encourage national policies that promote education and changes in community norms that support education, especially for girls.

Finding 3. FOCUS research examined the relationship between (a) reproductive health knowledge and attitudes and (b) sexual debut in two countries. Importantly, higher levels of knowledge are not associated with higher levels of sexual activity. These findings confirm results from evaluations of reproductive health education programs, presented in chapter 4 below. In fact, the two FOCUS-sponsored surveys that tested these relationships found that young men with higher levels of knowledge about the risks of pregnancy and HIV/AIDS were significantly less likely to be sexually active. For young women, however, only in one of the two countries were higher levels of reproductive health knowledge significantly associated with decreased sexual activity.

Program response. Strengthen in-school and out-of-school efforts to educate youth about reproductive health.

Finding 4. Young people's reported experiences with other risk behaviors such as smoking, drinking, or using illegal drugs is highly correlated with having had sexual intercourse, even when controlling for age. This finding is true for both boys and girls in the FOCUS-sponsored studies. For boys, in five of the six countries where questions about risk behaviors were asked, those who reported risky behaviors were more likely to have experienced sexual debut than boys who did not report other risk behaviors. The case of girls is nearly identical: In four of the six countries where risk behaviors were measured, those girls who reported risky behaviors were more likely to report having had intercourse than girls who had not experienced risk behaviors.

Program response. Improve links between reproductive health programs and other programs that encourage healthy youth behaviors.

Finding 5. The perception that friends are sexually active and experienced also appears to influence young people's behavior. This finding is almost as strong for boys (in six of the seven countries where this variable was measured) as for girls (in all 7 countries where this variable was measured). Thus, either young people who perceive their friends to be sexually active are more likely to be sexually active themselves or those who are already sexually active tend to associate with peers who are sexually active, too.

Program response. Recruit peer promoters with a profile similar in sexual experience to those youth in the target audience.

Finding 6. At the family level, poverty is strongly associated with earlier sexual debut for girls but is less strongly associated for boys. Family structure or changes in the familial environment are significantly associated with early sexual debut for both boys and girls in several countries.

Program response. Recognize that youth from poor, unstable families are at greater

risk, support policies to reduce poverty and family dislocation, and collaborate with programs directed at poverty reduction by adding a youth reproductive health component to them.

Finding 7. The evidence is sparse but suggestive that youth who have a positive, sustained relationship with a teacher are less likely to have experienced sexual intercourse.

Program response. Build on positive relationships with influential adults such as teachers and others and encourage adults to mentor young people.

The Impact of the Various Factors on Condom Use

Finding 1. Boys are almost universally more likely to report using condoms during their most recent sexual experience than are girls.[9] In the three Latin American countries surveyed, the difference is at least 20 percent; South Africa and Zambia have a male-female gap of approximately 10 percent; and Ghana has a difference of only 5 percent. Only in Jamaica are girls more likely to report condom use during their last experience of sexual intercourse than boys.

Program response. Encourage boys to use condoms consistently, no matter who their sexual partners are, and do more to influence girls' ability to negotiate the use of condoms.

Finding 2. A potentially strong influence at the individual level appears to be positive attitudes toward condom use, although these attitudes were measured in only two countries in the case of boys, and one in the case of girls. A study of youth in Ghana (Adih and Alexander 1999) suggests that attitudes toward condoms, perception of risk of HIV and other STIs, and knowledge of condoms and their proper use may interact to have a significant positive effect on condom use. Although none of these factors alone was found to directly predict condom use, subjects who perceived both a high susceptibility to HIV infection and high levels of self-efficacy to use condoms were almost six times as likely to have used condoms at last intercourse than others. Those perceiving a high level of self-efficacy and low barriers to condom use were almost three times as likely to have used condoms at last intercourse than others.

Program response. Work to improve attitudes toward condoms, knowledge, and perceptions of risk.

Finding 3. Communication with peers and sexual partners about sexuality appears to be an important positive influence on condom use, particularly for boys. Although girls' communication with peers was not significantly associated with condom use, their communication with their sexual partners about sexuality and reproductive health was significantly and positively associated with condom use at last sex. Still, it is not clear whether the decision to use contraception results in improved communication or vice versa

Program response. Encourage greater communication with sexual partners and peers.

[9] The sample sizes for boys and girls are fairly small, so the relative significance of these differences must be interpreted with caution.

The risk and protective factors model is a potentially powerful tool in the design of effective policies and programs. Nonetheless, knowledge of the important factors is still very limited, methods to analyze these factors are too crude, and findings often too contradictory to draw clear conclusions. Given the potential importance of this approach, further study of risk and protective factors is critical. Specific suggestions for improved research methods are included in appendix D.

Box 5. Programs That Address Gender Inequality

Throughout the developing world, efforts are addressing gender inequities as well as traditional attitudes and values that subordinate women and lead to harmful reproductive health behaviors. However, few of these efforts have been rigorously evaluated.

Programs That Focus on Girls

The Daughters' Education Program in rural Thailand, where many girls older than age 10 are engaged in some form of commercial sex, works with teachers to channel girls into school. The program sponsors girls' attendance at local secondary or vocational training schools, covering the costs for doing so. Girls deemed at risk of being sent into prostitution are selected for the programs, and families of participating girls are eligible for special economic programs (Mensch et al. 1998).

In Egypt, a project in a garbage-collecting community on the outskirts of Cairo offers the equivalent in local currency of about US$150 to girls who delay marriage until age 18. This cash gift gives girls leverage with their parents and allows them time to grow up and acquire more power in their families (Mensch et al. 1998).

During weekly meetings of the Girls Power Initiative in Nigeria, girls discuss personal experiences (for example, a male teacher sexually harassing a girl) and strategies for dealing with them. These discussions help participants shift from passive to active behaviors (Irvin 2000).

Programs That Focus on Boys

Salud y Genero (Health and Gender), a Mexican NGO, recognizes the notion of "masculinity as a risk factor" for men's health, including their reproductive health. Through participatory workshops on masculinity and male involvement, Salud y Genero helps young men reflect on masculinity, gender, and sexuality as well as their roles in health in general and reproductive health in particular. The program challenges them to question power relations with women and other men as well as to assess the costs of masculinity on men's lives and the possible gains in changing their attitudes and behaviors (Barker 1998; de Keijzer n.d.).

In Nigeria, the Center for Research, Information, and Documentation (CENTRID) runs a program for young men called "Conscientizing Nigerian Male Adolescents." Through interactive discussions and activities, the program attempts to develop independent, critical thinking among boys about their own lives and about the views of their societies, critical thinking that offers them the opportunity to challenge prejudices, stereotypes, and sexist attitudes and behaviors (Irvin 2000).

In Chile, the family planning association, the Asociación Pro Bienestar Familiar Chilena (APROFA), has developed "Rock and Male Roles," an interactive CD-ROM that helps young men critically explore their own attitudes and behaviors related to gender and how these beliefs and actions influence their reproductive health.

Chapter 2

What Works to Promote Young Adult Reproductive Health: Overview

Decision makers who have knowledge about how youth experience adolescence and young adulthood and about the many contextual factors that influence their sexual behavior have a solid basis on which they can design policies and programs to improve the reproductive health of young people. Yet, only by directly observing the impact of these initiatives can we know whether they "work" the way we want them to—that is, help youth practice the healthier behaviors described earlier in this report, including delayed sexual debut, reduced number of sexual partners, and increased use of methods for prevention of pregnancy and STIs. Chapters 2 through 5 synthesize the best available information to try to answer the question of "what works."

A Framework for Thinking about Policies and Programs

Policy and Program Goals

Young adult reproductive health interventions typically attempt to achieve one or more of three goals:

1. Create a supportive environment for youth.
2. Improve the reproductive health knowledge, attitudes, skills, and behaviors of youth.
3. Increase youth's use of reproductive health services and programs.

Strategies

Decision makers might use a variety of strategies to pursue a particular goal (see table 1: Goals, Strategies, and Types). For example, potential strategies to create a supportive environment for youth would include advocacy to political and community leaders, community mobilization, changing social norms, and modifying policies and regulations. However, initiatives can and often do address multiple goals. For example, programs that use the youth-friendly approach to increase the use of reproductive health services by adolescents (goal 3) often also try to reform policies or regulations that limit the delivery of these services to youth (goal 1).

Program Types and Settings

To carry out these strategies, program managers and policymakers use a variety of program types in a variety of settings. Major settings include schools, health facilities, mass media, the workplace, and the general community. Program types include peer education, youth-friendly services, and social marketing, among others.

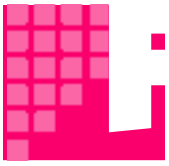
Table 1. YARH Programs: Goals, Strategies, and Types

Goals	Create a supportive environment	Positively influence knowledge, attitudes, perceptions, skills	Increase use of services and programs
Strategies	▫ Provide advocacy ▫ Change social norms ▫ Change policy and regulatory environment ▫ Influence opportunity structure for youth	▫ Provide information ▫ Provide counseling and mentoring ▫ Provide skills development ▫ Promote communication ▫ Promote safe and healthy behaviors ▫ Study child development	▫ Reduce barriers ▫ Increase access ▫ Improve quality ▫ Improve acceptability ▫ Increase linkages

Program Settings and Types	▫ Community Based:
	  ▫ Community mobilization
	  ▫ Youth-serving organizations
	  ▫ Livelihood programs
	▫ Mass Media:
	  ▫ Community mobilization
	  ▫ Behavior change communication
		▫ School:
		  ▫ Reproductive health education/ Life-skills education
		▫ Peer promotion
		▫ Mass Media:
		  ▫ Behavior change communication
		  ▫ Social marketing
		▫ Community:
		  ▫ Youth-serving organizations
		  ▫ Parental programs
		  ▫ Youth development
		▫ Workplace
			▫ Health Facility:
			  ▫ Youth-friendly services
			  ▫ Service provider training
			  ▫ Peer outreach
			  ▫ Links with other institutions or programs
			▫ Mass Media:
			  ▫ Social marketing
			▫ Community:
			  ▫ Youth-serving organizations
			  ▫ Youth centers
			  ▫ Peer promotion

Note. The strategy options are illustrative and not necessarily exhaustive.

Sources of Information on Policy and Program Effectiveness



FOCUS tried to answer the question of "what works" by seeking the best available research and evaluation information on the range of young adult reproductive health policies and programs in developing countries.[10] We relied on evaluation studies done by FOCUS in collaboration with various partner organizations and on recent studies undertaken by other groups (see appendix D for details on the methodology FOCUS used to gather and analyze evaluation findings as well as for a discussion of the important limitations in this review of evaluation studies).

High-quality research and evaluation of any type is valuable, but the design of some research is better suited to providing more certainty in answering questions about the true impact of policies and programs. For that reason, our discussion of "what works" maintains a distinction between findings from studies that use relatively strong designs and

[10] Although much more literature exists on programs undertaken in North America and Europe, the fact that program models were successful in the industrialized countries does not necessarily mean that they would have similar success in developing countries. A comprehensive review of programs from the United States and Canada may be found in Kirby (2001).

findings from those studies or experiences that—though still of significant value—do not use the same level of rigor in their methodology. In reaching conclusions about the effectiveness of policy and program approaches, the review considers findings from the following three categories of information: relatively strong evidence, supportive evidence, and anecdotal or program experience. In reaching our conclusions, we give the strongest weight to findings from the 39 relatively rigorous studies. Note that these studies do not necessarily represent the full range of YARH programs and that it is difficult in most cases to have detailed knowledge about the quality of the design and implementation of the programs studied.

Relatively strong evidence. The number of YARH programs that have undergone relatively rigorous evaluation has increased markedly in the past decade. The review of the published and unpublished literature undertaken for this report identified 39 studies with relatively strong research designs that use experimental or quasi-experimental methods.[11] Eight of these studies were carried out by FOCUS in collaboration with other organizations. Table 2 summarizes the 39 studies, and Appendix I provides additional details on the methodology used in each study.

Supportive evidence. Many research efforts provide some statistical evidence for changes in reproductive health outcomes as a result of a program but lack a control group. These kinds of studies, though valuable for reaching certain conclusions, do not account for the possibility that something other than the program itself (either another program or some external factor) caused the change in outcome indicators. Because these types of studies lack a control group, we also cannot be sure whether those youth affected by the program perhaps were predisposed to the outcomes being promoted by the program. The discussion of program effectiveness below considers a number of these studies, many of which have been discussed and synthesized in previous FOCUS publications.[12] Appendix J contains an illustrative sample of the hundreds of these kinds of reports.

Anecdotal or program experience. Evidence from observations, focus groups, or case studies often provides unique and valuable insights into youth behavior and program operations. But the lack of statistical evidence in these studies makes it difficult to rely solely on their findings to reach valid conclusions about program impact. Nonetheless, these studies currently provide the only evidence available for assessing certain types of interventions, for example, policy reform and community mobilization initiatives.

[11] Studies are called experimental when study subjects are assigned to "treatment" and "control" groups at random. When a study uses a control group chosen through nonrandom methods, the study is called quasi-experimental. Both types of study allow researchers relatively greater certainty in attributing any change in outcome or behavior to the intervention being evaluated.

[12] See, for example, the InFocus series of briefing papers and the FOCUS Key Elements Papers, available on the FOCUS website, www.pathfind.org/focus.

Table 2. Available Evaluation Studies with Strong Research Design, by Goal and Type

Goal	Setting/Type		FOCUS Studies	Other Studies*
Create a supportive environment	Advocacy and changing social norms		0	0
	Policy development and implementation		0	0
Improve knowledge, attitudes, skills, and behaviors	School	HIV/AIDS education	0	13
		General reproductive health education	1	6
		Integrated school and clinic program	1	1
	Mass Media	Media only	1	1
		Media with social marketing	0	4
	Community	Youth development	0	1
		Peer educators	1	2
	Workplace	Cambodian garment workers	1	0
		Thai army recruits	0	1
		Commercial sex workers, Bombay, India	0	1
		AIDS prevention education with Thai garment workers	0	1
Increase service use	Health Facility	Youth-friendly services	2	1
		Youth center	1	0
		Integrated school and clinic program	See above	See above
	Social marketing and mass media		0	0
	Community outreach–Youth development		0	1
	Private sector initiatives		0	0
Total Unique Studies			**8**	31**

Note. * Studies in which FOCUS was not involved and that were sponsored or funded by other organizations.
** The total reflects the fact that some studies were included in more than one category.

Overall Findings

Three important overall findings emerge from the review of research and evaluation. First, only a small proportion of YARH interventions have included a relatively strong impact evaluation component, and thus, some promising approaches have not yet been rigorously evaluated (or have not yet completed their evaluations) in developing country settings. Moreover, only a few of the strong evaluation studies have assessed effects on the use of health services, and none have examined the impact on behaviors of creating a supportive environment. Of those studies looking at impacts on knowledge, attitudes, and practices, most look at just one type of program—school interventions. Furthermore, much of the available evidence from strong studies is for small-scale programs that have been carried out over short periods of time,

and little evidence is available on long-term effects on behaviors. This shortcoming largely reflects the short-term nature of donor funding for specific developing country programs. Only a few interventions have been "scaled up" to reach large numbers of youth (e.g., sexuality education in the schools in several Latin American countries). The concept of scaling up is discussed in more detail in chapter 6. Finding out more about ways to scale up and evaluating these large-scale, long-term programs is critical to broadening and deepening the impact of young adult reproductive health programs worldwide.

The second finding reveals that, although not all YARH programs have been effective at influencing reproductive health behaviors, all of the approaches studied—with the exception of those attempting to increase the use of clinical services—were effective in changing behaviors in at least one program and, often, in more than one. However, to say that certain models are more effective than others is impossible because the period of observation and the behaviors that were influenced varied by study. Moreover, further replications in multiple settings are necessary to provide a basis for identifying the key features or elements of successful interventions.

The third finding shows that programs appear to be more effective in influencing knowledge and attitudes than behaviors. As shown in Table 3, almost all rigorously evaluated programs (32 of 35) improved reproductive health knowledge and selected attitudes. Many of the less-rigorous studies also suggest that programs can effectively improve knowledge and attitudes. A smaller but still encouraging percentage of programs significantly changed behaviors. Overall, approximately three-fourths of the relatively rigorous studies that measured behavior (22 of 29) found a significant change in at least one important adolescent reproductive health behavior as a result of the program intervention. Still, many of these programs tried and failed to improve many important behaviors, and the magnitude of effects was modest in many cases. This result likely reflects the difficulty of changing behaviors that are influenced by a large number of factors, including many that go beyond the knowledge and attitudes related only to reproductive health.

The following three chapters give a detailed assessment of the effectiveness of policy and program efforts and are organized according to the three broad program goals described above. Chapter 3 examines the range of interventions that attempt to create a supportive environment for youth (goal 1); chapter 4 looks at programs that attempt to improve young people's reproductive health knowledge, skills, and behaviors (goal 2); and chapter 5 examines efforts to increase the use of reproductive health services by youth (goal 3).

Table 3. Studies with Strong Research Design: Impact on Knowledge, Attitudes, and Behaviors

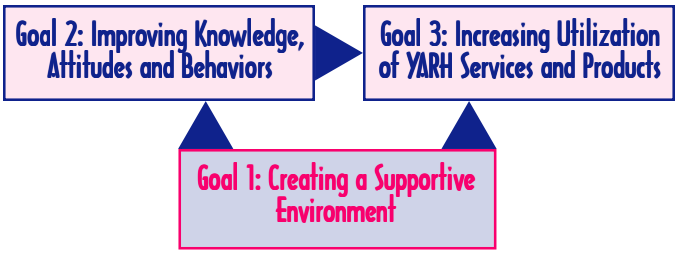
Type of Program	Number of Studies	Number of Programs Showing Significant Impact/Total Number of Programs Studied					
			Impact on Key Behaviors				
		Improved Knowledge and Attitudes	Delayed Sex	Reduced Number of Partners	Increased Contraceptive Use	Increased Service Use	Improved At Least One Behavior
All Programs Studied by FOCUS or Other Organizations	39	32/35	6/16	5/9	15/20	4/8	22/29
School	21	17/19	4/11	3/6	6/10	1/3	9/14
HIV/AIDS education	(12)	10/11	2/4	3/5	4/5	NA	5/6
General RH education	(6)	5/6	2/5	0/1	0/2	NA	2/5
Integrated school and clinic	(3)	2/2	0/2	NA	2/3	1/3	2/3
Mass Media	6	5/6	1/4	2/3	5/5	1/2	5/5
Media only	(1)	1/1	0/1	NA	1/1	NA	1/1
Media with social marketing	(5)	4/5	1/3	2/3	4/4	1/2	4/4
Community	4	4/4	1/1	NA	2/2	NA	4/4
Youth development	(1)	1/1	NA	NA	1/1	1/1	1/1
Peer education	(3)	3/3	1/1	NA	3/3	NA	3/3
Workplace	4	4/4	NA	NA	2/2	NA	2/2
Health Facility	4	2/2	NA	NA	0/1	2/3	2/4
Youth-friendly services	(3)	1/1	NA	NA	NA	2/3	2/3
Youth center	(1)	1/1	NA	NA	0/1	NA	0/1

Chapter 3

What Works to Promote Young Adult Reproductive Health: Creating a Supportive Environment (Goal 1)

An environment that supports YARH efforts includes policies favorable to the provision and use of reproductive health care and social norms and cultural practices that promote positive youth reproductive health behaviors. Improving this environment often involves addressing many of the risk and protective factors (discussed in chapter 1) that affect young adults' reproductive health outcomes.

YARH Program and Policy Goals



Young Adult Reproductive Health Policy and Advocacy

What do we mean by policy? Policy is a "a course of action that is evidenced in laws (including related regulations and enforcement mechanisms), formally documented directives and guidelines, and actual practices and measures" (Seligman et al. 1996). Thus, policies can take many forms, including (1) formal directives such as constitutional provisions; legislation; rules and regulations; judicial decisions; executive orders; ministerial-level decrees and other measures of a regulatory nature; and expressions of government positions including official goals, budgets, plans, programs, and statements; and (2) standards of practice such as formal standards and guidelines for public sector services; standards of practice in professional fields to orient public and private providers; and de facto operational policies of health-care providers affecting user access.

Why are policies important? Formulating national policies that authorize the delivery of YARH information and services to recipients such as unmarried people is an important step toward overcoming formal and informal barriers to serving the reproductive health needs of youth as a whole. Supportive policies ultimately can improve young peoples' access to quality information and services; their self-esteem and self-confidence to use services; and their life choices that affect their motivation to use existing services.

What information is available on the effectiveness of policy efforts? Virtually no rigorous studies have examined the impact of policy efforts on youth knowledge, attitudes, and behaviors largely because setting up control or comparison groups to measure this impact is so difficult to do. Thus, analyses almost exclusively rely on case studies and other descriptive documentation.

The Current State of YARH Policy and Advocacy Initiatives

To what degree have developing countries crafted national policies and programs that address young adult reproductive health? About 100 countries around the world have broad national youth policies and youth coordination mechanisms, and these countries are carrying out national youth programs of action (UN 1999). Nevertheless, youth policies that specifically address YARH information and services are still relatively uncommon (Rosen 2000, 2001d).

National policies addressing issues of young adult reproductive health include population policies that address young people's special needs in the overall context of individuals of reproductive age; national youth development policies that include reproductive health as just one of several sectors that are necessary for promoting opportunities for young people; adolescent reproductive health policies; and national education policies incorporating sexuality education for young people through the formal and informal education system.

International events such as the United Nation's 1985 International Declaration on Youth, UNICEF's (United Nations Children's Fund) 1989 Convention on the Rights of the Child, the 1994 International Conference on Population and Development (ICPD), and the 1995 World Conference on Women have all stimulated international debate as well as national policies and programs focusing on young adult reproductive health issues (Toyo et al. 1997; Ashford 2001).

How well are countries carrying out existing YARH policies? Young adult reproductive health is a relatively recent concern, and resources for carrying out policies over the past 10 years have been limited. Although interest and dedicated funding are slowly increasing, even where YARH policies exist, a lack of political will continues to hamper efforts to carry out these policies. Many country-level decision makers still need to be convinced about the national benefits of investments in young adult reproductive health. Some decision makers are unaware of these benefits, some are personally uncomfortable with issues of adolescent behavior and sexuality, some resent what they see as the intrusion of other countries' values and cultural views in their national dialogues on adolescence, and some simply do not know the "best practices" for working in young adult reproductive health and are uncertain how to approach adolescents and their caregivers. Weak political support for YARH policy has manifested itself in various ways:

- A recent survey of adolescent reproductive health in sub-Saharan Africa found countries are slow to define clear national guidelines and to develop and adopt YARH policies and programs. Weak political commitment to providing reproductive health services was

identified as an issue in Cameroon whereas lack of adequate funding seems to be the obstacle in Togo (Calves 2000).

- In the Near East, fear of incurring opposition from Islamic leaders and Islamic parties has generated widespread reluctance among policymakers and political parties to raise YARH issues in policy or public debate (Beamish 2001).

- In Bolivia and the Dominican Republic, where legislation and comprehensive youth policies, including reproductive health, have been designed in a participatory process, provision of reproductive health services for youth has lagged behind policy development (Rosen 2000).

- Jamaica, which has had a National Youth Policy since 1995, has only recently developed a plan to carry out that policy (Murray, Ruiz, et al. 2001).

The difficulties of coordination across sectors has also slowed efforts to carry out plans and policies. In Egypt, for example, the Ministry of Health and population estimates that carrying out a national adolescent reproductive health strategy will require the collaboration of no fewer than nine ministries—each with its own set of priorities and each with separate personnel and budgets (Beamish 2001).

To what degree do legal and regulatory barriers inhibit the delivery of reproductive health information and services to youth? Many countries continue to limit access to YARH programs, either through restrictive laws and regulations or through the absence of a supportive legal and regulatory framework. Specific legal issues include the following:

- Prohibitions against pregnant girls or young mothers enrolling in school can block access to the information, education, and training necessary for young women to prevent second pregnancies and achieve minimal levels of academic preparation (Mize et al. 1998).

- Laws exist in many countries to prevent early marriage, but enforcement is inconsistent.

- Legislation, standards of practice, or both also inhibit the delivery of reproductive health services to young women who are not married or who are not above a certain age.

- Laws prohibiting abortion or permitting prosecution of women who have undergone abortion procedures can affect adolescents disproportionately because adolescents worldwide have the least access to quality, confidential reproductive health services and information, including contraception (CRLP 1999).

- Finally, the lack of protective legislation against sexual violence, rape, incest, and trafficking makes young people particularly vulnerable to these types of aggression for which they are at much higher risk than adults (CRLP 1999).

Some countries are working to improve the legal and regulatory climate for young adult reproductive health:

- The Jamaican Ministry of Health recently amended its guidelines for reproductive

health service delivery to provide legal protection to health professionals who provide information or services to youth below the legal age of consent (16 years), many of whom are already sexually active (Ministry of Health and the National Family Planning Board 1999).

- Similarly, the national adolescent health program in Bolivia recently developed national service guidelines that include authorization for providing contraceptive services to youth. The new guidelines provide legal backing to health workers worried about a backlash from parents and the community (Rosen 2001d).

- A recent assessment of young adult reproductive health in Madagascar suggested that permitting the dispensing of oral contraceptives without a prescription would increase young people's access to appropriate contraceptive methods through community workers and through commercial sector outlets (Mize et al. 1998). Furthermore, the authors suggest that norms and guidelines for service providers should clarify official government policy on providing reproductive health services to youth so provider uncertainty or lack of knowledge does not result in denial of services.

Box 6. The Importance of Educating Girls

Beyond policies that directly affect access to reproductive health care, increasing girls' access to education is likely the most important policy goal for improving young adult reproductive health (Shepard 2000). Educating young women brings about notable benefits for reproductive health. The higher a woman's level of education, the more likely she is to postpone her sexual debut, marriage, and childbearing. Adolescents with little schooling are often twice as likely—and sometimes three times as likely—as those with more education to have a baby before their 20th birthday (AGI 1996). Educated women have greater control of their reproductive lives, including decisions about the number and spacing of their children, and educated women are more likely to have fewer and healthier children than their less-educated counterparts (PRB 2000).

Policies to Expand Girls' Education

International charters and declarations, including the Basic[13] Education for All by 2010 campaign, have mobilized practical and political momentum behind the effort to enroll more young people in schools (Birdthistle and Vince-Whitman 1997). These international efforts also acknowledge that increasing educational levels, particularly among females, is essential to social, economic, and human development. The efforts further affirm that education is a fundamental human right (Mensch et al. 1998). Most developing countries have policies requiring compulsory schooling up to a certain age (in most cases, into the adolescent years) (UNESCO 1997 as quoted in Mensch et al. 1998). The reality, however, is that, in many parts of the world, girls have less access to education than boys.

Programs to Expand Girls' Education

Programs to increase girls' school enrollment and duration of schooling have been carried out in diverse settings, including in Bangladesh, Ghana, Guatemala, Nepal, and Zimbabwe. In Bangladesh, for example, the Bangladesh Rural Advancement Committee has created more than 30,000 schools providing nonformal, primary education to nearly 1 million children—70 percent of them girls (by design)—ages 6 to 14. An immediate and significant impact of this program was on girls' age at marriage. The proportion of married 13–15-year-olds dropped from 29 to 14 percent, and the proportion of married 16–19-year-olds fell from 72 to 64 percent in the participating villages (Ahmed et al. 1993, cited in Mensch et al. 1998).

[13] Basic education encompasses early-childhood and primary education as well as literacy and life-skills training for youth and adults.

Lessons Learned about YARH Policy and Advocacy

Key Lessons in Policy Development

Coordinate youth development activities across sectors. A special need exists to address multiple sectors that are attempting to improve young adult reproductive health. The health sector is critical to ensure delivery of a range of reproductive health services. Because prevention efforts ideally will reach young people before they become sexually active, the education sector should be engaged. Sports and recreation, labor, and justice sectors potentially can contribute to improving young people's reproductive health in key ways. Because the sectors and institutions that carry out these policies are so diverse, countries often will form multisectoral or intersectoral committees to oversee coordination issues around formulating and carrying out policy (Rosen 2000; Murray, Ruiz, et al. 2001). Another approach is to explicitly assign roles to different governmental ministries, NGOs, and the private sector, including roles that require the various groups to create linkages (Republic of Ghana 2000).

Key Lessons in Carrying Out Policies

Create national and local multisectoral groups to coordinate and carry out policies. The creation of multisectoral committees to coordinate and carry out policy is one strategy being used in the Dominican Republic and Jamaica. In the Dominican Republic, a national multisectoral committee meets to discuss issues of national coordination, and municipal-level committees are responsible for prioritizing activities and securing the support and attention of the appropriate national-level ministries, NGOs, and private sector organizations. Recent FOCUS-sponsored strategic assessments of youth reproductive health needs in Jamaica, Madagascar, and Malawi also recommended multisectoral committees to coordinate various policies and programmatic initiatives directed at improving adolescent reproductive health (Stewart et al. 1998; Mize et al. 1998; Murray, Ruiz, et al. 2001). A critical issue for effective multisectoral coordination is identifying and establishing the credibility and the authority or mandate to lead various sectors in promoting positive youth outcomes. It is important that no one sector be seen as promoting its own agenda and that the lead organization has the objectivity and neutrality required to represent all sectors' interest in a national coordination effort. National youth ministries often have the mandate to coordinate but are typically among the weakest government agencies and may require technical support to assume leadership roles effectively. They must also receive sufficient financial and personnel resources to effectively coordinate processes, including the monitoring and evaluation efforts of public, private, and NGO efforts to improve YARH outcomes (Murray, Ruiz et al. 2001; Mize et al. 1998).

Provide technical assistance and funding for carrying out policies. Technical assistance for developing guidelines to carry out policies, especially for health ministries, can provide the necessary impetus to provide youth-friendly reproductive health services. In a document on promoting young adult reproductive health, the National Youth

AIDS Programme of Nigeria discusses the need for mechanisms to enable ongoing participation and review of national legislation on adolescent health to "expose the process of addressing YARH issues to an examination of available resources" as well as to ensure participatory monitoring and evaluation (Toyo et al. 1997). In Bolivia, after stakeholders had been engaged in a national policy dialogue and after supportive legislation had passed, FOCUS on Young Adults and Pathfinder/Bolivia assisted the ministry of health to develop norms and protocols to guide health staff members in the delivery of services to young people.

Providing seed money, technical assistance, or both for the development of a policy plan is a good way to support carrying out national policy in stages. In the Dominican Republic, the ministry of youth requested technical assistance to develop strategic plans and work plans for three municipalities as well as seed money for local youth committees to begin carrying out their work plans. In this way, the ministry of youth developed and tested a methodology for strategic planning at the local level and a system to encourage local fundraising for carrying out that plan. This approach to encouraging local implementation by providing small grants will be scaled up nationwide by the ministry of youth (Rosen 2000).

Key Lessons in Addressing Cultural Sensitivities to YARH Issues

Seek the support of influential leaders to champion policies. Identifying other influential, respected policy champions has also been a very successful approach to persuading high-level decision makers to make a commitment to YARH policy and programs. The personal involvement and sponsorship of the first lady of Bolivia in the YARH policy development process was key to mobilizing all sectors of Bolivian society to address the issue, as was the involvement of the vice president in the Dominican Republic (Rosen 2001d).

Build youth-focused advocacy networks or coalitions. Involving a broad range of key actors early in the process of policy or program development is an important way to address conflict and controversy (Israel and Nagano 1997; Kreinen and Smith 1999; Senderowitz 2000). Networks involving all sectors of society, public and private (particularly NGOs, which can tackle controversial issues that many governments are unwilling to address directly), have proved critical to help create and support positive policies as well as to carry out and scale up programs. Examples include the following:

- In Kenya, a coalition of youth-serving organizations formed to lobby for a more supportive legislative climate for young adult reproductive health. The coalition used the urgency of the HIV/AIDS crisis to point out to legislators that Kenya's policies were based on colonial-era restrictions imposed long before HIV/AIDS was a health issue (Kiragu 2001).
- The Young Men's Christian Association (YMCA) of South Africa worked with other youth networks to help the National Youth Commission of South Africa formulate its new policy for young adult reproductive health in 1997–98. This network also assisted

other African YMCAs and networks in youth development and young adult reproductive health.

- Youth advocates in Bolivia and the Dominican Republic found that one of the keys to successful formulation of national-level youth policies with a strong reproductive health component was a multisectoral approach that involved a broad range of organizations, both public and private (Rosen 2000).

- In Jamaica, a broad-based effort to establish an urban adolescent reproductive health program overcame potentially divisive opposition by engaging key community members throughout the process (Hughes and McCauley 1998).

Key Lessons in Providing Decision Makers with Information on Young Adult Reproductive Health

Present demographic projections of alternative policy scenarios. Using national data to project adolescent and youth health outcomes such as fertility, number of induced abortions, and HIV/AIDS cases can powerfully illustrate the impact of supportive policies and programs. FOCUS and the POLICY project jointly developed NewGen, a demographic projection model specific to the above-mentioned outcomes, that can be used to advocate for action or to help policymakers assess the feasibility of YARH-specific goals and objectives. FOCUS applied this model in Ghana using data from the Demographic and Health Survey for 15–24-year-olds. The Population Impact Project (2000) published and widely disseminated the projections in an influential document. The projections helped the government of Ghana to select key sectors for carrying out the Adolescent Reproductive Health Policy and to assess alternative approaches to achieving the policy's objectives (Moreland and Logan 2000).

Develop and present cost-benefit data on addressing young adult reproductive health. Arguments that YARH programs save countries money in the long run carry additional weight with policymakers. Cost-benefit analyses can show the savings expected to accrue from reductions in hospitalization and other treatment costs for postabortion complications by preventing unplanned pregnancies to adolescent and young adult women. Public costs savings would also be expected from reduced actual and estimated completed fertility (e.g., the savings from having fewer children to educate) and, in some settings, from reduced hospitalization of premature and low birth-weight babies. Particularly where adolescent abortion rates are high, estimates suggest that the costs of prevention are quite modest compared to the size of the expected benefits (The Futures Institute for Sustainable Development 1999).

Give decision makers information about the threat that HIV/AIDS poses to youth. Awareness of young people's special vulnerability to HIV infection has galvanized policymakers and program managers to take action in many countries. For example, after surveillance reports revealed low but increasing rates of HIV prevalence in the mid-1980s in Senegal, the government

introduced AIDS prevention into the educational curriculum and began to work with community groups and religious leaders. As a result of these actions, median age at first sex among women has risen substantially and HIV prevalence has stabilized (Kiragu 2001).

Key Lessons in Improving the Planning and Financing of YARH Programs

Leverage the resources of international donors. International donors can help focus attention on the need to invest in adolescent reproductive health programs, through both technical assistance and project funding. Large USAID-funded programs in Jamaica and Mali, which try to focus public and private sector resources on meeting the reproductive health needs of adolescents, have stimulated local governmental and nongovernmental response to improving young adult reproductive health. In Jamaica, the interest and support of several international donors has led to a coordinated approach to support local public and NGO institutions as well as policy review and reform. In the Dominican Republic, the Pan American Health Organization (PAHO) has provided extensive support to the Ministry of Health for training of health providers in adolescent reproductive health care and support for other aspects of the government's adolescent health program (Rosen 2000).

Key Lessons in Engaging Youth and Youth Advocates in Planning and Decision-Making Processes

Involve youth directly in advocacy efforts. Young people are among the most effective advocates for change, and several programs have channeled their energy and enthusiasm into helping modify social norms and lowering barriers to youth programming. In the Dominican Republic, advocacy by youth, including visits to legislators, a letter-writing campaign to local and national government officials, and rallies and other events, were key to the recent passage of a national youth law (Rosen 2000). Through media appearances and meetings with government officials, young people spearheaded a successful effort in Mali to raise awareness on youth reproductive health needs (CEDPA 2000). In Brazil, community members initially ridiculed girls trained to speak to other youth on HIV/AIDS and sexuality. As the value of their work became apparent, the girls gained the respect of the community and changed beliefs about the proper role of young women in openly discussing sex (Weiss and Rao Gupta 1998). Members of the Youth Advocacy Movement of the Bahamas Family Planning Association produced a "photojournal" depicting issues of importance to youth. They presented these to ministry of health officials to highlight youth concerns as part of a broader campaign to advocate for greater attention to youth health (Bahamas Family Planning Association [BFPA] 2000).

Involve youth in planning and carrying out policies. In the Dominican Republic, multisectoral youth committees of which half the members of each of the three municipal implementation committees were under the age of 25 developed strategic plans, prioritizing three of the six objectives of the National Youth Policy for their first-year plans. These youth committees developed activity plans and budgets as well as worked with the ministry of youth to document their

activities and seek local cofunding. Young people must receive training and tools to adequately participate in planning and delivery. FOCUS has developed a number of Spanish-language training materials for young people on advocacy, generation of resources, and management and strategic planning for its work with the local youth committees to carry out national policy in the Dominican Republic. These materials should be translated and shared with other countries interested in empowering youth to participate in carrying out national policy.

What We Can Conclude about Policies

A growing number of developing countries have crafted national YARH policies but relatively few have successfully carried out these policies. Key components of successful YARH policy development include multisectoral coordination, providing relevant information on youth to decision makers, and involving youth in the design and realization of policies. Youth involvement in advocacy and planning is also very important. There remains a critical need to know more about how policies are actually carried out and whether they are effective in improving the environment for young adult reproductive health.

Influencing the Social Context: Social Norms and Cultural Practices

What do we mean by social norms and cultural practices? Norms are the expected and appropriate rules of behavior as well as the positive or negative sanctions, or costs and benefits, associated with following or violating those rules.

Why are social norms and cultural practices important? The social context in which young people grow up and become adults will influence their choices and their reproductive health behaviors. Some group norms may lead to negative reproductive health outcomes, for example, gender discrimination, community norms that do not value education, restrictions on girls' mobility, norms that promote early sexual activity or that stigmatize using condoms, and cultural expectations to marry and bear children early in adolescence.

Young people may perceive that their parents expect them to behave in ways entirely different from the way their friends expect them to behave. If parents instill their rules early in a young person's development and do it clearly through supervision and monitoring, young people may be more likely to learn to regulate their own behavior as they grow older. If not, they may be more prone to following the expectations set by their friends, often to gain acceptance or avoid reprisals.

What information do we have on the effectiveness of programs to change social norms and cultural practices? Although many YARH programs attempt to change social

norms and cultural practices, very few are evaluated with strong methodologies. For example, many of the community mobilization approaches that attempt to change social norms do not carefully measure the impact of their interventions at either the individual or community level.

Findings on Programs to Change Social Norms and Cultural Practices

Mass media. In Paraguay, Population Services International (PSI) and FOCUS worked together in three cities to use newspapers, magazines, and the radio to change social norms related to young adult reproductive health, and condom use in particular. (Magnani, Robinson, et al. 2000). The media campaign, which was designed with active participation by young people already working in peer-educator programs, sought to improve parent-child and youth-to-youth dialogues about reproductive health issues such as the use of condoms and to create positive perceptions of condom use among young people themselves. The project increased the proportion of adolescents who believe that girls act responsibly when they ask their sexual partners to use condoms. This project is discussed in more detail in chapter 4.

Person to person communication. Interpersonal interventions at the community level are another approach to protect young people. Mobilization strategies have worked to support reproductive health programs in various settings. In Bangladesh, teams from the Bangladesh Rural Advancement Committee provided program staff members with a common set of messages as a basis for dialogue and then convened a series of community meetings to discuss adolescent reproductive health concerns (Barkat, Khan et al. 1999). Through this process, they were able to identify sources of concern and resistance and were able to overcome them by adjusting the program strategy, involving community members in program development, or providing additional information and clarification. Participants in this process had improved knowledge of the formal services available to them, and community members expressed resounding support for girls' education and for the need to delay marriage.

Involving traditional and religious leaders. Efforts to eliminate genital cutting of young girls in Africa have been most successful when they have engaged the keepers of those traditions as active partners (CEDPA 1998). After consultation with traditional leaders, one such program in Kenya persuaded communities to replace the traditional cutting ceremony with symbolic gift giving, while preserving other aspects of the rite of passage. The number of girls participating in the alternative ceremony grew from 79 in 1996 to more than 1,000 in 1998 (USAID 2000a). The Lentera Project of the Indonesia Planned Parenthood Association, a peer-education program to inform youth about sexuality, involved initially skeptical religious leaders in a number of its activities. Many who attended these events later became more accepting of the project's work (Indonesian Planned Parenthood Association [IPPA] 1999).

Participatory learning and action. In a number of settings, FOCUS and other groups have promoted the use of participatory learning and action (PLA) techniques to

support the process of changing social norms. The PLA techniques help members of the program staff and community to develop an in-depth understanding of life circumstances, concerns, and priorities; create an environment for reflection, analysis, and participation; identify choices and generate solutions that directly result from the creativity of young people; and promote participation by youth and adults. Examples of programs using PLA techniques include the following:

- In Zambia, PLA was introduced with health workers under the Partnership for Adolescent Sexual and Reproductive Health project, carried out by CARE International in Zambia (Chibbamulilo 1997). Staff members and local health workers learned PLA techniques and conducted appraisals in more than 12 compounds surrounding urban Lusaka. Findings from this process were used to design an adolescent reproductive health program. Program components included youth-friendly services in government clinics, training for peer counselors in clinics, and establishment of a community-based distribution system. The learning process helped adult health workers to overcome many stereotypes of youth and to advocate for a broader array of programmatic responses. Youth participants in the PLA process continued in the program as peer educators and community-based distributors.
- In Cambodia, the same tools were used with garment factory workers in Phnom Penh to develop a reproductive health curriculum for youth (Maclean 1999). The use of the curriculum significantly increased knowledge and understanding of reproductive health among low-literate, unskilled, rural migrant workers and helped to persuade factory management to continue the programs. The process also generated enthusiasm among workers to become more active in advocating for health services and improved working conditions within the factory settings. The PLA tools were translated into the Khmer language and later used by more than 200 Cambodian organizations.

What We Can Conclude about Attempts to Change Social Norms and Cultural Practices

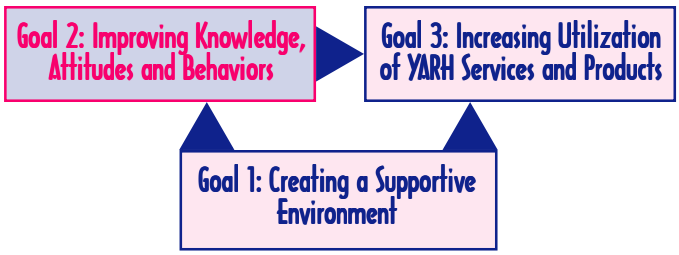
Media interventions and community mobilization activities have great potential to influence social norms. Although some evidence shows that media interventions can change some individual beliefs related to young adult reproductive health, more attention should be paid to macro-level changes in norms. Currently, the lack of good measures that show overall changes in the environment for young adult reproductive health make it difficult to relate these changes to other programmatic impacts such as individual-level changes in knowledge, attitudes, and behavior.

Chapter 4

What Works to Promote Young Adult Reproductive Health: Improving Knowledge, Attitudes, Skills, and Behaviors (Goal 2)

In making the transition from childhood to adulthood, adolescents need to acquire the knowledge and develop the attitudes and skills to help them (1) participate as members of a household, the neighborhood, and the larger community, (2) gain experience in decision making based on reason, (3) assess risks and consequences of decisions and actions, and (4) interact and communicate with peers, sexual partners, and adults (Blum 1999; Adamchak et al. 2000). Ideally, youth develop relevant knowledge and skills from an early age, starting as young as the preschool years.

YARH Program and Policy Goals



In recognition of the wide range of risk and protective factors that influence young people's reproductive health, programs for adolescents can focus directly on sexuality and sexual behaviors as well as on nonsexual contextual factors. For example, some programs focus solely on promoting abstinence or increasing contraceptive use among sexually active youth. Another category of programs—typically carried out at the community level and designed to affect high-risk youth—attempt to increase adolescent self-esteem or improve educational and employment opportunities. These programs often do not explicitly try to improve reproductive health outcomes, although they may have an impact on them.

The discussion of programs that may work to improve youth knowledge, attitudes, skills, and behaviors is organized according to four program settings: (1) schools, including linked school-health facility programs; (2) mass media; (3) communities; and (4) the workplace. See appendices I and J for details on research studies.

School Programs

What is a school program? As Senderowitz (2000) has noted, "while most communities would agree that some sexuality education is needed at an appropriate time in young people's lives, considerable disagreement exists over what to teach, at what age, in what setting, by whom, in what manner and to what end" (p. 16). In fact, no standard approach to school sexuality education programs exists. Curricula, content, and delivery formats vary widely, as do their labels—"population education," "education for parenthood," "sex education," "family-life education," "HIV/AIDS education," or "life-skills education."

Why are school programs important? Undertaking adolescent reproductive health programs in schools can potentially reach a large number of adolescents in countries where school enrollment rates are high. School attendance is rising more or less throughout the developing world, particularly among adolescent females (Bongaarts and Cohen 1998). Youth in structured school environments are a "captive audience" for educational messages and programs that attempt to develop skills and promote positive behaviors. These programs, when they engage students, teachers, parents, and the community more broadly, can effectively address many of the individual, institutional, and community-level risk and protective factors that have an important influence on youth behaviors.

What information do we have on the effectiveness of school programs? Relative to other YARH efforts, school programs have been the subject of a large number of well-designed evaluations. The FOCUS review identified 22 school programs that had undergone relatively strong evaluation, including 13 focused on HIV/AIDS and other STIs and nine on more general reproductive health topics. The analysis below considers these strong evaluations as well as a number of studies that use less-rigorous evaluation techniques.

Educational Programs about HIV/AIDS and Other STIs: Findings from Studies with Strong Research Designs

Kirby's review of the evidence on the effectiveness of YARH programs in the United States suggests that HIV/AIDS education efforts are more effective than general reproductive health education programs, possibly because they are more successful in attracting the attention of boys (Kirby 1999b). Eleven out of the 13 school programs focusing on HIV/AIDS and STIs demonstrated at least a short-term impact on improved attitudes about and knowledge of HIV, STIs, and reproductive health topics.[14] Only two programs were unable to demonstrate an impact on knowledge or attitudes (Thongkrajai et al. 1994; Antunes et al. 1997), and in one case, impact was not demonstrated because researchers did not

[14] See Abolfotouh et al. (1995), Aplasca et al. (1995), Caceres et al. (1994), Fawole et al. (1999), Harvey et al. (2000), Klepp et al. (1994, 1997), Kuhn et al. (1994), Munodawafa et al. (1995), Coplan et al. (in press), Stanton et al. (1998), Fitzgerald et al. (1999), and Wilson et al. (1991).

assess the potential effects on knowledge and attitudes. Seven of the 13 studies measured youth behaviors. Of those seven, the following six demonstrated significant program impact.

The Focus on Kids program in Namibia (Stanton et al. 1998; Fitzgerald et al. 1999). Adapted from a U.S. after-school program, the intervention involved 14 meetings with small groups of youth at 10 schools to discuss abstinence and safer sex practices. Researchers collected information from youth at baseline, immediately after the 14 sessions, at a 6-month follow-up, and at a 12-month follow-up. Key findings follow.

- *The program helped girls delay first sex:* Female virgins from the intervention group at baseline were more likely to remain virgins at the 12-month follow-up.
- *The program increased condom use—but only over the short term:* Among those who became sexually active during the intervention period, boys from intervention schools were more likely to use condoms than boys from control schools, but only in the period immediately after the intervention; at 6 and 12 months after the intervention, no difference in condom use was evident.

HIV/AIDS education for Nigerian secondary school students (Fawole et al. 1999). A new HIV/AIDS curriculum was developed and carried out during six weekly sessions lasting 2–6 hours in Ibadan, Nigeria. The educational sessions used a variety of techniques, including lectures, films, role plays, debates, stories, songs, and essays. A physician carried out the curriculum with the assistance of two trained teachers. Key findings follow.

- *The sessions improved knowledge and attitudes:* Six months after completion of the intervention, the intervention group had improved knowledge about AIDS and improved attitudes toward people with AIDS.
- *The sessions reduced the number of sexual partners:* Youth who participated in the intervention had fewer partners after the intervention.

HIV/AIDS prevention in Zimbabwe (Wilson et al. 1991). A skills-based, 90-minute, in-school (one-time) intervention in Zimbabwe included a condom demonstration, role plays, large and small group psychodramas, and a video. The control group received a one-hour information session on HIV prevention and transmission. Only 42 subjects were enrolled in each group. Key findings follow.

- *The intervention improved knowledge and attitudes:* At the four-month follow-up, the experimental group was more knowledgeable about condoms and the correct use of condoms, had higher self-efficacy scores, and perceived fewer barriers to protective action.
- *The intervention reduced risky behaviors:* Youth in the experimental group had fewer sexual partners and reported fewer episodes of unprotected sex in the last month than the control group.

Linking schools with private physicians in Nigeria (Coplan et al. in press). An integrated school and clinic intervention in

Benin City, Nigeria was carried out in 1998 to teach students about STIs and encourage them to receive treatment for STIs from trained, private medical doctors. The intervention consisted of both formal and peer education on STIs provided to adolescents in four schools with eight control schools. Adolescents in the intervention schools were taught about the symptoms and ways to recognize various STIs; the complications arising from nontreatment or delayed treatment; the need for early and effective treatment; the need to inform sexual partners and to treat them for STIs; and the effective methods for preventing STIs, especially correct use of condoms. Additionally, private doctors, pharmacists, and patent medicine distributors in the neighborhood of the intervention schools were trained in youth-friendly services and in the World Health Organization (WHO) approach to syndromic management of STIs.[15] Peer educators received a list of trained providers to whom they could refer their peers for appropriate services. The evaluation of the intervention was carried out after one year. Key findings follow.

- *The intervention improved knowledge:* Students in intervention schools had significant increases in knowledge of STIs, use of condoms, and knowledge of the correct treatment-seeking behavior for STIs compared to students in the control schools.
- *The program appeared to lower STIs:* The self-reported symptoms of STIs in the 6 months after the intervention were lower in the intervention group as compared to the control schools.

Using drama to increase AIDS awareness in South Africa (Harvey et al. 2000). A program in Kwa Zulu-Natal province of South Africa involved drama in education to increase AIDS awareness. The project had a three-phase intervention design. In Phase I, teachers, nurses, and actors presented a play involving AIDS in each of the seven intervention schools. In Phase II, teachers and students participated in drama workshops that focused on AIDS. Finally, in Phase III, students made presentations to celebrate the culmination of the program. No information was provided in the report on the duration of and contact time involved in each phase. Key findings follow.

- *Student knowledge and attitudes improved:* At the six-month follow-up, participants from the seven program schools (compared to seven control schools) had increased knowledge and improved attitudes about AIDS.
- *Condom use rose:* Sexually active participants from project schools reported an increase in condom use compared to sexually active participants from control schools.

Reducing sexual risk among Brazilian students (Antunes et al. 1997). A program for males and females who worked full-time and attended high school in the evening in São Paulo, Brazil, also found behavioral impact at the one-year follow-up. This program was based on the AIDS Risk Reduction Model of Behavior Change and

[15] Syndromic management bases STI treatment decisions on the recognition of easily identifiable signs and syndromes (symptoms).

included both teacher training and outreach activities in the community to reinforce positive reproductive health behaviors. Key findings follow.

- *The project improved communication and reduced risky behaviors for women:* At the 6- and 12-month follow-ups, the project demonstrated improved communication with sexual partners and a decrease in unprotected sex among female participants. However, no impacts were found among the male participants.

General Reproductive Health Educational Programs

Among the evaluations of general reproductive health educational programs that we reviewed, impact on knowledge, attitudes, or both was observed in six of eight programs.[16] The two programs that found no effect on knowledge or attitudes were (1) a values-based fertility awareness and education curriculum (Teen Star) that was tested in private and public schools in Santiago, Chile (Seidman et al. 1995); and (2) an integrated school and facility-based program in Brazil (Gaffikin et al. 2000). The program in Chile likely showed no impact because reproductive health education was introduced in control schools through another program during the intervention period. As was observed for programs focused on HIV/AIDS education, behavioral impacts were less likely to be observed than knowledge and attitude impacts. Only four of the eight general reproductive health studies with available data demonstrated behavioral impacts. These studies are described below.

The Planeando Tu Vida curriculum in Mexico (Pick de Weiss and Palos 1989). In Mexico City, a life planning education curriculum, Planeando Tu Vida (Planning Your Life), was tested for effectiveness and acceptability in Mexican secondary schools. This study looked at three groups: students in traditional sex education courses, students in programs using the Planeando Tu Vida curriculum, and students in no sex education course. The intervention period lasted approximately six weeks. Key findings follow.

- *Knowledge improved among all students:* Eight months after the course was completed, follow-ups found that knowledge had increased in all three groups.

- *The Planeando Tu Vida course significantly increased contraceptive use:* Sexually active youth who participated in the Planeando Tu Vida course were more likely to use contraception at the time of the follow-up than those sexually active youth who did not participate in the Planeando Tu Vida course.

Involving communities and schools in sexuality education in Uganda (Shuey et al. 1999). This in-school intervention was undertaken in the Soroti District of Uganda and had a two-year follow-up period. The program involved sensitivity training for local leaders and headmasters (to affect goal 1 described in chapters 2 and 3); meetings with parents, teachers, and community leaders (again, to affect goal 1); and training for science teachers on school health and the AIDS curriculum. Key findings follow.

[16] See CEDPA (1993), Jackson et al. (1998), Eggleston et al. (2000), Mbizvo et al. (1997), Pick de Weiss and Palos (1989), Shuey et al. (1999), Murray, Toledo, et al. (2000).

- *The program successfully reduced risky sexual behaviors:* Over the two-year follow-up period, the study found a decrease in both sexual activity and the number of sexual partners among youth in the intervention group but found no change in the control group.

The Jamaica Adolescent Health Study (Jackson et al. 1998; Eggleston et al. 2000). The program involved a school family-life education program for seventh graders once a week throughout the school year. Topics covered included reproductive anatomy and physiology; benefits of sexual abstinence; negative consequences of sexual activity and pregnancy; transmission, symptoms, and treatment of STIs; contraception; and peer pressure. Instruction was given by female educator-counselors from the Women's Center Project. Baseline, mid-period (nine-month follow-up), and end-line (21-month follow-up) surveys were conducted with a sample of 426 intervention students and 519 control students (baseline numbers). Key findings follow.

- *Knowledge improved in the short term:* The Jamaica study found an impact of the intervention on reproductive health knowledge at the nine-month follow-up. However, this impact was not sustained over the long term (21 months).

- *Condom use increased in the short term:* Short-term effects (nine months) of the school program on contraceptive use at first sex were not sustained over the 21-month follow-up period.

The Integrated Adolescent Development Program in Chile (Murray, Toledo, et al. 2000). This program was a general reproductive health intervention involving schools and health clinics for urban adolescents in Santiago. The Center for the Reproductive Health of Adolescents, affiliated with the University of Chile, ran the program from 1994 to 1996. A three-year curriculum provided students with information on healthy relationships, sexuality, STIs, gender, and risk behaviors such as drug use and smoking. The program also included linkages with and referrals to a clinic. From each of two intervention and three control sites, in-school adolescents were interviewed four times between March 1994 and November 1996. The data were analyzed in terms of exposure to the program, controlling for grade level at the time of interview. Key findings follow.

- *The program improved levels of knowledge:* Both intervention and control subjects reported a significant increase in knowledge about human reproduction, STIs, and contraception, but program participants had higher overall knowledge levels at the end of the evaluation period.

- *Attitudes were unchanged:* No changes in attitudes toward adolescent pregnancy and sexual relationships among young adults were observed, although a few youth indicated that they would be happy if they or their sexual partners became pregnant.

- *The program helped delay first sex:* Among intervention group males, the age at sexual debut increased whereas control males showed no change; and females in the intervention group showed no change in the age at first sex whereas the control group showed a decline in the age at first sex.

- *Contraceptive use rose:* Observed increases in

contraceptive use were also larger among girls from program schools versus nonprogram schools; however, overall use of contraceptives remained low in both groups.

Findings from Supportive Studies

Several studies with less-rigorous research designs have also demonstrated a relationship between exposure to school education programs and sexual behaviors. These studies indicate that young people who receive family-life education are (1) less likely to be sexually active (Pick de Weiss et al. 1990); (2) more likely to use contraception at first intercourse (Kane et al. 1993); and (3) more likely to report past or current use of contraception (Kane et al. 1993; Herold et al. 1994; Pick de Weiss et al. 1990). Other studies have documented increases in knowledge among youth exposed to school-based HIV/AIDS or reproductive health programs (Tewari and Sanatha 2000). Program monitoring data from South Africa indicate a statistically significant increase in condom use among high school students exposed to 30 hours of life-skills training (Givaudan et al. 2001). A major review done for UNAIDS (Grunseit 1997) confirms previous results that sex education does not increase sexual activity and, in fact, seems to help young people both to postpone first sex and to use contraception when they decide to become sexually active.

What We Can Conclude about School Programs

YARH interventions in schools are effective in influencing reproductive health knowledge and attitudes. They also appear to have short-term impacts on reproductive health behaviors. However, the extent to which they influence long-term behaviors is less certain. Although the evidence of effectiveness on both short- and long-term behaviors is mixed, strong and consistent evidence in both the United States and developing country settings shows that sexuality education in schools does not encourage sexual activity and can both delay sexual activity and increase condom and contraceptive use.

Although many issues still need to be resolved in relation to sexuality education, this approach does offer a chance to reach large numbers of young people and their teachers as well as an opportunity for institutionalizing sexuality education and scaling it up when ministries of education make it official policy. Unfortunately, much of the experience to date is that, even when official sexuality education programs are defined, their realization has often been difficult because funding, plans for training teachers, community support, and involvement of parents and young people are lacking. Furthermore, all too often, sex education has been offered only to high school students. This limited approach automatically leaves many young people out of this education because they have already dropped out of school before they reach high school. To be effective in reaching large numbers of young people, sex education must start before young people become sexually active, which means starting age-appropriate sex education in primary school and continuing throughout the entire educational system.

Box 7. Elements of Successful Sexuality Education Programs in U.S. Schools

In a review of U.S. programs, Kirby (1997a, 2001) found 10 characteristics shared by effective reproductive health education programs in schools. These include the following:

1. Focusing objectives on reducing one or more sexual behaviors that lead to STIs, HIV, or unintended pregnancies
2. Using methods that are appropriate to age, sexual experience, and culture of students
3. Basing programs on theoretical approaches
4. Designing programs to last a sufficient length of time
5. Using a variety of teaching methods
6. Providing basic and accurate information
7. Addressing social pressures
8. Using a skills-based approach
9. Selecting and training teachers, peers, or both, carefully
10. Using clear messages that are continually reinforced

Programs in the developing world that include all 10 characteristics are rare. However, a small number of programs that have been evaluated do include a majority of these 10 components. Recently, an increasing number of programs in developing countries have been based on a particular behavioral theory, including the cognitive social learning theory, the AIDS risk-reduction model, the theory of reasoned action, and the health belief model.

Mass Media Programs

What is a mass media program? The term "mass media" refers to self-contained audio, visual, or print distribution systems that can simultaneously reach large numbers of people with the same message. Examples include radio shows, television programs, computer software, newspapers, magazines, billboards, direct mail campaigns, and telemarketing systems (Israel and Nagano 1997).

Why are mass media programs important? The media are an increasingly important element of the daily context of most young people's lives, and an influential channel to inform youth and the community at large about sexuality and reproductive health and to shape their attitudes, beliefs, and behaviors. Although less research has been conducted on reproductive health-related interventions that are directed specifically to adolescent audiences, communication research indicates that the media can be an effective strategy for influencing adult behaviors (Rogers 1995). In recent years, program efforts directed to adolescents have increasingly emphasized combining educational materials on reproductive health with entertainment to attract young audiences (Singhal and Rogers 1999). This "enter-educate" approach is thought to be especially effective with young people (Vaughan et al. 2000). Note, however, that social norms in conservative societies often preclude the use of mass media to communicate reproductive health information to youth. These settings rely on face-to-face communication to convey this information.

What information do we have on the effectiveness of mass media programs?

FOCUS identified three mass media programs that were evaluated with strong research methods and drew on these and a number of supportive studies in the analysis of mass media programs below.

Findings from Studies with Strong Research Designs

The Arte y Parte Program in Paraguay (Magnani, Robinson, et al. 2000). This project was carried out in Asuncion, San Lorenzo, and Fernando de la Mora, Paraguay, by Population Services International and PROMESA (Promoción y Mejoramiento de la Salud, Health Promotion and Improvement) in collaboration with the FOCUS on Young Adults program. The goal of the Arte y Parte project was to increase knowledge of and communication about reproductive health at both the individual and community levels. The intervention involved a 10-day training for peer educators on reproductive health issues, improving their interpersonal and outreach skills, and engaging them in the development of media products. The intervention included various mass media products and activities to disseminate information to youth, including a booklet on adolescent sexuality, street drama, a weekly radio program, daily radio "news flashes" on YARH issues, newspaper columns, distribution of promotional items, and workshops conducted in schools. The program evaluation covered a 30-month period. The surveys were conducted with youth residing in the three target cities to measure project reach and changes in impact indicators. Key findings follow.

- *The project had wide reach:* Nearly 44 percent of youth were exposed to at least one project activity, with radio programming having the greatest reach.
- *The project improved knowledge and attitudes:* Exposure to the project was associated with increased knowledge and more positive attitudes surrounding selected reproductive health issues (e.g., shared responsibility for avoiding unsafe sex, gender sensitivity).
- *Effects on behavior were limited:* Exposure to the program was not found to be associated with sexual or contraceptive behaviors, although the program likely contributed (along with other ongoing educational initiatives) to an observed increase in the proportion of youth using a condom the first time they had sexual intercourse.

Social Marketing for Adolescent Sexual Health (SMASH) in Africa (Agha 2000). Population Services International (PSI) undertook four youth social marketing projects (also described in chapter 5) that each had similar intervention and evaluation designs: Botswana (Meekers et al. 1997), Cameroon (Van Rossem and Meekers 1999a), Guinea (Van Rossem and Meekers 1999b), and South Africa (Meekers 1998). These projects used mass media and combined it with an approach to reinforce the media messages interpersonally by means of peer educators. This effort attempted to raise awareness of reproductive health issues and encourage young people to practice safer sex, especially by using brand name condoms that

were distributed by peer educators and youth-friendly service outlets. Key findings follow.

- *The program had broad reach:* The mass media strategies achieved high coverage, especially the Cameroon project's radio messages. The media campaigns also increased recognition of the brand of condoms being promoted, especially in the Guinea and Cameroon projects.

- *In three of four countries, knowledge and beliefs improved:* These projects were successful at improving condom knowledge and beliefs among women in Botswana, Cameroon, and South Africa; however, the program did not have an impact on knowledge and attitudes among youth in Guinea, possibly a consequence of not using the radio as part of the media campaign or the short follow-up period.

The Promotion of Youth Responsibility Project in Zimbabwe Kim et al., 2001; Kim et al. 1998). The Zimbabwe National Family Planning Council collaborated with Johns Hopkins University, Population Communication Services (JHU/PCS) in a project to increase risk-reducing behaviors among young people; increase awareness, knowledge, and positive attitudes about reproductive health; increase the use of service facilities among youth; and increase support among leaders, policymakers, and parents for reproductive health communication and services directed to young people. These objectives overlap with the three general goals described in this report; however, the main evaluation findings emphasized the impacts at the individual level on knowledge, attitudes, and practices. To achieve the above objectives, the project used two strategies: one directed toward young people, the other directed to providers. First, an intensive six-month multimedia campaign educated young people about reproductive health issues and encouraged them to seek contraceptive and health-care services. The campaign used radio, print media, drama, peer educators, and hotlines. Second, the project improved the quality of youth counseling at health facilities by training service providers from youth organizations in interpersonal communication and youth counseling skills. Baseline data collection took place three months before the project began, and follow-up data collection occurred one year later. Key findings follow.

- *The radio program had broad reach, especially in rural areas*: The project appears to have generated discussion about reproductive health topics and about campaign-promoted messages among youth, especially among youth with higher levels of program exposure (measured by the number of campaign components the respondent was exposed to), as well as between youth and parents.

- *Levels of knowledge improved:* Improved levels of knowledge about contraception and reproductive health issues were also observed specifically in the intervention sites.

- *Contraceptive and clinical services increased:* Adolescent use of contraceptives and clinic services increased significantly in campaign sites between the baseline and follow-up surveys. No comparable increases were found in the comparison sites.

Findings from Supportive Studies

The Enter-Educate strategy that was carried out in the Philippines (Rimon et al. 1994) demonstrated that youth had high recognition of the project song and high understanding of the meaning behind the song. The project evaluation showed high intentions to change behaviors, but no behavior changes were documented as a consequence of the mass media project.

A project in St. Vincent and the Grenadines (Middlestadt et al. 1995) found that six weeks after the completion of a radio campaign about HIV/AIDS prevention, 72 percent of the youth and adult sample had heard of the campaign. People exposed to the campaign had a higher awareness of the AIDS hotline compared to those people who had not heard the radio campaign. Finally, the project demonstrated improvements in knowledge and attitudes among those people who heard the radio campaign compared to those who had no exposure to the campaign.

The Safer Sex or AIDS Communication Campaign in Uganda used radio spots and radio programs, newsletters, posters, and videos to affect adolescent knowledge, attitudes, and behaviors (Lewicky et al. 1998). The evaluation results indicated that some form of campaign communication material reached 92 percent of youth in the target areas. Although the campaign improved many youth attitudes about risky sexual behaviors, overall negative attitudes toward condom use remained unchanged. The results also indicated that greater program exposure was associated with larger improvements in attitudes at follow-up. Finally, the Uganda project demonstrated that, at follow-up, youth who were sexually active more frequently discussed using condoms and reported greater condom use at last sex (increase from 46 percent at baseline to 70 percent at follow up). This increase in reported condom use should be interpreted cautiously because no additional data were obtained to confirm the self-reported behaviors (e.g., condom sales or a control group).

A project in the Sahel region of Africa (Diouf et al. 2000) showed that using short films on HIV/AIDS prevention can affect knowledge, attitudes, and self-efficacy. Over the six-month follow-up period, the project found better knowledge, greater comfort in insisting on condom use, and increased dialogue on HIV/AIDS among young people in the project areas.

Finally, the Soul City project in South Africa, a national, multimedia, "edutainment" project (Samuels et al. 2000), included adolescents as one of its target audiences. The project involved using television, radio dramas, and booklets on AIDS, tobacco, tuberculosis, and violence. Overall, the project reached 75 percent of city dwellers and 60 percent of people living in rural areas; in particular, the project reached 79 percent of 16–24-year-olds. The project showed that, for both youth and adults, greater exposure to the Soul City program was associated with more accurate knowledge about HIV/AIDS, improved attitudes, and greater regular use of condoms.

What We Can Conclude about Mass Media Programs

Considerable evidence shows that mass media interventions influence adolescent knowledge and attitudes, but less evidence shows that these programs consistently and directly influence sexual and contraceptive behaviors. Linking mass media interventions with other activities (e.g., clinic linkage and outreach or school programs) that are more personalized and sustained and that provide enabling support and services (as was done in the SMASH project in Cameroon) may be required to change behaviors.

Community Programs

What is a community program? Community programs range from small-scale activities to raise awareness about young adult reproductive health to much broader community mobilization efforts where large segments of the community, including young people, are involved in identifying and designing programmatic responses to their needs. The activities of a community program are not necessarily limited to a particular setting and are often undertaken in multiple settings concurrently. These programs vary widely in design and, often, have multiple goals (i.e., creating a supportive environment; improving adolescent knowledge, attitudes, and practices; and increasing service use). This section reviews the evidence on two types of community interventions: youth development programs and peer-promotion programs.

Why are community programs important? Community programs address many of the levels of influence on youth sexual and reproductive behavior discussed in chapter 1. First and foremost, community programs take activities to people where they are, thus, encouraging their participation. Many of these programs involve not only young people in their design and implementation but also the broader community, including community leaders, parents, and others who have a stake in young people's well-being. Involving the community can help build trust and support for YARH programs, further policy goals, and minimize opposition to YARH efforts. This involvement also can help community members themselves become agents of social change and can engage community agencies—including organizations serving youth—in this work (Senderowitz 2000).

What information do we have on the effectiveness of community programs? To inform the analysis below, FOCUS considered four studies with strong research designs and a number of additional studies and program experiences that were evaluated with less-rigorous methods.

Youth Development Programs

What is a youth development program? Youth development programs consist of activities that address a wide range of needs of young people during the transition from adolescence to adulthood. These projects focus on life options and skills, educational aspirations, vocational considerations, and psychosocial development needs, and they promote a safe environment in which youth can mature.

Youth development programs may or may not have a reproductive health component.

Why are youth development programs important? The multiple components of these programs act together to promote a healthy lifestyle for youth. Because they look at the whole person and not just at his or her reproductive health, they are often more acceptable to young people and the community than a program that focuses only on reproductive health. These types of programs have been undertaken by nongovernmental organizations, local organizations serving youth, community agencies, and sometimes, by governments.

Findings from Studies with Strong Research Designs

The Better Life Options Project in India (Levitt-Dayal and Motihar 2000). Designed by the Centre for Development and Population Activities (CEDPA) and begun in 1987, this program focuses on empowering young women by addressing gender roles. It promotes gender equity and includes nonformal education (literacy, postliteracy, and linkages with formal education), family-life education, vocational skills training, health education and services, and advocacy. The evaluation was carried out in 2000 and included young women who participated in the program between 1996 and 1999. The sample consisted of married and unmarried women 15–26 years of age. The intervention group consisted of alumni of the project who were compared to similar women from communities that received no exposure to the program. Comparison communities from which the respondents were randomly sampled were matched on size, ethnic group, and access to health facilities. A different questionnaire was used for married and unmarried women. No differences were found between the study and comparison groups on mean age, marital status, residential setting, and religion. Key findings follow.

- *The program positively affected a wide range of reproductive health outcomes:* Participants married later and bore fewer children, had higher levels of contraceptive use, were more likely to have participated in formal schooling, were more likely to be employed and earning cash, and had greater confidence and self-efficacy.

Although these results are promising for the important impact of youth development activities on adolescent reproductive health outcomes, the evaluation study was unable to control for self-selection bias. That is, those girls who chose to participate in the Better Life Options program may have been more predisposed to these positive outcomes than those girls who chose not to participate (or those who were not offered the program). Thus, one cannot confidently attribute all differences between the two groups to the intervention. However, the Better Life Options program clearly provided greater educational, economic, and health opportunities to program participants than otherwise may have been available without the program.

Findings from Supportive Studies

Organizations serving youth are another channel for youth development programs. Many of these groups target out-of-school youth, who are often at risk of unintended pregnancies and STIs (Senderowitz 2000). The

evidence on the impact of reproductive health activities conducted by organizations serving youth is scarce. One project undertaken by the Kenya Scout Association in collaboration with the Program for Appropriate Technology in Health (PATH) successfully encouraged out-of-school youth to participate by carrying out the program at a rehabilitation center for street children, but the program's impact on behaviors was not measured (Kahuthia and Radeny n.d.).

What We Can Conclude about Youth Development Programs

Youth development approaches may have impacts on behaviors, but more rigorous evaluation in multiple settings is needed. The only relatively rigorous study available in developing country settings was the Better Life Options program (Levitt-Dayal and Motihar 2000) that had significant impacts on participating young women's fertility, family planning, and health-seeking behaviors. Because youth development programs are undertaken as a "package," no single program component can be evaluated separately, making it difficult to identify which components actually had an impact on knowledge and behaviors. Furthermore, the elements included in the programs vary with the setting, hampering cross-program comparisons.

Although earlier evidence from the United States suggested considerable promise for youth development approaches (Kirby 1999b), more recent evidence suggests that it might be the voluntary community service component of these programs that is responsible for much of the success achieved (Kirby 2001). This finding might bear further study in the developing world, especially because some peer-education programs in the United States that are a form of community service have been shown to have a positive impact on the reproductive health behaviors of the peer educators themselves.

Peer Programs

What is a peer program? Peer programs recruit and train a core group of youth to serve as role models as well as sources of information, of referrals to services, and of contraceptive distribution to their peers. Peer programs typically include several elements important to health promotion and development: strong identification with the social and cultural environment of the target group; promotion of social norms and values supportive of positive attitudes and health behavior; and involvement of young people in programs that are designed for them (Fee and Youssef, 1993). Peer programs use a flexible approach, with peer educators often deployed in combination with other intervention strategies; for example, some of the school sexuality education programs reviewed earlier used peer educators. Other interventions have used peer educators in clinics, social marketing programs, discotheques, brothels, or other community settings, and still other interventions have used peer educators in nonsetting-specific, community-based ways.

Why are peer programs important? Peer programs take advantage of the fact that many young people not only often interact with others similar to themselves but also commonly identify peers as one of their

primary sources for reproductive health information. A number of studies, including those reviewed in chapter 1, have also shown that peers can have a significant positive or negative influence on youth risk behaviors. Because peer-education programs involve young people themselves to work in the community, they also have a greater chance of being both culturally appropriate and accepted by the target audience. In many places, peers have developed innovative, often interactive techniques that have special appeal to other young people, including music, videos, radio call-in shows, theatre, puppets, comic books, posters, and other means that attract young people. In some settings, peers distribute contraceptives, thus increasing adolescent access to nonclinical contraceptives in a nonthreatening environment. The evidence from the United States suggests that youth desire specific information from adults (from family or school) but turn to their peers for information and discussions with respect to group norms relating to sexuality and pregnancy. In settings undergoing rapid social change, peers may serve in a capacity previously filled by adults. In Zimbabwe, for example, the orientation of adolescents with regard to puberty and growing up was traditionally the responsibility of the paternal aunt (for girls) and of the maternal uncle (for boys). However, this system is breaking down because of the geographic distances separating family members as well as differences in class and educational status within families, which has resulted in youth being more likely to turn to their peers for information (Basset and Sherman 1994; Wilson et al. 1995).

Findings from Studies with Strong Research Designs

Peer promotion within the Peruvian Social Security organization (Magnani, Gaffikin, et al. 2000). This peer-promotion program, undertaken in six cities by the Peruvian social security organization El Seguro Social de Salud (EsSalud) in collaboration with the FOCUS on Young Adults program, was carried out in secondary schools and in the communities where peer educators resided. The project trained peer educators over a two-month period, and each peer promoter was responsible for making at least 25 contacts with other youth over a six-month period and providing reproductive health information as well as referrals to sources of information and health services. Because of limited resources, the project evaluation was limited to assessing impact on students attending secondary schools. Key findings follow.

- *The program improved knowledge and attitudes:* The evaluation results at the 18-month follow-up demonstrated significant positive knowledge and attitude changes among students attending EsSalud program schools versus students attending control schools.
- *The program reduced risky sexual behaviors:* According to the multivariate model used to evaluate the program's impact, in the absence of the EsSalud program, the proportion of sexually active males in the EsSalud schools would have been 20 percent higher, and the proportion of male students using a contraceptive method at last sexual encounter would have been 39 percent lower

(findings were available only for males because of a low proportion of sexually active females).

The West African Youth Initiative (Brieger et al. in press; Speizer et al. 2000). This peer program was carried out by the West African Youth Initiative in Nigeria and Ghana. The project worked with organizations serving youth to develop peer programs in three types of sites: secondary schools, postsecondary schools, and out-of-school settings. Each community selected a site for the project and then chose a comparison site. One hundred youth from each site (100 intervention and 100 comparison) were included in the baseline and follow-up studies (two cross-sectional samples). Key findings follow.

- *The program had the greatest impacts on secondary school and postsecondary school students:* Specifically, among secondary and postsecondary school women, greater awareness of youth programs was reported among the intervention group at follow-up.
- *The program increased knowledge and self-efficacy:* In-school males (secondary and postsecondary) from intervention schools reported greater knowledge and self-efficacy than students from comparison schools (controlling for age, living arrangement, etc.).
- *The program reduced risky behaviors:* Among in-school males and secondary school females, youth from intervention schools reported greater recent use of protective methods against STIs (that is, using condoms, staying with one sexual partner, or abstaining) than comparable youth from nonintervention schools.
- *The program did not affect out-of-school youth:* This finding may be a consequence of the fact that out-of-school youth are a heterogeneous group that does not necessarily congregate in specific, fixed locations like schools.

The Entre Nous Jeunes Program in Cameroon (Speizer et al. 2001). This program used a community peer-education strategy to attempt to increase contraceptive use and reduce the prevalence of STIs, HIV, and unintended pregnancies among adolescents. The project trained youth peer educators who worked within their communities to inform and refer other youth through discussion groups, one-on-one meetings, and the development of health associations. Promotional materials such as calendars, comic strips, and posters were also developed and distributed by the project. A baseline survey conducted in December 1997 interviewed a total of 402 adolescents in Nkongsamba (the project city) and 400 adolescents in Mbalmayo (the comparison city). Follow-up surveys were undertaken with 405 adolescents in Nkongsamba and 413 in Mbalmayo in April 1999, three months after the intervention ended. Key findings follow.

- *The program improved knowledge:* Reproductive health knowledge was higher among youth in the project versus the comparison city. Moreover, controlling for the location of the survey, adolescents who had contact with a peer educator were more knowledgeable about modern contraception and STI symptoms than adolescents who did not have contact with a peer educator.
- *The program improved use of contraception:* Having an encounter with a peer educator was

significantly associated with current contraceptive use and use of condoms.

Findings from Supportive Studies

Other studies with weaker research designs also suggest that peer programs can have significant impact. For example, a university peer-counseling program in Kenya that used peer promoters to distribute condoms and refer students to depot-holders and a health center found an impressive decline in the rate of unplanned pregnancies on campus (Kamanja n.d.). Likewise, a university peer-education program in Cameroon found declines in the number of sexual partners among adolescent males and increases in condom use among adolescent females (Barnett and Katz 2000). Likewise, a peer-promotion effort is also thought to have contributed to a significant increase in the rate of refusal to have sex without a condom among sex workers in Chiang Mai, Thailand (Visrutharatna et al. 1995).

Other studies suggest impacts, but primarily on peer educators—not on their peer contacts. For example, in the Jamaica Red Cross "Together We Can" project, significant gains in knowledge about HIV transmission and of locations where youth could go for help with STIs were observed among peer educators (Randolph 1996). The peer educators also reported intending to delay subsequent sexual encounters and to use condoms when having sex in the future. However, that same Jamaica program had difficulty obtaining sufficient data on the results of the peer educators' work with the youth they reached (Kauffman et al. 1996 in Senderowitz 1997c). Also, a study of 21 AIDS Control and Prevention (AIDSCAP) projects found that nearly all peer educators reported having made changes in their own behaviors; for example, 31 percent were practicing safer sex (using condoms) and 20 percent had reduced their number of sexual partners (Flanagan et al. 1996). Finally, the Health of Adolescent Refugees Project trained peer educators on health topics including the human reproductive system, physical and emotional changes during puberty, relationships, the human body, nutrition, hygiene, and disease prevention with the goal that the peer educators would each contact at least 25 peers (Barnett 2000). This project found that participating peer educators in Uganda, Zambia, and Egypt improved their knowledge of general reproductive health issues and that the project provided participants a safe place to gather and an outlet for creativity. However, the study did not assess whether the project influenced behaviors.

What We Can Conclude about Community Peer Promotion

Community peer-promotion approaches appear to be effective in reducing risky sexual behaviors. Some of the programs that were more successful in influencing behaviors used peer-promotion strategies. All three of the well-evaluated community peer-promotion programs reviewed successfully changed behaviors. However, impacts were observed only among youth attending school in two of the studies (one study assessed impact only among youth attending school whereas the other failed to detect impact among youth not attending school). Yet findings remain unclear

as to whether the use of peer promoters led to impact or whether impact was a consequence of broader activities. This ambiguity suggests that the programs would have been successful even if they had been led by adults. Research on peer programs from the United States fails to demonstrate that peer programs are necessarily more effective than comparable programs led by adults (Philliber 1999). To assess the impact of peer-led activities in the developing country context, studies must compare peer-led activities with adult-led activities and, preferably, also with a control group receiving no reproductive health activities.

Studies of peer programs have also consistently demonstrated that the group most affected by project activities are the peer educators (or counselors) themselves (Philliber 1999). This impact was found to be true in the school and community EsSalud (Peru) study (Magnani, Gaffikin, et al. 2000) described previously in this chapter. Although this finding is a desirable outcome, interventions that influence only the behaviors of small numbers of peer educators are not sufficiently cost-effective to justify carrying them out on a large scale. Finally, studies of the role of peer promoters in peer networks in Ghana and Peru indicate that peer promoters tend to contact youth like themselves (Wolf et al. 2000; Magnani, Gaffikin, et al. 2000). Therefore, to reach all subgroups or to reach specific, high-risk groups, programs will need to recruit peer promoters with an eye to reaching different networks of youth, although experience in the United States indicates that managing programs for high-risk youth is sometimes difficult (Philliber 1999).

Workplace Programs

What are workplace programs? Workplace programs provide youth with information and services at or through their place of employment, often using a peer-education approach. These programs have been tried at a wide range of sites, including factories, hotels, plantations, merchant ships, and brothels. A wide variety of these programs are offered, ranging from YARH programs that are passively accepted at a work site to full-fledged, company-run programs (Senderowitz and Stevens 2001).

Why are workplace programs important? A substantial proportion of adolescents are employed in the formal sector, and conditions caused by AIDS are forcing more youth into the job market (Rosen 2001e). As more adolescents enter the formal workforce, their place of employment can also become a setting for prevention, care, and support activities. Furthermore, work experience is a component of almost all of the U.S. youth development programs that have successfully reduced rates of risky sex and adolescent pregnancy (Kirby 1999a). Workplace programs can reach out-of-school youth, who often have different needs than in-school youth, are more difficult to serve with traditional reproductive health programs, and are often less educated and sometimes more likely to practice risky sexual behaviors. Some youth workers are considered at high risk for HIV transmission because they are in jobs (e.g., as truck drivers and members of the merchant marine) that require them to travel away from home (Senderowitz and Stevens

2001) or because they engage in risky behaviors as part of their job (e.g., commercial sex workers or bar girls). Furthermore, where owners or managers recognize workplace programs as good for business, they are likely to sustain the program by contributing some or all of the costs.

What information do we have on the effectiveness of workplace programs? FOCUS identified four workplace programs evaluated with strong research methods. These four programs are described below.

Findings from Studies with Strong Research Designs

Reproductive health care for garment factory workers in Cambodia (FOCUS and CARE 2000). In this study, Cooperative for Assistance and Relief Everywhere (CARE) International/Cambodia, in collaboration with FOCUS on Young Adults, carried out a reproductive health intervention for young garment factory workers in Phnom Penh, Cambodia. The project used a participatory learning and action (PLA) approach to design an intervention that attempted to (1) increase knowledge and awareness of reproductive health among young garment workers and (2) increase the use of reproductive health services. The analyses compared workers from factories receiving the experimental intervention to workers from factories that did not receive the intervention. The study also examined differences in factory workers who participated in the intervention and workers from the same factory who did not participate. Key findings follow.

- *The program improved knowledge:* In the follow-up survey at one year, knowledge levels were higher among workers from project factories than those from control factories. Moreover, in most cases, knowledge levels were higher among participants in project factories as compared to nonparticipants from project factories (although the possibility of selection bias cannot be ruled out).
- *No information is available about the program's impact on behaviors:* Because of high levels of survey nonresponse to sexual activity questions, it was not possible to assess whether the gains in knowledge over the study period were translated into behavior changes leading to reduced risk of unintended pregnancies and STIs. No assessment of the effect of the project on service use was conducted.

The 100 Percent Condom Program in Thailand (Celentano et al. 1998). The second study was conducted in Thailand where, in 1991, the ministry of health in collaboration with NGOs carried out a national 100 percent condom promotion program to increase condom use among visitors to brothels. One aspect of the project emphasized reaching Thai army conscripts by means of activities that included a communication strategy; free condom distribution in brothels; and promotion of condom use at brothels, especially among men previously treated for STIs. The evaluation looked at Thai males ages 19 to 23 who were conscripts in 1991 and in 1993. Interviews and serologic tests were taken every six months from military induction to discharge for a total of two years of

observation for each cohort. Follow-up rates in the study were approximately 75 percent at two years. Key findings follow.

- *This type of intense, focused campaign had important behavioral and biological impacts:* Over the follow-up period, there was a tenfold decline in STI incidence observed among conscripts between 1991–93 and 1993–95. This decline includes declines in gonorrhea, syphilis, nongonoccocal urethritis, and chancroid. Moreover, HIV incidence declined in successive cohorts of recruits over the period from 2.48 per 100 person-years to 0.55 per 100 person-years.

Despite these positive findings, it is difficult to separate the impact of the Thai army program from the other activities under way in Thailand, given the intensity of the efforts to reduce STIs and HIV at the national level in Thailand in the early 1990s. Since this campaign, some have also raised questions about whether these positive results are being sustained because the difficult economic situation in Thailand has deterred these multicomponent programs from continuing at the same level of intensity.

STI prevention for commercial sex workers in India (Bhave et al. 1995). This intervention was put into effect among commercial sex workers and brothel managers in the red-light district of Bombay to reduce the risk of HIV and other STIs. Of the sex workers included in this study, more than 80 percent were between the ages of 15 and 25. The site for the intervention was a clinic exclusively for sex workers. The intervention involved group sessions where the sex workers watched motivational and educational videos about HIV, participated in small-group discussions about HIV, and were exposed to visual materials about HIV. The intervention group was first recruited during a six-month period whereas the control group was enrolled during the following six-month period (while the intervention was ongoing). The follow-up study was undertaken 15 months after the baseline for the intervention group and 12 months after the baseline for the control group. The intervention period was roughly 6 months. Key findings follow.

- *The program helped to slow HIV infection rates:* After the intervention, both groups had higher HIV prevalence, but the increase in the intervention group was significantly less than in the control group. Moreover, the intervention group had significantly higher levels of knowledge with respect to HIV and were more likely to say, after the intervention, that they would insist on condom use. However, both the sex workers and the brothel managers in the intervention and control groups reported that they were concerned that they would lose clients if they insisted on condom use.

AIDS prevention for factory workers in Thailand (Cash et al. 1995). The International Center for Research on Women (ICRW) undertook educational AIDS prevention interventions among Northern Thai, single, migratory factory workers. The objectives of the study were (1) to determine the knowledge, attitudes, beliefs, and behavioral intentions of single, never-married, female adolescents who migrated to Chiang Mai and now work in garment factories and (2) to compare nonformal educational interventions to discover which are more

likely to positively influence knowledge, attitudes, beliefs, and behaviors in relation to HIV/AIDS. Three types of intervention groups and a control group were involved. The three intervention groups included (1) a materials-only group that received HIV/AIDS prevention education through literature; (2) a health promoter group that received the printed materials and was also involved in nonformal education led by trained health promoters; and (3) a peer-leader group that received printed materials and nonformal education activities led by peer-group leaders who were members of the target population. The intervention lasted approximately two and one-half to three months. The final sample included 206 young unmarried women between the ages of 14 and 24, with an average of six years of education, who had migrated to Chiang Mai and worked in the export-oriented garment factories. Roughly 45 women from each group were interviewed at baseline and follow-up. Key findings follow.

- *Peer promotion had the greatest impact:* The greatest impacts were among the women involved in the peer-leader group followed by those women participating in the health promoter groups. For example, the peer-leader group was the most effective in producing changes in the areas of attitudes toward condoms and condom skills, and this group was more likely to add condoms to their contraceptive vocabulary and to express the need for males and females to take responsibility for contraception.

- *Both the peer-leader and health-promoter approaches increased knowledge:* No significant differences were found between the peer-leader group and the health promoter group on general knowledge and misconceptions about HIV/AIDS. However, these two groups had significantly greater changes than the materials-only group and the control group.

- *This program increased workers' communication with their sexual partners about HIV/AIDS and safe sex.*

Although these results suggest important impacts of an educational program that uses peers in the workplace setting, they are limited by two factors. First, the study included a small sample size from each factory, and it was not possible to measure the sexual behaviors of this sample. Second, no controls were made for possible differences among the groups on age, duration of migration status, educational level, sexual experience, or other demographic factors that might be related to intervention impacts.

What We Can Conclude about Workplace Programs

Although limited, the evidence available on workplace programs indicates the potential these programs have for reaching out-of-school youth in settings where youth are employed in large numbers. Interventions carried out in workplace settings can increase levels of reproductive health knowledge and positively influence attitudes. However, the evidence on the magnitude of effects on behaviors is too thin to draw any conclusions. Workplace programs tend to be extremely context-specific, making it difficult to generalize to different settings. Furthermore, workplace programs have higher potential for success in regions of the world where a

significant proportion of young workers are found in the formal sector. For example, in parts of Latin America and Asia, large numbers of young people are engaged in the formal work sector whereas this scenario occurs less often in sub-Saharan Africa (Senderowitz and Stevens 2001).

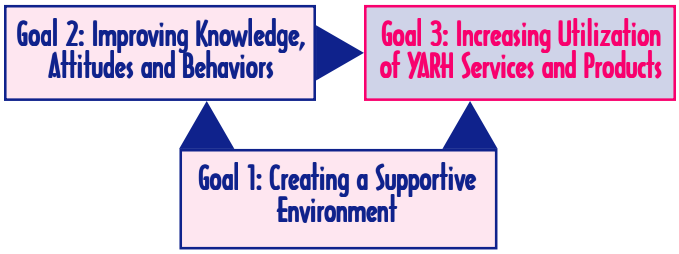
Further studies of different workplace reproductive health strategies are needed to arrive at firmer conclusions on how best to reach out-of-school youth in specific settings where youth make up a large part of an industry or work setting. Additional studies are also needed to determine the effectiveness of promising new approaches, including (1) the impact of various types of livelihood programs on young adult reproductive health; and (2) the impact of various workplace programs providing education, care, and support for HIV-infected youth employees or youth from AIDS-affected families.

Chapter 5

What Works to Promote Young Adult Reproductive Health: Increasing the Use of Reproductive Health Services (Goal 3)

This chapter reviews findings on programs designed to increase young people's use of reproductive health services and products (see goal 3 described in chapter 2) and refers to results of relatively strong research studies (see table 2 and appendix I) as well as to supportive studies and programmatic experience. The discussion is organized according to the following program types and settings: (1) youth-friendly services, (2) youth centers, (3) linked school and health facility programs, (4) social marketing and mass media, (5) community outreach, and (6) private sector initiatives.

YARH Program and Policy Goals



Many adolescent reproductive health programs attempt to increase the use of reproductive and other health services and, more generally, improve health-seeking behaviors. The literature has established that getting adolescents to use clinics is difficult (Senderowitz 1999). The difficulty is caused, in part, by the fact that adolescents are generally healthy and, thus, have a limited need for clinic services. But also, adolescents, particularly unmarried youth, encounter barriers to clinic use in many settings (Nelson et al. 2000). Fortunately, in most settings, adolescents have alternative supply outlets available to them (e.g., pharmacies) from which they can obtain information or contraception, especially condoms, for primary prevention of pregnancy and STI transmission. For diagnosis, treatment, and secondary prevention, however, the options are more limited, and adolescents who are reluctant or unable to visit a health facility may suffer greater consequences of a STI or unintended pregnancy than adolescents who avail themselves of clinic services.

The potential barriers that prevent youth from accessing health services are numerous: long distances to service locations and unsafe or unavailable transportation; inconvenient hours of operation; concerns about privacy and confidentiality; staff members' attitudes and actions, including scolding and moralizing; fear and embarrassment; cost of services; and laws and policies that make serving youth difficult (Nelson et al. 2000; Coplan et al. in press; Bhuiya et al. 2000; Zielinski et al. 2000;

Kouye et al. 2000). As a result, many youth rely on resources outside the formal health sector. These resources include home remedies, traditional methods of contraception and abortifacients, delivery of contraceptives through friends or relatives, clandestine abortion, and contraception and medication purchased without a doctor's prescription from pharmacies, shops, or traditional health practitioners (Adamchak et al. 2000).

Youth-Friendly Services[17]

What are youth-friendly services? Youth-friendly service initiatives are designed to improve the access to and quality of existing reproductive health services as well as to make their use more acceptable to adolescents. These services can be provided in a health facility such as a clinic, health post, or hospital by trained personnel who provide services in a workplace or school setting, through community outreach workers or peer educators, or through the private sector, including private health-care providers, pharmacies, and other retail outlets. Regardless of the venue, services must have special characteristics that attract and retain young people to be effective. These include specially trained providers, privacy, confidentiality, and accessibility.

Why are youth-friendly services important? By improving the acceptability of health services, youth are thought to be more likely to visit facilities for primary and secondary prevention. By sensitizing health workers to youth needs and concerns and by improving their ability to communicate with youth, youth-friendly staff members can communicate with youth about reproductive health issues through influential adults—an important protective factor. Youth-friendly services also have the potential to strengthen young peoples' positive relationships with important community institutions such as public sector health services. Carrying out youth-friendly services in settings with good health infrastructure and service quality is thought to be a low-cost approach to increase adolescent use of existing clinical services because youth-friendly services placed within existing clinical facilities can provide a wide range of services for youth in a single setting. Therefore, youth can get "one-stop shopping" for their health needs, possibly eliminating psychosocial barriers to using contraceptive services. However, a disadvantage of offering special services specifically at the clinical facility level is that these programs rely on adolescents to come to the facility. In settings where adolescents have good access to condoms or other contraceptives from nonclinic sources, they may see little need for seeking primary prevention from clinics. Instead, they tend to use pharmacies, other retail outlets, and community sources rather than clinics, unless they fear they are pregnant or have a disease that needs treatment. In some places, they also may go to private and traditional health-care providers.

What information do we have on the effectiveness of youth-friendly services? Programs to make services friendlier for youth are becoming numerous. Despite this increase,

[17] For more information on youth-friendly services, see Senderowitz (1999) and Nelson et al. (2000).

however, evaluation of the effectiveness of these efforts is still limited, and the focus of evaluation has been almost exclusively on public sector or NGO clinical services. Moreover, youth-friendly services represent a mixture of different types of programs that are not easily comparable. The FOCUS review found only three rigorous evaluations specifically meant to examine the effectiveness of the youth-friendly clinic approach. FOCUS also identified one social marketing program that was carried out for a short period of time in four countries and that included a youth-friendly services component.

Findings from Studies with Strong Research Designs

Youth-friendly clinics in Zambia (Nelson and Magnani 2000). In Lusaka, Zambia, the Lusaka District Health Management Team, in collaboration with the John Snow International/Family Planning Service Expansion and Technical Support (JSI/SEATS) project, CARE, UNICEF, and FOCUS, developed three separate youth-friendly service pilot projects in the late 1990s. Eight intervention clinics and two control clinics were selected. In the intervention clinics, youth-friendly services were carried out, which involved training peer educators and health-care providers. Two of the projects also created youth corners in their intervention clinics to provide a milieu where youth could speak privately with peer educators. Finally, two of the projects included a community outreach component designed to increase the project's influence in the community. Key findings follow.

- *Contraceptive use by adolescents rose, but the program's impact on the increase was unclear:* The use of contraceptive services increased substantially at one group of clinics and at another group of clinics that provided outpatient department services (where youth would be seen for STI screening and treatment). However, increases were also observed at control clinics.

- *Increases in use of services were not related to youth-friendly features:* The analyses indicated no statistical relationship between the degree of clinic youth friendliness and trends in service use. Instead, rank-order correlation tests indicated that service use by youth was more closely related to community attitudes toward the delivery of reproductive health services to youth.

- *Community factors remain important barriers to service use*: Qualitative data revealed that, although the youth-friendly service modifications may have helped to improve the quality of services in the clinics, several cultural and psychosocial barriers still exist within the community that prevent youth from using public facilities. These barriers include the health beliefs with respect to how reproductive health problems are caused, prevented, and cured as well as perceptions that services such as pregnancy prevention should be only for married adults.

Youth-friendly services in Gweru, Zimbabwe (Moyo et al. 2000). The Zimbabwe project was carried out in 1997 in the city of Gweru by JSI/SEATS in collaboration with the Gweru City Council in Zimbabwe and the FOCUS on Young Adults program. The project sought to create a more

favorable environment for the delivery of reproductive health information and services to youth; increase youth's use of available clinical reproductive health services by 20 percent above baseline levels; increase by 20 percent knowledge of selected sexuality and reproductive health issues among youth attending the Ndhlovu Youth Center; and institutionalize youth involvement in the design and delivery of information and services within the city of Gweru. Intervention activities involved conducting meetings with community leaders, parents, and teachers to raise awareness; training clinic nurses to provide youth-friendly services; establishing youth corners in clinics; training peer educators; and establishing a recreational youth center to support the delivery of reproductive health services. Key findings follow.

- *The project had no impact on use of services:* Levels of project exposure were low, especially among adolescent females, and no effect of program exposure was found on service-use levels.

- *Those youth that the project did reach were in greatest need of reproductive health care:* The project primarily reached high-risk youth who were sexually active, were substance users, and did not live with both parents. This finding may indicate a self-selection bias.

Assessing the reproductive health awareness framework in Ecuador (Institute for Reproductive Health 2001). The Ecuador study was conducted by the Georgetown University Institute for Reproductive Health in collaboration with the Centro Medico de Orientacion y Planificacion Familiar (CEMOPLAF) to assess the impact of the Reproductive Health Awareness framework on clinic services for youth. The model combines education, counseling, and clinical services provided by clinic personnel who are trained in service delivery to adolescents and in adolescent reproductive health issues. The evaluation monitored clinic use and quality of services over a one-year follow-up period. Key findings follow.

- *Findings were mixed:* The number of new adolescent clients visiting the CEMOPLAF clinics remained the same. However, the number of adolescents who returned rose significantly, thus, improving continuity of care.

The Social Marketing for Adolescent Sexual Health (SMASH) project. This project designated youth-friendly outlets (shops, pharmacies, and clinics) where adolescents could buy condoms and receive counseling. The project was given additional support through radio and television campaigns promoting condoms and outreach activities such as peer counseling and youth clubs. New outlets for condoms were created in areas frequented by youth and were promoted as "youth friendly." Service providers were trained to be more aware of youth issues and to be more open to serving youth. The SMASH program was successful in improving youth attitudes and, to a more limited extent, behaviors (findings are described in more detail in chapter 4 and later in this chapter).

Findings from Supportive Studies and Experience

Youth-friendly services in Nigeria (ARFH 1998). The Association for Reproductive and Family Health (ARFH), noting that few young people attended its headquarters clinic, established three satellite clinics in strategic locations accessible to larger populations of young people either living or working nearby. The sites included one next to a school involved in the project, another in the community of an automobile spare parts dealer, and the third within a large shopping complex that is also close to the workplaces of significant numbers of young people. Services in these satellite clinics depend on individual site needs, but generally include counseling by professionals trained to be youth friendly; information dissemination by trained peer educators; and, in two sites, contraceptive delivery. Privacy and comfort are ensured, and operating hours are set to fit with young clients' convenience. Clinics dispense drugs, especially for STI treatment, at a subsidized rate, on credit, or both. The ARFH report notes that these satellite clinics have registered a significant increase in youth attendance and wider distribution of condoms and vaginal foaming tablets. Anecdotal evidence also suggests increased awareness of the hazards of unprotected sex in the community at large and among adolescents in particular. Principals from participating schools report a lowered incidence of unwanted pregnancies and lowered drop-out rates among girls.

Youth-friendly clinical services in Latin America. Some NGOs in large cities in Latin America (for example, family planning associations such as Profamilia in Colombia, INPPARES in Peru, and MEXFAM in Mexico) have reported attracting large numbers of adolescent clients to their clinics and community outreach programs (Senderowitz 2000). The success these programs have had in attracting young people to clinics clearly shows that some youth will use health facilities. However, it is important to note that these three Latin American family planning associations, all International Planned Parenthood Federation (IPPF) affiliates, are private NGOs that are well known and that have a long tradition of providing high-quality reproductive health services, with outreach to and linkages with schools and the community. They also exist within a framework of strong institutional commitment to reaching youth over the long term. Whether unmarried youth seek or get preventive reproductive health services in other settings, especially government facilities, is less clear. For example, in a linked school-health facility clinic in Brazil (Gaffikin et al. 2000), the youth who used the services were older, married adolescents, not the younger, unmarried adolescents who were targeted for those services. Unmarried youth who sought services went elsewhere, for example, to the private and commercial sectors, not to clinics. Evidence from other parts of Latin America, however, shows that public sector clinics have been successful in attracting unmarried youth for reproductive health care (Senderowitz 2000).

What We Can Conclude about Youth-Friendly Programs

The results on youth-friendly services are mixed. The reality is that clinics are not usually the first choice for most young people—especially unmarried youth—when they need reproductive health information and services. Thus, to date, efforts to make clinics more youth friendly have not generally brought about increased usage by young people, though some evidence shows that satisfied clients return to those clinics for ongoing care. Nonetheless, public sector clinics need to become youth friendly because these clinics remain necessary for some services that youth need such as STI diagnosis and treatment, pregnancy tests, pre- and postnatal care, and secondary prevention.

Where they have been successful, youth-friendly clinical services combine changes within the clinic and activities in the community directed at changing perceptions of facilities and service providers, thus helping to overcome important psychosocial barriers to the use of health clinics by unmarried youth. For example, the Zambia results suggest that outreach activities to increase awareness of clinic services and acceptance of providing reproductive health services to youth in the community may be a key element in efforts to increase the use of clinic services. Youth-friendly services have, however, resulted in increased use by young people, including unmarried adolescents, in certain NGO clinics run by institutions that are already well-established and well-known for high-quality services.

Youth-friendly services in nonclinic settings present a promising approach for reaching unmarried young people and may ultimately have the greatest impact on young adult reproductive health. Nonclinical and private sector programs already appeal to many young people because they either take services to the clients or offer the services in a way that does not publicly identify young people as seeking contraception or other sex-related services. Where adolescents have adequate access to primary-prevention services in nonclinic settings (e.g., pharmacies), they may perceive little need to visit health facilities for contraceptive information or supplies. The Nigeria school and clinic program (discussed in the section above on school-based programs) shows that a youth-friendly approach in the private sector may be effective (Coplan et al. in press). Thus, nonclinical and private sector efforts to reach young people need to be further explored and evaluated.

Youth Centers

What is a youth center? The idea of youth centers—which were intended to offer reproductive health care as one of many services, including recreation—was and still is very appealing. Youth centers generally have recreational, educational, and sometimes vocational components as well as reproductive health information, counseling, and services in a youth-friendly setting. Youth may come to the youth center on a regular basis to meet with friends, watch movies, or play games. Most youth centers also include

peer educators who refer youth in the community to the youth center for both recreational and reproductive health visits.

Why are youth centers important? Centers provide a supportive, nonthreatening environment where youth also have access to counseling, contraceptives, clinical prevention services, and sometimes, treatment. They attempt to address many of the individual-level risk and protective factors—including many of the nonsexual risk factors such as smoking and alcohol abuse—discussed in chapter 1. Centers also bring youth in contact with influential peers, can provide youth a connection with an institution, and are a place where mentoring can occur.

What information do we have on the effectiveness of youth centers? Most of our knowledge of youth centers comes from less-rigorous evaluations and program experience accumulated beginning in the 1980s. Only one study—sponsored by FOCUS and discussed below—uses a relatively rigorous research design to examine the effectiveness of the youth center approach.

Findings from Studies with Strong Research Designs

Impact of a youth center in Lome, Togo (Kouwonou and Amegee 2001). This study was undertaken by the FOCUS on Young Adults project in collaboration with the Unite de Recherche Demographique (Demographic Research Unit). This study uses a population sample to assess whether knowledge and use of the Association Togolaise pour le Bien-Etre Familiale (Family Planning Association of Togo) youth center increased between 1998 and 2000 and whether use of the youth center was associated with differentials in knowledge, attitudes, and behaviors related to reproductive health. Key findings follow.

- *Use of the center rose moderately:* The study found that although awareness of the youth center increased from 6 percent to 42 percent among youth in Lome, actual use rose only moderately from 3 percent to 7.5 percent. Awareness of the youth center rose both among youth living close to the youth center and youth living far away, but the largest increases were observed among youth residing nearby.

- *The youth center had little impact on either knowledge or practices:* The one related impact found that young people who used the youth center had greater condom knowledge than young people who had never used the youth center.

Findings from Supportive Studies

The experience with youth centers in Latin America. The youth center approach was first developed in the 1970s and 1980s in Latin America, including in Guatemala, Mexico, and Panama. For example, MEXFAM, the IPPF affiliate in Mexico, initiated three youth centers in low-income areas of Mexico City. However, after two years, MEXFAM abandoned the youth center approach when its own evaluation showed the centers benefited only a small number of young people who were highly motivated to go to a fixed center. The evaluation also showed that those who most needed the

reproductive health information and services, that is, sexually-active young people, were not those who most used the youth centers. To reach large numbers of young people, MEXFAM clearly would have to open many more youth centers, something that was prohibitively expensive and not sustainable. As a result, MEXFAM abandoned youth centers in favor of a more community-based program, one that goes to youth where they are and one that involves strong youth participation in the design and execution of the program (Marques 1995). Other organizations running youth centers in Latin America reached similar conclusions, although some small vestiges of youth center programs remain in the region.

Youth centers in India. For four years, the Children in Need Institute (CINI), in West Bengal, India, ran four drop-in centers for girls who either had left school or had never been to school. They offered basic schooling, vocational training, and health care, including reproductive health. As an offshoot, the centers worked with existing youth groups where young people meet, have discussions, and participate in sports and other activities. The drop-in centers have now been discontinued because of problems in finding competent local trainers, meeting salary costs, and sustaining community interest. Instead, as a low-cost alternative, the institute now offers health camps for out-of-school adolescents, peer education in the community, and a clinic that provides reproductive health services to both married and unmarried adolescent girls. Young men currently are referred to an NGO hospital in the area while the institute explores ways it can better address young men's needs. Included in the organization's future plans are youth-friendly health centers (Motihar 1999).

Other recent findings. Other studies of youth centers show that most young people use the centers for recreation rather than for counseling or clinical services (see, for example, situation analyses of youth centers undertaken by the Population Council in Ghana, Kenya, and Zimbabwe). In Kenya and Zimbabwe, males made up the majority of those using the youth centers for recreation. Moreover, the relatively few youth coming for clinical services tend to be outside of the target age (Erulkar and Mensch 1997; Glover et al. 1998; Phiri and Erulkar 1997). Finally, although only one study measures cost-effectiveness (Phiri and Erulkar 1997), a youth center strategy appears to be a relatively costly way of providing reproductive health care given that the majority of the center's use is for recreation rather than for reproductive health information and services.

In a recent review of YARH program approaches, Senderowitz (2000) notes that two youth center programs currently operating in Nigeria and Haiti attract a healthy mix of young men and women who use reproductive health services. Part of the apparent success of these programs may be because, in contrast to other youth centers, these centers appear to focus their activities on reproductive health issues. However, impact evaluations of these programs have not been conducted, and a preliminary evaluation of the Haiti program shows that many youth discontinue use of contraception.

What We Can Conclude about Youth Centers

Youth centers do not appear to be a cost-effective way to increase the use of reproductive health services by adolescents. The findings from the recent FOCUS-sponsored study in Togo as well as from other recent studies from Asia and Africa are largely consistent with the earlier experience with youth centers in Latin America, where the approach has been largely discontinued or reconfigured because of cost and sustainability problems (Senderowitz 1997c). The Nigeria and Haiti programs discussed above appear to hold some promise but have yet to be fully evaluated.

Linked School-Health Facility Programs

What are linked programs? Reproductive health services are sometimes linked with schools, either through a referral system from schools to existing health facilities and other service delivery sites or through health units in schools. In addition to these linkages, the projects described below each introduced a reproductive health curriculum (in Nigeria, STI-related educational messages) in schools and, thus, sought to improve adolescents' reproductive health knowledge and attitudes as well as their health-seeking behaviors, including the use of clinic services.

Most of the existing efforts have been to link schools with clinics and have been based on the idea that clinics can provide students with a more complete package of services (including STI diagnosis and treatment as well as other services requiring clinical expertise) than other service sites in the community, for example, pharmacies and community-based distributors of contraceptive methods. Nevertheless, youth clearly do not like to go to clinics for condoms.

Why are linked programs important? Linked programs can help overcome some of the psychosocial and administrative barriers to adolescents'—especially unmarried adolescents'—use of clinics and other service sites. These programs address risk and protective factors at the level of institutions and, in addition, often address nonsexual risk and protective factors, depending on the services available. To the extent that they have education and counseling components, linked programs also address reproductive health knowledge and attitudes.

What information do we have on the effectiveness of linked programs? Three linked programs were evaluated with strong research methods. However, FOCUS found very little documentation on efforts to link schools with nonclinical programs or on programs that offer contraceptive distribution within schools.

Findings from Studies with Strong Research Designs

Linking with public sector clinics in Brazil (Gaffikin et al. 2000). In Brazil, the State of Bahia (Brazil) Secretariats of Education and Health in collaboration with JHPIEGO and the FOCUS on Young Adults program undertook the Projeito SESAB/SEC[18] Para Attenção a Saúde Sexual e Reprodutiva do

[18]Secretaria de Saude do Estado de Bahia/Secretaria da Educao da Bahia (SESAB/SEC).

Adolescente (Adolescent Sexual and Reproductive Health Project). The project sought to integrate school sexuality education with the delivery of adolescent-appropriate reproductive health services in linked public sector health clinics in Bahia (Brazil). Under the project, 10 health clinics were identified to serve as pilot clinics and were paired with nearby secondary schools. At the pilot clinics, service providers were trained in adolescent-appropriate reproductive health services. At the pilot schools, a comprehensive reproductive health education curriculum was integrated into selected academic subjects. Linkages between the project schools and project clinics took place at multiple levels. Teachers and clinic staff met to discuss ways to promote the use of the clinics by students. Also, specially trained teachers at the project schools referred students who were sexually active or who needed a pregnancy or STI test to project clinics. Key findings follow.

- *Knowledge increased and attitudes improved in both the control and intervention groups:* The evaluation, carried out over a 30-month period, indicated that, at follow-up, levels of reproductive health knowledge increased and some positive changes in attitudes, intentions, and perceptions were observed among students attending project schools; however, comparable changes were also observed among students attending control schools, which was likely the result of a mandate from the national ministry of education to carry out reproductive health in all public secondary schools, something that contaminated the study design.
- *The program did not increase the number of students using the clinics to which they were referred during the project; furthermore, referral from teachers was not an important factor for those adolescents who did use clinic services:* This finding does not necessarily indicate a lack of need for services because 76 percent of males and 29 percent of females were sexually active at the time of the follow-up survey.
- *Most clinic users were not from the target population:* Adolescent clinic users were overwhelmingly female, somewhat older, and significantly more likely to have been pregnant than the target population (youth attending secondary schools).

The Integrated Adolescent Development Program in Chile (Murray, Toledo, et al. 2000). Described in chapter 4, this project was a school and clinic program for urban adolescents in Santiago. Using an adolescent development approach that engaged students in designing the curriculum, this program carried out a curriculum over a two-year period to provide students with information on healthy relationships, sexuality, STIs, gender and risk behaviors such as drug use and smoking. The program also included a parallel course for parents as well as linkages and referrals to clinics for the adolescents. Key findings follow.

- *The project increased clinic use, but only slightly:* Although, as noted in the discussion of findings in chapter 4, the program helped delay first sex, raise contraceptive use, and decrease unwanted pregnancies, it had only a small impact on the use of clinical services. Most students obtained contraception from nonclinical sources.

Linking schools with private physicians in Nigeria (Coplan et al. in press). The Nigerian program (described in chapter 4) trained private physicians in Benin City who practiced in the neighborhoods of the intervention schools to teach students about STIs and encourage them to receive treatment for STIs from trained private medical doctors. Key findings follow.

- *The program improved health-seeking behavior:* The in-school activities and the physician training significantly increased students' use of private physicians, where they received more effective and comprehensive treatment of their STIs compared to the care received through patent medicine providers and pharmacies.

What We Can Conclude about Linked Programs

Evidence on the effectiveness of linked school-health facility programs is limited but suggests a positive impact. Thus, these programs are worth further exploration. One possibility for low usage of the referral clinics in the Brazil and Chile programs is that adolescents have access to primary prevention at outlets (such as pharmacies) other than those the programs promoted, or they have low needs for clinical services. If adolescents have easy access to primary prevention of pregnancy and disease (condoms and other means of contraception), then only a small number of adolescents would actually need clinical services for pregnancy or STI testing and treatment. The reproductive health needs and current sources of information and services of the target population must be evaluated carefully before promoting this type of linked program that may have limited impact on service use. Further study is needed of other linkages between schools and service delivery, including linkages to private practitioners and commercial sources, peer distribution of contraceptives, and linkages to clinics and other types of distribution points within schools. The need for education programs to include referrals to contraceptive services is crucial. Currently, most of those referrals appear to have focused primarily on clinics. Broadening the referrals to include other sources would appear warranted.

Social Marketing and Mass Media

What are social marketing and mass media programs? Social marketing refers to a process for designing health-promotion interventions that uses techniques borrowed from commercial advertising, market research, and the social sciences. Social marketing strategies are used to achieve a variety of health promotion objectives, including increased use of health-related products such as condoms, increased access to health services, and changes in health behavior and practices (for example, the practice of abstinence or having sex with only one partner). Mass media are frequently used as one of the major channels of communication in social marketing interventions. They refer to self-contained audio, visual, or print distribution systems that can simultaneously reach large numbers of people with the same message. Examples include radio, television, computer software or on-line systems, newspapers, magazines, billboards, direct mail,

and telemarketing systems. Most social marketing programs related to reproductive health for young people feature condoms as the primary product, something important for preventing both pregnancy and disease.

Why are social marketing and mass media programs important? Social marketing and mass media programs have the potential to influence youth at many of the levels discussed in chapter 1. Mass media, especially radio and television, have enormous influence on youth around the world. Entertainment programs in the mass media are an important source of information on reproductive health for young people (Kiragu 2001). Unfortunately, all too often, that information is distorted, incomplete, or incorrect. Thus, initiating social marketing programs to reach adolescents and using the mass media to provide young people with correct information about reproductive health products and services takes advantage of the fact that youth pay attention to the media and turns that interest into something positive. At the same time, social marketing can ensure easy, affordable access to reproductive health products and services in the community, including product placement in clinics, pharmacies, and other community outlets frequented by young people as well as advertising, community outreach, promotions, and other means to increase youth awareness of and access to contraceptives. Social marketing methods include extensive use of audience segmentation and behavioral analysis to design and carry out communication and marketing interventions.

What information do we have on the effectiveness of social marketing and mass media programs? Our analysis of social marketing programs considers two studies with strong research designs and three supportive studies.

Findings from Studies with Strong Research Designs

The Promotion of Youth Responsibility Project in Zimbabwe (Kim et al. 1998, 2001). Described earlier in chapter 4, this project also attempted to increase the use of service facilities among youth. To achieve this objective, an intensive, six-month multimedia campaign was developed to educate young people about reproductive health issues and to encourage them to seek contraceptive and other health-care services. The campaign used radio, print media, drama, peer educators, and hotlines. The second component of the project involved improving the quality of youth counseling at health facilities by training service providers from youth organizations in interpersonal communication and youth counseling skills. Key findings follow.

- *The program increased service use:* Youth in the intervention sites were more likely to visit a health center or a youth center than were youth from the comparison sites.
- *The program successfully reached hard-to-reach groups:* The campaign had the greatest impact on clinic attendance among members of some groups least likely to seek services—males, single youth, and those who lack sexual experience.

Note that this study supports the notion that linking youth-friendly services to outreach activities (mass media and community

activities) might be a better approach to increasing service use than simply providing youth-friendly services without outreach. In other words, a multicomponent approach may be the most effective one, a perspective that needs to be further evaluated.

Social Marketing for Adolescent Sexual Health (SMASH) in Africa (Agha 2000). The SMASH program (previously described in chapter 4) run by Population Services International in four sub-Saharan African countries is another example of social marketing directed specifically at youth. By combining mass media messages with messages that are more personally reinforced through peer educators, this effort attempted to raise awareness of reproductive health issues and to encourage young people to practice safer sex, including using contraception, especially, brand-name condoms available through peer-educator distribution and youth-friendly service outlets. The projects, which had similar intervention and evaluation designs, took place in Botswana (Meekers et al. 1997), Cameroon (Van Rossem and Meekers 1999a), Guinea (Van Rossem and Meekers 1999b), and South Africa (Meekers 1998). All of the projects included a mass media component (radio and print media in Botswana and Cameroon; print media in Guinea; radio, television, and print media in South Africa) and involved the social marketing of condoms and peer educators who sold condoms. In addition, the Botswana Tsa Banana program referred adolescents to the Tsa clinics and included education sessions in schools. Likewise, the program in Edea, Cameroon, worked with youth clubs in schools to increase their reach. Finally, the program in Guinea had a small, youth-friendly services component that involved providing special hours for youth at certain clinics linked to the program. Follow-up studies were conducted after the intervention had been under way for eight months in Botswana; after 13 months in Cameroon; after eight months in Guinea; and after one year in South Africa. Each study measured the impacts of the program on knowledge and attitudes toward condom use, perceived barriers to condom use, and reported sexual and condom-use behaviors. In South Africa, only data on adolescent females are analyzed because the quality of the data on adolescent males is questionable. Key findings follow.

- *The program improved behaviors in two of four countries:* The only behavioral impacts were found in Cameroon and Guinea.
- *Among women in Cameroon, the postponement of sexual activity rose in the intervention group, and a higher percentage of female youth had tried condoms* (Van Rossem and Meekers 1999).
- *Male youth in the Cameroon intervention group reported fewer sexual partners in the last 12 months* (Van Rossem and Meekers 1999).
- *Finally, men and women from the intervention community in Guinea reported greater condom use than men and women from the control group* (Van Rossem and Meekers 1999).

An objective of the SMASH programs was to increase condom use for the prevention of STIs. However, an impact on condom use was observed among men and women in only one study (Guinea) and not in any of the other studies. This finding might be a consequence

of the evaluations taking place after only a short intervention period, the availability of data for only women in South Africa, or the fact that adolescents are more concerned with pregnancy prevention than with the prevention of STIs (Van Rossem and Meekers 1999).

Findings from Supportive Studies

Social marketing for HIV/AIDS prevention in Indonesia (Ramlow 2001 in Rosen 2001b). The Futures Group International partnered with national and international condom manufacturers to increase condom use among sex workers (nearly half of whom are ages 15–24) and their clients in red-light districts of Indonesia. The program heavily promoted condoms in red-light districts while making condoms easily available both on the street and inside bars and brothels. Nonprofit groups collaborated with the commercial sector on educational events, including events at bars and universities. Newspaper articles supported the campaign and provided information about HIV/AIDS prevention. At the same time, NGOs educated sex workers on negotiating condom use, usually with the cooperation of the brothel owners. Mass media and other communication efforts promoted the normalization of condom use—thus relieving young women of the sole burden of having to "sell" their clients on using a condom. Key findings follow.

- *The project increased condom availability and visibility:* The percentage of sex workers using a condom during their most recent sexual encounter rose from 36 percent to 48 percent in one year.
- *The condom manufacturers decided to sustain the program after the Futures Group's funding ended.*

Social marketing for HIV/AIDS prevention in Ghana (Israel and Nagano 1997). This project was sponsored by the Ghanaian Ministry of Health and carried out in the early 1990s by a local advertising group with technical support from the USAID-funded AIDSCOM project (Communication for HIV/AIDS Prevention). It was designed to inform youth about HIV/AIDS and underscore behavioral changes needed to prevent its spread, including delayed sexual debut, reduced number of sexual partners, and condom use. It included a multimedia campaign to increase HIV/AIDS awareness and promote HIV/AIDS prevention; radio and television advertisements; and school outreach activities. Key findings follow.

- *Fewer 15-year-olds were sexually active at the end of the campaign than at the beginning* (27 percent in 1992 compared to 44 percent in 1991).
- *More young people reported using condoms, particularly those who were unmarried or had a sexual partner outside of marriage.*
- Interestingly, the evaluation showed that *pregnancy prevention, not disease prevention, was the major reason for condom use among the youth target group.*

Using radio to promote clinic use in Kenya (Kiragu et al. 1998). This study of a multimedia campaign in Kenya demonstrated that radio was an important source of referral among youth who had visited clinics. Key findings follow.

- *Approximately 14 percent of youth reported taking some action related to reproductive health as a result of the media campaign,* including a small percentage (one percent) who visited a health center.

What We Can Conclude about Social Marketing and Mass Media Programs

Limited evidence exists to demonstrate that social marketing and mass media approaches increase use of clinic health services and condoms by youth, yet these programs appear to be a promising approach for bringing about positive behavior change among adolescents. To date, program planners have considered the use of mass media to be an effective means for communicating reproductive health messages to large numbers of young people. They have also believed that the media provide a strong way to promote condoms and other products as well as specific service delivery points. Unfortunately, most of the evidence to date is based on broad-based promotion, primarily to adults, not on youth-specific social marketing and mass media work. Moreover, social marketing and mass media interventions have proven more successful in influencing access to and use of condoms than in influencing use of the other types of reproductive health services. Only one study showed that mass media increase clinic use (Kim et al. 1998, 2001); however, the program is linked to youth-friendly services, which makes separating the specific impact of the mass media campaign difficult. Moreover, the results of that study are limited because it does not involve a true comparison group.

Community Outreach[19]

What is community outreach? Community outreach means finding ways to take programs to youth rather than making youth come to programs. Community outreach can be accomplished in several ways, including deploying outreach workers from health facilities, linking with programs or organizations in the community that serve youth, and providing services in nonclinical settings. Community outreach goes where young people are—in their neighborhoods, where they work, and where they spend their leisure time. It includes community-based distribution of contraceptives by traditional birth attendants, village health workers, agricultural extension workers, and peer educator-distributors. Often, many outreach activities are carried out simultaneously. These combinations help ensure that young people get the messages and assistance they need from a source that is relevant to them, reinforced by information from elsewhere. Community outreach is a practical way to channel information and motivation through as many as possible of the myriad influences and stimuli in young people's lives.

Why is community outreach important? Community programs address many of the levels of influence on youth sexual and reproductive behavior discussed in chapter 1, including working through peers and addressing community norms. The dangers of

[19] This section will focus on efforts to take reproductive health services to young people in their communities. Community outreach programs sometimes include youth centers and workplace programs, which were discussed in an earlier section of this report.

HIV/AIDS and other STIs have increased the urgency to get lifesaving information and services to young people and have made reaching young people even more critical. Given the difficulties noted throughout this report in effectively reaching some young adults in places such as schools and health facilities, other community approaches have been devised for reaching them. The community programs can be especially important for reaching youth who do not go to school, unmarried youth, marginal youth, and other hard-to-reach young people. These programs use specially trained workers, often youth themselves, to reach out to young people in their communities. Community programs eliminate distance as a barrier to access and can better penetrate the distrust and alienation felt by many hard-to-reach groups of youth.

Findings from Studies with Strong Research Designs

The Better Life Options project in India (Levitt-Dayal and Motihar 2000). Described in chapter 4, this project was a multicomponent, youth-development initiative that, among other things, provided health information and services. Key findings follow.

- *The project significantly increased use of a range of services:* Program participants reported greater use of contraceptives, prenatal care, oral rehydration solutions, and hospitals for deliveries.

As was noted earlier, however, the study held the potential for self-selection bias in the youth who chose to participate in the program compared to those who chose not to participate.

Findings from Supportive Studies

Community-based distribution of contraceptives for young newlyweds in Bangladesh (Barkat, Houvras et al. 1999). Pathfinder in Bangladesh carried out another potentially effective outreach scheme. The program sought to provide reproductive health information and services to young married adolescent females (newlyweds) before they began childbearing. In participating areas, all newly married couples were visited by a fieldworker who established a relationship with the couple and their in-laws and who provided information on family planning. To minimize the need for adolescent women to visit health facilities, home visits were made by "contraceptive depot holders," women well-known in their communities, who sell contraceptives on commission and who also make referrals, as appropriate, for maternal and child health care. Available data indicate that contraceptive prevalence among 15- to 19-year-olds in targeted areas increased from 19 percent to 39 percent over a four-year period (1993 to 1997). This finding can be compared to the contraceptive prevalence of all married women from 15 to 19 years old from the Bangladesh Demographic and Health Survey, which was 31 percent in 1996–1997.

Outreach for university students in Kenya (Johnston 2000). Faced with sizeable numbers of university students who dropped out because of pregnancy, in 1988, Pathfinder International initiated a program at the Kenyatta University campus on the outskirts of Nairobi. This intervention included student-run guidance and counseling on reproductive health combined with services

delivered from both a clinic on campus and by means of community-based distribution of contraceptives that was carried out at kiosks and by the adult hall wardens or housekeepers in the university's dormitories. With these various services, unwanted pregnancies among undergraduate students have decreased from 8.4 percent of all female students in the 1987–1990 period to 1.9 percent in 2000. This result was aided not only by the contraceptive distribution at various sites on campus but also by the advent of emergency contraception, which Pathfinder began providing in 1999. The evaluation also showed impressive declines in the numbers of unsafe abortions and pregnancy-related dropouts from the university as well as of STIs (which between 1998 and 2000 have decreased 22 percent). This decline has occurred even though the numbers of students who are sexually active have not changed. Rather, the decline appears to be influenced by the dramatic 60 percent increase in condom use between 1993 and 1999 among the student population.

What We Can Conclude about Community Outreach Programs

Limited evidence shows that community outreach approaches may have potential for increasing use of health services. The Better Life Options program in India, for example, increased use of contraception, prenatal care, and delivery services among participating youth.

Private Sector Initiatives

What are private sector initiatives? The private sector includes private physicians, nurses, nurse-midwives, midwives, pharmacies, other retail outlets, traditional healers, and others who offer or could offer reproductive health information and services to young people.

Why is the private sector important? The private sector offers young people the opportunity to seek information and services in a relatively anonymous way. A recent youth survey in Jamaica shows that nearly two-thirds of young sexually active males use condoms, which they obtain from commercial sources. In Mali, a recent survey shows that more than 40 percent of sexually active young males use condoms primarily obtained from the private sector. Analysis of Demographic and Health Survey data under FOCUS confirms the finding that a high proportion of youth around the world use the private sector[20] (Murray 2001b). Increasing the commercial sector's understanding of the size and potential of the youth market will encourage manufacturers, retailers, and providers to be more "youth friendly" in their marketing approach and in service delivery.

What information do we have on the effectiveness of private sector programs? We know little about private providers and young adult reproductive health, but the experience is growing. Currently, we have little documentation of programs that encourage

[20] Secondary analyses of Demographic and Health Surveys III found that, in four out of nine countries, the private sector accounted for 50 percent or more of the young adult market.

private providers to offer adolescent reproductive health care. Our review found no rigorous studies on these types of programs.

Findings from Program Experience

Procter and Gamble partnership in Russia (Bassan et al. 2000). For four years, Procter and Gamble has funded the Russian Family Planning Association (RFPA) to carry out the Changes program in 165 cities. This program trains teachers to provide one-hour sessions on puberty, hygiene, and reproduction to girls and boys ages 12–13 after which girls are given samples of Always®[21] sanitary napkins and tampons. All students are given a pamphlet about puberty, which they are instructed to give to their parents. This program has allowed the family planning association to get sex education into the schools and provides Proctor and Gamble with a way to introduce products to girls just as they are beginning to need them. In 1999, the Russian Ministry of Health officially approved this program. Procter and Gamble and the association are now negotiating to expand this program to 14–15-year-olds. The association's project manager notes that one hour of training for young people is not sufficient, but it is an excellent start.

Other recent efforts. A variety of additional efforts include (1) a project working with nurses and nurse-midwives in Zambia; (2) a new project in Madagascar where Population Services International, under the Commercial Market Strategies (CMS) project, is helping to establish a network of 11 private clinics that specifically work with youth; (3) the Friends of Youth project in Kenya that gives vouchers to young people for subsidized services with either private sector or public sector providers; and (4) a project in Ghana, assisted by PRIME, where private-practice midwives are encouraged to make their services youth friendly (Rosen 2001b). In addition, over the years, various social marketing programs, projects to train pharmacists and traditional healers, and other programs have also tried to widen the youth friendliness of private sector services and expand the number of service sites available to young people. Senderowitz and Stevens (2001) provide numerous examples of the public and NGO sectors' use of strategies to engage the private sector. According to the authors, these approaches work well when a good balance is struck between a government's or NGO's need and the for-profit's interests. Key to successful partnering with the private sector is ensuring that the interests of and benefits to the commercial entity are identified, served, and maintained.

What We Can Conclude about Private Sector Initiatives

Youth worldwide state that privacy and confidentiality are two of the things they most value and want in reproductive health services. The fact that a large percentage of young people who use contraception already receive their contraceptives from private pharmacies indicates that they want to go where they can easily get supplies and that

[21] Always is a registered trademark of Proctor and Gamble.

they are willing to pay something for those services and supplies. Although using the broader private sector appears to be a promising approach, we do not yet have enough information to measure the private sector's effectiveness in terms of improving young adult reproductive health. However, applying the new initiatives in this area is important because they may open the possibility of expanding youth access to reproductive health services in additional sites. These initiatives need to be carefully evaluated to show their effectiveness, their reach, the types of young people who avail themselves of the services, and their cost both to the consumer and to any programs that subsidize them.

Chapter 6

Key Operational Issues Related to YARH Policy and Program Effectiveness

This chapter describes three key operational issues that cut across regional and cultural boundaries and that hold significant implications for all YARH policy and program initiatives: capacity building, scaling-up and sustainability, and youth involvement. These issues are important for any reproductive health activity, regardless of the target age group. This chapter focuses on these issues as they relate to policies and programs for youth, with an emphasis on the lessons learned by FOCUS and other groups.

Capacity Building

Programs for youth are not simply programs for adults offered to a younger age group. The needs of young people, their access to information and services, and their abilities to think and act are different by virtue of their age. Those working with youth thus need to acquire specialized skills to effectively provide reproductive health care, whether they are advocating for young adult reproductive health, counseling young people, distributing contraception, designing and managing youth programs, communicating HIV/AIDS and pregnancy prevention messages by means of mass media or in the community, or acting as peer educators. In its work, FOCUS concentrated on four areas of capacity building:

- National strategic assessments and planning
- Performance improvement
- Information exchange and sharing
- Monitoring and evaluation

Experiences in Capacity Building

National Strategic Assessments and Planning

In the YARH field, strategic assessment and planning include using qualitative and quantitative information to identify (a) the reproductive health needs of young people; (b) the priorities and constraints to meeting those needs; and (c) the strengths, weaknesses, opportunities and threats of the institution or institutions involved (or planning to become involved) in young adult reproductive health. Strategic assessment and planning is particularly important for YARH efforts because reproductive health groups generally know little about the special characteristics of youth. Assessment and planning also play a special role in the many countries where YARH programs are new and have not yet become routine elements of a country's reproductive health and youth efforts. FOCUS carried out a number of

YARH strategic assessment and planning activities, which are described in the following three categories.

National Strategic Plans and Assessments. In Bangladesh, Bolivia, El Salvador, Jamaica, Kenya, Madagascar, Malawi, Mali, and Nigeria, FOCUS has worked with local stakeholders to conduct strategic assessments, which have included youth profiles, situation analyses, or other means to collect data and information from multiple sources on the reproductive health status of youth and to use them to make policy and program recommendations. After these preliminary activities, stakeholders have jointly discussed their recommendations and have identified future actions. In several places, most notably Bolivia, Jamaica, and Malawi, the FOCUS work was used to form the basis for YARH policy development and strategic planning of program efforts.

National Inventories of Youth-Serving Organizations. FOCUS has conducted national inventories of youth-serving organizations in Bolivia, Jamaica, Mali, and Zambia. These have been used to identify gaps and overlaps in youth-oriented services with the goal of achieving more efficient planning and resource allocation. At the end of each exercise, FOCUS has sponsored a meeting of the organizations that have been inventoried to identify overall findings and recommendations and to discuss future actions (Centro de Educacion y Desarrollo de la Mujer 1995; Haambayi and Weiss 1999; DeLay, Gorsline-Flamm, and Doumbia 2000; Gorsline-Flamm 2000; Murray, Ruiz, et al. 2001).

Tools for Collecting and Analyzing YARH Information. FOCUS has developed and tested a number of tools that have been especially useful for collecting and analyzing information for the strategic assessments and planning. These include, for example: (1) *Listening to Young Voices: Facilitating Participatory Appraisals on Reproductive Health with Adolescents,* which has proved especially useful for involving young people and the community in identifying YARH issues, needs, and possible solutions; (2) *Developmentally Based Interventions and Strategies: Promoting Reproductive Health and Reducing Risk among Adolescents*, which provides a format for working with young people, program implementers, and others in the community to help segment youth on the basis of gender, age, and developmental stage to better plan programs for and with them; and (3) *NewGen*, a demographic projection model that demonstrates the effects of different policy and program scenarios on YARH outcomes such as births, induced abortions, HIV/AIDS, and other STIs.

Performance Improvement

YARH performance improvement focuses on identifying and building among individuals and institutions a set of skills that are required to more effectively meet the reproductive health needs of youth. Values and beliefs affect the work of YARH program staff members to a greater extent than they affect professionals in other fields of work. Many staff members harbor ambivalence about the rights of young people, puritanical attitudes about sex and sexuality, and restrictive cultural and religious attitudes and practices. As a result, YARH training needs to go beyond

imparting the standard technical knowledge and skills and needs to help institutions and individuals come to terms with their personal feelings and potential biases. Moreover, providers must also be sensitive to community feelings and potential opposition that may hamper their work, even where official policies may support YARH services. FOCUS has carried out a number of performance improvement activities, including the following:

- Training of policymakers, program managers, and others responsible for program design and delivery as well as allocation of resources for YARH programs
- Several state-of-the-art workshops on the use of adolescent-specific advocacy, programming, and monitoring and evaluation tools,which have been held for USAID and its partners in Washington, D.C., as well as for staff members from USAID field offices, governments, and NGOs in East and Southern Africa, South East Asia, and Nigeria

Information Exchange and Sharing

An important function of the FOCUS program was to identify, develop, and share information about (a) past and present initiatives; (b) new approaches; and (c) methodologies, tools, and resources designed to improve young adult reproductive health around the world. This effort responded to needs identified in the field and by FOCUS as well as others about what works best to reach and serve youth. FOCUS contributed to improving knowledge of YARH policies and programs in the following five general ways.

Disseminated information. FOCUS disseminated information by means of multiple formats, including bound publications, diskettes, and the Pathfinder/FOCUS website: www.pathfind.org/focus.htm. To reach a wider audience, FOCUS, with the assistance of other organizations, translated selected publications into Spanish and French. FOCUS publications provided needed information related to youth country profiles, strategic assessments, inventories of programmatic activities, research and evaluation results, case studies, and tools.

Distributed materials. FOCUS distributed materials to more than 2,000 individuals and organizations from partner organizations, U.S.-based technical assistance organizations, USAID field offices, and developing country NGO and government officials. FOCUS disseminated publications widely and systematically to developing countries through intermediary organizations—international NGOs, USAID missions, etc.—and encouraged them to copy and share them with colleagues. FOCUS staff regularly participated in meetings and conferences and often provided FOCUS materials for colleagues. FOCUS also took part in health resource fairs, making materials available on the spot or through a publications order form.

Provided a neutral communication venue. FOCUS provided a relatively neutral place to share ideas and publications. This practice promoted contributions from many organizations, which helped FOCUS develop communication products that advanced the YARH field. Working relationships

established by FOCUS resulted in greater coordination among these organizations to advance common interests. In Bangladesh, for example, FOCUS brought together researchers and program implementers—who were initially averse to working with one another—in a qualitative research exercise that strengthened adolescent programming.

Leveraged resources. FOCUS leveraged the resources of U.S.-based technical assistance organizations and other partners, including USAID field missions. The field presence allowed FOCUS to reach local audiences through multiple channels, thus extending the reach and impact of FOCUS dissemination activities.

Brought together key experts. FOCUS coordinated dialogues and working groups that brought together key experts in YARH to share information, resources, and approaches. These sessions stimulated critical thinking about effective YARH interventions and how best to assess the impact of YARH programs. They also served to help identify priorities for future action. FOCUS also held less-structured meetings, such as brown-bag lunches, and provided other forums for sharing information, experiences, and felt needs and for planning future actions, including collaborative efforts.

Monitoring and Evaluation

Monitoring and evaluation are part of the normal operations of any well-run reproductive health program, but they take on added significance for YARH programs because many YARH programs are relatively new and untested. Monitoring and evaluation help to determine whether and how youth programs are working; shape the decisions of funding agencies and policymakers; contribute to the global understanding of "what works"; and mobilize communities to support young people. FOCUS monitoring and evaluation efforts concentrated on the following objectives:

- Developing tools, including a monitoring and evaluation guide (Adamchak et al. 2000), a guide for carrying out participatory learning assessment (Shah et al. 1999), and a tool for assessing and planning for youth-friendly reproductive health services (Nelson et al. 2000)
- Providing technical assistance in a number of countries with respect to monitoring and evaluation
- Carrying out research and evaluation studies (described in chapters 2–5 and in appendices E–I)

What We Can Conclude about Capacity Building

Strategic Planning

- Although a number of proven tools and methodologies exist to systematically gather and analyze information for developing effective YARH policies and programs, more needs to be done to evaluate the effectiveness of these methodologies.
- Other issues needing further study include how to ensure an ongoing commitment to follow through once strategic planning is complete; ways to identify appropriate programs or institutions that can serve as

bases for adding or building YARH components; how and when to best involve different stakeholders in the planning and assessment processes; how to best facilitate and manage the planning process; the extent to which youth involvement in the planning and assessment processes results in more effective policies and programs; and the most appropriate planning methodologies for use in different settings.

Performance Improvement

- A tremendous need for training in young adult reproductive health exists, especially among NGOs and government organizations.
- People are eager and willing to learn about young adult reproductive health and the best methodologies and experiences for moving the YARH agenda forward.
- Personal attitudes, values, and beliefs of providers and decision makers that inhibit the delivery of YARH programs and services must be explored and confronted.
- All performance improvement efforts must be culturally specific and take into account the limitations and opportunities facing field staff.
- Follow-up to initial training, through supervision or other means, should be an integral part of performance improvement.

Information Exchange and Sharing

- Many professionals in developing countries desire to exchange (rather than merely receive) information on YARH programs and want to explore opportunities to adapt approaches.
- Field programs want practical, "how-to" information and descriptions of successful program approaches in other countries and settings. The popularity of the *InFOCUS* series has shown the usefulness of shorter publications, and the positive response to the *Project Highlights* series illustrates that YARH programs, most of which work in isolation, have been eager to hear about and apply the experience of other organizations.

Monitoring and Evaluation

- All too often, organizations carry out monitoring and evaluation of YARH programs either too late or not at all, with the result that evaluators cannot identify whether a program is successful.
- FOCUS's extensive review of efforts in developing countries shows that monitoring and evaluation processes are seriously limited in quantity and quality.
- Many reasons can account for the lack of monitoring and evaluation, including, for example, fear of the results, lack of knowledge about how to conduct monitoring and evaluation, and lack of funding. Practical responses must be formulated to address these realities.
- It is just as important to know what does not work as what does work and to report on failures as well as successes. Even so, program managers frequently ignore negative results that do appear in the literature, or they are not aware of evaluation results because of poor dissemination.

Scaling Up and Sustainability

Almost all YARH efforts start out as small, simple interventions, often with defined time limits. Scaling up is the process of expanding a small, effective program to reach large numbers of youth. Scaling up also implies institutionalizing large-scale programs to ensure their sustainability (Smith and Colvin 2000). Efforts at scaling up YARH programs typically use one or more of the following four approaches:

- Planned expansion—A steady process of expanding the number of sites and the number of people served by a particular program once it has been pilot tested
- Association—An expansion of program size and coverage through common efforts and alliances across a network of organizations
- Grafting—The addition of a new initiative to an existing program, for example, adding a sexuality education program to academic school programs or making family planning programs that are directed at adults "youth friendly"
- Explosion—Sudden, large-scale program delivery, usually prompted by high-level politics (Smith and Colvin 2000).

Program planners and implementers need to address the challenge of sustainability, that is, the need to help projects continue beyond their initial design phase and funding support. The earlier this task is considered, the more likely the project will incorporate effective means to carry on its activities. These design features include management structures that support staff development and promotion, incorporation of project activities into the institutional framework, acquisition of internal and external policy support, and mechanisms to assure financial support as needed through income generation, diversified funding, and institutionalization through collaborative means. Examples of sustainability include the following:

- Projects that integrate YARH policies and programs into national-level programs within government education systems, service delivery systems, and other systems as well as ensure that sufficient funding is allocated so they will last over time
- NGOs that make innovative efforts to ensure ongoing support for their YARH work (e.g., by means of funding mechanisms such as fees for services, cost controls, long-term commitment from donors, or any combination of these means) or that turn their programs over to the government
- Initiatives that involve new groups in the programs, which will widen the support and involvement of groups such as service clubs, faith-based organizations, youth groups, and others and will add their commitment to sustainable YARH programs
- Programs that link public and NGO programs with private doctors, midwives, nurses, and traditional healers, who can provide YARH information and services as part of their ongoing work.

Scaling up youth programs and ensuring sustainability over time may bring a number of important gains:

- In addition to reaching more young people, scaled-up YARH programs can positively influence public opinion about adolescent needs and issues.
- Scaled-up programs can be a more efficient use of scarce resources; for example, reaching more young people may achieve economies of scale.
- Scaled-up programs can reach beyond urban areas to provide services for youth in rural areas.

Experiences in Scaling Up and Sustainability

The Bangladesh Newlyweds Program (Smith and Colvin 2000). The newlyweds program in Bangladesh (also described in chapter 5) demonstrates the potential, when policy and program environments are both supportive, for quickly starting a large new program. Beginning in 1992, this program followed both the explosion and grafting models of scaling up. It established its own cadre of family planning fieldworkers nationwide and worked with a network of NGOs to carry out the program providing reproductive health information and services to newlywed couples. In 1997, the government of Bangladesh incorporated a focus on newlyweds into its national family planning strategy, considerably expanding the program's coverage. The newlyweds program is considered an integral part of Bangladesh's national strategy to reach the goal of a two-child family by 2005.

China Family Planning Association's YARH program (Liu et al. n.d.). Recognizing the growing importance of addressing adolescent reproductive health needs in China, the China Family Planning Association (CFPA) launched an innovative YARH program in September 2000, with the goal of reaching 80 million adolescents in 12 provinces over a five-year period. This project represents an ambitious plan to start a program at a large scale in the world's largest country. With technical support from the Program for Appropriate Technology in Health (PATH), the association will develop programs for at-risk youth (out-of-school youth, unmarried sexually active youth, as well as migrant and working youth) in urban communities in the selected provinces. The project includes providing life skills training; making existing services youth friendly; promoting advocacy and community mobilization; conducting training, monitoring, and evaluation; and documenting and disseminating results.

Sexuality Education in Mexico (Pick et al. 2000). In 1998, after years of efforts by nongovernmental organizations to promote sexuality education in Mexican schools, the Mexico ministry of education came out in favor of comprehensive sexuality education as part of the standard school curriculum. Since then, the course, with accompanying textbook, has been introduced nationwide in fifth through ninth grades. Years of efforts by private groups preceded the decision by the

ministry of education to adopt a nationwide curriculum. The successful effort to establish a nationwide sexuality education program relied heavily on research to overcome opposition from both organized religious groups and politicians fearful of public opinion. A key study showed that students taking a pilot sex education course (see the discussion of the Planeando Tu Vida curriculum in chapter 4) were more likely to use contraception but no more likely to have sex than students who did not take the course. As another powerful tool in gaining support from politicians, advocates used a public opinion poll showing widespread, though muted, support among parents for improving sexuality education. By publicizing the high level of public support for these programs, advocates helped embolden many supporters who might otherwise have remained silent. Another key ingredient in the effort to scale up was a cautious approach that avoided pushing for the inclusion of overly controversial topics such as homosexuality and abortion in the comprehensive curriculum. In addition, proponents of the sexuality education program reached out to a broad spectrum of individuals and organizations, including some who were initially opposed to sexuality education in the schools.

What We Can Conclude about Scaling Up and Sustainability

To scale up, it is important to know what types of YARH programs are effective and worth scaling up. Although we find a few examples of YARH programs that have been scaled up or started at scale, virtually no documentation has been done over the medium to long-term (5–10 year) period nor has any evaluation been done of these efforts and their impact on young adult reproductive health. The examples listed above are based primarily on anecdotal information. Better documentation and evaluation of efforts to scale up can contribute to the field's understanding of how to initially design and deliver larger-scale programs.

Similarly, information about the sustainability or cost of YARH policies and programs is lacking. Thus, considerable need exists not only to document efforts at scaling up, sustainability, and costing of YARH programs but also to conduct strong research and evaluation to show the effectiveness of scaling up and of sustaining these YARH efforts.

Furthermore, it is important to consider scaling up, sustainability, and costing when initially designing programs. FOCUS has developed a tool, *Getting to Scale in Young Adult Reproductive Health Programs*, to help frame this process. Other groups should also provide appropriate tools for YARH program planners and implementers to ensure that they plan for sustainability and costing in each and every major YARH effort.

Youth Participation and Involvement in YARH Policy and Programming

The essence of youth involvement is a partnership between adults and young people at all stages of policy development as well as program design and delivery. Youth can be involved in a broad array of activities, ranging from participatory research, surveys, needs assessments, and situation analyses to the production of publications, videos, and radio programs that are designed entirely by young people. Peer education in which youth communicate directly with other youth to influence their attitudes and behaviors is youth involvement at the delivery level. Youth membership on boards of directors and advisory councils is a form of youth involvement and participation in policy making.

Participation by the beneficiary or target group is an important principle of all reproductive health programs. With youth, however, achieving this participation is both more difficult and more important. Adults—who are sometimes far removed from adolescents and their families—are typically the ones making important decisions about young adult reproductive health. Youth involvement and participation provide many advantages to a program, its target audience, and the participating youth themselves (Senderowitz 1998b). Youth can tell us what it is they really need and how best to meet that need by telling us what they do, with whom, when, where, and why. They can give us invaluable insight into how decisions are made, how information is spread, and how behaviors are formed and transformed in their subculture. But more than operating as "informants," youth can publicize, network, raise awareness, and communicate important YARH messages to their peers (Senderowitz 1998b). Moreover, those youth who do get involved signal to adults and, more importantly, to other youth that they are aware and concerned about their own health, thus, achieving greater control over their health and their lives as well as setting a positive example for their peers to follow (Rajani 1999).

Experiences in Youth Involvement

Selected FOCUS Experiences in Involving Youth. Since its inception, FOCUS has worked to promote youth participation and involvement in a variety of activities, including the following:

- Identified the issues and the efforts to involve young people in the publication *Involving Youth in Reproductive Health Projects* (Senderowitz 1998b)
- Documented various youth involvement and participation projects, for example, in Zambia (Phiri 2000), Kenya (Kamanja 1999), and El Salvador (Rose-Avila 1999)
- Developed tools to help insure that youth are involved in planning the reproductive health programs that will affect them, including *Listening to Young Voices: Facilitating Participatory Appraisals on Reproductive Health with Adolescents* and *Developmentally Based Interventions and Strategies: Promoting Reproductive Health and Reducing Risk among Adolescents*

- In Zambia, worked with the SEATS project to better understand the reproductive health situation of youth in Lusaka; using participatory learning and action (PLA) techniques (see chapter 3), FOCUS involved youth and the community in identifying the issues and discussing possible solutions at the earliest stage of program design (Sambisa and Chibbamulilo 1999)

- Supported a comprehensive national youth survey in Bolivia and then ensured that young people participated in analyzing the survey and discussing its implications for policy; the plan that was finally developed and promulgated encourages the participation of adolescents in health programs (Rosen 2001d)

- Worked with the National Youth Office in the Dominican Republic to engage young people in the policy-making process and in local policy implementation. The National Youth Office set quotas for youth participation; carefully monitored the level of participation to ensure compliance; and recruited youth from diverse associations, clubs, schools and other nongovernmental organizations, which resulted in roughly a quarter of the participants in the local youth committee meetings being young people, including teens as young as 13 (Rosen 2001d)

- Involved youth in each of its State of the Art (SOTA) training courses held in South Africa for Eastern and Southern Africa, in Thailand for Southeast Asia, and in Nigeria for Nigeria; the youth perspective added greatly to adults' understanding of youth issues and needs at each of these workshops.

The Youth to Youth for Healthy Life project in Malawi (Save the Children 2000)**.** Involving youth in the design, development, and management of programs takes additional time and money. However, that initial investment can pay off in terms of appeal to youth and, ultimately, in terms of reach and impact. For example, in Malawi, Save the Children's Youth to Youth for Healthy Life project was designed at a YARH workshop chaired and led by youth who also helped develop the three-year project delivery plan. Before the workshop, youth conducted focus-group discussions among their peers as part of the needs assessment and presented their findings at the workshop. Young people are now helping to carry out the project as peer educators and as distributors of contraceptives. They also participate on the project management board along with representatives from the government, NGOs, and religious associations. Save the Children believes that this participation has improved program relevance and effectiveness and has led young people to feel a sense of ownership of the project.

The IPPF experience. The International Planned Parenthood Federation (IPPF) has been a leader in youth participation and involvement, including ensuring that youth are part of its decision-making bodies. In 1998, IPPF convened young people from around the world to develop a *Youth Manifesto*, the organization's statement of policy on youth involvement and programming (IPPF 2000). A number of the federation's affiliates have taken concrete steps to increase youth participation. For example, in El Salvador, the local IPPF affiliate established a "young

leaders" group. The group gives talks on preventing unwanted pregnancy, HIV, and STIs; reviews education and training materials; develops guidelines for youth work; represents the organization at international events; and works with new peer educators on how to address certain subjects with different groups of youth. Youth leaders receive training and information frequently from older staff members with whom they work closely.

The Youth as Resources program (Senderowitz 1998b). This U.S.-based program, which has recently expanded to three other countries, provides small grants to young people to identify, design, carry out, and account for projects that address social problems and contribute to positive community change. Youth, in collaboration with adults, govern the program and are responsible for making grants. Projects address a range of social issues, including health, housing, education, drug abuse, gangs, and crime. The programs have succeeded in attracting a diverse cadre of involved youth as well as business and community sponsors. In the communities where it is active, youth-adult understanding and partnerships have increased, often giving youth a voice for the first time in policy making, governing, and funding.

What We Can Conclude about Youth Involvement

Clearly, many YARH programs recognize the value of youth involvement and participation and have incorporated youth in a number of ways. As noted in chapter 4, peer-education programs—an important type of youth involvement—can successfully improve youth knowledge, attitudes, and behavior related to the prevention of pregnancy and STIs. However, few other youth involvement efforts have been rigorously evaluated for their impact on sexual and reproductive behaviors.

Thus, although we find a virtual total agreement that youth involvement and participation are important to youth reproductive health and development success, the lack of studies showing their real impact on policies and programs means that we know neither that these efforts are in fact meaningful nor which elements of them help generate success. Rigorous evaluation of the youth involvement and participation efforts are needed, including the development of indicators that show their impact on programs and policies.

Chapter 7

Recommendations for Improving and Expanding YARH Initiatives

In the ideal world, each country would have in place strong, supportive policies, effective channels of communication to inform and educate youth about reproductive health, and a full range of culturally appropriate reproductive health services. However, resources—though increasing—still fall far short of the required levels. Moreover, many donors and country-level decision makers still need to be convinced about the benefits of investing in young adult reproductive health and of the devastating consequences to both individuals and society when investment is lacking.

Faced with this reality, countries must do what is financially and politically feasible. To decide how to best use their scarce resources, countries must rely on the increasing—albeit still insufficient—knowledge base of effective policies and programs. In addition, rather than set their priorities in terms of a single, rigid set of actions, countries must adopt a flexible approach that makes policies and programs relevant to local needs.

Recognizing these constraints and opportunities, FOCUS presents the following recommendations, organized into three sections. The first summarizes findings on effective YARH policy and program approaches, based on the review of research and evaluation presented in this report. The second section articulates important principles critical to the expansion of effective YARH policies and programs. The third recommends future priority actions to fill important gaps in our current knowledge.

Recommendations for Effective YARH Policies and Programs

1. Carry out continuous and broad-based advocacy to support YARH efforts. Advocacy efforts are key to building support for policies that promote YARH programs. Advocacy groups that widely involve adolescents and the community and that speak on behalf of the needs of adolescents are particularly effective in desensitizing YARH issues and pushing for positive change. More follow-up and continuous advocacy for educational and service delivery programs are critical even after the enactment of positive YARH policies. Funding and technical assistance are needed to improve monitoring and evaluation of policy efforts and to disseminate policies to the public as well as to officials and field staff of appropriate governments and NGOs. Advocacy groups can also have a key role in fostering the multisectoral coordination that is

needed to effectively carry out youth policy and to address the multiple influences on youth behavior.

2. Carry out well-designed reproductive health education in schools. As the review in chapter 4 shows, school-based reproductive health education programs were nearly universally effective in improving young peoples' knowledge of sexual and reproductive health, including contraception and HIV/AIDS prevention. Moreover, approximately half of the rigorously evaluated school programs also significantly improved key YARH behaviors. Effective school programs can engage communities, parents, and education authorities and can address many of the risk and protective factors on the individual, institutional, and community levels.

Where school enrollment is fairly high, a comprehensive approach should include schoolwide reproductive health education to reach large numbers of young people. School programs should begin in primary school—before young people reach puberty or become sexually active—to maximize their preventive benefits, and they should continue into the secondary years of education, with age-appropriate information. Ideally, governments should scale up these efforts to be national in scope and should endorse these programs through official reproductive health education policies. Once these policies have been enacted, it is extremely important that school systems develop appropriate curricula and materials; train teachers in modern, participatory teaching methodologies; and give teachers and school administrators adequate, ongoing support.

School programs linked with health facilities need further evaluation to determine whether referrals to clinics increase young people's use of contraception. Most young people who are using contraception use condoms and other barrier methods easily obtained from nonclinical sources. Thus, further research is needed to determine how to strengthen connections among school programs and commercial sources as well as among other nonclinical sources of reproductive health care.

3. Promote condom use through social marketing programs and mass media. Young people have a critical need for information on strategies such as negotiating condom use and using them correctly that help this group prevent unwanted pregnancy and HIV/AIDS. The condom is particularly suited not only to the low frequency of sexual intercourse reported by many sexually active adolescents but also to young people who have multiple sexual partners.

As chapter 5 concludes, social marketing approaches directed at youth appear to hold significant promise for promoting condom use on a relatively large scale and for making regular condom use more socially acceptable. Media promotion efforts should be coordinated with pharmacies and other private sector outlets that young people prefer for reasons of confidentiality and convenience. These initiatives should also adapt training programs and on-site materials for pharmacists and owners of other retail outlets to make these service sites more welcoming and youth friendly and to help young people use contraceptives

correctly. Programs can also use the communication media to direct youth to public sector sites that offer condoms to young people.

4. Carry out broad-based community initiatives. This paper's review of program effectiveness shows that community programs across a broad range of settings and types—including youth development, peer promotion, mobilization of youth and adults, and community-based distribution of contraceptives—can be successful in improving youth reproductive health behaviors. Typically, these community programs attempt to influence youth at multiple levels (as individuals, peers, and as members of families and communities) and can be an important channel to reach the many youth who are not in school. They give youth consistent messages and information from a variety of sources, often provide reproductive health services, and support young people's decisions to delay sexual activity and practice abstinence.

Although the community approach is promising, more evaluation is needed to study the reproductive health impact of these efforts. Topics for further research include (a) the effectiveness of outreach programs for referring youth to clinics and (b) the type of community service delivery (e.g., peers, commercial-sector outlets, traditional health workers) that is most appealing to different groups of young people—particularly those not attending school.

More study is also needed to determine the impact of youth development programs on reproductive health. Many of these programs appear to be effective in a specific setting but may not be replicable or easily scaled up.

5. Build on the promise of youth-friendly services. A youth-friendly approach to YARH services includes special training for health workers serving youth and efforts to ensure that staff treat youth with respect and confidentiality. Evidence from the relatively rigorous but limited number of studies discussed in chapters 4 and 5 did not show conclusively that a youth-friendly approach is more effective in attracting young people to clinical services. Nonetheless, combined with the evidence from supportive studies, the youth-friendly approach is clearly a promising one, particularly when such programs also actively work to build broad support within communities for providing information and services to young people. It is equally important to incorporate the principles of youth-friendliness in services outside the clinic—in the many community, social, recreational, and commercial settings where youth seek reproductive health care. Such an approach is also promising—though still largely untested.

Expanding access to high-quality, youth-friendly clinic services is of particular importance to married adolescents, who presumably face fewer psychosocial barriers to the use of public health clinics. These services are also essential for all youth seeking diagnosis and treatment of STIs, postabortion care, pregnancy testing, and prenatal as well as postnatal care. To increase the impact of the youth-friendly approach, more study is needed to determine the patterns of adolescent sources of YARH

information and services as well as the prices that youth are willing and able to pay for reproductive health care. Programs also need to better understand the special needs of married adolescents.

The idea of youth centers—which were intended to offer reproductive health as one of many recreational and other services—was and is still very appealing. However, several evaluations have found that youth centers are a relatively expensive and ineffective way to provide reproductive health care to young people. Governments and donors need to redirect scarce resources from further support for youth centers to more cost-effective, multicomponent, community-based YARH programs that reach large numbers of youth.

6. Enhance peer programs. Peer programs are culturally appropriate initiatives that can help change community norms and individual reproductive health behavior in diverse settings. Peers are an important source of information on sexuality and can significantly influence youth attitudes and risk behaviors. Despite the promise of peer programs, a number of important questions remain about how effective they are for those besides the peer promoters themselves—for whom there is good evidence of a positive impact. Many peer programs suffer from high turnover rates and need significant levels of supervision and continuous training to ensure high quality. Little is known about the optimal amounts of time and effort that individual peer promoters need to be effective in their outreach; similarly, the impact of payment or other incentives on the work of peer educators has not been closely examined. More information is also needed about effective ways of reaching hard-to-reach youth populations such as HIV-positive youth, refugees, street children, and commercial sex workers.

Recommended Principles for Effective Policies and Programs

The following principles of program design, delivery, and evaluation are grounded in the experience that FOCUS and others have gained in carrying out YARH programs in the developing world. Although, in most cases, their impact on YARH outcomes has not been rigorously measured, many evaluations have shown that programs adhering to these principles are more likely to succeed.

1. Involve young adults in meaningful ways in YARH policy dialogue and programming. Involving young people in designing, carrying out, and evaluating YARH policies and programs will enhance the relevance of these efforts and will increase the sense of "ownership" that young people feel toward the policies and programs.

In whatever capacity it occurs, youth participation must be real, meaningful, and sustained rather than token. Organizations must make youth involvement a core strategy and not simply mobilize youth on an ad hoc, temporary basis. Youth must feel that they are making an important contribution to the program and that they have a voice in decisions and outcomes. To involve youth in a meaningful way, many organizations must

make fundamental changes in their structure, culture, and staff attitudes as well as significant initial investments of both financial and human resources. Effective youth participation requires training not only the youth who will participate but also adult staff members and volunteers, who must come to view adolescents as valuable, contributing members of the organization.

2. Emphasize condom use and dual protection to prevent HIV/AIDS and pregnancy. An emphasis on dual protection including condom use—especially for unmarried youth—is an effective way to address the twin risks of unwanted pregnancy and HIV/AIDS. Mass media and social marketing strategies have shown some success in reducing the stigma of condom use, but more of these efforts are needed because many adolescents continue to view condom use negatively. In many places where public discussion of sexual behavior was previously taboo, concern around HIV/AIDS has opened up the possibility of greater debate and dialogue. Programs should use this opening to foster support for broader sexual and reproductive health programming. In addition, donors and governments need to find ways to combine pregnancy and HIV prevention programs and funding streams.

3. Explicitly address gender inequality. Gender inequality increases the vulnerability of girls and young women to coerced sexual intercourse, unwanted pregnancy, and HIV/AIDS and other STIs. Policy and program efforts need to help change prevailing social norms when they are harmful to girls and young women. To accomplish these changes, efforts are also required that will focus more on young men, including efforts that will address young men's notions of gender and sexual identity, help to raise young men with alternative views of male roles in society, and promote male involvement in reproductive health. During adolescence, boys are most susceptible to social pressures to conform to masculine norms, so initiatives to transform those norms and to promote health and gender equity should begin in early adolescence or even earlier.

4. Identify the policy and program mix best suited to the target population. Schooling, employment, and other opportunities vary widely for youth within and across countries. In addition, young people's sexual and reproductive health practices, the magnitude of their reproductive health problems, and the availability of reproductive health care differ within national settings and among countries. Regardless of the setting, assessment that is based on good information should precede any program effort. This assessment is necessary to understand this cultural context, the needs, and the issues as well as to identify the program mix best suited to the target population. A number of tools are now available to help decision makers tailor policy and program responses that appropriately address the variation among youth.[22] Programs need to use their limited resources, first, to provide services to those youth in greatest need and, then, to use different strategies that take into account differences in age, sex, and marital status.

[22] FOCUS tools can be accessed through our website at http://www.pathfind.org/focus.htm.

5. Design comprehensive programs that address multiple youth needs. The findings in this report, supported by other recent reviews of programs in the United States (Kirby 2001) and developing countries (Senderowitz 2000) suggest that comprehensive, multicomponent programs may be more effective than narrowly focused programs in improving reproductive health. Comprehensive programs combine strategies and interventions to simultaneously address the different categories of risk and protective factors that influence young people. An example of a multicomponent program is one that works in both schools and communities, includes a clinical services component, and uses mass media to promote positive YARH messages.

6. Design projects with expansion in mind. YARH programs over the past decade have tended to be relatively small pilot projects with limited coverage. To meet the needs of the large and growing youth population, larger-scale YARH programming is now required. Efforts to scale up should be based on (a) knowledge about effective YARH policy and programs as discussed in chapters 2 through 5 and (b) the lessons learned with respect to scaling up that are described in chapter 6. Decisions to scale up a program also should take into account information on cost, financial feasibility, and sustainability. Ideally, before carrying out the program on a large scale, program managers would collect credible evidence showing long-term program impact on key YARH behaviors. However, given the enormity of youth reproductive health problems, some countries—particularly those hit hard by HIV/AIDS—may have to expand programs while simultaneously measuring program costs and gathering strong evidence of program effectiveness.

7. Incorporate monitoring and evaluation from the start. Programs should establish clearly defined indicators and costing mechanisms to measure achievement of program goals and cost-effectiveness and to better understand project dynamics to ensure necessary mid-course corrections. Programs must also try to better measure changes in behavior. If the use of experimental designs to measure these changes is not feasible, programs should use less-rigorous methods to assess whether an initiative has improved YARH behaviors. Technical assistance can help build local capacity for monitoring and evaluation.

Recommended Future Actions

The following list identifies key future directions for the YARH community that have been determined after considering the FOCUS experience of the last six years.

1. Pursue additional research. Additional research is needed on critical influences and factors affecting YARH behaviors that are actionable through policy and programmatic interventions. Within this research, the YARH community must place an emphasis on gender norms and behaviors, attitudes related to protection and acceptability and use of condoms, and social norms related to age of first sex as well as age of marriage and childbearing.

2. Assess programs to alter social norms. Better assessment is needed of programs that influence attitudes and practices with respect to gender roles and equity, women's status and opportunities, and sexual responsibility. More emphasis is needed on programs that use mass media and other communications, involve community activities, and work with opinion leaders and policymakers to affect social norms.

3. Document the nexus between policy and effective YARH programming. In particular, efforts to identify these connections should study how policy can be influenced and changed to result in greater acceptance of and support for YARH programming. Moreover, compiling evidence on the effectiveness of efforts to influence policies and contextual factors is crucial to our understanding of program priorities and resource allocation decisions. These studies should feed into continuing efforts to identify and disseminate to the YARH community those elements associated with the successful development and implementation of policy.

4. Through policy action, address the contextual factors that influence young adult reproductive health. Reproductive health programs alone cannot address the many structural factors that affect young adult reproductive health, including education, income levels, and job opportunities. However, YARH advocates can help show policymakers the importance of these connections and can encourage policies that address allocation of resources for youth programs outside the health sector. Education, for example, is a key positive influence on the reproductive health of young people. Government decision makers must support efforts to increase the duration and quality of schooling—especially for girls.

5. Identify the most important linkages between YARH programs and other youth activities, and study practical and effective strategies to achieve these linkages. Nonhealth interventions are important and relevant to improving young adult reproductive health, but reproductive health professionals cannot competently or feasibly carry out overly broad and diverse programs. Thus, we must establish effective links with efforts that have related goals, including general youth development activities, programs such as micro-enterprise and job training that try to improve youth livelihoods, and efforts to expand educational opportunities. Better evaluation of these multisectoral linkages is needed to understand effective roles and dynamics of different sectors and the fundamental institutional supports needed for these efforts, including funding mechanisms that allow for programs that address multisectoral needs.

6. Develop cost-benefit analysis methodology for YARH programs and use the methodology in demonstration projects. This methodology is needed to practically identify and select project activities, especially in resource-poor settings, and to guide decisions with respect to scaling up of YARH projects.

7. Leverage the private and commercial sector for greater participation in and contributions to YARH programming, including workplace programs and private

health care delivery. The added participation and contributions would raise the level of available financial resources and create broader reach to clients and consumers. To inform policy and pricing schemes, additional research should be done on youth's willingness and ability to pay and the extent to which fees are obstacles to the use of the full range of reproductive health services, including prevention of STIs and HIV/AIDS.

8. Undertake studies of the effects of scaling up proven projects. At a minimum, these studies should include the effects of scaling up through in-school reproductive health education and social marketing. At the same time, more rigorous impact evaluation is urgently needed to determine whether promising smaller program efforts can succeed on a large scale and over the long term.

9. Set realistic goals for sustainability. Pressure to achieve sustainability too early in a program can handicap the survival of budding YARH programs and can hamper initiatives to scale up or begin operations at scale. Donors should define sustainability in a way that supports YARH program objectives and that takes into account young people's limited ability to pay for reproductive health care relative to adults.

10. Assess how existing public health structures can be made more youth friendly and become more effectively used by youth. In particular, assessments can begin studying these efforts in many developed countries and, increasingly, in Latin America. Government-run services are the primary source of essential reproductive health care in many countries but, typically, are the most difficult setting in which to apply the principles of youth-friendly care. Nonetheless, it is critical to build on these extensive existing networks to reach large numbers of youth.

11. Establish more effective and sustainable mechanisms to provide technical assistance, training, and other capacity-building measures to organizations who are planning to reach youth with reproductive health programming. A top priority is to strengthen host country and regional or subregional organizations that can carry out this needed work. A major focus of these efforts should be on incorporating monitoring and evaluation into programs, scaling up, and sustainability. Technical assistance organizations should provide tools and materials in major local languages, such as French and Spanish, to field organizations and should train local groups how to use them.

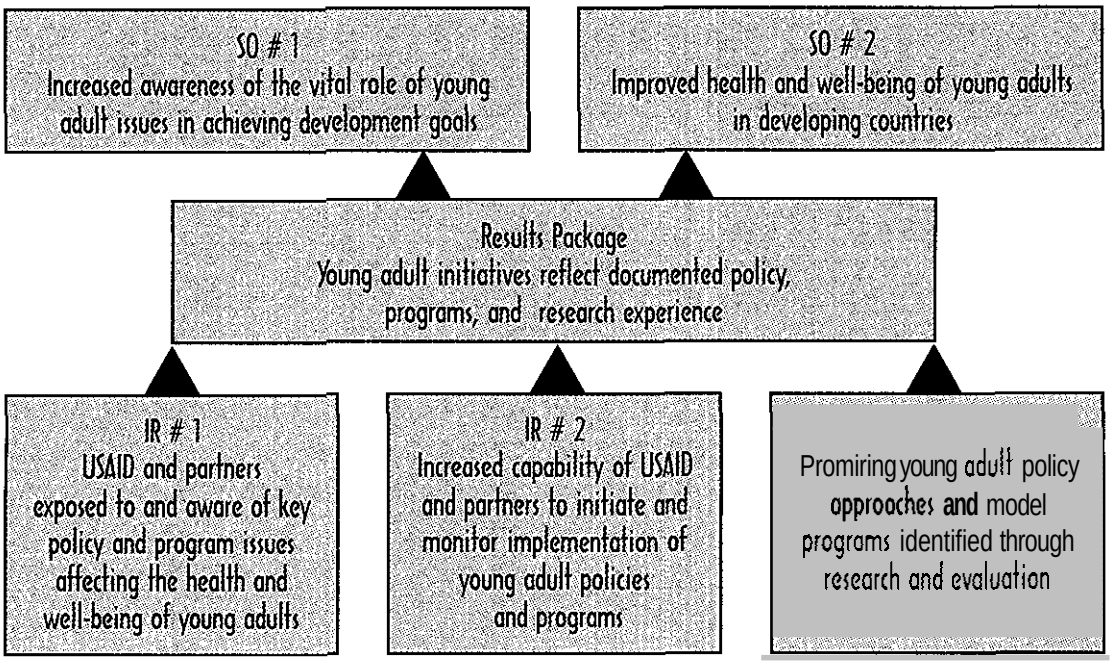
12. Conduct operations research in different national contexts to identify a minimum package of YARH interventions. Although multicomponent programs may be the most effective approach, not all YARH efforts can include large numbers of components, and the same package of components will not be equally effective in all contexts. Accordingly, research should compare the effectiveness and cost of different combinations of interventions in different contexts. The goal of this research would be to identify a minimum YARH intervention package that programs could

apply in most if not all settings. At the same time, research should continue to explore new and innovative approaches to meeting YARH needs that build on research findings to date.

13. Expand investment in young adult reproductive health. To reach even a modest proportion of the developing world's youth with effective YARH programs requires a much greater investment on the part of governments, donors, and communities. Moreover, the way in which programs are funded must also improve. First, to allow efforts to take root and significantly affect YARH behaviors, donors should support long-term funding of programs, including evaluation and research. Similarly, governments need to make an ongoing commitment to YARH programs by institutionalizing these efforts through permanent administrative structures and budget authority. Second, international donors—who fund a substantial proportion of YARH programs in many countries—must better coordinate how and where they commit resources at the regional and country level. Finally, improving young people's reproductive health requires a multidisciplinary approach that goes beyond the health sector. Governments, private sector organizations, and donors need to make their funding mechanisms more flexible to encourage effective partnerships and linkages among groups working in education, employment, young adult reproductive health, and youth development.

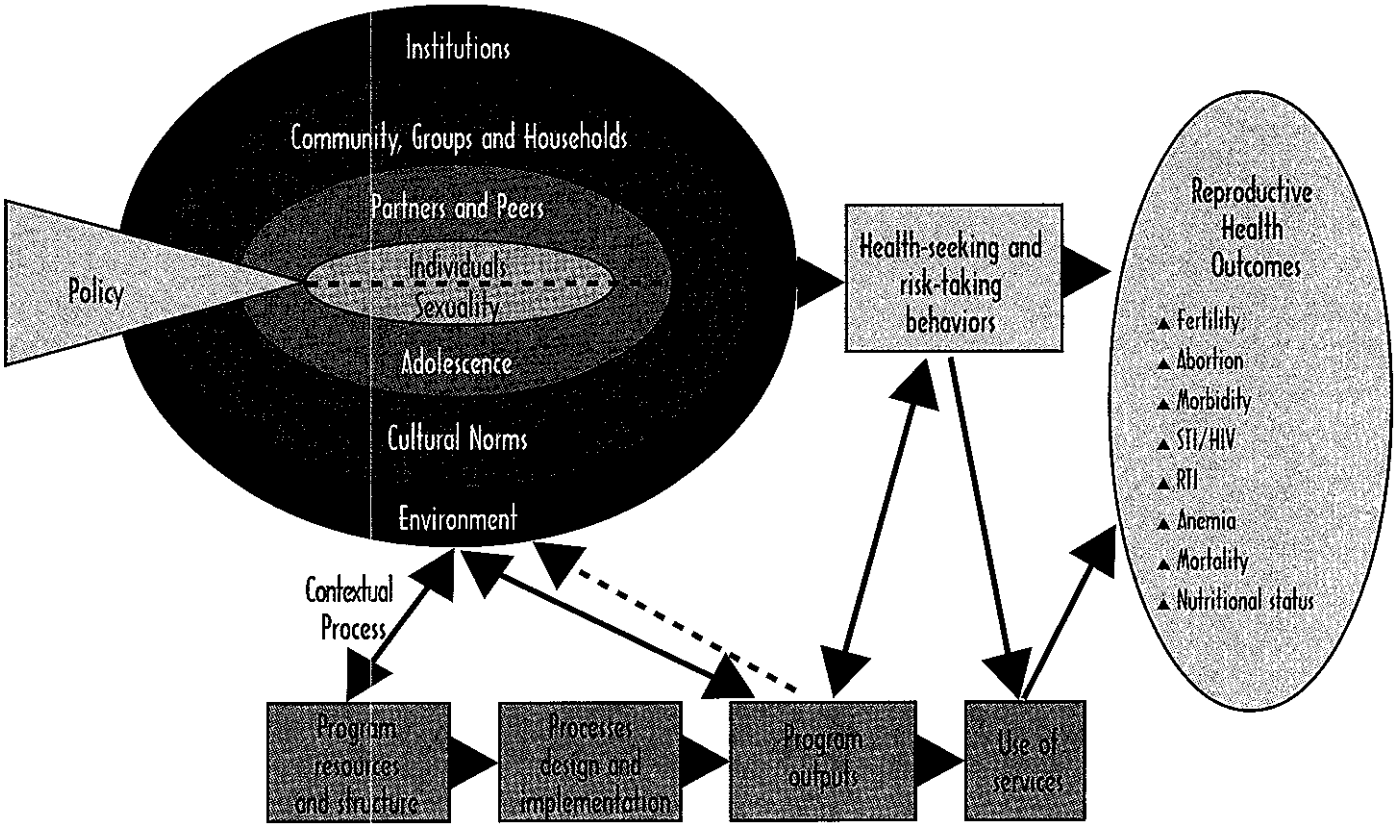
APPENDICES

APPENDIX A
FOCUS STRATEGIC FRAMEWORK



FOCUS/USAID, 1995

APPENDIX B
FOCUS RESEARCH AND EVALUATION CONCEPTUAL FRAMEWORK



APPENDIX C

FOCUS ON YOUNG ADULTS: KEY QUESTIONS GUIDING FOCUS ON YOUNG ADULTS PROGRAM

Broad Key Questions	Key Questions
Why should policymakers and programmers focus on reproductive health (RH) programs for youth?	▲ What demographic trends relate to youth? ▲ What are the dimensions of specific health issues (well-being, STI/HIV/AIDS, high-risk pregnancy, general nutritional needs, anemia) of youth? ▲ What are the socioeconomic consequences of poor health and unintended pregnancy among youth? ▲ What human rightr and gender issues pertain to youth?
What ore the reproductive health needs of youth?	▲ What do youth perceive their needs to be? ▲ What do program evaluations and research identity as youth needs? ▲ Haw do reproductive health needs relate to other youth needs (e.g., education, employment)?
What works to change the environment and the youth behaviors that put youth at risk far RH problems?	▲ What social, cultural, economic, and political canditionr cantribute to risk behaviors? ▲ At what levels of social structure (e.g., individual, fomily, community, institution) can risk behaviors be influenced? ▲ What research methods are needed to assess risk far RH problems? ▲ How can research results inform policy and programs?
What works to initiate programs?	▲ What has been the experience in initiating programs? ▲ What policy actions (e.g., advocacy, demonstration projects) have stimulated YARH octivitier? ▲ How can training influence program development? ▲ What role can leaders play in stimulating YARH actions?
What works in program design and implementation?	▲ What are the strengths and shortcomings of different types of adolescent reproductive health programs in terms of the following? ✧ *Program ond service issues* ■Coverage ■Quality ■Replicability ■Scaling-up ■Cost and Cost-effectiveness ■Sustainability ✧ *Social determinants* ● Gender issues and differences ■Violence ■Poverty ✧ *Youth Involvement* ■Haw have programr enhanced their strengths and dealt with shortcomings?

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Broad Key Quertianr	Key Questions
What workr in program derign and implementation?	Community-bared Programs A What types of community-based initiatives (e.g., outreach, youth centers) lead to poritive RH outcomes (defined as participation, knowledge, rkillr, attitudes, service use, and behavioral change)? A Haw can existing community groups and social institutions be mobilized to act as catalysts far change in rocial and cultural norms (through individual action, collective action, or bath)? A How can peer and parental involvement have a poritive impact on youth RH? Mass Media/IEC Programs/Social Marketing A What strategies, channels, and content reach various youth populations (e.g., out-of-school youth, high-rirk groups, married youth, young men)? A What recammendotionr can be made far program content? far project rurtainability? for linkager with exirting products and services? A Haw can the private rector be mobilized to promote positive RH messages far youth (e.g., through the recognition of the profitability of marketing youth issues)? Health facilitier A What componentr of health facility rervicer lead to positive outcomer among youth? A What recommendationr can be made for service content? for provider recruitment and training? for counieling training and methodr? for the phyrical environment? far hours of operation and flexibility in appointments? for Stand-alone or integrated clinics? A Haw con adult rervicer be adapted to increase their effectiveness in serving youth? Ichoal-bared Progromr A What componentr are mostly likely to result in poritive outcomer at various ager and grader? A What recommendationr can be made for sexuality education, skills training, and other curricula? far training of instructors? for classroom teaching methodr? for family life Education out of school? for parental involvement? A What recommendationr can be made far rekrral to health and associated rervicer? for location (school-based or school-linked)? Workplace Programs A How does the workplace environment protect youth from or expose them to RH health rirks? A What recammendationr con be made to get workplace management to support RH programr in the workplace? On content and types of programr appropriate to the workplace that lead to paritive outcomer? A How ton workplate programr be linked to other RH education ond health rervicer? Organizational Networks and Coalitions A What rtrategier work best in initiating and building networks among youth-friendly organizations? A What recammendationr can be made to foster program collaboration ond resource sharing?

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Broad Key Questions	Key Questions
What workr to increase program coverage and use?	A What factors and procerrer lead to program expanrion? ✧ What policy and program conditions are necessary, beneficial, or harmful? o What management factorr (e.g., costs, quality control, monitoring, and evaluation) are needed? ✧ What training/supervision issues are involved? o What are the factorr and the processes for inrtitutionalizotion? ✧ What policy and program conditionr are necessary, beneficial, or harmful? ✧ How can commitment to sustain progromr be reached? ✧ What ore the critical decision points? A What types of programr hove led to increased demand and use of rervicer?
What workr to evaluate youth RH progromr?	A What methodr and measurements are needed by policymakers, program managers, service providers, and youth to assess effectivenerr? Measures of cost? A How can low-cart management information systems and other quantitative and qualitative data analysis be developed and promoted? A How can the effect on adolescents be evaluated in programr that cater to all age groupr? A How con results be used in decision making to improve services, programs, and policier? A What methods and measurements capture changes in perceived social and cultural normr?

APPENDIX D
NOTES ON METHODOLOGY AND SOURCES OF DATA

METHODS FOR FOCUS-SPONSORED RESEAMCH ON RISK AND PROTECTIVE FACTORS IN 10 COUNTRIES (CHAPTER 1)

Types of Studies. The FOCUS study populations varied and included large, household-based samples of boys and girls; in-school populations exposed to sex education and reproductive health intervention programs; and a cross-national comparative study of DHS data assessing the effects of **girls'** in-school status on age at initial participation in sexual intercourse. Appendix E summarizes FOCUS-sponsored survey data, the country in which each survey was undertaken, the type of sample used, and the reproductive health outcomes examined for each data set in multivariate analyses. The individual-, peer-partner-, family-, institutional-, and community-level factors tested in country-specific analyses are listed also.

Comparability of Analysis. The similarities among the FOCUS-sponsored surveys and the fact that the analyses were guided by a single project permit comparison of fairly similar models, most of which provide information on several of the factors identified in each of the five broad categories, or levels of influence, identified above. Because of variations in sample size, however, and methodological decisions made in collaboration with local research and program counterparts, none of the FOCUS surveys or analytic models are identical in terms of the independent variables included in the models. Nonetheless, all make use of similar multivariate statistical approaches for both of the primary outcome variables discussed here, whether or not a respondent had ever had sexual intercourse and whether or not he or she had used a condom at last sexual encounter.

Analytic Methods Used. Logistic regression, pooled logistic regression, and survival analyses were used unless otherwise noted. All three of these approaches are appropriate for dichotomous outcome variables, such as ever having experienced sexual intercourse, or whether or not an individual used a condom at last sex. The analytic models examining the factors associated with sexual initiation are available for all 10 countries, and they have larger samples available to them for statistical analyses than do the analytic models examining the factors affecting condom use at last sex (which are available for only 8 of the 10 countries).

Sample Size Limitations. Unfortunately, in the statistical models examining the factors affecting condom use, sample sizes do not permit multivariate analyses of the cases

involving young women in Paraguay, Peru, and Jamaica. Despite these limitations, this body of research suggests that certain factors are particularly robustly associated with whether or not adolescents have experienced sexual intercourse. Though the findings presented for the outcome variable of condom use are less definitive, it is hoped that they will motivate further investigation of the most common factors affecting contraceptive use among young people.

Unclear Direction **of** Causation. The data analyzed for this report were obtained from cross-sectional surveys, and thus it is often not possible to determine the direction of causation between the factors and outcomes considered, only that they are statistically associated. For example, though it can be concluded from the analyses that peer behaviors are significantly associated with selected adolescent reproductive health outcomes in many countries, it cannot be determined from the available data whether associating with sexually acrive peers occurs after inexperienced young people themselves become sexually active or, alternatively, whether associating with sexually active peers actually accelerates sexual debut among the sexually inexperienced. Panel or retrospective history data are needed to determine which of these explanations is the correct one (see chapter 6 for suggestions for further research).

Educational Attainment **versus** School Attendance as an Indicator **for** Schooling Effects. Educational attainment may not be as good an indicator of sexual experience as school attendance or school enrollment when interviewing young people who have not yet completed their education and for whom we have incomplete information. Thus, in the FOCUS-sponsored studies, when assessing the effects of schooling using educational attainment or literacy as predictor variables, only in the case of South Africa was educational attainment significantly associated with sexual debut for young men, and in this instance, its effects ran in the opposite direction from those of school attendance and school enrollment. Similarly, though educational attainment and literacy variables were significantly associated with sexual initiation for young women in Ghana and Zimbabwe, in the case of Ghana, educational attainment was positively associated with sexual debut whereas school enrollment was negatively associated. A study in Kenya showed current enrollment in school to be associated more with lower levels of sexual activity than with the level of schooling attained (Ajayi et al 1991). A study in Botswana showed mixed results: boys were more likely to have had sexual experience if they had some level of secondary education, and current enrollment had no significant effect on sexual experience. For girls, current enrollment was associated with lower levels of sexual experience, and having a secondary education had no significant effect. Studies in Kenya and Liberia (Nichols et al.1987) showed that current enrollment in school had a greater negative influence on pregnancy than the level of schooling achieved (Ajayi et al 1991; Nichols *et* al.1987).

Limits of the Evidence Base for Measuring Efforts to Affect the Environment for YARH Programming (Chapter 3)

Although many strategies purport to improve the environment for young adult reproductive health, virtually no rigorous evidence or studies document successful interventions. A number of factors explain the absence of this evidence. First, the evaluation of these strategies must take place at the macro level, either through institutional or community assessments, surveys of opinion makers, or reviews of policy documents, legislation, and regulations. Most assessments or evaluations of interventions focus on changes in knowledge, attitudes, and behaviors at the individual level of survey respondents, a technique ideally suited for assessing changes in goals 2 and 3, but less well suited for assessing changes in the overall environment in which an individual lives. In addition, even when such macro-level reviews or impact assessments are undertaken, they are rarely conducted using experimental or quasi-experimental design approaches, particularly in the case of policy formulation and implementation. Documentation of the effectiveness of YARH policy initiatives usually comes from more descriptive efforts to document the development of successful or promising policy initiatives and the changes that have occurred in the availability of information and services for young people (Rosen 2001d); Calves 2000; Oliveira et al. 2000; Stern and Reartes 2000, Gutierrez, Gogna, and Romero 2000; Luke 1998; Callender 2000).

Methods for Review of the Literature on Program Effectiveness (Chapters 3–5)

To identify intervention studies and evaluations from developing countries for inclusion in the synthesis, three computerized databases were searched for studies related to young adult reproductive health over the period 1990-2001: POPLINE, MEDLINE, and ERIC. A search was also conducted of the database for USAID's Center for Development Information and Evaluation, which lists program evaluations and other documents from USAID-supported activities. Examples of keywords used in the database searches include youth, adolescents, schools, school-based, sex education, social marketing, mass media, AIDS, family planning, condom, pregnancy, program effectiveness, program evaluation, developing countries (specifically, countries in Africa, Asia, Latin America, and South America), community, and research studies. Only studies for which data were available for adolescents (age 10-19) or young adults (age 20-24) were included in the review. Programs that targeted broader age groups were considered only if evaluation results were presented separately for adolescents, young adults, or both.

In addition to the database searches, a comprehensive search for other, unpublished literature was undertaken. Individuals and organizations working in the field of international reproductive health were contacted and requested to provide copies of reports on and evaluation studies of their adolescent reproductive health programs.

The bulk of the fmdings presented in chapters 3 through 5 are the result of evaluation studies undertaken during the 1995-2000 period. However, because the number of rigorous evaluations of YARH interventions in developing countries remains modest, studies undertaken during the 1990-1995 period and a small number of pre-1990 studies were included in the synthesis of fmdings. It was, however, necessary to set a cutoff date for the inclusion of studies in the synthesis to allow sufficient time for the report to be published. The cutoff date chosen was May 1,2001; that is, the synthesis includes all evaluations and studies available in published or unpublished form prior to this date. Unfortunately, the cutoff excludes from consideration evaluation fmdings from some ongoing studies whose findings had not been disseminated by this date.

Three of the rigorous studies found in the literature search concerned nonpregnancy-related outcomes; two focused on nutrition-related outcomes and one on breastfeeding behaviors. Because their small number precluded arriving at conclusions as to the effectiveness of interventions directed to such outcomes, these studies were not included in this document (nor in the 40 studies cited above).

LIMITATIONS OF THE REVIEW OF PROGRAM EFFECTIVENESS (CHAPTERS 3–5)

First, the review was limited to programs that have undergone formal evaluation or, at least, for which some program output data have been compiled and reported. These programs would appear to be only a modest proportion of the adolescent reproductive health initiatives that have been undertaken in developing country settings. We have no way of knowing whether the programs for which evaluation results and program output data have been reported are "representative" of all programs undertaken to date with respect to the level of success in achieving their objectives.

Second, among the programs that have been evaluated or for which program output data have been reported, the review is limited to those whose fmdings have been reported in peer-reviewed journals or disseminated to the adolescent reproductive health community in the form of program reports. In the case of peer-reviewed journals, a bias is likely to operate in favor of the more successful programs because, although "negative" findings are as scientifically important as "positive" fmdings, journals tend not to publish large numbers of studies reporting negative results. It is also possible, although less clear-cut, that reports of successful programs have been more widely disseminated by sponsoring and implementing agencies, and among the available program reports, a bias is likely to favor the more successful undertakings.

Third, the fmdings reviewed underrepresent the impact of programs directed to nonreproductive health outcomes that may have had unmeasured impacts on the reproductive health of adolescents. For example, as the use of drugs appears to be associated with a higher likelihood of risky sexual behaviors among adolescents (see chapter 1), effective drug prevention programs may well have a positive impact on sexual risk-taking behaviors. However, if these impacts were not measured and reported in connection with program evaluations, they could not be included in the review of evidence.

Fourth, although reports in Spanish and French were sought out, most of the studies reviewed were in English. This language limitation will result in an underrepresentation of impact findings from studies published in other languages.

Fifth, because data on program costs were virtually nonexistent in the literature that was reviewed, the review does not address the issue of cost-effectiveness. Cost-effectiveness is a crucial issue in dedding how to spend limited resources in YARH programs and whether to scale up a program. Nevertheless, establishing the effectiveness of alternative program approaches in achieving program goals is an important step in addressing cost-effectiveness.

Sixth, the review does not systematically address sustainability and replicability. These issues are considered in chapter 6. It should be noted, however, that informed discussion of these issues is contingent on empirical evidence as to the effectiveness of alternative program approaches because it is unclear as to why programs that have not been shown to be effective should be sustained, expanded, or replicated.

Seventh, again, because information in the materials was insufficient, reviewers were unable to ascertain whether programs that failed to achieve an impact failed because the program approach used was flawed or because the program was not well carried out. Consequently, the findings are likely biased toward understating the effectiveness of the program approaches considered.

Eighth, studies were designated as providing "strong" evidence or as being "rigorous" according to their capability to address the question of attribution with respect to interventions. Other factors, of course, can determine the strength or rigor of a study—for example, the measurement tools and field procedures used. However, because of insufficient information, it was not possible to make informed judgments as to the merits of studies based on criteria other than their capability to address the question of attribution with respect to interventions.

Finally, in summarizing findings across studies, simple proportions were used—for example, the proportion of social marketing programs in which impact on condom use was observed. These *summary* statistics should not be mistaken for a formal meta-analysis, which would require that much more data be compared across settings than were available for the present review

APPENDIX E

DETAILS ON FOCUS SURVEYS EXAMINING INFLUENCES ON REPRODUCTIVE HEALTH BEHAVIOR

Organization	Country	Date of Survey	Sample Size (N)	Age Range	Geographic location	Outcome Variable
PSI/PROMESA follow-up to Magnani, Robinson et al. (2000) study in Paraguay*	Paraguay	October 1999	1,575 males and females	15-19 yearr	Urban and peri-urban	Ever had sex *N* = 605 moles; 649 females No. of recent partners (last 6 months) *N* = 504 males; 540 females Modern contraceptive method use at first rex (moles only) *N* = 306 Modern method use at last sex (males only) *N* = 306
FOCUS follow-up to Magnani, Gaffikin et al. (2000) Study in Peru*	Peru	September-November 1998	6,962 males and females (2,759 males; 4,203 females) In-school sample	13-18 years	Urban, peri-urban, and regional capitals	Ever hod sex *N* = 2,532 moles; 3,985 females No. of recent partners among those who ever had sex (last 3 months) (males only) *N* = 1,995 males Modern method use at first rex (among those who ever had sex) *N* = 600 males Modern method use at last rex (among those who ever had sex) *N* = 250 males
FOCUS follow-up to Gaffikin et al. (2000) study*	Brazil	November 1999	3,520 males and females In-rchool sample	11-19 years	Urban and peri-urban	Ever hod sex *N* = 1,088 males; 1,237 females Modern method use at first sex (among thore who ever hod sex) *N* = 720 maler; 533 females Modern method use at last sex (among thore who ever hod sex) *N* = 724 moles; 532 femaler
ford foundation, JHU, CEMERA	Chile	November–December 1996	3,915 maler and femaler In-rchool sample	12-20 years (0-age at inter-view; retrorpective information)	Santiago (urban)	Ever had sex *N* = 1,903 males; 2,010 females
Hope Enterprirer, Addiction Alert Organization	Jamaica	September–November 1999	1,956 males and females In-rthool sample	10-15 years	Kingston (urban)	Ever hod sex *N* = 751 males; 499 females Modern method use at first sex *N* = 410 moler Modern method use at last sex *N* = 410 males

Organization	Country	Dote of Survey	Sample lize (N)	Age Range	Geographic location	Outcome Variable
FOCUS follow-up to Kouwonou and Amegee (2001) study*	logo	November 1998	2,083 males and temoler; 1,881 singles (only single romple used for models of "ever hod sex"; only single romple "recently sexually active" used tor other models)	10-24 yeorr	Lomé, capital of Togo; population-bored romple	Ever had sex *N* = 926 moler; 925 femoler No. of recent portnerr among thore who ever hod sex (2t partnerr in last 12 monthr versus no partner or one portner) *N* = 405 moler; 425 femoler Modern method use at firrt sex (among thore who ever hod sex) *N* = 398 moler; 413 femaler Modern method use at recent sex (among sexually active in last 3 months) *N* = 235 moler; 329 femoler
JHU Baseline survey	Ghana	April-July 1998	5,632 males and femoler	12-24 yeorr	National romple	Ever hod rex *N* = 2,033 molar; 1,442 femoler No. of lifetime portnerr (among thore who ever hod sex) *N* = 826 moler; 847 females No. of recent sexual partners among thore who ever had sex (had >1 partner in lort 3 months) *N* = 770 males; 815 femoler Modern method use at firrt sex (among sexually active unmarried youth) *N* = 792 moler; 555 temoler Modern method use ot last sex (among sexually active unmarried youth) *N* = 621 moler; 505 temoler
JSI/FOCUS Baseline survey	Zambia	September 1998	2,328 males and femaler	10-24 years	Urban and peri-urban rectionr of Lusaka	Ever hod rex *N* = 968 moler; 993 femoler No. of lifetime portnerr (among thore who ever hod sex) *N* = 553 moler; 568 femoler No. of recent portnerr among thore who ever hod sex (hod >1 partner in last 3 month3 *N* = 611 maler; 574 females Modern method use at last sex (among thore who ever hod sex) *N* = 509 moler; 347 femoler
FOCUS follow-up to Moyo et al. (2000)* study	Zimbabwe	September 1999	606 males and temoler	12-24 yeorr	High-denrity, residential areas of Gweru	Ever hod sex *N* = 344 moler; 241 femaler
FOCUS, Horironr, Measure II, Population Council	South Africa	September–October 1999	3,096 moler and females (1,402 moler; 1,694 females)	14-22 years	Durban metro area and Mtunzini districts of Kwo Zulu-Natal province	fver hod sex *N* = 1,009 moler; 1,104 females No. of recent portnerr (in last 12 months) *N* = 458 maler; 400 femoler Modern method use at first sex *N* = 687 moler; 733 females Modern method use at last sex *N* = 565 maler; 641 femaler

NOR.: * See appendix 1 for citation and details. Sample sizes differ because of restrictions on some subsets of the overall sample and because of the volume of missing dota.

APPENDIX F

DISTRIBUTION OF THE FOCUS STUDY SAMPLES BY SEXUAL EXPERIENCE, CONTRACEPTIVE USE AT FIRST SEX, AND CONTRACEPTIVE USE AT LAST SEX*

Outcome	Paraguay		Peru		Brazil		Chile		Jamaica		Togo		Ghana		Zambia		Zimbabwe		South Africa	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Ever had sex																				
N	(713)	(867)	(2775)	(2025)	(1261)	(2238)			(1149)	(742)	(943)	(948)	(2618)	(1905)	(1122)	(1168)	(352)	(254)	(1399)	(1693)
Yes	56.7	31.7	27.4	5.9	76.2	29.1			53.9	11.9	43.9	45.4	43.3	54.9	59.8	54.7	38.1	13.8	51.1	44.9
No	43.3	68.3	72.6	94.1	23.8	70.9			46.1	88.1	56.1	54.6	66.7	45.1	40.2	45.3	61.9	86.2	48.9	55.1
Method use at first sex																				
N			(754)	(115)	(893)	(652)					(410)	(429)								
Ured any method			43.5	44.4	47.6	62.8					31.0	29.4								
N	(209)	(113)							(619)	(89)			(828)	(592)					(715)	(757)
Used condom	51.9	41.6							29.9	53.9			17.6	26.5					20.6	21.6
Method use at last sex																				
N			(754)	(115)	(906)	(659)											(134)	(33)		
Ured any method			54.8	56.8	82.3	83.6											84.3	75.8		
N					(906)	(651)														
Used modern contraceptiver					74.8	69.3														
N	(260)	(114)	(399)	(63)	(906)	(659)			(619)	(89)	(235)	(329)	(769)	(559)	(653)	(628)			(630)	(718)
Used condom	64.7	42.0	80.9	53.9	72.1	51.1			34.6	44.9	50.0	40.6	42.9	37.0	38.7	27.7			55.2	43.9
N											(235)	(329)								
Used female methods											1.3	33								
N											(235)	(329)								
Traditional methodr											20.3	20.3								

* *Note:* For more informofion on these surveys, see appendices E, G, and H. Sample sizes in this table differ from those in other tables because of restrictions on some subsets of the overall sample and because of the volume of missing data.

APPENDIX G

FINDINGS FROM SURVEYS EXAMINING INFLUENCES ON SEXUAL DEBUT*

Antecedent Variables	Paraguay	Peru	Brazil	Chile	Jamaica	Togo	Ghana	Zambia	Zimbabwe	South Africa
Individual-level Characteristics:										
Puberty				t						
Age	+		NS	t	t	t	t	t	t	t
Race/Ethnicity			NS			NS	M: SV f: NS			SV
Region/Residence		SV							NS	
Marital/Union status							t	t		t
Educational attainment1		N/A	N/A	N/A	N/A	NS	M: NI	M: NI	NS	M: t
literacy							f: t	f: –		f: NI
School attendance	M: – F: NS	N/A	N/A	N/A	N/A	M: NI [redacted]	M: NI F: –	M: NI f: –		–
Work/Employment		NS	NI		NS				t	
Religion/Religiosity				NS		NS			NS	
Knowledge of contraceptives/ condoms								M: t f: NI	NS	
Knowledge of risks of STI/HIV/ pregnancy								M: – f: NI	–	
Liberal attitudes re: premarital sex						t				
Higher self-efficacy/locus of control (general)		M: t F: –			M: NS f: NI					
Higher self-efficacy/locus of control re: sexual relations, contraceptive use							M: NI F: –		M: NI F: –	+
fngogement in nonsexual risk behaviors				t	M: t f: NI		NS	t	t	+
Peer and Partner-level										
Peer network extensiveness			NS				Mt f: NI	NS		M: NI F: –
Peers/friends ore sexually active/have experienced pregnancy/abortion		t	t		t	t	t	+		M: NI f: t
Peers/friends would ridicule if didn't hove sex							M: + f: NI			
Peer/friend perceptions important			NS							
fngogement in nonsexual risk activities			NS					..t f: NI		

Antecedent Variables	Paraguay	Peru	Brazil	Chile	Jamaica	Togo	Ghana	Zambia	Zimbabwe	South Africa
Communicotion with friends about IRH							M t f NI			
Communication with last/ current partner re: sexuality/ STI/AIDS/ pregnancy	—							t		
family-level living with one parent (vs. both)		NS			NS	NS	NS	NI	NS	
living with other (vs. both parents)	M: NI f t	NS			M t f NI	NS	M NI f t	M: NI f t	NS	
Parents' education			NS							M:— f NI
Socioeconomic rtotur	M NI f —	M: NI F: —		M t f NI	NS	M t F: —	M: — F: —			
Mother had adolescent pregnancy				t						
Iirter hod premarital pregnancy							M t f NS			
Connections with parents/ other adults		—	—		NS				NS	M:— F: NI
Communication with parentr		NI	—							
Communication with parents about SRH	M NI F: —		—				M: — F: NI			
Ichool-level Connectionr to teachers			—		M: NI F: —					M: — f NI
Perceived level of safety/ violence at school					t					
Community-level Community economic rtotur										NS
Connectionr with community			NS				NS	NS		M NI F:—
Protective community environment										M: NI F: —
Perception of sexual activity/ pregnoncier among adolescents or common							t			

Key Legend:
t = Positive association
— = Negative association
NI = Not significant at the .05 level
Blank = Not measured
SV = Significant variation within categories at the .05 level
N/A = Not applicable for population studied
M = Male
F= Female
SRH= Sexual and Reproductive Health

* NOTE: For mare information on these surveys, see appendices E–H. Sample sizes in this table will differ from those in other tables because of restrictions Io different subsets of fhc overall sample ond the volume of "mining data."

APPENDIX H

FINDINGS FROM SURVEYS EXAMINING INFLUENCES ON CONDOM USE DURING LAST SEXUAL ENCOUNTER*

Antecedent Variables	Paraguay (Male, Only)	Peru (Males Only)	Brazil	Jamaica	Togo	Ghana	Zambia	South Africa
Individual-level Characteristics:								
Age								
Race/Ethnicity			NS		NS	A: NS f SV		
Region/Residence		SV				SV		
Educational attainment/ literacy		N/A	N/A	N/A	NS			
School attendance	NS	N/A	N/A	N/A	NS		M NI f t	
Work/Employment		NS	NS	NS				
Religion/Religiosity					M SV f NI			
Knowledge of contraceptives/ condoms; rirk of HIV/ pregnancy	NS		NS				NS	M t f NI
Poritive attitude toward condom use			t				t	
Perception of being at rirk for STI/HIV; worried about getting HIV			NS				M t f NI	M: NI F: —
liberal ottituder re: premarital sex; gender egalitarian index			NS		t	M t f: NI		
Higher self-efficacy/locus of control (general)		t		NS				
Higher self-efficacy/locus of control re: sexual relations, contraceptive use	NS		NS			t		
Engagement in nonsexual rirk behaviors				NS			M t f: NI	
Peer and Partner-Level								
Peer network extensiveness		NS						
Perception that peers/friends ore sexually active/use condoms/have experienced pregnancy/abortion	NS	—	NS	NS		M: — f NI		
Peer/friend perceptionr important			NS					
Engagement in low-risk activities with friends							—	

Antecedent Variables	Paraguay (Males Only)	Peru (Males Only)	Brazil	Jamaica (Males Only)	Togo	Ghana	Zambia	South Africa
Communication with friends about SRH	t		NS				M: + / f: N	
Use of condom during first sex								t
Age of recent partner (continuous)								–
Recent partner from rame neighborhood								M NI / F: –
Communication with last/ current partner re: sexuality/ STI/AIDS/pregnancy	NS					t	t	t
Family-Level								
living with other than both porentr'	NS	–		NS	NS			
Parents' education			NS					
Socioeconomic rtatur	NS	t		NS				
Sister had premarital pregnancy								
Connections with parents/other family members		NS	NS	NS				
Communication with porentr	NI	NS	t			NS		
Ichool-level								
Connectianr to teachers			NS	NS				
Perceived level of safety/ violence at school				NS				
Community-level								
Community economic status								M: t / F: NI
Connectionr with community			NS				M NI / f: –	M: – / f t
Perceived level of safety/ violence in the community								M: NI / F: –
Perceived norms: many in the community use condoms							NS	

Key legend:

t = Positive association
– = Negative association
N = Not significant at the .05 level
Blank = Not measured
SV = Significant variation within categories of the .05 level
N/A = Not applicable for population studied
M = Male
F= Female
SRH= Sexual and Reproductive Health

NOTES. *For more information on these surveys, see appendices E–G. Sample sizes in this table will differ from those in other tables due to restrictions to different sub-sets of the overall sample, and the volume of "missing data."
'for Pea—"mother only" vs. 'both parents."

APPENDIX I

DETAILS ON THE *39* AVAILABLE EVALUATION STUDIES WITH STRONG RESEARCH DESIGNS[1]

FOCUS rponrored studies ore rhoded.

	School Programs						
	Study Information	Sample Description		Study		Results	
	Author(s)/Publication Date/Title	location/ Sample (*N*)	Age/ Gender	Program Dercription	Design	Analytic Methods	Results: Change in Outcome[2]	Conclusions/Implications
1	Gaffikin et al. (2000) Evaluation of an Integrated Adolescent Sexuality Education/ Health Service Provider Pilot Training Project in Salvador, Bahia, Brazil	Salvador, Bahia, Brazil *N* = 4,777	Age not reported Males and females	Sexual reproductive health education program with the provision of adolescent-appropriate reproductive health services at linked public health facilities	Pretest/posttest matched control group design. Six pairs of schools/clinics for intervention; six control schools located in same geographic area as intervention schools Pretest: intervention *n* = 2,424; control *n* = 2,353 Posttest: (30 months after pretest) intervention *n* = 619; control *n* = 706	Multivariate - logistic regression	Received reproductive health-related information from school sources or health professionals: + SRH knowledge: 0 Ever had sex: 0 Condom use: 0 Use of clinics: 0	Significant barriers to adolescents' use of clinic services exist in most settings. These need to be addressed by changing norms surrounding the use of health facilities by youth and providing services in nonclinic settings, in addition to the linked efforts of this program. Clinic services are used primarily by older youth, many of whom are already pregnant
2	Abolfotouh (1995) The Impact of a Lecture on AIDS on Knowledge, Attitudes and Beliefs of Male School-Age Adolescents in the Arir region of Southwestern Saudi Arabia	Arir region of southwertern Saudi Arabia Cross-sectional *N* = 838	*14-19* years Moler only	One lecture on AIDS education given by a rchool doctor an World AIDS Day *1992*	Quasi-experimental; posttest only five secondary schools for males were randomly selected to receive intervention. Six monthr later, three of there rchoolr and three controls were randomly thoren for posttest. Posttest: (6 months after one-time intervention) intervention *n* = 335; control *n* = 503	Chi-square tests	Overall knowledge about AIDS: 0 Fear of getting HIV/ AIDS: t	One session is not long enough; need to integrate AIDS education with school camprehenrive health curriculum;. Certified health instructors ore the best-qualified individuolr to provide AIDS education. The need exists for training, curriculum guider, and materials for both rtudentr and educators.
3	Antunes et al. (1997) Evaluating on AIDS Sexual Risk Reduction Program for Young Adults in Public Night Schools in Sao Paulo, Brazil	Sao Paulo, Brazil *N* = 394	18–25 yearr Work full time and attend high school in evening Moler and femoler	four 3-hour sessions Content: HIV/AIDS risk behavior, sexual normr, knowledge, attitudes, condom use; teacher training, small peer outreach component, and public events to generate community support; based on AIDS Rirk Reduction Model of Behavior Change	Experimental, longitudinal study with one pre- and two posttests; wait-list control design approach four rchoolr randomly thoren to receive intervention(two) or to be control (two) Pretest: *n* = 394 Posttest 1(6 monthr after pretest): *n* = 304 (77% of boreline) Posttest 2 (1 year after pretest): *n* = 198 (50% of baseline)	Analysis of tovorionce to compare boreline and follow-up	Communication with partner: Males: 0 femoler: t Number of rtudentr who changed risky behovior between baseline and posttests: Males: 0 femoler: t Commitment to safer sex: Moler: 0 femoler: 0	Progromr need to consider the rocioetonomic context of HIV risk behaviors. The qualitative component reveals that HIV is but one of many concerns, including unwonted pregnancy, unemployment, houring, violence, and drug use. Progromr need to challenge traditional mole sex roles and normr. High loss to follow-up occurred as the result of subject stress from working full time and going to rchool.

School Programr cont...

Study Information		Sample Description	Study		Rerultr	
Author(s)/Publication Date/Title	Location/ Sample (N)	Age/Gender	Program Description	Design	Analytic Methods	Rerultr: Change in Outcome'	Conclusions/Implications
4 Aplorco et al. (1995) Rerultr of a Model ADS Prevention Progrom for High School Students in the Philippiner	Manila, Philippiner N = 845	Mean oge = 14 years Maler and femaler	In-rchool curriculum bored on Cognitive learning Theory; curriculum included lecturer, gomer, role playing, and group discussions; 2-day teacher workrhop also implemented 12 sessions; 40 minuter each over o 6-week period Content: Sexuality, ADS, STIs, immune system, self-esteem, decirion-making rkillr, and refusal rkillr for unwonted sex	Quasi-experimental; longitudinal, cluster-randomized, controlled trial, pretest, and two posttests four high rchoolr were randomly selected to be either intervention (two) or control (two) sites. Within each rchool, one clarrroom from each grode war either the intervention or control. Pretert: n = 845 Posttest 1 (2 weeks after completion of 6-week intervention) intervention n = 420; control n = 384 Posttest 2 (8 weekr after completion of 6-week intervention) intervention n = 420; control n = 384	Two-tailed student t tests; estimate of interclorr correlation by one-woy onalyrir of variance	Knowledge of ADS biology, transmission, and prevention: t HIV-related attitudes: t Overall intended preventive behavior: 0 Agreement that sex rhould be delayed: t	Involvement of teacherr in curriculum development facilitated acceptance and ease of implementotian. However, the curriculum war too extenrive for the classroom period and more time wor given to boric sex and drug education thon ADS prevention. The outhorr recommend expanding and improving thir intervention with intenrive student participation. Teachers need more training, and the curriculum should include more information on AIDS ond building of rkillr to refuse sex and resist peer pressure. Behavior change not measured
5 Caceres et al. (1994) Evaluating a School-Bared Intervention for STD/AIDS Prevention in Peru	Lima, Peru N = 1,213	11-21 years; median oge = 15.5 yeorr Primarily Catholic Maler and femaler	formal education curriculum guided by a theoretical framework using behaviorol theories, models of ADS risk reduction and theories of empowerment; curriculum included dircurrionr, verbal exercises, and role ploying; teacherr were trained in a 15-hour workrhop over a 3-day period Seven weekly, 2-hour rerrionr Content: Increaring STI/ADS knowledge, improving attitudes, and develaping rkillr to use condomr Three-month intervention	Quasi-experimental; longitudinal survey of intervention and control youth; pre-and posttests Adolescents in 14 rchoolr were randomized into intervention and control groups. Pretest: intervention n = 604; control n = 609 Posttest (immediately following intervention-4 monthr after pretest) intervention n = 406; control n = 402 (67% of baseline) Paired Student t tests; multiple linear regrerrion	Paired student t tests; multiple linear regrerrion	Knowledge of sex: t Knowledge of AIDS: Moler: 0 femaler: t Poritive sexuality ottitudes: t Mochirmo (gender role attitudes): Maler: t femaler: 0 Attitudes toward contraceptiver: t Attitudes toward condamr: t Discrimination against people with HIV: t Behavioral intentionr: t Self-efficacy: Maler: 0 femaler: t	This intervention war designed to be a short, intenrive educational effort aimed at older adolescents unable to participate in longer term sex education programr. further research on genderlmochirmo issues would rtrengthen curriculum;. Authors also suggest looking at how thir approach could be adapted to other settings. Progromr murt consider structural supports (e.g., parent programr, condom distribution, i n dividual counseling) to encourage behavioral change. Behavioral change not measured

School Programs cant...

Study Information	Sample Dercription		Study			Results	
Author(s)/Publication Date/Title	location1 Iample (M)	Age/Gender	Program Description	Design	Analytic Methodr	Results: Change in Outcome[2]	Conclusions/Implications
6 CEOPA, JHU/PCS (1993) €valuationof Population/Family life Education Programme in Secondary Schools in Nigerio	Iokoto, Kono, and Borno rtater in the northern zones; Anabra, Riven, and Oyo rtater in the routhern zoner of Nigeria *N* = 3,194	Mean age of junior secondary rchoalr = 14.25 Mean age of senior recondory rchoolr = 172 60% males and 39% females	formal curriculum implemented in recondory rchool classrooms; subgroup expered to intenrive "Population1 family life Education" campaign and more frequent monitoring visits Training given to 462 teachers in curriculum and participatorymethods	Quari-experimental; bareline and follow-up surveys, panel design Intervention took place in rix rtater; in each one, three rchoolr received the intervention and three were control,. One classroom from each rchool war randomly choren to participate in the study. Bareline: *n* = 3,194 follow-up: (1 year after bareline in northern zones; 11 months after bareline in southern zones) *n* = 2,209 (70% of bareline)	Student *t* tests	Knowledge of benefit of family planning, AIDI, reproductive anatomy, and signs of malnutrition: Senior/south: t Others: 0 Knowledge of STIs: 0 Attitudes about monogamy: t Attitude toward family planning: Senior/north: t Others: 0 Attitudes about marriage: 0 Attitudes toward family size: Males only (junior/north): t Others: 0 Discussion of Pop/FLE topicr: Senior and junior/routh: t Others: 0	Some variability war observed between zones (north versus south) and by level of education (junior recondory rchool or renior recondory rchool). Curriculum beginr to fill the gap in adolescent knowledge. To observe effect will take longer than 1 rchool year. Program also needs more of an "action" orientation. Did not examine reproductive health behaviorr.
7 Coplan et al. (in press) Sexual Behavior and Health Care-Seeking Behavior for Sexually Transmitted Diseases among Nigerian Youth (Bored an summary report)	Benin City, Edo, Nigerio *N* not reported	Not reported	formal and peer education about sexually transmitted infection! Content: STI rymptomr; complicationr from nontreatment; haw to inform partners; prevention, especially correct use of condoms Selected doctors, pharmacirtr, and "patent medicine" vendarr were trained to provide confidential and high-quality services to youth; peer educators referred students to there providerr	Quasi-experimental, pre- and posttest with intervention and control groups four interventionsites,eight control riter Pretest and posttest 1 year apart Numbers in groups not available from rummary report	Chi-rquare tertr	Knowledge of STIs: t Self-reported STI symptoms: t Use of private phyricians or pharmacirt for STI treatment: t Use of candomr: t	Health-reeking behavior among adolescents can be improved through better health education and counreling. Sexuality education in the rchoolr is a cart-effective way to provide informotion. Training of health care providers in youth-friendly rervicer ir critical.

School Programs cont..

Study Information		Sample Description		Study		Results	
	Author(s)/Publication Date/Title	Location/ Sample (N)	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome[2]	Conclusions/Implications
8	Eggleston et al. (2000) €valuation of a "Sexuality Education Program for Young Adolescents in Jamaica" Jackson et Il (1998) Ihe lamaica Adolescent Study: final Report	10 "new recondary" and "all age" rchaolr across lamaica N = 945	11-14 years 7th grade rtudentr at bareline low to lower middle socio-economic status Maler ond femaler	Specially developed family-life education curriculum One session per week for 1 year Content: Reproductive anatomy and phyriology; benefitr of sexual abstinence; negative consequences of sexual activity and pregnancy; transmission, rymptomr, and treatment of STIs; family planning; peer pressure Comparison group: regular rex education progrom	Quasi-experimental; longitudinal study with bareline and two follow-up surveys five intervention rchaolr; five control rchoolr (urban and rural) Bareline: intervention n = 426; control n = 519 follow-up 1: (9 monthr after bareline) intervention n = 392; control n = 476 (boys were more likely to be lost at follow-up) follow-up 2 (21 monthr after bareline) intervention n = 339; control n = 379	Chi-square tests of orrociation; t tests, and multivariate lo-girtic re-grerrion (using GEE methods)	Knowledge of pregnancy prevention and condom use: t (not sustained at follow-up 2) Knowledge of when pregnancy occurs: — Attituder about sexual activity: t (not sustained at follow-up 2) Attituder on parenthood: t (not sustained ot follow-up 2) Sexual initiation: 0 Ure of contraceptive: 0	The study war rigorous, methodologically round. Mutational pragramr for youth can have short-term effects, but the need exirtr to consider what else is necessary to obtain a longer term effect (more than 1 year). Participatory teaching methodr and smaller class size are recommended to rtrengthen impact of intervention.
9	Fawole et al. (1999) A School-Bared ADS Education Programme for Secondary School Studentr in Nigeria: A Review of Effective-nerr	Ibadon, Nigeria N = 433	Mean age of intervention group = 17.6 years Mean age of control group = 178 yearr Maler and femaler	Six weekly sessions held in rchaolr, each lasting from 2 to 6 hours; included lecture, film, role play, debate, stories/songs, and essays	Experimental; longitudinal derign; pre- and posttest evaluation four rchoolr (two intervention sites; two control) Multistage sampling technique used to select intervention and control riter with rtudentr chosen randomly far each rite (two arms with 20-25 rtudentr in each) Pretest: intervention n = 233; control n = 217 Porttert: (6 monthr after completion of intervention) intervention n = 223, control n = 210 (96.2% of bareline)	Chi-square tests of orrociotion and analysis of vori-once	Knowledge about AIDS: t Attitudes toward people with ADt: t Proportion of rtudentr rexually active: t Number of sexual partnerr: t (among rexually active participants) Ure of condom at last sex: 0 Conrirtent use of a condom: 0 Knowledge about ADt: t	Behavior change, rpecifically condom use, needr more attention in there pragramr. The program requires more time and motivation on the pad of rtudentr; rurtoinability issues and expanrion of the program must be addressed. These programs need to have a perron with ADS rpeak out to combat negative altitudes.
10	Harvey et al. (2000) Evaluation of a Drama-in-Education Programme to Increase ADS Awarenerr in South African High Schools: A Randomized Community Intervention Trial	KwaZulu-Natal province, South Africa N = 1,080	13-29 years Maler and femaler	Three-phare drama-in-education intervention: (1) teachers, nurses, and, actorr presented a play in each rchaol; (2) teachers and rtudentr used participatory methodr in drama workrhopr; (3)students made a presentation on "rchool open day" to celebrate d-mination of program. Control group had o book-lcl only.	fxperimental; pre-and posttest evaluation, panel design Seven poirr of rchaolr randomized to receive intervention or booklets about HIV/AIDS Pretest: n = 1,080 Posttest: (about 8 monthr after pretest, 6 monthr after completion of intervention) n = 699 (64.7% of bareline)	linear regression	Attituder toward HIV/AIDS: t Condom use: t (among rexually active participants) Sexual activity: 0 Number of sexual partners: 0 Ever had STI: 0	The program needs measures such as changer in HIV incidence over time to assess the impact of there types of programr. No evidence of increase in number of partnerr or other changer in sexual behavior patternr war found. Concernr were roired about sustainability of intervention and high attrition rate, but 6-month follow-up period rhowr it had more than a rhort-term effect.

School Programs cont...

Study Information	Sample Description		Study			Results	
Author(s)/Publication Date/Title	Location/ Sample (N)	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome'	Conclusions/Implications
11 Klepp et al. (1997) AIDS Education in Tanzania: Promoting Risk Reduction among Primary School Children Klepp et al. (1994) AIDS Education for Primary School Children in Tanzania: An Evaluation Study	Arusha and Kilimonjoro regions of Tanzania N = 1,063	Primary rchool children 6th grade-1992 7th grade. 1993 Mean age = 13.5 Males and femoler	"Ngao" (shield) education program implemented over 2 to 3 months in primary schools; curriculum adapted to rural and urban settings; intervention guided by a theoretical framework uring theory of reasoned action and social learning theory 20 hours of class time; teachers received 1 week of training	Experimental; longitudinal survey; randomized, controlled community trial with pre-and posttests 18 schools (6 intervention; 12 controls) were included in study; in the intervention groups in each region, at least one rthool was urban, remi-urban, or rural Pretest: n = 1,063 Posttest: (12 months after pretest) n = 814 (77% of baseline)	Analyrir of covarionce and adjusted means to determine direction of intervention effect	Exposure to AIDS information and communication: t Knowledge about AIDS: t Attitudes toward people with AIDS: + Attitudes toward having sexual intercourse: 0 Subjective norms and behavioral intentions toward huving sexual intercourse: t Initiation of sexual intercourse during previous year: 0	School program led to community awareness about ADS High rater of attrition an follow-up resulting from rchool dropout rater rhow need for efforts to reach out-of-rchool youth. The need exirtr to rtudy long-term effects of programs like this one. What hoppenr when the intervention group leaves rthool?
12 Kuhn et al. (1994) Participation of the School Community in AIDS Education: An Evaluation of a High School Programme in South Africa	Cope Town, South Africa N = 567	12-30 years; mean oge = 18 low SES Males and femoler Mean age = 14.5 Males and femoler	Pilot AIDS education program; participatory methods used to dptign and implement program; included role playing, videos, games, and art activities Intense, high-profile focus on AIDS in school over a 2-week period	Quasi-experimental; pre- and posttest, two cross-sectional samples One rthool only (two classes from each grade received intervention; comparison group came from nearby rchool in same community) Pretest: (took place after progrom planning) intervention n = 231; control n = 336 Posttest: (no information on follow-up period) intervention n = 206; control n = 276	Pearson chi-square tests	Knowledge about AIDS: t Attitudes toward people with AIDS: t Beliefs about personal susceptibility or vulnerability to AIDS 0 Intentions to use condomr and other plans in response to AIDS 0 Communication with parents, peers, teachers, sexual partners, and nurses about AIDS: +	Intervention had positive impact on knowledge and attitudes, but authors express concem about lingering misconceptions about AIDS after intervention. The need exists for ongoing interventionr to ree lasting impact and behavior change. Achieving that change requires more teacher and parent involvement, which is difficult in the context. Teachers do not seem open to increased workload, and they need better training.

Ichool Programs cont...

Itudv Information	Sample Description		Itudv		Results	
Author(s)/Publication Date/Title	Location/ Sample (M)	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome[2]	Conclusions/Implications
13 Mbizvo et Il (1997) Effects of a Randomized Health Education Interventionan Aspects of Reproductive Health Knowledge and Reported Behaviour among Adolercentr in Zimbobwe Rusakaniko et Il (1997) Trends in Reproductive Health Knowledge following o Health Education Intervention among Adolercentr in Zimbabwe	Selected rchoolr in Zimbabwe (exact location not reported) Randomized cluster derign for sampling N = 1,689	Mean age = 14.5 Males and females	Health education program consisting of IEC materials (leaflets, pomphletr, posters) and lectures Content of EC materials: Male reproductive function, sexuality, HIV/ADS, female reproductive function, anatomy, STIs, human rexuality and rerpanrible behovior, unwanted pregnancy, contraception, and career porterr Content of lecturer: Reproductive biology; STI/HIV/AIDS issues; unwanted pregnancy and contraception; human sexuality and rerpanrible behavior	Experimental; boreline and two follow-up surveys with randomized experimental and control groups in rural and urban areas five intervention rchoolr, three control rchoolr Boreline: intervention *n* = 1,159; control *n* = 530 follow-up 1: (5 months after baseline) intervention *n* = 1,103; control *n* = 502 follow-up 2 (9 monthr after baseline) intervention *n* = 1,071; control *n* = 518	Comporiron between groups — Chi-rquare tests and Wilcox— on two-sample tests, 9-month trend analysis	Knowledge of men-rtruation: t (5 months) 0 (9 months) Knowledge of wet dreams: t (5 months) 0 (9 months) Knowledge of pregnancy: t (5 ond 9 months) Knowledge of family planning: t (5 and 9 months) Ever had sex: 0 (5 and 9 monthr)	Health education in rchoolr has an impact on knowledge; positive trends of knowledge on reproductive health, STIs/HIV/ADS hove been observed.
14 Munodawafa et Il (1995) fffectivenerr of Health Instruction Provided by Student Nurses in Rural Secondary Schools of Zimbabwe: A Feasibility Study	five rural secondary rchoolr in Zimbabwe (exact location not reported) N=285	formr 2 and 3 (equivalent to 9th and 10th grader) Males and females	Itudent nurses orrigned to provide health instruction to in-rchool adolescents as a requirement for graduation at nursing rchool; nurses received in-service training far 2.5 hours, two timer o week for 6 weekr Students attended 14 40-minute classes over a 7-week period. Content: STI/HIV/AIDS prevention; drug, alcohol, and tobacco use	Quasi-experimental; linked pre- and posttest; nonequivolent control group dergn five rural rchoalr participated (three intervention schools; two control schools) Pretest: intervention *n* = 141; control *n* = 144 Posttest: (immediately fallowing 7-week intervention) intervention *n* = 141; control *n* = 144	Analysis of covariance, chi-square tertr	Knowledge of STIs, HIV/AIDS, drugr, and alcohol (14 out of 24 items): t	Ihir rtudy demonrtrated the feoribility of uring nurses to provide inrtructian about STI/HIV/AIDS and rirk behaviorr, thus relieving overburdened teachers. Making this activity a requirement for graduation from nursing rchool demonrtrated political will an the part of the MOH and the government. Despite this high-level commitment, however, the rtudy revealed a need to overcome rerirtonce on the part of teachers and rchool officialr, especially their objectionr to inrtruction about condom use.

School Programr cont...

Study Information	Sample Description		Study			Results	
Author(s)/Publication Date/Title	Location/ Sample (N)	Age/Gender	Program Description	Design	Analytic Methods	Rerultr: Change in Outcome'	Conclusions/Implications
15 Murray et al. (2000) An Evaluation of on Integrated Adolescent Development Program for Urban kenagers in Santiago, Chile	Santiago, Chile Cross-sectional sample N = 4,238	Males and females 7th-12th grader	School and health facility education program; curriculum implemented over 2-year time period Content Healthy relationships; sexuality; STIs; gender: rirk behoviarr ruth or drug use and rmoking local adolescent research and services group (CEMERA) provided additional information ond referrals to clinic	Quasi-experimental; four rounds of data collection from March 1994 to November 1996 Two interventionsites; three control riter Boreline: intervention n = 2,512; control n = 1,736 follow-up 1: n = 2,247 (8 manthr after bareline) (data collected only at intervention riter for monitoring purposes) follow-up 2 intervention n = 2,242; control n = 1,920 (20 monthr after boreline) follow-up 3 intervention n = 1,940; control n = 2,195 (32 manthr after boreline) life table techniquer	life table techniaues	Knowledge of human reproduction and STIs (index): t Knowledge about STIs: t Knowledge of contraception: 0 Attitudes (teen pregnancy, sexual relationrhipr between youth): 0 Sexual activity: 0 Contraceptive use: Males: 0 Females: t Method use at last sex: 0	Program produced changer in knowledge and behoviorr. Having the clinic/services at the rchool may have resulted in higher contraceptive use among sexually active students. The curriculum war rigorously evaluated and rupparted by parentr, teachers, and rtudentr.
16 Pick de Weiss and Palos (1989) Development and longitudinal Evaluation of Comparative Sex Education Courses	Cuojimolpo and Padiema, Mexico N = 491	Average age range: 13.4-14.9 Males and females	Two treatment groupr: (1) traditional sex education curriculum (2) new "Planeando tu vido" (Planning your life) curriculum Two-day training included for educators 12 rerrionr-2 per week for 6 weeks Content: Relationrhipr; decirion making; interpersonal communication with portnerr and parentr: assertiveness with the troditionol rex education curriculum	Quori-experimental; bareline and two follow-up surveys, panel design Intervention subjects compared with two control groupr, one receiving traditional sex education and the other receiving no sex education Baseline: intervention n = 159; control N = 133 and 199 follow-up 1: (4 months after course completion) intervention n = 130; control N= 148 and 192 follow-up 2 (8 months after course completion) intervention n = 123; control N= 105 and 188	Student t tests Results bared on only 8 monthr of follow-up data	General knowledge: t Communication with parentr: 0 Perception of condom use and access: t Self-efficacy ("personality characteristics"): t Sexual initiation: 0 Contraceptive use at first sex: 0	Study was limited by age differences among the three groupr, small sample size, and the young age at the three groupr. (Mort youth had not hod their sexual debut) The findingr on contraceptive use are thus limited.

School Programs cont...

Study Information		Sample Description		Study		Results	
Author(s)/Publication Date/Title	Location/ Sample (N)	Age/Gender	Program Description	Derign	Analytic Methods	Results: Change in Outcome[2]	Conclusions/Implications
17 Seidman et al. (1995) fertility Awareness Education in the Schools: A Pilot Program in lantiago, Chile	Santiago, Chile N = 532	Mean age of intervention group = 161; mean age of cantral group = 15.6 Males and females	Valuer-bared fertility awareness/sexuality education curriculum called "Teen Star" in private and public secondary schools and a postsecondary school; parental approval required far participation 18 classes (of unrpetified length), reparated by gender for first 8 classes Teachers of biological and racial rciencer received workshop training	Quasi-experimental; baseline and follow-up surveys; panel design Pretest: intervention n = 289; control n = 243 Posttest: (8 monthr after pretest –immediately following intervention) intervention n = 289; control n = 243	Student t tests	Attitudes about abrtinence: 0 Attitudes about sex: 0 Peer influences: 0 likelihood of having sex within next year: 0 fertility awareness: + Initiation of sexual activity: t	Authors note that intervention war not implemented consistently in all schools. In same rchaalr, the topic war taught as a separate course; in others it war integroted. No control war in place far demagraphic differencer in intervention and control groups.
18 Shuey et al. (1999) Increased Sexual Abrtinence among In-lchool Adolescents as a Result of School Health Education in Soroti District, Uganda	Soroti District, Uganda N = 400	Average age = 13-14 Maler and femaler	Education program aimed at increaring access to information and resources for healthy sexual decirian making, improved Communication between adolescents about sexuality, and improved quality of rchaol system to implement education program Activities: One-day renritivity training for local leaderr and headmarterr; KAP survey and focus groups on sexuality issues to inform program design; increased supervision of rchaal health program; meetings of parents, teacherr, and community leaderr to discuss health education issues; training far "senior women" and rcience teacherr; training at local teachers' college in rchaol health and AIDS curriculum; answering questions in student box	Quasi-experimental; pretest and posttest design with P7 rtudentr at pre- and posttests 38 primary rchaalr chosen randomly from 3 counties within the district; 10 students randomly selected from each rchaol Pretest: intervention n = 287; control n = 113 Posttest: (2 years after pretest) intervention n = 280; control n = 120	Chi-square tests, cross-tabulations	Knowledge of AIDS: 0 Communication between peers and teachers about sex: t Perception that peers are sexually active: 0 Agreement that abrtinence is goad: t Iexual activity: t Number of partners: 0	Rather than just disseminate information, education pragrams should encourage communicatian and interaction among participantr during implementation of the project. Goad supervision of efforts is critical; the quality of implementation is probably mare important than details of the curriculum.

School Programs cont...

Study Information	Sample Description		Study		Rerultr	
Author(s)/Publication Date/Title	location/ Sample (M)	Age/Gender	Program Description	Design	Analytic Methods	Rerultr: Change in Outcome'	Conclusions/Implications
19 Stanton et al. (1998) Increased Protected Sex and Abstinence among Namibian Youth following a HIV Rirk-Reduction Intervention: A Randomized, Longitudinal Study fitzgerold et al. (1999) Use of Western-Based HIV Rirk-Reduction Interventionr Targeting Adolescents in an African Setting (same design)	Omusati and Caprivi, Namibia N = 515	15-18 years; mean age = 17 Moler and femoler	Adaptation of US.-bared "FOCUS on Kids" program, bored on social cognitive theory program called "My future is My Choice" 14 after-rchool sessions with groups of 15 to 20 students 2 hourr a week fur 7 weeks Content: Empharir on abstinence and safer sex practicer facilitator training lasted 40 hourr	Experimental; randomized intervention trial; baseline,and three port-intervention surveys; longitudinol survey of intervention and control youth 10 rchoolr were relected; youth within each school were randomly assigned to on intervention or control group; control group received intervention after the final follow-up survey Boreline: intervention n = 262; control n = 253 follow-up 1: (2 months after boreline) n = 452 follow-up 2 (6 monthr afler baseline) intervention n = 209; control n = 170 follow-up 3: (12 monthr after boreline) intervention n = 201; control n = 158	Chi-square tests	Perception that they could find candomr: Moler: + (2 and 6 monthr) femoler: t (12 months) Perception that they could ark for condomr at clinic: 0 Belief that they could put condom on: Moler: 0 femoler: t (2, 6, and 12 months) Intention of uring condomr: Moler: 0 femoler: t (2 monthr) Alcohol use: + (2, 6, and 12 months) Delay of sexual initiation: Moler: 0 females: t (12 monthr) Condom use (those who become sexually active during intervention): Moler: t (2 months) 0 (6 months) 0 (12 mo.) femoler: 0 Number of sex portnerr: 0 Perception h o t they could refuse sex without a condom: 0	Thir type of intervention is effective but costly. The need exirtr to find ways to modify successful US.-bored progromr for low-resource settings: Relevant cultural adaptotionr con make US.-bored progromr successful in developing country settings, reducing the actual program development costs. Gender differences in intervention rerponre must be addressed when revising the program. The program must concurrently increase condom availability. Further monitoring and evaluation indicatorr ore needed to track program success and challenges. Biological markers ore especially needed to corroborate self-reported behavior.

School Programs cont...

Study Information		Sample Dercription		Study		Results	
	Author(s)/Publication Date/Title	Location/ Sample (N)	Age/Gender	Program Dercription	Design	Analytic Methods	Results: Change in Outcome'	Conclusions/Implications
20	Ihongkrojoi et al. (1994) AIDS Prevention among Adolescents: An Intervention Study in Northeast Thailand	Northeast Thailand N = 2,909	Males ond females	Two interventions: (1) established a learning environment that provided information on STIs, HV, and safer sexual behavior (through videotoper, slideshows, leaflets, and posters); (2) training for peer counselors in IEC activities for each class and in how to make referrals to clinicr	Quasi-experimental; longitudinal design; boreline and follow-up surveys Two intervention schools; one control school; one high rchool; and one vocational/commercial rchool in each group Baseline: n = 2,909 follow-up: (6 monthr after boreline) n = 2,356	Chi-square tests	Knowledge: 0 Aworenerr of high-risk sexual behavior: 0 Aworenerr of the benefitr of condom use: 0 High-risk sexual behavior: 0 (unreliable data)	Authors note that data regarding high-rirk sexual behavior were unreliable.
21	Wilron et al.. (1991) An Experimental Comparison of Iwo AIDS Prevention Interventions omang Young Zimbobweonr	Zimbabwe (exact location not reported) N = 84	Mean age = 23.1 Student teachers Males and femoler	Intervention group: One rkillr-bored education session in school lasting 90 minuter Activities: Condom demonstration; role playing; large and small group prychodromo; video Control group: Information-bored rerrion for 1 hour	Experimental; longitudinal derign; pre-and posttests Pretest: intervention n = 42; control n =42 Posttest: (4 monthr after intervention) intervention n = 42; control n =42 (not reported, but implied in report)	Analysis of variance	Knowledge about condomr: t Knowledge about correct use of condomr: t Self-efficocy: t Perceptions of barriers to action: t Number of sexual partners: t Number of unprotected sexual acts in previous monthr: t	The need exirtr for skills-based programs with well-trained leaders, and there ore not enough of there individuolr in most areas of Africa. The need also exists to train AIDS educators and to develop training packages and manuals or well or a system of supervision and support for educators.

Study Information		Sample Description		Itudy		Results	
	Author(s)/Publication Date/Title	Location/ Sample (N	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome[2]	Conclusions/Implications
22	Magnani et al. (2000) Evaluation of "Arte y Parte": An Adolescent Reproductive Health Communications Project Implemented in Asuncion, San Lorenzo and Fernando de la Mora, Paraguay	Asuncion, San Lorenzo, and Fernando de la Mora, Paraguay Random sample Baseline: *N* = 947 Follow-up: *N* = 1,575	15-19 years Males and females In school and out of school	Project used adolescent-specific mass media product development and placement and the use of peer educators Project was designed to 1) increase the media's understanding and coverage of YARH issues; (2) increase knowledge of reproductive health to promote responsible sexual behavior among adolescents; and (3) improve communication and negotiation skills related to reproductive health issues among young adults	Pretest/posttest with reflexive controls using two cross-sectional samples Baseline (n = 947) and follow-up surveys (n = 1575) were conducted with youth residing in the three cities to measure project reach and changes in impact indicators; impact was measured on the basis of changes-in-outcome indicators between surveys and the magnitude of dose-response relationships between indicators of project exposure 30 months between baseline and follow-up surveys	Weighted proportions calculated for project exposure; Chi-square tests, and F-tests; t tests; multiple logistic regression analysis	Knowledge of selected reproductive health issues (e.g., that condoms prevent STIs): + Attitudes of selected reproductive health issues (e.g., that both partners are responsible for protection when having sex and that girls who protect themselves are responsible): + Ever had sex: 0 Condom use at first sex: +	Although mass-media strategies are successful in reaching youth, they may not be the best methods for transmitting in-depth information. More continuous and intense interventions may be necessary to promote significant behavioral change.
23	Kim et al. (2001) Promoting Sexual Rerponribility omong Young People in Zimbabwe Kim et al. (1998) Impact of the Promotion of Youth Responsibility Project Campaign on Reproductive Health in Zimbabwr 1997-1998	five pilot riter in Zimbabwe: Mutare (urban), Maphira, Tongogara, Nzvimbo, and Nemanwa (all townr at the tenter of rural districts) Cross-sectional sample	10-24 years, with more than half 15-19 years Males and females	Youth multimedia campaign to educate about YARH issues; also trained providers in "youth-friendly rervicer" to improve the quality of tounreling and clinic practices: intervention also encouraged parental involvement Multimedia tompoign lasted for 6 monthr; training course consisted of 2-week training-of-trainers workrhop, 1-week training tourre for health workers, and 2-week tourre for peer educators Communitationr: Posters, leaflets, peer educators, rodio, drama, campaign lounch events, telephone hot line, support (media derign workrhop), training progromr for drama, seminars to rolicit media and local leaders	Quasi-experimental; baseline and follow-up; two cross-sectional sampler five intervention sites; two tom-poriron riter (not true tontrolr because of inadvertent national exposure through radio) Bareline: n = 1,426 (3 monthr before launch) follow-up: (1 year after boreline—3 months after completion of intervention) n = 1,400 Not a true comparison group because it was exposed to elements of the media progromr and advertirementr for the hot line	Chi-rquore tests	Knowledge of fomily planning: 0 Knowledge of reproductive health: t Approval of unmarried coupler using family planning: 0 Sexual detirion moking: 0 Discussion with anyone about reproductive health topics: t Use of reproductive health services: t Refusal of sex: t Use of contraception (among sexually experienced): t Activity with only one partner (omong sexually experienced): t Use begun of condomr (omong sexually experienced): t	The study affirmed the importance of involving youth in every aspect of program design and implementation as well as the need to involve the community. It also showed that youth need to intreare their knowledge about contraceptiver, not just fomily plonning and reproductive health in general.

Mass Media Programr cont...

Study Information		Sample Dercriptian		Study		Results	
	Author(s)/Publication Date/Title	location/ Sample (N)	Age/Gender	Program Dercriptian	Design	Analytic Methods	Results: Change in Outcome[2]	Conclusions/Implications
24	Meekerr et al. (1997) Changing Adolescents' Beliefs about Protective Sexual Behaviar: The Botswana Tsa Banana Program	Lobatse, Botswana Crorr-rectional rample N = 1,002 baseline N = 2,396 fallow-up	13-18 years Males and femaler	Youth-friendly outlets far reproductive health information and praductr that referred adolercentr to Ira Banana clinicr; multimedia campaign; social marketing of condomr; peer sales outreach to community; and education sessions in rchaolr Communications: Radio, print media, and information targeted to parents, teacherr, and community leaders	Quasi-experimental; prc-and posttests One intervention rite; one control rite Pretest: n = 1,002 Posttest: (8 months after implementation of project—16 months after baseline) n = 2,396	lagirtic regrerrion analyrer	Belief that condoms reduce AIDS rirk: Maler: 0 Females: t Belief that ADS is not curable: Maler: 0 Females: t Belief that sex leads to marrioge: Maler: 0 Females: t Belief that having sex increases one's status: Males: – femaler 0 Belief that sex is an AIDS risk: 0 Belief that abrtinence is protective: Maler: 0 Females: t Attitude toward female condam: 0 Self-efficacy in getting partner to wear a condom: Males: t Females: 0	There were some undesirable trends such as shyness when buying candamr, which were found in young men in the control group. Programr should avoid stigmatizing condoms to counter there trends. A need also exists to target men and women separately. No information war available an behavioral impactr.
25	Meekerr (1998) The Effectiveness of Targeted Social Marketing to Promote Adolescent Health: The Care of Soweto, South Africa Van Rossem and Meekerr (1999a)	Soweto, South Africa Control: Umlazi, South Africa Cross-sectional; multistage, stratified rample N = 430	17-20 years femaler only reported in analysis	Participatory medio development; mass media campaign; peer education; and targeted condom distribution 70 adoleaentr trained in participatory media development process, peer education, and condom dictribution 300 condom distribution outlets opened to support intervention Intervention: 6/94–4/97	Quasi-experimental; pre-and posttests, two cross-sectional sampler One intervention rite; one control rite Pretest: intervention n = 118; control n = 108 Posttest: (1 year after pretest) intervention n = 101; control n = 103	lagirtic regrerrion analyses	Awareness about rirkr of becoming pregnant: t Awareness of STI and HV risks: – Perceived susceptibility to sexual rirk: 0 Believe condom use is best way to protect against HIV/AIDS: t Perception of barriers to pregnancy prevention: t Discussion of STI/HIV preventian: 0 Discussion of HIV/AIDS: 0 Current use of candamr to prevent pregnancy: – Current use of contraceptives far family planning: 0 Ever used condomr: t Condom use at lart rex: 0 Sexual behavior patterns: 0	Intervention was mare effective at changing knowledge and attitudes about preg nancy than HIV/AIDS. The author concluder that the focur an pregnancy war at the expense of participants learning more about HV, which raises questions about involving youth in project drcign. The program must be sure that the media campaign addresses all reproductive health issues of concem, not just pregnancy. The author recommends rtepr to "expand and intensify" activities targeted to adolercentr.

Marr Media Programr cont...

Itudv Information	Sample Description		Study		Results		
Author(s)/Publication Date/Title	location/ Sample (*N*)	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome[2]	Conclusions/Implications
26 Van Rossem and Meekers (1999a) An Evaluation of the Effectiveness of Targeted Social Marketing to Promote Adolescent and Young Adult Reproductive Health in Cameroon	Edea, Cameroon Control: Bofia, Cameroon Cross-sectional; multistage, stratified sample *N* = 1,606-baseline *N* = 1,633-follow-up	12-22 years Moler and femoler	Peer education, youth clubs in schools, mass-media campaign, behavior change communications, social marketing of condamr Communications: Brochures, posters, and radio-targetingof youth with messages about reproductive health and condom use	Quasi-experimental; pre-and posttests, two cross-sectional samples One interventionsite; one control rite Pretest: intervention *n* = 805; control *n* = 801 Posttest: (15 monthr after boreline—I-2months after completion of 13-month in. tervention) intervention *n* = 811; control *n* = 822	Logistic rearession analyses	Knowledge of preventive behavior: t Perception of rirk of STI/ AIDS: Mole: t Females: 0 Perception of risk of unwanted pregnancy: 0 Awareness of being responsible for the use of protection during sex: Males: 0 females: t Discussion of issues related to sexuality and contraceptive use: t Visitation of a health center for contraceptive information: 0 Initiation of sexual activity before age 15: Mole: 0 femoler: t Ever hod sex: Moler: 0 femoler: t Ever tried condoms: Moler: 0 femaler: t Condom use at last sex: 0 2+ sexual partners in part 30 days: Moler: t femoler 0 2+ regular sexual partners in last 12 months: 0 Awareness of risk for HIV and pregnancy: 0	Cost and availability of condomr ore nof important borrierr to protective behavior. No evidence exists of increase in condom use for STI prevention. This strategy is a good one for reaching adolescents, but it needs 2 years of ongoing activily, and thir interventionlasted only 13 months. The need exists to further examine constraints to condom use

Morr Medio Programs cont...

Study Information		Sample Dcrcription	Study			Results	
Author(s)/Publication Date/Title	Location/ Sample (N	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome2	Conclusions/Implications
27 Van Rossem and Meekers (1999a) An Evaluation of the Effectiveness of Targeted Social Marketing to Promote Adolescent ond Young Adult Reproductive Health in Cameroon	Conakry and Kankan, Guinea Cross-sectional; multistage, stratified sample N = 2,016-baseline N = 2,005-follow-up	12-19 years Males and females	Peer education; medio campaign; intense, targeted marketing effort in context of brooder social marketing activity; small youth-friendly service component (certain clinics held special hours for youth); recreotionol octivitier Communications: Brochures and posters to increase knowledge and use of condoms and modern contraceptives; encouragement of delayed sexual initiation and abstinence; theater, dance, and discussion groups added to the social marketing program	Quasi-experimental; prc-and posttests; two cross-sectional samples One intervention rite; one control rite Pretest: intervention n = 1,512; control n = 504 Posttest: (13 monthr after boreline—about 8-month inter-vention period) intervention n = 1,500; control n = 505	Logistic regression analyses	Aworenerr of rirk for HIV and pregnancy Perceptions abouts benefits of prevention: 0 Self-efficacy: 0 Knowledge of contraceptive methods: 0 Patterns of sexual behavior (including sexual initiation): 0 Number of partners: 0 Condom use omong sexually active: Males: + Females: 0 Condom use at last sex: Males: t Females: 0	This kind of program con increase knowledge, but behavioral change requires o longer term intervention. low-budget peer education programs hove a limited reach. The pragram needs an educational component to be more effective. Peer educators should be complemented with o large-rcole, mass medio effort.

Community Programs							
Study Information	Sample Oercription		Study			Results	
Author(s)/Publication Date/Title	Location/ Sample (*N*)	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome[2]	Conclusions/Implications
28 Magnani et al. (2000) Evaluation of 'Juventud EsSalud': An Adolescent Reproductive and Sexual Health Peer Education Program Implemented in Six Departments in Peru	Six departments in Peru: Lima, Lambayeque, Ica, San Martin, Arequipa, and Tacna In-school sample *N* = 6,962	Males and females from grades from which peer leaders chosen Criteria for peer leaders: 14-15 years; 1st-5th grade in secondary school	School and community peer promotion pilot project: third-year secondary school students selected as peer leaders and trained by health professionals over a 2-month period; each peer leader responsible for making at least 25 youth contacts in a 6-month period Content of Peer Leader Workshops: Sexual development; body consciousness; self-esteem; assertiveness in sexual relations, anatomy, and physiology; identification of values; STIs/HIV; parenthood; relationships; adolescent pregnancy; understanding sexuality as the integration of many aspects of the individual	Pretest/posttest panel group design Baseline KAP surveys administered prior to project implementation and again after 18 months of project implementation Students attending project schools who were exposed compared with (1) students not exposed to project and with (2) students from comparable secondary schools.	Pearson chi-square tests; multivariate logistic regression	Knowledge of correct day of ovulation: + Knowledge that a woman can get pregnant the first time she has sex: + Belief that it would be easy to convince partner to use condom: 0 Ever had sex: + (measured among boys only) Contraceptive use at last sex: + (among boys only)	Well-designed and implemented peer promotion programs that feature sufficient training and supervision can successfully influence young adult knowledge, attitudes, and behaviors. As peer leaders tend to reach youth similar to themselves, consideration needs to be given to recruiting peer leaders who are in higher risk subgroups to expand program coverage, especially in in-school environments.
29 Levitt-Dayal and Motihar (2000) Adolescent Girls in India Choose o Better Future: An Impact Assessment	Peri-urban slums of New Delhi; rural Madhya Pradesh; and rural and urban slums of Gujarat, Indio Random sample from three project sites *N* = 1,693	*15-26* years Unmarried and married females	Better life Options (BLO) progrom that reekr to empower young women to moke better choicer for the future Activities: Incamp-generating octivitier: formal and nonformal education; Family life Education; vocational rkillr training; health education and services; public owarenerr creation ond advocacy; work with parents, community leaders, and decirion makers to raise awareness about the need for girlr' empowerment Content: Decirion making; mobility; self-esteem/ confidence/empowerment; childbearing and spacing; contraceptive use and health-reeking behavior	Quasi-experimental; posttest only One intervention group omong alumni who hod ottended program from *1996* to *1999;* one control group of young women living in comparable areas untouched by program Posttest: intervention *n* = 858; control *n* = 835	Multivariate onalyrir: calculation of rirk ratios Data controlled for girls' education, parents' educotion, and parents' occupation	Awareness of HIV: t Age at marriage: t Completion of secondary education: t Employment and income: t Ability to moke independent decirionr: t Ability to speak in front of elders or a group of people: t Ability fo use public transportation/visit o morket: t Use of contraceptive: t Use of pre- and post-natal core: t Ure of hospital for childbirth: t Use oral rehydration salts for children's diarrhea: t Number of children: t Child mortality: t Children vaccinated t	Vocational rkillr as a point of entry to program and parental involvement are key to the program's success. The need exists to initiate a boys' program, rtrengthen the youth-friendly services component, ond promote formal schooling for girlr.

Community Programs cont..

	Study Information	Sample Description		Itudy			Results	
	Author(s)/Publication Date/Title	Location/ Sample (M	Age/Gender	Program Description	Derign	Analytic Methods	Results: Change in Outcome'	Conclusions/Implications
30	Ipeizer et al. (2000) Survey Findings from the Wert African Youth Initiative Project: Final Evaluation of Peer fducotion Intervention Brieger et al. (in press) West African Youth Initiative: Outcome of o Reproductive Health Program	Eight Nigerian communi-tier: Bauchi, Birnin Kebbi, Calabar, Ibadan, Kaduno, Lagos, Orogbo, and Owerri; two Ghonoion communi-tier: Kumasi and Atebubu *N* = 3,399	12-24 yeorr Males and femoler In and out of rchool	Worked with youth-rewing orgonizotionr to develop activities for youth: all sites developed peer education programs; some riter worked in schools (secondary or postsecondary); others worked with out-of-rchool youth 18-month intervention period	Quasi-experimental; longitudinal design; boreline and follow-up surveys Random sample of 100 youth from 10 intervention and 10 comparable control areas Bowline: intervention *n* = 911; control *n* = 803 follow-up: (at least 18 months after boreline in each community—18-month intervention period) intervention *n* = 908; control *n* = 893	Multivariate logirtic regression	Knowledge (of AIDS, Ills, woyr to prevent pregnancy, and underrtonding of the reproductive process): Moler (in-rchool): t femoler: 0 Self-efficocy: Moler (in-rthool): t femoler: 0 Willingness to purchase controceptiver: t Use of protective methods against STIs: t (in-rchool only) Sexual activity in last 3 monthr: Moler: — femoler: 0 Condom use: 0	The need exists to determine what workr for out-of-rchool youth.
31	Speizer et al.. (2001) Evaluation of the "Entre Nour Jeunes" Peer Education Program for Adolescents in Cameroon (Draft report)	Nkongrom-bo, Mbalmayo, Cameroon Multistage sampling *N* = 818	10-25 yeorr Moler and females	Peer education program to increase contraceptive prevolence and reduce prevalence of STIs and unwonted pregnoncier Activities: Training peer educators to provide informotion to peers in communities and refer them through dircurrion groups; one-on-one meetingr; development of heolth orrociotionr; also developed and distributed promotional materials such as calendars, comic rtripr, and posters 18-month intervention period	Quasi-experimental; boreline and follow-up Among eligible household members, one wor rondomly chosen for interview One intervention group; one control group Boreline: intervention *n* = 402; control *n* = 400 follow-up: (17 months after boreline? monthr after completion of intervention) intervention *n* = 405; control *n* = 413	Multivariate logirtic regression models	Ipontoneour knowledge of controceptiver: t Ipontaneour knowledge of female STI rymptomr: t Ipontoneour knowledge of mole STI rymptomr: Moler: t femoler: 0 Ure of modern method: t Use of condom at last rex: t	In the absence of the program, use of modern contraceptiver and condomr would hove been rignificontly lower. It is necessary to determine whether or not this intervention con be replicated on o larger scale. Operationr research is necessary to assess whether the obrerved impact is the result of the peer component or the fact that there were more resources for reproductive health education inverted in the community.

	Community Programs							
	Study Information	Sample Description		Study			Results	
	Author(s)/Publication Date/Title	Location/ Sample (N)	Age/Gender	Program Description	Design	Analytic Method[5]	Results: Change in Outcome[2]	Conclusions/Implications
32	Kouwonou, Kodjovi, and Kodjopatapa Amegee (2001) Evaluation de la Connaissance de l'Attitude et de la Pratique Sexuelles des Jeunes de Lomé: Enquête Evaluation de Centre des Jeunes de l'ATBEF à Lomé, EVACJEUNE2	Lomé, Togo $N = 2,083$	10–24 years Males and females	Establishment of a youth center in March 1998 to offer YARH clinical services, recreational services, counseling, IEC, and vocational and literacy classes	Panel with reflexive controls (Adolescents living in vicinity of youth center were compared with adolescents living elsewhere in Lomé.) Baseline: $n = 2,083$ adolescents; 1,027 parents Follow-up 1: (18 months after baseline) $n = 1,679$ (817 direct follow-up from baseline) Follow-up 2: (1 year after follow-up 1) $n = 2,083$ adolescents covered in baseline survey and sample from follow-up 1)— conducted in spring 2001	Multivariate logistic regression	Sexual knowledge[3]: 0 Knowledge of condoms: + Contraceptive or condom use at last sex: 0	The youth center was the preferred but not the actual source of condoms. Improvements occurred in the awareness of the youth center among all groups, but was greatest among those who lived close to the center. Visits to the youth center had no discernible impact on attitudes or practices.
33	Moyo et al. (2000) Reproductive Health Antecedents, Attitudes, and Practices among Youth in Gweru, Zimbabwe	Five high-density residential areas in Gweru, Zimbabwe: Mutapa, Ascot, Mambo, Mkoba, and Senga	12-24 years Males and females Unmarried	Meetings to increase awareness of adolescent reproductive health issues among parents, teachers, community leaders; implementation of youth-friendly services protocol in clinics, which included the creation of "youth corners" in clinics, nurse training in youth-friendly services, peer education, and renovation of the Ndhlovu Youth Center to support reproductive health services	Baseline and follow-up cross-sectional surveys to assess program effectiveness, which were based on cluster sampling of census enumeration areas in Gweru and which used program monitoring data, peer education contact questionnaires, client exit interviews, and provider surveys Youth in follow-up were asked whether they had ever visited a youth center, a reproductive health clinic, a youth corner, or a peer educator. Those youth that had visited (the exposed group) were compared with youth that had not visited (the unexposed group). Baseline: $n = 250$ Follow-up: (18 months after baseline) $n = 606$ Peer-educator contact questionnaires: $n = 292$ Client exit interviews: $n = 233$ Provider surveys: $n = 14$	Bivariate analysis; analysis of service use trends; multivariate logistic regression	Awareness of YARH issues[4]: + (among parents and community leaders) Knowledge of contraceptive methods: 0 Communication between parents and youth about sex: + Attitudes toward condom use: Males: — Females: + Smoking and using drugs: + Consuming alcohol: —	The age differential between sex partners is a risk factor to be addressed, particularly for young girls and older men. Programs need to better target different needs of youth, especially those engaging in high-risk activity. Reproductive health services should be linked with family support organizations. More emphasis should be placed on condom skills in counseling and IEC activities. The programs should target young women for instruction in negotiation skills to avoid unwanted sex and encourage condom use.

Community Programr cont.

	Study Information	Sample Description		Itudv		Results		
	Author(s)/Publication Date/Title	Location/ Sample (M	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome'	Conclusions/Implications
34	Nelson et al. (2000) The Effects of Youth Friendly Service Projects on Service Utilization among Youth in Lusaka, Zambia	Lusaka, Zambia 10 urban and peri-urban public facilities	10-24 years Males and females	Implementation of youth-friendly services protocol in selected Lusaka clinics; implemented by the Lusaka District Health Management Team in collaboration with CARE, JSI/SEATS, UNICEF, and Family Life Movement of Zambia Three pilot projects examined; each included youth-friendly services/interpersonal skills training for service providers and peer educators/ counselors; projects differed in how they conducted community outreach and selected peer educators	Ex-post-control group time series Eight intervention clinics; two control clinics Quantitative and qualitative data were collected to determine the youth friendliness of each clinic and community attitudes toward adolescent reproductive health services. Indicators of youth friendliness and community attitudes were related to levels and trends in adolescent service use.	Trends in service use analyzed in intervention and control groups as well as individual clinics Spearman's rank order correlation test calculated to determine associations	Use of services: + (marginal effect for family planning services at one intervention clinic group; for outpatient department services at another intervention clinic group) However, increased service use by youth was more closely related to community attitudes toward providing reproductive health services to youth (rather than the youth-friendly services modifications).	Attention needs to be directed not only to factors inside health clinics but also to the contextual factors that influence the health-seeking behaviors of youth.
35	Institute for Reproductive Health (February 2001) Reaching Adolescents at Family Planning Clinics: Applying the Reproductive Health Awareness Model	fcuador, CEMOPLAF clinics four intervention, four control	Adoleicent clients	fducatian, counreling, and clinical services provided by trained clinic personnel in adolescent service delivery and adolescent health issues	Pretest and posttest design in four intervention and four control clinics, with a 1-year follow-up period May 1998–April 1999 No information on sample sizes from summary report	Trends; bivariate analysis	Number of new clientr: 0 Number of returning clientr: t	Improvements in continuity of core were observed. The need exiitr to consider strategies to increase overall usage.

	Workplace Programs						
	Study Information	Sample Description		Study			Results
	Author(s)/Publication Date/Title	location/ Sample (*N*)	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome'	Conclusions/Implications
36	FOCUS/CARE International-Cambodia (2000) Impact of an Adolescent Reproductive Health Education Intervention Undertaken in Garment Factories in Phnom Penh, Cambodia	Phnom Penh, Cambodia *N* = 1,072	Mean age = 20 92% female Factory workers	Reproductive health education provided to young garment factory workers using a participatory learning and action (PLA) approach	Quasi-experimental, matched-control group panel design Intervention group consisted of workers in "project factories"; control group consisted of workers in nonproject factories Baseline: intervention *n* = 500; control *n* = 500 Follow-up: (about 18 months after baseline) intervention *n* = 670 (254 participants + 416 nonparticipants); control *n* = 402 (from nonproject factories)	Chi-square tests	Knowledge of STI/HIV/AIDS: 0 Knowledge of contraceptive methods: + Knowledge of the risks of pregnancy: + Discussion of condoms with friends: + Worry about getting AIDS: 0 Knowledge of modes of HIV/AIDS prevention: 0 Knowledge of condom sources: 0	The findings confirm that health education interventions in workplace settings can increase levels of reproductive health and contraceptive knowledge. The PLA approach appears to be a feasible means of implementing health education initiatives (although the present study was unable to compare the PLA approach with alternative approaches). Whether gains in knowledge translated into reductions in sexual risk behaviors could not be verified in the study.
37	Bhove et al. (1995) Impact of on Intervention on HIV, Sexually Transmitted Diseases, and Condom Use among Sex Workers in Bombay, India	Red light district of Bombay, India Sex worker *N* = 514; Brothel owner *N* = 37	Mare than 80% age 15-25 Females only	Sex workers attended sessions where they watched motivational and educational videos about HIV, participated in small group discussions about HIV, and were exposed to visual materials about HIV, brothel owners also attended sessions an the importance of sex workers' health and HIV information Intervention duration: April-September *1992* (6 months)	Quasi-experimental; baseline and follow-up panel derign Bareline: intervention *n* = 334; control *n* = 190 follow-up: (about 1 year after baseline) intervention *n* = 334; control *n* = 190	Chi-square tests; Fishers exact test; McNemar test; exact Poisson distribution	Knowledge of HIV/ADt t likelihood of insisting an condom use: t Prevalence and seroincidence of HIV and other STIs: 0	It was difficult to assess impact of condom distribution relative to education session, although condom availability is still clearly a problem. Existing counseling and terting protocols ore inadequate because the control group showed very discouraging levels of knowledge both before and after the testing and the counreling offered or port of the study. Progromr need to deal with the isolation of sex workers—access to these women is strictly controlled by brothel owners and pimpr. Mort ore not in a position to change their behavior.

Workplace Programs cont...

Study Information		Sample Description		Study	Results		
	Author(s)/Publication Date/Title	Location/ Sample (*N*)	Age/Gender	Program Description	Design	Analytic Methods	Results: Change in Outcome[2]	Conclusions/Implications
38	Cash et al. (1995) Experimental Educational Interventions for AIDS Prevention among Northern Thai Single Migratory Factory Workers	Northern Thailand *N* = 252	*15-24* years Unmarried female foctory workers Educated to Grade 6 Migiated to Chiang Mai	Three interventions: (1) HIV/ AIDS prevention materials; (2) HIV/AIDS prevention moteriolr and nonformol educotion facilitated by health promoterr; (3) HIV/AIDS prevention materials and nonformal education facilitated by trained peer educators	Quori-experimental; prr-and posttest design, panel design Three interventiongroups; one control group Pretest: *n* = 252 Posttest: *n* = 206 (about 45 subjects from each intervention group and control group) No information on time between surveys	Analysis of covariance, tontrolling for initial between-group differencer	Materials only: Knowledge: t Attitudes/Beliefs: t Intention of performing protective behaviorr: t Health Promoter: Knowledge: t Attitudes/Beliefs: t Intention of performing protective behaviorr: t Peer promoter: (strongest results) Knowledge: t Attitudes/Beliefs: t Intention of performing protective behaviors: t	Programs that involve greater porticipotion of young women are more likely to have on impact Qualitative methodr elicited more complete understanding of attitudes ond behavior than written surveys in terms of informing program design. Condoms should be promoted among young women, wto take the mod responsibility for tontroteptive behavior. Program may not hove reached highest risk groups, who left immediately after work to go out and did not participate.
39	Celentano et al. (1998) Decreasing Incidence of HIV and Sexually Transmitted Diseases in Young Thai Men: Evidence far Success of the HIV/AIDS Control and Prevention Program	Northern Thailand *1991* Cohort- *N* = 2,417 *1993* Cohort– *N* = 1,669	*19-23* years Males, conrtriptr into Thai army	100% condom promotion program to increase tondom ure among viritorr to brothels; componentr included (1) communications strategy; (2) condom distribution in brothelr; and (3) promotion of condom use ot brothels, especially by men previously treated for STIs	Prorpective cohort study: 1st cohort war mode up of 1991 conrtriptr; the 2nd wor composed of *1993* conrtriptr Each participant was interviewed and received a serologic tat every 6 months from induction to discharge (total of 2 years' observation) *1991* Cohort Boreline: *n* = 2,417 follow-up 1: *n* = 2,054 follow-up 2 *n* = 1,788 follow-up 3 *n* = 1,668 follow-up *4: n* = 1,788 *1993* Cohort Boreline: *n* = 1,669 follow-up *1: n* = 1,502 follow-up 2 *n* = 1,385 follow-up 3 *n* = 1,285 follow-up4 *n* = 1,285	Incidence rater and *95%* CI calculated uring person-time methodr; Poirron regrerrion models; logirtic regrerrion analysis of repeated measures	STI incidence (including gonorrhea, syphilis, nongonoccocal urethritis, and chanchroid): t HIV incidence t Risk behaviors: t (in '93 cohort) Brothel visits: t Conritent condom use: t (in '93 cohort)	This study tonfirmr the effectiveness of the *100%* tondom program, which led to a decline in genital ulcer disease and other non-ulcerative STDs and to *o* reduction in HV intidence. However, attributing thir success to the program is difficult to substantiate because of the numerous interventionr that occurred at the same time and because of the maintenance of behavior promoted by the program.

NOTES.

[1] findings are forthcoming from two additional FOCUS-sponsored studies: "Transitions to Adulthood in the Context of AIDS in South Africa" ond "Effects or a School-Based Peer Promotion Program on Adolescent Risk-Taking Behaviors among Inner City Youth in Kingston, Jamaica."

[2] Effect on outcome for intervention group compared to control: No significant difference = 0; significant desirable difference = t; rignifiiont undesirable difference = –.

[3] Preliminary results from the second round or data collection.

[4] Changes were not tested for statistical significonce.

APPENDIX J

SUPPORTIVE' RESEARCH ON EFFECTIVENESS OF YARH PROGRAMS

Author(s)/Publication Date/Title	Location	Results	Conclusions/Implications
Ichool-Bared Programs			
Herald et al. (1994) Unintended Pregnancy and Sex Education in Chile: A Behavioral Model	Santiago, Chile	Women who had sex education before firrt intercourre and used contraception at that intercourre were one-third as likely to hove a later unintended pregnancy as thore who had sex education and did not use contraception at firrt intertourre.	Sex education can reduce unintended pregnancier among adolescents and young adults who engage in premarital sex, but thir reduction depends on teaching use of effective contraception before firrt sexual experience.
Kane et al. (1993) Sexual Activity, family life Education. and Contraceptive Practice among Young Adults in Banjul, the Gambia	The Gambia	Attending a family life education lecture was poritively related to knowledge of family planning among sexually active women. Among all sexually active women and men, thore who attended at least one family life education lecture were more likely to have used contraceptive at firrt intercourse than thore who hod never attended one.	Attendance at family life education lecturer in school had a rignificont poritive relationrhip to both knowledge and use of contraceptives among youth surveyed. However, family life education lecturer ore not offered at all schools, and only about half of thore offered in schools cover the topicr of pregnancy prevention and STIs. further, thore with no formal education appear to have fewer opportunities to attend family life education lecturer (author commentr).
Pick de Weiss et al. (1990) Effect of Sex Education on the Sexual and Contraceptive Practicer of female Teenagerr in Mexico Cify	Mexico City	Altendonce at a sex education course did not affect age at firrt sexual activity, contraceptive use, or perception of accessibility to contraception. Receipt of information on pregnancy prevention and contraceptive sources was found to be related to contraceptive use.	Ihe findings suggest that content areas with rerpect to pregnancy prevention and contraceptive sources are important for supporting contraceptive use. However, information with respect to pregnancy prevention hod no effect on sexual behavior.
Tewari and Sanatha (2000) Reproductive Health Education: Ixperiencer of Porivor Seva Sanstha (PSS) in Communicating With Youth	Delhi, India	Womenr and menr pretest scores ranged from 0% to 58%. After the reproductive health course, scores ranged from 78% to 100% for women and from 27% to 90% for men.	The pre-intervention knowledge of the boys' group war better than the girls' group. However, the post-intervention knowledge and retention of the girls' group war found to be much better than the boys'.
Marr Media-Based Programs			
Diouf et al. (August 2000) Icenarior from the Sahel: Report on lime Series Survey	Senegal	Recall of project filmr was high (more than 80%). Overall, goinr were made in indicotorr of knowledge, attitudes, practices, and self-efficacy.	The evidence of improvement across a wide range of indicatorr strongly supports the contention that the results obrerved are, at least partially, attributable to the Scenarios project (author commentr).
Kirogu et al. (1998) Adolescent Aeproducfive Health Needr in Kenya: A Communications Response	Kenya	Evaluation results show that the radio progromr were effective in reaching both youth and adultr and were cost effective. The data also suggest that the programs were effective in motivating young people to go to the centers and to talk to their friends and adultr about reproductive health issues.	Although many of the occomplirhmentr of the last few years cannot be attributed entirely to the *radio* programr, it is believed that the project contributed poritively to the debate on young adult reproductive health and helped significantly in shaping constructive responses at both the notional and local levels (author commentr).

Marr Media-Bared Program cant...

Author(s)/Publication Date/Title	Location	Results	Conclusions/Implications
Lewicky et al. (May 1998) Delivery of Improved Services for Health Project, Uganda	Uganda: rural and urban	The campaign reached a large portion of the intended audience. The campaign also contributed to an increase in knowledge and in the development of altitudes that promote responsible and safe sexual behavior, and it helped persuade yauth to adapt some precautionary measurer ta guard against infection. The greater the exposure to campaign materials and events, the mare favorable and responsible attitudes were (author commentr).	These rerultr suggest that youth in Uganda are attentive to messages about HIV/AIDS and con respond in sexually responsible ways.
Middlestadt et al. (1995) fvaluating the Impact of a National AIDS Prevention Radio Campaign in It. Vincent and the Grenadines	It. Vincent and the Grenadines	Exposed respondents were rignificantly mare likely to agree that parents should talk to children about sexual responsibility, to believe their friends ured condamr, and to have a partner that rupported condom use (increase of normative beliefs). No rignificant differences were found in condom use between the two groups.	Marr media compaignr (when well designed and empirically based) con be on effective tool in producing changer in altitude, and beliefs that may ultimately lead to changer in behavior to prevent the spread of AIDS (author commentr).
Rimon II et al. (1994) Promoting Sexual Responsibility in the Philippines through Music: An Enter-Educate Approach	Metropolitan Manila, Philippines	The songs retched the vast majority of the targeted audience ond persuaded its members to take some action. As a result of the campaign, young people talked to friends and parent,, sought mare information, and called the Dial-A-Friend Hotline (author comments). The media can inform a large number of people at low cost.	Ihir project confirms that racial messages promoted through papular music and mass media have a dramatic impact an people (author comments).
Samuels et al. 2000 An Evaluation of Soul ly 4	South Africa	Research shows a strong statistical association between Soul City and a shift in people's position along the spectrum of the behavior change model (author comments) le :t that the project increased accurate HIV/AIDS k ledge. created a shift in people's attitudes and social norms, as well as influenced changes in intermediate and direct practices (author comments).	Soul City was successful n tii a support ve environment in which behavioral change can take place (author comments).
Community-Based Programs			
Barkat et al. (1999) The RSDP/Pathfinder Bangladesh Newlywed Strategy: Results of on Assessment	Dhaka, Bangladesh	Evaluation rerultr are encouraging. Paritive results were seen in pill and condom use; delayed first pregnancy; tetanus toxoid immunizations; number of birthr attended by a trained health care provider; child-feeding practices; and use of government health facilities. Nane of there results con necessarily be attributed to the project, however.	The program functions as a source of infarmatian for newlyweds. Several improvements were identified to work toward in the future, including increasing capacity building for family planning field workers, increaring male participation, building alliances with related programs, ond furthering evaluation efforts.
Barnett (2000) Programs far Adolescents: Reproductive Health Merit Badge far Scouts	Uganda, Zambia, ond Egypt	The program increased girls' knowledge about health; gave participontr a safe place to gather and an outlet far creativity; and gave young women a chance to interact with older women who are coring, nurturing role models.	The evaluation found that the pragrom war successful in improving young girls' use of health-core services and their self-esteem (author comments).
Barnett and Katz (2000) Adolescent Reproductive Health: Navigating between Needs and Services	Cameroon	The percentage of mole students reporting mare than one partner in the last 3 months decreased from 53 to 36%; females reporting condom use with a high-risk partner increased from 63% to 77%.	To bring infarmatian to traditionally hard-to-reach groups, it is important tc have peer educators specially trained to work with youth outside of the school setting.

Community-Bored Program cont..

Author(s)/Publication Date/Title	Location	Results	Conclusions/Implications
Flanagan, Williamr, ond Mahler (1996) Peer Education in Projects Supported by AIDICAP: A Study of 21 Projectr in Africa, Aria, and latin America	10 countries in Africa, Aria, Latin America, and the Caribbean	Although peer educotorr were well regarded or knowledgeable and approachable sources of information, their usefulness in promoting behavioral change may hove reached o plateau. Topicr covered in training were identical across countrier, although training duration wried greatly (from 3 hours to 3 weeks). Many expressed a need for counreling rkillr and training in how to care for people with AIDS. Peer educatorr had little contact with health professionals.	Project plonnerr need to consider how and if their project should evolve to addrerr the country-specific needr of the target audience. Subsequent training for peer educotorr will be necessary, along with their increased involvement with rurrounding health-care professionals to create o cadre of professional rupport.
lohnrton (2000) An Impact Evaluation of the Pathfinder Progromme of Reproductive Health Services Support to Kenyan Univerritier: Peer Counreling and Clinic Services	Nairobi, Kenya	Trends over time reveal a decrease in unintended pregnancy, abortions, STIs, and pregnancy-related dropouts; on increase in use of modern ond emergency contraceptive methodr.	The evidence is very clear that there improvement trendr were initiated and perpetuated by a Pathfinder reproductive health rupport program (author comments).
Rondolph (1996) Evaluation of the Jamaica Red Cross Society's "Together We Con" HIV/AIDS Peer Education Project	Jamaica	Itotirtically rignificant results werereported for three of seven indicators of knowledge as follows: (1) proportion of peer educatorr that reported abstinence as a means far protecting against HIV/AIDS; (2) proportion thot stated a doctor war a person to go to for help with an STI; (3) proportion of peer educatorr with o more positive attitude toward those with HIV.	Even in itr short-term form, the workshops had a significant effect on many of the peer educators' HIV/AIDS-related knowledge and attitudes. The evaluation, however, did not produce convincing evidence that modification of behaviors occurred.
Visrutharatna et al. (1995) "Superstar" and "Model Brothel": Developing and Evaluating a Condom Promotion Program for Sex Establishments in Chiong Mai, Thailand	Chiang Mai, Northern Thailand	Pre- and Port-inteivention: Women reporting conrirtent condom use increared from 42% to 93% in 1991. In 1992, the percentage reporting conrirtent use was 16%. Port-interventiononly: The percentages of women reporting conrirtent condom use were 92% in 1991 ond 80% in 1992.	A progrom directly involving sex workers as peer educotorr and enlisting the rupport of brothel owners and operators can result in improved condom use aver time (author comments).
Wolf et al. (2000) Peer Promotion Programr and Social Networks in Ghono: Methods far Monitoring and Evaluating AIDS Prevention and Reproductive Health Programr among Adolescents and Young Adults	Ghana	Peer educatorr reach people that are rimilar to themrelver. Those who have the perception that peers ore protecting themrelver from AIDS are more likely to do the same.	Data rupport the use of network analysis (as oppored to traditional individual approaches). further analysis on the range and efficacy of peer education will help program managers to determine the number of peer educatorr necessary for community-level intervention (author commentr).
		facility-Bared Programr	
Barnett et al. (1996) Care Study of the Wamen'r Center of Jamaica foundation Progrom for Adolescent Mothers	Jamaica	Among program porticipontr, 55% returned to rchool after their pregnancies compared with 15% of nonparticipants. The two groups exhibited only a marginal difference in contraceptive use (85% vs. 80%). Among progrom graduates, 14.6% had been pregnant a subsequent time compared with 38.7% of their nonparticipant counterparts.	This intervention during adolescence appeared to have on important effect on the women'r later liver. At the women'r center, the women gained the rkillr that enabled them to raise ond nurture their children, complete their education, and reek employment (outhor commentr).

Facility-Based Programi cant...			
Author(s)/Publication Date/Title	**location**	**Results**	**Conclusions/Implications**
Erulkar and Mensch (1997) Youth Centers in Kenya: Evaluation of the Family Planning Association of Kenya Programme	Nairobi and Mombara, Kenya	Attendance at the youth centerr was extremely low, most notably for counreling and RH rervicer. Mod of the youthr that did visit come for recreation. Of those reached, the majority were older boys. fevv youthr ond parents in catchment areas of the centerr were aware of the centerr' existence. The cost of maintaining the centerr ir extremely high.	Ihe main rtrength of the program war found to be the network of peer promoterr and coordinatorr, who reached o large number of youth through educational activitier. These activities are also more cost-effective.
Glover et l (1998) Youth Centrer in Ghana: Assessment of the Planned Parenthood Association of Ghana Programme	Ghana	Significant proportions of thore coming for clinical rervicer (as oppored to uring the library or other resources) were outride the target age and were mostly female. Only about half of youth center clientr were aware of counreling and clinical rervicer available (not available at all centers). Clients were deficient in RH knowledge.	The centerr need to reach out to their existing clientele to inform them of the available rervicer and to integrate reproductive health education into all activitier ot the centerr.
Phiri and Erulkar (1997) A Situation Analysis of the Zimbabwe National Family Planning Council's Youth Centres	Zimbabwe	Staff were knowledgeable but lacked specific training to address adolescent needs; the number visiting the centerr to reek RH information and rervicer was poor. The multipurpose approach attracted more youthr but not specifically for RH/FP. Many of the youths served were older thon the target age; the approach was not tort-effective or sustainable.	Ihe youth centerr ore reaching inadequate numbers of young people, far fewer females than males, virtually no youthr under 15 years old, and many people too old to be conridered youth. The cost of the program is much greater thon the return ond cannot be sustained over the long term. Measures ore required to either increase use or invertigote alternative means of reaching adolescents in a tort-effective way (author comments).
Work-Bared Programi			
No supportive evidence of workplace-based programr wor cited in the text.			

[1] Supportive research is defined here as it is in the text, that is, as research conducted without a control group. This table refers only to this kind of research. Other studies mentioned in thr text do not meet the criteria lo be listed as supportive research but can be found in the reference list.

APPENDIX K
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APPENDIX L
FOCUS ON YOUNG ADULTS PUBLICATIONS

TOOLS SERIES: "HOW TO" GUIDES TO IMPROVE RESEARCH, PROGRAMS, TRAINING AND POLICY

Developmentally Based Interventions and Strategies: Promoting Reproductive Health and Reducing Risk among Adolescents *(James-Traore, February 2001)*

A Guide to Monitoring and Evaluating Adolescent Reproductive Health Props *(Adamchak, Bond, MacLaren, Magnani, Nelson, Seltzer, June 2000)*

Getting to Scale in Young Adult Reproductive Health Programs *(Smith, Colvin, April 2000)*

Assessing and Planning for Youth-Friendly Reproductive Health Services *(Nelson, MacLaren, Magnani, January 2000)*

Listening to Young Voices: Facilitating Participatory Appraisals on Reproductive Health with Adolescents *(Shah, Zambezi, Simasiku, June 1999)*

Annotated Bibliography of Training Curricula for Young Adult Reproductive Health Programs *(Zimmerman, October 1998)*

RESEARCH, POLICY, AND PROGRAM SERIES: CURRENT KNOWLEDGE ABOUT YOUNG ADULT REPRODUCTIVE HEALTH

Dialogue on HIV/AIDS and Youth *(Rosen, August 2001)*

Dialogue on Young Adult Reproductive Health Research and Evaluation: Implications for Policies and Programs *(Rosen, M g 2001)*

Dialogue on *Social* Marketing and Other Commercial Approaches to Improving Adolescent Reproductive Health *(Rosen, May 2001)*

Formulating and Implementing National Youth Policy: Lessons from Bolivia and the Dominican Republic *(Rosen, 2001)*

Making Reproductive Health Services Youth Friendly *(Senderowitz, February 1999)*

Involving Youth in Reproductive Health Projects *(Senderowitz, September 1998)*

Promoting Reproductive Health for Young Adults through Social Marketing and Mass Media: A Review of Trends and Practices *(Israel, Nagano, July 1997)*

Reproductive Health Programs for Young Adults: School-based Programs *(Birdthistle, Vince-Whitman, June 1997)*

Health Facility Programs on Reproductive Health for Young Adults *(Senderowitz, May 1997)*

Reproductive Health Outreach Programs for Young Adults *(Senderowitz, May 1997)*

IN FOCUS: BRIEFS ON SELECTED ISSUES IN YOUNG ADULT REPRODUCTIVE HEALTH

Youth Livelihoods and HIV/AIDS *(hen, January 2001)*

Advocating for Adolescent Reproductive Health: Addressing Cultural Sensitivities **(hen,** *November 2000)*

Reaching the Youngest Adolescents with Reproductive Health Programs (*Sedlock, January 2000)*

Reaching Adolescents Through Hotlines and Radio Call-in Programs *(Moch, Stevens, December 1999)*

Reaching Newlywed and Married Adolescents *(Alauddin, MacLaren, July 1999)*

Reaching Socially Marginalized Youth *(Stevens, March 1999)*

Reaching Indigenous Youth with Reproductive Health Information and Services *(Farrell, Rosen, Terborgh, February 1999)*

Reaching *Young* Men with Reproductive Health Programs *(Green, Boyd, Mom, December 1998)*

Involving Parents in Reproductive Health Education for Youth *(Purdy, Ramsey, September 1998)*

Sexual Abuse and Young Adult Reproductive Health *(Shanler, Heise, Stewart, Weiss, September 1998)*

Reproductive Health Programs for Young Adults: School-Based Programs *(Birdthistle, Vince-Whitman, August 1998)*

Reproductive Health Programs for Young Adults: Outreach Programs *(Senderowitz, August 1998)*

Reproductive Health Programs for Young Adults: Social Marketing & Mass *Media (Israel, Nagano, August 1998)*

Reproductive Health Programs for Young Adults: Health Facility Programs *(Senderowitz, August 1998)*

Emergency Contraceptive Pills: An Important Option for Young Adults *(Klofkorn, July 1998)*

Young People and Anemia *(Senderowitz, July 1998)*

Young People and STDs/HIV/AIDS Part I Dimensions of the Problem (*Senderowitz, December 19997)*

Young People and STDs/HIV/AIDS Part II: Programs to Address the Problem *(Senderowitz, December 1997)*

Using Peer Promoters in Reproductive Health Programs for Young Adults *(Senderowitz, December 1997)*

Do Youth-Friendly Services Make a Difference? *(Senderowitz, December 1997)*

Making Reproductive Health Services Friendly for Young People *(Senderowitz, December 1997)*

Involving Young People in Reproductive Health Programs *(Senderowitz, December 19997)*

PROJECT HIGHLIGHTS: SUCCESSES AND CHALLENGES OF PROJECTS AROUND THE WORLD

CEMERA, Chile: Integrating Sexuality Education and Health Services for Students (*Luengo, Toledo, 2001)*

Arte y Parte/PROMESA, Paraguay: Combining Mass Media-, School-, and Community-Based Approaches (*Aguilar, Brooking, 2001)*

Trendsetters, Zambia: Teens Produce Newspaper to Encourage Healthy Behaviors (*Phiri, 2000)*

Uganda Women's Effort to Save *Orphans* (UWESO), Uganda: Families, Communities Band Together to Ensure Sustainable Future for Young People (*Ntambirweki, 2000*)

Youth Activists Organization (YAO), Zambia: Education Empowers Zambian Youth (*Hachonda, 2000*)

BRAC, Bangladesh: Community Mobilization to Support Adolescent Development *(Khan, Ahmed, 1999)*

Women's Centre, Jamaica: Prevent Second Adolescent Pregnancies by Supporting Young Mothers *(McNeil, 1999)*

PATH, Kenya: Using Scouting as a Vehicle for Reaching Out-of-School Youth *(Kahuthia, Radeny, 1999)*

REDESS-JOVENES, Peru: Building a Coalition to Support Youth *(Raguz, 1999)*

Tsa Banana, Botswana: Social Marketing of Reproductive Health Services to Youth *(Harris, 1999)*

TARSHI, India: Talking About Reproductive and Sexual Health Issues with Youth: A Telephone Helpline *(Chandiramani, 1999)*

Kenyatta University, Kenya: Peer Counseling to Develop Tomorrow's Leaders *(Kamanja, 1999)*

CEMOPLAF, Ecuador: Fertility Awareness and Sexuality Education for High School Students *(Cachan, Sevilla, de Vargas, 1999)*

Lifenet, Thailand: Promoting *Social* Action Networks for Youth Health *(Fongkaew, Bond, 1999)*

INPPARES, Peru: An Integrated Reproductive Health & Business Training Program for Youth *(Segil, Sebastiani, 1999)*

Soul City, South Africa: Harnessing the power of media for health and development *(Molefe, 1999)*

Homies Unidos, El Salvador: Peer Education with Gang Members: Protecting Life and Health *(Rose-Avila, 1999)*

Adolescent Girls Project/SEEDS, Egypt: Income Generation to Expand Girls' S o d Possibilities *(Bruce, Assaad, 1999)*

WORKSHOPS: STATE OF THE ART TRAINING REPORTS

Young Adult Reproductive Health State of the Art (SOTA) Training Course Report: Nigeria *(2001)*

Young Adult Reproductive Health State of the Art (SOTA) Training Course Report: Southeast Asia Region *(2000)*

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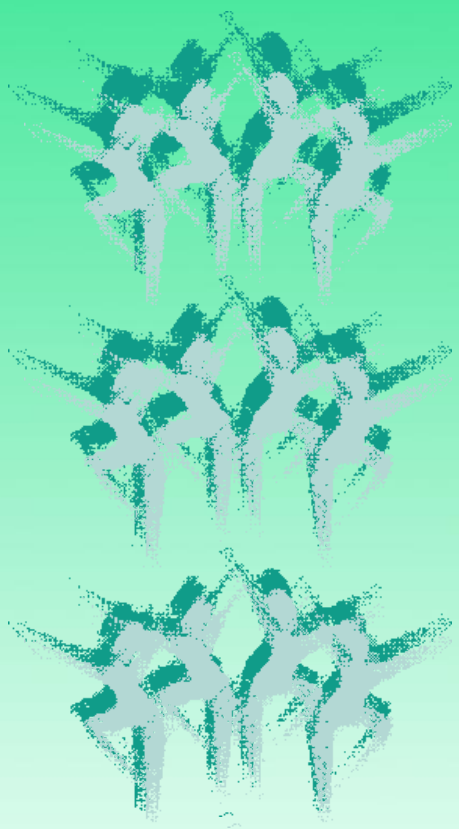

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