

Part III.H Adolescent Reproductive Health Programs

- Existence of supportive ARH policies
- Adolescents are meaningfully involved in the design and implementation of the program
- Percent of program staff trained to work with or provide services to adolescents
- Percent of adolescents aware of the program
- Youth friendliness of reproductive health services
- Sexual-reproductive health education curriculum conformity to “best practices”
- Percent of adults in community who have a favorable view of the program
- Number/percent and characteristics of adolescents “served” or “reached” by the program
- Sexual-Reproductive Health (SRH) knowledge
- Percent of adolescents who have “positive” attitudes toward key sexual-reproductive health issues
- Percent of adolescents who are confident that they could refuse sex if they didn’t want it
- Percent of adolescents who are confident that they could get their partner(s) to use contraceptives/condoms if desired
- Percent of adolescents who have ever had sexual intercourse
- Age at first intercourse
- Number of sexual partners among sexually active adolescents during a specified reference period
- Number/percent of adolescents who have experienced coercive or forced sex
- Percent of sexually initiated adolescents who used a condom at first/last sex
- Percent of sexually active, unmarried adolescents who consistently use condoms
- Percent of adolescents who regularly use drugs/alcohol
- Percent of adolescents who feel “connected” with their parents/family
- Percent of adolescents who have ever been pregnant or caused a pregnancy
- Unmet need for family planning among adolescents
- Percent of adolescents who were ever diagnosed with an STI

ADOLESCENT REPRODUCTIVE HEALTH PROGRAMS

Recent years have witnessed a dramatic increase in the attention and resources directed to the reproductive health of adolescents (10- to 19-year-olds) and young adults (20- to 24-year-olds) on more or less a global basis. Among the reasons for this increase are (1) general concerns over the health and human rights of youth, (2) the demographic significance of the 10-19 age group in many developing countries, and (3) the pivotal role adolescents and young adults will play in the HIV/AIDS epidemic.

Adolescent reproductive health (ARH) programs focus on achieving one or more of four major goals: (1) creating an enabling and supportive environment for youth, (2) improving the knowledge, attitudes, skills, and behaviors of adolescents, (3) increasing adolescents' use of services, and (4) increasing adolescents' participation in programs. Programs may assume a variety of forms and may appear in a variety of settings. Among the more common program types are:

- Sexual-reproductive health or life-skills education programs in schools;
- Mass media-based behavior change and social marketing interventions;
- Programs to make reproductive health services more “youth friendly;”
- Community-based non-formal education programs;
- Workplace-based reproductive health education programs;
- Youth clubs/organizations;
- Livelihood programs to generate economic opportunities for youth;
- Advocacy campaigns to influence political and cultural leaders (and adults in general); and
- Community mobilization campaigns.

Surveys of the intended audience for adolescent programs are a primary vehicle for collecting data for evaluation purposes. The intended population for such surveys will vary depending upon the group of youth the

program intends to reach (e.g., youth attending school, youth employed in the informal sector of the economy, all youth).

Methodological Challenges of Evaluating Adolescent RH Programs

As they do in other areas of reproductive health, program officials and evaluators face a number of formidable methodological challenges in assessing the performance of adolescent reproductive health (ARH) programs. Together, these challenges make the evaluation of ARH programs among the more difficult types of reproductive health programs.

Specific methodological challenges to evaluating ARH programs include the following:

- **A myriad of factors heavily influence adolescent behaviors.**

Adolescent behaviors are influenced in important ways by a sizeable number of factors operating at the individual, family, school, community, and societal levels. Granted, these same factors influence adults. However, because adolescents have not fully developed – socially, psychologically, and physically they are perhaps more susceptible to “contextual” or “environmental” influences than are adults. This susceptibility requires that programs address a number of determinants or “antecedents” of adolescent behaviors simultaneously. Evaluators must measure and “control for” a sizeable number of factors in order to tease out the effects of specific ARH interventions. Furthermore, evaluators often find themselves beyond the bounds of their own disciplinary training in dealing with the range of factors (e.g., relationships with family, school, and community; self-esteem; self-efficacy).

- **The intended effects of ARH interventions are long-term for some interventions, further complicating evaluation.**

The appropriate time-reference for measuring the impact of ARH programs is tricky. For some outcomes, (e.g., delayed age of sexual initiation), the desired result/behavior is a short-term phenomenon an evaluator can accurately measure within the typical time-frames of most ARH program evaluations (usually two to three years or less). For other outcomes, however, evaluators require longer periods of observation. For example, life-skills education programs help youth develop skills that will be manifest over their adolescent and adult years. Few evaluators have assessed the long-term effects of such interventions; the best they often can do is to measure impact over a relatively short period of time.

Further complicating matters is that, in some cases, program effects may be short-term or transitory in nature. For example, an evaluation of school-based ARH-education programs in Jamaica found significant effects on knowledge, attitudes and behaviors when measured nine months after program implementation, but these effects had largely disappeared when measured again after 21 months (Eggleston et al., 2000). Thus, strong impact evaluations of ARH programs require evaluators to measure impact at several points in time after program implementation.

- **Measuring the quality of ARH programs requires an understanding of cultural constructs in the local setting.**

Assessing the quality of ARH programs from the “client’s perspective” requires the evaluator to elicit subjective interpretations, perspectives, and meanings from youth and others in the community. These elements are critical in designing effective programs and in appropriately evaluating them. As a result, a combination of qualitative and quantitative data are generally required for the meaningful evaluation of ARH programs.

- **ARH programs are often quite complex, multi-component initiatives.**

Because ARH programs must simultaneously address multiple “risk” and “protective” factors, a sizeable and growing number of programs have complex designs and multiple components. For example, many programs have life-skills education (both formal and non-formal), peer promotion, community mobilization, and access to RH services components. The nature of such programs dictates that evaluators measure multiple pro-

cesses and outcomes to evaluate the program. Measuring the impact of the separate components of such programs is especially difficult, and as a result, program evaluations often focus on the net or combined impact of the full “package” of interventions.

- **ARH programs produce effects at more than one level.**

Although ARH programs primarily focus on influencing adolescent behaviors and RH outcomes, programs often attempt to bring about change at more than one level. For example, some programs mobilize community support for and involvement in initiatives and activities for youth. Failure to garner such community involvement could greatly diminish the effectiveness of the program in changing the attitudes and behaviors of adolescents at the individual level. Without measuring change (or lack thereof) at the community level, the evaluator could not accurately interpret the lack of change at the individual level.

- **Sensitivities to ARH programs and to issues of adolescent sexuality complicate measurement in many settings.**

Many societies regard the intended outcomes of ARH programs as personal and private. Some societies even prohibit discussions about sexual behavior and personal relationships. Program officials and evaluators may also face parental and community resistance to asking adolescents questions about these topics. Community leaders and other stakeholders may believe that the young people in their communities do not engage in risky behaviors, and therefore evaluators do not need to ask questions about these topics. Stakeholders may also fear social or political danger in uncovering the truth about young people’s behaviors and may attempt to block data collection. Because of the social sensitivities surrounding adolescent sexual behaviors, evaluators face more rigid informed/parental consent procedures for ARH programs than for other types of RH programs.

- **Overlap of Indicators with Other Areas of Reproductive Health**

Some indicators described elsewhere in this *Compendium* are relevant to ARH programs. For example, most or all indicators pertaining to policy, program management, commodities and logistics, management, BCC,

and training are generic indicators that apply to ARH programs as well as to other types of RH programs. However, the nuances involved in ARH programs necessitate several specific indicators even in these generic areas. For example, ARH programs emphasize youth participation in program design and implementation, on specific characteristics of health facilities that attract youth, and specialized training of program staff to serve and to work with youth. In terms of outcomes, whereas ARH programs share many intended outcomes with family planning and with other RH programs (e.g., increased contraceptive use, reduced rate of unwanted pregnancies, reduced rate of STIs), other outcomes are unique to ARH programs. For example, because ARH programs often aspire to influence the broad social en-

vironment in which youth are reared, outcome indicators pertaining to matters such as community support for programs and services directed to youth and to “connections” with parents and family are relevant both as program outcomes and as contextual factors shaping program design. ARH programs also often attempt to reduce the prevalence of non-sexual risk behaviors (e.g., alcohol and drug use) and to develop specific skills and competencies (“self-efficacy”) as key intermediate outcomes that improve the reproductive health of adolescents. It should be noted that this section describes the key specialized indicators for ARH programs. Finally, evaluators should collect and report outcome indicators for adolescent programs by gender.

EXISTENCE OF SUPPORTIVE ARH POLICIES**Definition**

This indicator is a composite index measuring the extent to which the overall policy environment in a country supports adolescent reproductive health concerns. The index assesses the existence of:

- Policy or legislation recognizing the rights of adolescents, including unmarried adolescents, to receive reproductive health services;
- A formal policy setting a minimum age for marriage;
- Policies prohibiting sexual exploitation and/or violence;
- Policy or legislation authorizing sexual-reproductive health education in schools (or lack of restrictive policies or legislation);
- Permission for pregnant adolescents to continue their education;
- Policy or legislation authorizing sales of contraceptives to youth in both the public and commercial sectors;
- Public health sector service delivery guidelines mandating the provision of all reproductive health services to all adolescents; and
- Government authorization of media campaigns on ARH issues.

Evaluators score the index by assigning a value of 2 when the policy environment fully satisfies a given condition, 1 when it partially satisfies the condition, and 0 when it fails to satisfy the condition.

Data Requirements

Evidence of the presence or absence of each of the items included in the index

Data Source(s)

Government documents or other means of verifying the existence of relevant policies, legislation, or regulations; interviews with government officials and key informants

Purpose and Issues

As is the case for family planning programs, a favorable (or at least not hostile) policy environment is essential for the operation and expansion of adolescent reproductive health programs. Although few countries have explicitly restrictive policies, because of the social sensitivity surrounding ARH issues, many countries lack formal policies regarding the provision of RH information and services to youth. The absence of formal policies permits administrators and service providers to impose restrictions – based on their personal beliefs – that prohibit youth from gaining access to essential information and services. This indicator measures whether formal policies that enable and support the provision of RH information and services to youth have been enacted. However, because educators and service delivery staff have personal biases toward and discomfort in addressing adolescent sexual-reproductive health issues, the mere existence of policies does not guarantee the implementation of those policies. Evaluators may expand the indicator to include scores on the extent to which each policy is actually being implemented. A separate indicator measures the actual availability of and access to relevant information and services by youth.

Indicator

ADOLESCENTS ARE MEANINGFULLY INVOLVED IN THE DESIGN AND IMPLEMENTATION OF THE PROGRAM

Definition

This qualitative (yes/no) indicator measures adolescent participation in a program. The evaluator assigns a “yes” score if adolescents participated in the program in a meaningful way. Two areas for participation include: (1) program design (did adolescents from the intended audience participate in designing the program by communicating their needs and preferences) and (2) program implementation (did the adolescents help implement the program).

Data Requirements

Program documents or other evidence that (1) the program designers assessed the needs of the program’s intended audience through a participatory process entailing significant input from youth in the program’s intended audience, (2) the findings from the assessment helped shape program design and strategy development, and (3) youth play key roles in program management or in the delivery of services.

Data Source(s)

Program records; interviews with program staff; interviews with adolescents participating in the assessment and program design; interviews with youth involved in program implementation

Purpose and Issues

Most ARH experts concur that youth participation in program design and implementation enhances program appeal and effectiveness. This indicator provides a qualitative measure of the extent of meaningful participation by youth in the program’s design and implementation. Youth have “meaningful participation” if they play a major role in carrying out the assessment, in deriving conclusions from the assessment data gathered, in designing the program, and in managing and carrying out program activities.

Indicator

PERCENT OF PROGRAM STAFF TRAINED TO WORK WITH OR PROVIDE SERVICES TO ADOLESCENTS

Definition

The percent of program staff specifically trained to work with or provide information, education, or family planning services to adolescents

This indicator is calculated as:

$$\frac{\text{\# of program staff who have received specific training to provide education/ counseling or adolescent health care}}{\text{Total \# of program staff working with adolescents}} \times 100$$

Data Requirements

Number of program staff working with adolescents, number (of these) who received specific training to provide education/ counseling or adolescent health care

Data Source(s)

Program personnel files/records

Purpose and Issues

Working with youth requires perspectives and skills often lacking in standard pre-service training. This indicator measures the extent to which program personnel working with adolescents have received specific training to provide services to adolescents. Services may include outreach, information, education, counseling, referral, and reproductive health services. Note that this indicator only measures staff exposure to training; it does not measure the quality of the training or the staff competence in working with adolescents as a result of the training.

Indicator

PERCENT OF ADOLESCENTS AWARE OF THE PROGRAM

Definition

The percent of adolescents who report knowing of the program's services and/or activities

The services and activities will be specific to each program. Thus, the indicator may refer to sexual-reproductive health or life-skills education in schools or workplaces; reproductive health services at clinics or youth centers; the existence of youth organizations, and radio or television programs for youth.

This indicator is calculated as:

$$\frac{\text{\# of adolescents aware of the program}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Responses to survey questions on awareness of the program's existence and activities by adolescents. The preferred procedure is to first ask about program's services for youth without prompting; then, for adolescents who do not spontaneously report knowledge of the program, to identify the program and ask if the respondent has heard of it.

Data Source(s)

Survey of adolescents in the program's intended population

Purpose and Issues

Before adolescents can use a program, they must know it exists. This indicator provides program managers with a basis for assessing whether they must initiate promotional or awareness-raising activities as part of their youth initiative.

YOUTH FRIENDLINESS OF REPRODUCTIVE HEALTH SERVICES**Definition**

This indicator is a composite index measuring whether reproductive health services are “youth friendly.” Services are “youth friendly” if they “have policies and attributes that attract adolescents to the facility or program, provide a comfortable and appropriate setting for youth, meet the needs of adolescents, and are able to retain their adolescents for follow-up and repeat visits” (Senderowitz, 1999). Aspects of an “adolescent friendly” environment can include space or rooms dedicated to ARH services, policies and procedures to ensure privacy and confidentiality, peer educators on site, nonjudgmental staff, and acceptance of drop-in clients.

Data Requirements

Evidence as to whether reproductive health services satisfy standards for being “youth friendly.” The following characteristics make facilities/services “youth friendly:”

- Facility hours are convenient for adolescents;
- Facility location is convenient for adolescents;
- Facility has adequate space and sufficient privacy;
- Facility has comfortable surroundings for adolescents;
- Staff have been specially trained to work with or to provide services to adolescents;
- Staff treat adolescent clients with respect;
- Staff honor privacy and confidentiality of adolescent clients;
- Staff allow adequate time for adolescent client and provider interaction;
- Peer counselors are available on site;
- Young male clients are equally welcomed and served as young female clients are;
- Group health discussions are available;
- Necessary referrals are available;
- Service fees are affordable for adolescent clients;
- Drop-in clients are welcomed, and appointments are arranged rapidly;
- A wide range of reproductive services are available;

- Educational materials are available on site for clients to take home;
- Adolescents perceive that they are welcome regardless of their age and marital status; and
- Adolescents perceive that providers will be attentive to their needs.

Evaluators create this index by assigning a score to each item: 2 points for complete fulfillment of the condition, 1 point for partial fulfillment of the condition, and 0 for lack of fulfillment. Evaluators may derive a total facility score if they first sum the item scores and then divide that result by the total number of points possible (Nelson, MacLaren, and Magnani, 2000).

Data Source(s)

Facility records; facility inventories; interviews with adolescent clients, providers, and managers at clinics; client exit interviews; interviews of youth in the community

Purpose and Issues

Because reproductive health services in most settings have been designed for older, married women, unmarried female and male adolescents face a variety of barriers to service use. Among these are policies that restrict their access to services and information, negative community attitudes toward providing reproductive health services to unmarried adolescents, adolescent embarrassment at being seen at facilities, and fear that the facility will not honor privacy and confidentiality.

To overcome these barriers, a number of service-providing organizations have sought to make their services more “youth friendly.” By offering more youth-friendly reproductive health services, programs may effectively attract young people and may provide quality reproductive health services in a comfortable and responsive environment. Adolescents can receive services in a health facility, such as a clinic, health post or hospital, from trained personnel who provide services in a workplace or school setting, through community outreach workers or peer educators. Regardless of the venue,

services must have special characteristics that attract, serve, and retain adolescent clients.

This indicator is most appropriate for assessing facilities and services that were not specifically designed for adolescents (such as a family planning clinics, health posts, or pharmacies), because adolescent facilities were presumably designed with the characteristics of adolescent friendliness in mind. However, this indicator can also monitor the adolescent friendliness of adoles-

cent-centered facilities over time. For example, after a baseline assessment, the program manager may plan to make changes in services over the next 6 months and may allow those changes to become part of the service-delivery protocols over the next 12 months. The program manager may then decide to undertake a follow-up assessment 18 months later to determine if the changes occurred. The follow-up assessment should measure the same characteristics it measured in the initial assessment.

**SEXUAL REPRODUCTIVE HEALTH EDUCATION
CURRICULUM CONFORMITY TO “BEST PRACTICES”****Definition**

This qualitative (yes/no) indicator measures the extent to which the program’s sexual reproductive health (SRH) education curriculum contains all (or most) of the features identified as “best practices” or “key elements” of effective SRH programs. Alternatively, the indicator can serve as an index or scale indicating the percent of best practices and key elements that the program has incorporated into its curricula and materials.

Data Requirements

Content analysis of the curriculum; accompanying materials; and activities that permit an assessment of conformity with “best practices”

Data Source(s)

Content analysis of program curriculum, materials, and learning methodologies; observation of actual delivery; interviews or focus groups with youth; or self-reported questionnaires from youth who participated in the program

Purpose and Issues

This indicator measures the quality of sexual-reproductive health education efforts focusing on curriculum content. The indicator reflects how well the program covers key aspects of sexual-reproductive health education and how appropriate the content is for the age-group of adolescents reached. Setting universally appropriate criteria is difficult because of cultural and socio-economic differences across and within countries. However, a growing consensus requires that such programs should cover, at minimum, the following: interpersonal communication, self-esteem, value clarification, life stage, decision-making, education and career goals, gender roles, dating, sexuality, marriage, and contraception. Illustrative guidelines for sexuality education in the U.S. – provided by SIECUS (1996) and

Kirby (2001) – enumerate ten characteristics that successful sexual-reproductive health education programs in the U.S. share:

- Focus on reducing one or more sexual behaviors that lead to unintended pregnancy or STI/HIV;
- Design based on theoretical approaches demonstrated to effectively influence health-related risky behaviors;
- Clear messages about sexual activity and condom/contraceptive use and continual reinforcement of the messages;
- Basic, accurate information about the risks of adolescent sexual activity and about methods of avoiding intercourse and using protection against pregnancy and STIs;
- Activities addressing social pressures that influence sexual behavior;
- Provides role modeling and practice communication, negotiation, and communication skills;
- Varied, participatory teaching methods that encourage participants to personalize the information;
- Incorporates behavioral goals, teaching methods, and materials that are appropriate to the age, sexual experience, and culture of the students;
- Sufficient duration to cover key topics and complete important activities; and
- Teachers and/or peer leaders who believe in the program and are adequately trained.

Program delivery may be non-didactic and thus more effectively reach adolescents; for example, seminars, drama events, musical presentations, sports.

These criteria, developed from programs in the United States, have yet to be validated for developing countries.

Indicator

PERCENT OF ADULTS IN COMMUNITY WHO HAVE A FAVORABLE VIEW OF THE PROGRAM

Definition

The percent of adults from the intended audience in the geographic area covered by the program who report that they “like,” “support,” or “agree” with the goals, objectives, and activities of the program

This indicator is calculated as:

$$\frac{\text{\# of adults who have a favorable view of the program}}{\text{Total \# of adults}} \times 100$$

Data Requirements

Responses to survey questions on adult views of the program

Data Source(s)

Surveys of adults in the population covered by the program

Purpose and Issues

Although a positive image among adolescents is the most crucial, parental and adult perceptions of ARH programs are also important to program success in view of the key role adults play in shaping adolescent attitudes and perceptions. If parents and adults in the community disapprove of a program, their lack of support often influences the attitudes and behaviors of adolescents. The importance of adult perceptions and support are demonstrated in a recent study in Zambia, which found that trends in adolescent use of reproductive health services were more strongly associated with adult acceptance of providing such services to youth than attributes of the services themselves were (Nelson, Magnani, and Bond, 2001).

Indicator

NUMBER/PERCENT AND CHARACTERISTICS OF ADOLESCENTS “SERVED” OR “REACHED” BY THE PROGRAM

Definition

The number of adolescents who have received program services, have participated in program activities, and have been exposed to program mass media messages

The evaluator can subdivide the total number exposed by the type of activity: school-based program, clinical services, youth center activity. In addition, surveys (if used) can show the percent reached by mass media messages. The evaluation can also classify participants in these activities by relevant characteristics such as: age, gender, marital status, race/ethnicity, socio-economic status, school matriculation status, employment status, pregnancy history, STI history, and contraceptive use history.

This indicator is calculated as:

$$\frac{\text{\# of adolescents served or exposed to the program}}{\text{Total \# of adolescents in the intended population}} \times 100$$

Data Requirements

Program service statistics or comparable data indicating the number and characteristics of adolescents served by the program; responses to survey questions on exposure to or participation in program activities. Where feasible, evaluators can collect comparable data on adolescents not served or reached by the program to verify that the program is reaching its intended audience and to identify under-served segments of the adolescent population.

Data Source(s)

Program records or surveys of the program’s intended population/audience. In programs that provide different types of services (e.g., youth centers offering recre-

ational, educational, and health services), evaluators should compile service statistics separately for each major type of service or activity.

Purpose and Issues

This indicator measures the volume and characteristics of adolescent clients who participate in program activities or use program services. The exact wording of the indicator will vary by type of program.

Evaluators can readily compile data on the number and characteristics of adolescents that attend program activities or seek clinical services at fixed sites. To measure the reach of mass media and similar programs, evaluators can survey the intended audience and thus obtain counts or estimates of the percentage of adolescents “exposed” to specific communication programs.

In addition to the number and percent of adolescents in the intended population served or reached by the program, the evaluator should ascertain that the program reaches key sub-groups of adolescents. For example, health facility-based programs that reach primarily older, married females who have previously been pregnant will likely have a very different population impact than will comparable programs that reach younger, unmarried adolescents of both genders. Similarly, “low-risk” youth recruited as peer promoters who contact and engage other low-risk youth will likely have a very different population impact than will higher-risk youth recruited to contact other higher-risk youth. In short, the evaluator needs to verify that the program is reaching the sub-groups of interest within the population at large.

Indicator

SEXUAL-REPRODUCTIVE HEALTH (SRH) KNOWLEDGE

Definition

This indicator is a composite indicator or index measuring adolescents' knowledge of key sexual-reproductive health (SRH) topics and issues. The topics and issues included in the indicator should reflect those of primary importance for protecting the reproductive health of adolescents and/or those the program emphasized.

Data Requirements

Evidence of knowledge of key SRH issues, usually solicited by means of personal interviews with or self-administered questionnaires completed by adolescents

The following is an illustrative list of topics that evaluators may include:

- The female menstrual cycle and conception;
- Ways to avoid pregnancy;
- Methods of contraception;
- Correct use of (at least) condoms and oral contraceptives;
- Existence of sexually transmitted infections (STIs);
- Means of transmission of STIs;
- Ways to avoid STIs; and
- Symptoms of STIs.

Data Source(s)

Surveys of adolescent program participants or of adolescents in the program's intended population

Purpose and Issues

Adolescents must have knowledge of key sexual-reproductive health topics and issues if they are to make informed decisions to protect their health and well being. Many adolescents get their RH information from poorly informed sources (i.e., peers). Inaccurate beliefs concerning levels of risk associated with particular behaviors and/or the effectiveness and side-effects of different types of contraceptives can be strong enough to prevent adolescents from accurately perceiving the potential consequences of their behaviors. This indicator is a composite measure that includes the SRH topics and issues of primary importance for protecting the reproductive health of adolescents and/or those topics and issues the program emphasized.

When interviewers question adolescents about these topics they should use local, non-scientific names to describe certain practices and conditions. Evaluators can and should analyze separately the individual topics and questions included in the composite index to determine those specific topics requiring further emphasis by the program. Although adolescents need accurate knowledge of SRH topics for informed decision-making, adolescents may not act in a manner consistent with their knowledge, such that evaluators need to measure behavior separately.

Indicator

PERCENT OF ADOLESCENTS WHO HAVE “POSITIVE” ATTITUDES TOWARD KEY SEXUAL-REPRODUCTIVE HEALTH ISSUES

Definition

This composite indicator or index measures adolescents' attitudes toward key sexual-reproductive health (SRH) topics and issues. “Positive” attitudes are those logically expected to lead to positive RH outcomes. The topics and issues included in the indicator should reflect those of primary importance for protecting the reproductive health of adolescents and/or those the program emphasized.

This indicator is calculated as:

$$\frac{\text{\# of adolescents who have positive attitudes toward key SRH issues}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Evidence of the prevalence of “positive” attitudes toward key SRH issues, usually solicited by means of personal interviews with or self-administered questionnaires completed by adolescents. Evaluators should tabulate data for this indicator by gender and age. The following items illustrate possible attitudes to measure:

Attitudes toward contraceptives/condoms:

- Condoms do/do not reduce sexual pleasure;
- Carrying condoms is/is not difficult;
- Using condoms is/is not a sign of mutual respect;
- Condoms are easy/difficult to obtain and use;
- My partner would/would not reject me if I insisted on condom use;
- Unmarried adolescents should/don't need to use condoms in all sexual encounters; and
- I am/am not responsible for my own well-being.

Gender-role stereotypes:

- Women who carry condoms are “easy” or prostitutes;
- Having sex with many women is a sign of manhood;
- “Real men” don't use condoms; and
- The female (sexual partner) is responsible for protection.

Attitudes toward abstinence:

- It is OK for youth to wait for marriage to have sex; and
- My friends would/would not laugh at me for refusing to have sex.

Perceived vulnerability:

- It (pregnancy/STIs) won't happen to me;
- Young people are healthy and don't need to worry about STIs; and
- Women can/cannot get pregnant the first time they have sex.

Data Source(s)

Surveys of adolescent program participants or of adolescents in the program's intended population

Purpose and Issues

Developing “positive” attitudes toward key sexual-reproductive health topics/issues is an important objective of many ARH programs. This indicator is a composite measure that covers attitudes toward the SRH topics and issues of primary importance for protecting the reproductive health of adolescents and/or those the program emphasized. As with knowledge, however, positive attitudes do not necessarily predict future behaviors.

Indicator

PERCENT OF ADOLESCENTS WHO ARE CONFIDENT THAT THEY COULD REFUSE SEX IF THEY DIDN'T WANT IT

Definition

The percent of adolescents reporting confidence that they could refuse sex if they did not desire it

This indicator is calculated as:

$$\frac{\text{\# of adolescents reporting that they could refuse sex if they did not desire it}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Responses to survey questions on whether adolescents are “confident,” “somewhat confident,” “unsure,” or “not confident” that they could resist having sex when they did not desire it

Data Source(s)

Surveys of program clients/participants or adolescents in the program’s intended population

Purpose and Issues

This indicator measures the level of confidence or “perceived self-efficacy” of adolescents to refuse sexual advances when they do not want to have sexual relations. A growing consensus claims that ARH education programs are most successful when they address social pressures that influence sexual behaviors. Many programs include exercises and “role-plays” on how to resist pressure tactics and to escape situations that may lead to sex, through negotiation and other tactics. Thus, the indicator can measure the effectiveness of such skill-based educational programs in increasing adolescents’ self-efficacy with regard to resisting unwanted sexual pressures and advances. This indicator measures perceived self-efficacy, which may or may not correspond to actual responses to real-life situations.

Because responses to sexual advances are likely to be context specific, the preferred measurement approach is to solicit responses to various situations that adolescents might find themselves in. For example, the interviewer may ask respondents how confident they are in their ability to refuse sex with:

- A person they have known for days;
- A person they have known for months;
- A person who offers them gifts;
- A person whom they care about deeply;
- A person who has paid for their school or training fees and who demands sex; and
- A person who has power over them, such as a teacher or an employer.

Gender Implications of this Indicator

Recent surveys indicate that for girls, the first experience of sexual intercourse is often involuntary (in some but not all developing countries). Forced sex (rape) is a form of gender-based violence. Many girls are coerced into sex by older men who view younger partners as less likely to have an STI. Some men believe that sex with a virgin can cure them of HIV/AIDS. Young girls say they lack the skills and self-confidence to refuse a more powerful and older male. Economic realities for many young girls makes refusing sex difficult and increases the likelihood that they will trade sex for money or gifts. In sub-Saharan Africa and other countries, these factors have led to new HIV infections among adolescent girls that are higher than those among boys and adults of either sex.

Indicator

PERCENT OF ADOLESCENTS WHO ARE CONFIDENT THAT THEY COULD GET THEIR PARTNER(S) TO USE CONTRACEPTIVES/CONDOMS IF THEY DESIRED

Definition

The confidence or “self-efficacy” of adolescents in their ability to negotiate contraceptive/condom use with their partner(s)

This indicator is calculated as:

$$\frac{\text{\# of adolescents reporting ability to negotiate contraceptive/condom use with their partners}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Responses to survey questions on whether adolescents are “confident,” “somewhat confident,” “unsure,” or “not confident” that they could convince their partner(s) to use a contraceptive/condom if desired

Data Source(s)

Surveys of program clients and participants or adolescents in the program’s intended population

Purpose and Issues

This indicator measures the level of confidence or “perceived self-efficacy” of adolescents – desiring protection – to successfully negotiate contraceptive/condom use with their partner(s) if desired. Like the ability/skill to resist social pressure to have sex, many ARH education programs emphasize negotiation skills with

regard to contraceptive/condom use. This indicator is particularly important for girls in developing countries, because many have limited negotiation skills or power to convince sexual partners to use contraceptives/condoms. The indicator can thus measure the effectiveness of such skill-based educational programs in increasing adolescents’ self-efficacy at contraceptive use. Like the previous indicator, this indicator measures perceived self-efficacy, which may or may not correspond to actual behaviors in real-life situations.

Because self-efficacy of contraceptive use is also likely to be context specific, the preferred measurement approach is to solicit responses to various situations that adolescents may find themselves in. For example, an interviewer may ask respondents how confident they are in their ability to successfully negotiate contraceptive/condom use with:

- A person they have known for days;
- A person they have known for months;
- A person who offers them gifts;
- A person whom they care about deeply;
- A person who has paid for their school or training fees and who demands sex; and
- A person who has power over them, such as a teacher or an employer.

Indicator

PERCENT OF ADOLESCENTS WHO HAVE EVER HAD SEXUAL INTERCOURSE

Definition

The percent of adolescents who have ever engaged in sexual intercourse (interpreted in most contexts to mean penile-vaginal intercourse)

This indicator is calculated as:

$$\frac{\text{\# of adolescents who have ever had sexual intercourse}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Responses to a survey question asking whether they have ever had sexual intercourse

The question or questionnaire should specify penile-vaginal intercourse in order to minimize confusion as to the behavior the question referred to. The evaluators should measure the indicator for both married and unmarried youth.

Data Source(s)

Population-based surveys

Purpose and Issues

This indicator determines the extent to which adolescents in a program's intended population are sexually initiated. The indicator is useful both for designing ARH programs and for evaluating the effectiveness of existing programs aimed at postponing age at sexual debut. Because of large differences in age of the partners, evaluators should tabulate the indicator by single years or by age groups to guarantee accurate interpretation of the indicator.

Evaluators may have problems arise in measuring this indicator in settings where sexual activity outside of marriage is stigmatized, because adolescents who have initiated sex may be reluctant to admit having done so. Given the sporadic nature of sexual activity among adolescents, especially younger adolescents, in many settings, the indicator may not reflect the number/percent of adolescents who have been sexually active in the recent past (e.g., the last 3 or 6 months).

Indicator

AGE AT FIRST INTERCOURSE

Definition

This indicator is a summary measure of the average age at which adolescents become sexually active. Evaluators may alternatively calculate the indicator as: (1) the mean age at first intercourse, (2) the median age at first intercourse, or (3) the percent of youth who have ever had intercourse by selected reference ages (e.g., age 13, 15, 17, 19).

(1) Mean age at first intercourse

$$\frac{\Sigma \text{ age of adolescents}}{\text{Total \# of adolescents}}$$

(2) Median age of first intercourse¹

$$\text{MEDIAN} = L + [(50 - cf/f) * i]$$

Where:

L = the true lower limit of the class interval in which the median is located;

50 = the 50 percentile observation;

cf = the cumulated frequency up to the median class interval;

f = the frequency within the median class interval; and

i = the class width.

(3) Percent of youth who have had intercourse at reference ages

$$\frac{\text{\# of adolescents of a reference age who report having had intercourse}}{\text{Total \# of adolescents of the reference age}} \times 100$$

Data Requirements

Self-report by adolescents on whether they have ever had intercourse and, if so, their age at first intercourse. Obtaining current age is also useful for more refined measures (see below). Evaluators should measure the indicator for both married and unmarried youth.

Data Source(s)

Surveys of program participants or adolescents in the program's intended population

Purpose and Issues

The typical or average age at which adolescents in the program's intended population are initiating sex is an important parameter for program design purposes and a key outcome indicator for programs aimed at delaying onset of sexual activity. The preferred form of the indicator is the median age at first intercourse, as this form avoids bias problems that arise in the use of the mean age in settings where sexual initiation typically occurs at later ages. If fewer than 50 percent of the sample is sexually active, the preferred form of the indicator is the proportion of adolescents who had initiated sex by specified reference ages among respondents who are the reference age or older (e.g., the percentage of adolescents 16 years of age or older who had initiated sex by age 15). Evaluators may compute median ages at first pregnancy or birth in a similar fashion.

¹ Note: This formula is for use with grouped data consisting of percentage frequencies in each class. For ungrouped data, the median is the value of the observation falling at exactly the 50th percentile of the distribution of observations.

Gender Implications of this Indicator

Whereas menstruation is considered a sign of a young girl's passage into womanhood, in many societies, first sex marks a young man's initiation into manhood. Boys generally initiate sex earlier than girls, because many cultures tolerate or encourage sexual activity among adolescent males. In some places, a young man's masculinity is questioned if he has not had sexual intercourse by a certain age (McCauley and Salter, 1995). Responses to the question of age at first intercourse may thus be misreported because of cultural norms that may encourage boys to boast about early sexual experimentation, while having the opposite effect on girls, who may underreport sexual activity because of the great value placed on virginity.

Indicator

NUMBER OF SEXUAL PARTNERS AMONG SEXUALLY ACTIVE ADOLESCENTS DURING A SPECIFIED REFERENCE PERIOD

Definition

The number of sexual partners during a specified reference period (e.g., the last 3, 6, or 12 months) among sexually active adolescents

Data Requirements

Responses to survey questions on number of sexual partners during the specified reference period

Data Source(s)

Surveys of program participants or adolescents in the program's intended population

Purpose and Issues

Having multiple sexual partners increases the risk of transmission of STIs and HIV/AIDS. This indicator provides a measure of how prevalent this high-risk behavior is in a program's intended population. However,

because consistent condom use greatly reduces the risk of STI transmission, evaluators must consider the indicator in conjunction with the indicators pertaining to condom use (**Percent of Sexually Initiated Adolescents Who Used a Condom at First/Last Sex, Percent of Sexually Active, Unmarried Adolescents Who Consistently Use Condoms** – see below) in order to assess the prevalence of high-risk behaviors.

Because the indicator deals with a sensitive topic, there is reason to be concerned about the accuracy of reported information. Unfortunately, little methodological research has been undertaken to assess how accurately numbers of partners are reported in different settings.

Indicator

NUMBER/PERCENT OF ADOLESCENTS WHO HAVE EXPERIENCED COERCIVE OR FORCED SEX

Definition

The number or percent of adolescents reporting some form of coerced or forced sex including: rape, date rape, domestic violence (resulting in sexual intercourse), sexual assault, sexual harassment, incest, and sexual molestation (Kidman, 1993)

This indicator is calculated as:

$$\frac{\text{\# of adolescents reporting forced or coerced sex}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Self-reports of adolescents of the occurrence of coerced or forced sex either in the immediate or distant past

Data Source(s)

Surveys of adolescents in a program's intended population; program "intake" interviews; interviews during health service provision and/or in connection with educational or counseling programs

Purpose and Issues

Although most ARH programs emphasize self-efficacy and decision-making with regard to sexual relations and contraception, many adolescents, especially female adolescents, experience forced sexual encounters. At the 1994 International Conference on Population and Development in Cairo and at the 1995 Fourth World Conference on Women in Beijing, discourse on sexual and reproductive rights appropriately characterized sexual coercion as a symptom of the limited life options of girls and young women. Thus, program models designed to reduce sexual activity among adolescents must not

only offer information, but must also promote public acknowledgment of the prevalence of sexual coercion and of the gender inequality that fosters it. The plausible existence of a considerable amount of coerced sexual activity highlights the inadequacy of current ARH program models, which primarily assume that sexual activity among adolescents is voluntary (Mensch, Bruce, and Greene, 1998).

This indicator provides a measure of the relative frequency of adolescents victimized by forced sex. For various reasons, incidents of coerced or forced sex are likely to be significantly under-reported in survey interviews. Evaluators can likely obtain more complete reporting in connection with counseling programs. However, in many settings, such programs reach so few adolescents, that the actual incidence is likely to be seriously under-reported. Because of the sensitivity of this matter, interviewers must often ask questions about coercive sex repeatedly to offer adolescent respondents an opportunity to disclose their experience with forced sex. One potentially effective way of broaching the subject is to ask the adolescent: "Did you have any upsetting sexual experiences in childhood or adolescence?" (Heise, Moore, and Toubia, 1995). Other researchers have also asked: "Did someone ever make you touch their breasts or genitals, or touch yours, when you did not want to?" (Boyer and Fine, 1992). After receiving a positive response, researchers or counselors can probe more deeply by asking: the age at first abuse, the frequency of occurrence, the type of abuse, whether abused by one or more people, the relationship of person(s) to the respondent, the location of the abuse, and whether the respondent told anyone else about the abuse.

Indicator

PERCENT OF SEXUALLY INITIATED ADOLESCENTS WHO USED A CONDOM AT FIRST/LAST SEX

Definition

The percent of adolescents who ever had sex reporting that they used a condom during first and/or last sexual intercourse

This indicator is calculated as:

$$\frac{\text{\# of adolescents who report having used a condom at first/last sex}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Reports of condom use at first and last sexual encounters

Data Source(s)

Surveys of adolescent program participants or adolescents in the intended population for the program

Purpose and Issues

This indicator measures the prevalence of condom use at two important reference points. Reported use at first intercourse indicates the effectiveness of program mes-

sages encouraging the use of condoms among youth who become sexually active – an especially important message for programs focusing on younger adolescents. Condom use at last intercourse approximates the current condom prevalence rate among adolescents (assuming that last sexual encounters occurred in the recent past). Given that most adolescents need non-permanent methods that provide dual protection against pregnancy and STI transmission, this indicator specifies condoms. However, evaluators may include questions on the use of other contraceptive methods to capture the use of other protective methods. Ideally, evaluators will tabulate the indicator separately for married and unmarried adolescents, because the circumstances surrounding contraception and choice of method are quite different for each group. Note that reports of condom use (or the use of other contraceptives) do not necessarily reflect consistent use, measured by another indicator.

Indicator

PERCENT OF SEXUALLY ACTIVE, UNMARRIED ADOLESCENTS WHO CONSISTENTLY USE CONDOMS

Definition

The percent of sexually active, unmarried adolescents who report using a condom in all sexual encounters during a defined reference period (e.g., last 6 or 12 months)

Because condom use varies by partner in some settings, the preferred approach is to ask about respondent's regular partner and recent non-regular partners (if any). The indicator measures only unmarried adolescents because of potentially confounding issues surrounding the use of condoms by married couples.

This indicator is calculated as:

$$\frac{\text{\# of unmarried adolescents who report using condoms in all sexual encounters in a reference period}}{\text{Total \# of unmarried adolescents}} \times 100$$

Data Requirements

Reports of condom use during recent sexual encounters

Data Source(s)

Surveys of program participants or youth in the geographic area of the program. To measure this indicator, evaluators can use responses to questions asking whether youth "always," "most of the time," "sometimes," or "never" use condoms.

Purpose and Issues

Because condoms protect against both pregnancy and STI transmission and are readily available from non-clinic sources in most settings, many ARH programs promote condoms as the contraceptive method of choice for adolescents. However, prior research indicates that adolescents tend to be inconsistent contraceptive/condom users and/or to use condoms with non-regular partners but not necessarily with regular partners. Also, some evidence shows that the regularity of condom use tends to decline as the duration of sexual relationships increases. In view of these findings, many ARH programs counsel condom use in all sexual encounters, irrespective of the partner and duration of relationship. This indicator measures the prevalence of this "preferred" practice in a program's intended population.

Indicator

PERCENT OF ADOLESCENTS WHO REGULARLY USE DRUGS/ALCOHOL

Definition

The percent of adolescents reporting that they use drugs and/or alcohol regularly

Evaluators may allow adolescents to define “regular use” or may define regular use in terms of number of times used during a specified reference period (e.g., the last month).

This indicator is calculated as:

$$\frac{\text{\# of adolescents who report regular use of drugs and alcohol}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Responses to survey questions on drug and alcohol use
Specific questions may include:

- In the last month, how many times did you drink alcohol?
- How many times did you get drunk?
- The last time you drank alcohol, how many drinks did you have?

Data Source(s)

Surveys of program participants or youth in the program’s intended population

Purpose and Issues

Studies in both the U.S. and developing countries have shown that drug and alcohol use among adolescents is associated with a higher prevalence of risky sexual behaviors (e.g., unprotected sex, multiple sexual partners). This indicator thus measures the prevalence of these non-sexual risk factors for adverse RH outcomes in the program’s intended population. Where the prevalence is high, programs may need to directly address substance abuse as a proximate cause of adverse RH outcomes along with sexual and contraceptive behaviors.

Indicator

PERCENT OF ADOLESCENTS WHO FEEL “CONNECTED” WITH THEIR PARENTS/FAMILY

Definition

The degree to which adolescents feel “connected” with their parents/family

Evaluators measure connections in terms of the closeness of relationships between adolescents and parents or other adult family members or caretakers.

This indicator is calculated as:

$$\frac{\text{\# of adolescents who report feeling connected to their parents/families}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Responses to survey questions on the degree of family “connectedness” among adolescents. Evaluators may include the following types of items in indices of connectedness:

- Parents or other adult family members spend time with adolescents;
- Adolescents perceive “closeness” with parents or other adult family members;
- Adolescents perceive that they can approach parents or other adult family members with problems;
- Adolescents perceive that their parents and families care about them;
- Parents or other adult family members help with homework (for youth attending school);
- Adolescents feel comfortable talking with parents or other adult family members; and
- Adolescents perceive that they are important to their parents.

Data Source(s)

Surveys of program participants or youth in the program’s intended population

Purpose and Issues

Studies in both the U.S. and developing countries have shown that feeling “connected” with parents and/or adult family members protects adolescents against risky sexual behaviors and thus against adverse RH outcomes (Resnick et al., 1997). This indicator thus measures the degree of connections between adolescents in the program’s intended population and their parents/families. For diagnostic purposes, the indicator measures the percent of adolescents in the program’s intended population that may be vulnerable to negative influences and to adverse outcomes. In settings where the level of connectedness is low, programs for parents and/or the provision of alternative mentors may be called for. In such programs, evaluators may also use the indicator as an intermediate outcome indicator to measure improvements in the social environment for adolescents in the program’s intended population.

Indicator

PERCENT OF ADOLESCENTS WHO HAVE EVER BEEN PREGNANT OR CAUSED A PREGNANCY

Definition

The percent of adolescent females who have ever been pregnant and the percent of adolescent males who have ever caused a pregnancy

This indicator is calculated as:

$$\frac{\text{\# of adolescent females who report having ever been pregnant}}{\text{Total \# of adolescent females}} \times 100$$

$$\frac{\text{\# of adolescent males who report having ever caused a pregnancy}}{\text{Total \# of adolescent males}} \times 100$$

Data Requirements

Responses to survey questions asking whether female adolescents have ever been pregnant and whether male adolescents have ever caused someone to be pregnant

Data Source(s)

Surveys of program participants or youth in the program's intended population

Purpose and Issues

Many ARH programs aim to reduce the number of adolescent pregnancies. This indicator provides a simple proxy measure of the level or volume of adolescent pregnancies for use in assessing the impact of such programs.

Alternatively, evaluators can use a pregnancy rate (i.e., number of annual pregnancies per 1,000 women 15-19 years of age). Evaluators can calculate this alternative measure in the same manner as they calculate the age-specific fertility rate for adolescents (see Part III.B), but they will base the calculation upon pregnancies instead of on live births.

In settings where sexual relations and pregnancy outside of marriage are highly stigmatized, female respondents to surveys will likely under-report adolescent pregnancies occurring outside of marriage. Responses by male adolescents may also be biased, but the direction of the bias is less certain. On the one hand, males who have had multiple casual sexual partners may be unaware of pregnancies they caused. On the other hand, male adolescents may exaggerate their sexual prowess in surveys, and thus may over-report the number of pregnancies they caused. Nevertheless, in most settings, the indicator provides a lower-bound estimate of the true percent of adolescents experiencing or causing pregnancies.

Although ARH programs tend to view adolescent pregnancies as a negative outcome, pregnancies occurring to adolescents are sometimes wanted. Some situations may provide economic and social benefits of pregnancy during adolescence. Thus, evaluators must interpret this indicator in conjunction with data on the "wanted" status of pregnancies occurring to adolescents.

UNMET NEED FOR FAMILY PLANNING AMONG ADOLESCENTS**Definition**

The number/percent of sexually active adolescents who do not desire to become pregnant immediately but who are not using a contraceptive method

Data Requirements

Responses to survey questions on:

- Desire for (additional) children, and if so, the desired time until pregnancy/birth;
- Current contraceptive use status;
- Current sexual activity, fecundity, pregnancy, and amenorrhea status for women not currently using a contraceptive method;
- Wanted status of last pregnancy for currently pregnant or amenorrheic women; and
- Use of a contraceptive method at the time of the current/last pregnancy.

Data Source(s)

Surveys of adolescents in the program's intended population

Purpose and Issues

Although many programs operate on the assumption that adolescents desire to avoid pregnancy, becoming pregnant is advantageous in some settings and situations. The present indicator provides a measure of unmet need for family planning comparable to the generic indicator (Bongaarts, 1990; Westoff, 1991) but adjusted for the situation of many adolescents. The adjustments include sexually active female adolescents who are not currently married or in union. Evaluators may also survey for "sexually active" adolescents in terms of all women reporting ever having had sexual intercourse. However, this latter approach will include women who have sex only sporadically; the fact that they are not currently using a contraceptive method may overstate the level of unmet need for family planning. Alternatively, evaluators may use reported contraceptive use at last sexual intercourse in lieu of current contraceptive use.

Indicator

PERCENT OF ADOLESCENTS WHO WERE EVER DIAGNOSED WITH AN STI

Definition

The percent of adolescents who have ever been diagnosed as having an STI

This indicator is calculated as:

$$\frac{\text{\# of adolescents ever diagnosed with an STI}}{\text{Total \# of adolescents}} \times 100$$

Data Requirements

Responses to survey questions on whether adolescents had ever been diagnosed as having an STI. Questions include:

- Has a physician or nurse ever told you that you had an STI?; and
- Have you ever tested positive for an STI?

Data Source(s)

Surveys of program participants or youth in the program's intended population

Purpose and Issues

Along with reducing the incidence of adolescent pregnancy, reducing the incidence of STIs among adolescents is an important objective of many ARH programs. This indicator provides a relevant long-term outcome measure for such programs. Because the indicator is a "lifetime" measure, it does not measure incidence or prevalence for specific reference periods, although evaluators can derive an incidence-like measure by obtaining information on the dates of episodes of STIs. The measure is, however, crude and suffers from several biases. First, many STIs lack recognizable symptoms; thus, the indicator will underestimate the true percent of adolescents who have ever contracted an STI. Second, because STIs imply that respondents have engaged in behaviors stigmatized in many settings, the indicator is prone to under-reporting in survey interview situations. Thus, the indicator will provide a lower-bound estimate in most settings.

