

DATA COLLECTION AND THE M&E WORKPLAN



CHAPTER AT A GLANCE

- ▶ Reviews data collection steps
- ▶ Addresses ethical concerns
- ▶ Presents options for data collection methods
- ▶ Discusses tasks involved in developing an M&E workplan

Preparing for Data Collection¹

How you prepare for data collection will influence the quality of the data you collect. If you or your staff collect the data, you will need to:

- ▶ address any ethical concerns,
- ▶ prepare written guidelines for how data collection will be done,
- ▶ pre-test data collection indicators, instruments and procedures, and
- ▶ train all staff who will collect the data.

Address ethical concerns before planning for data collection.

Ethics refers to both professional standards of conduct as well as moral principles and values exercised in conducting research and evaluation studies. Ethical reviews are designed to consider and mediate the potential risks and negative consequences to participants as a result of their participation in a study or evaluation. Most programs are already addressing ethical

concerns in the implementation of their interventions. For evaluators, responding to ethical concerns will influence your relationship with the community and enhance your ability to collect quality data. The more ethical your data collection effort, the more honest and reliable the information you collect, ensuring that your M&E results are valid.

Ethical concerns can be addressed in many ways:²

- ▶ **Community input:** The M&E effort should respond to concerns of community stakeholders, such as parents groups, youth clubs, NGOs, religious groups and youth. Many may have strong views on what kinds of questions are relevant and acceptable. For example, some youth may voice their concerns about participating in a survey that explicitly addresses sexuality. Others may have suggestions about developing

¹ Many of the ideas presented here about how to overcome the challenges of collecting data from youth are based on discussion from the *YARH Measurement Meeting*, September 28–30, 1999. In particular, presentations by Gary Lewis, Johns Hopkins University Center for Communications Programs, and Paul Stupp, Centers for Disease Control Division of Reproductive Health, were helpful in developing the substance of this chapter.

² Based in part on a presentation by Cynthia Waszak, Family Health International, made at the *YARH Measurement Meeting*, September 28–30, 1999.

questionnaires that young people will feel comfortable responding to, thereby increasing the validity of their responses. Document community input for reference in case the evaluation becomes controversial.

Applying ethical standards in data collection improves the quality of data.

- **Parental permission:** Local standards and laws will determine the age at which a young person can consent to answer a survey or questionnaire. For example, in some communities, a young person is considered an adult at the age of 16; in others, “emancipated minors” include only those who are married or serving in the military. Be sure to find out when you need to secure parental permission. If no legal standards exist, ask for advice and input from the community. Consider whether it is practical to obtain permission from parents, and explore options for getting “adult advocates” to permit young people to participate in the evaluation. Parental consent can be verbal, but written is best.
- **Informed consent:** Before completing a questionnaire, youth must understand what they are being asked to do and how the information they provide will be used. This is called *informed consent*. Informed consent is key to getting good data, because youth may not answer questions honestly if they are concerned about who will see their answers or how the data will be used. Most questionnaires have an informed consent waiver that is read to youth before they begin the survey. The language of informed consent must be explicit and comprehensible to young people. Those collecting data should be trained to understand the concept of informed consent, and able to answer concerns from youth about their participation. Finally, you should consider legal requirements to disclose certain types of information, such as sexual abuse and illegal drug use. If you are required by law to disclose this information, you must explain this to participants before they answer any related questions.
- **Voluntary participation:** You must ensure that young people are answering your questionnaire voluntarily. Compensation is acceptable, if it is modest (e.g., reimbursement for transportation costs, snacks). Avoid pressure by authority figures to participate in a survey conducted in an institutional setting. If possible, identify adults who can advocate for youth, such as a school nurse, and answer the questions of youth who are concerned about participating in the evaluation. Senior-level supervision can help ensure that the principles of voluntary participation are followed in the field. You should also develop a system to minimize how peers influence their friends’ decisions to participate in the evaluation.
- **Confidentiality and privacy:** Most evaluations of youth programs collect information anonymously. If names are collected, keep them separate from completed questionnaires and connect the two by a code. Privacy is also important. The survey should be

administered in a private place, where others cannot hear or see a young person's answers. Avoid testing techniques that inadvertently reveal something about youth (e.g., longer questionnaires for sexually active youth).

- **Risk to respondents:** Even with confidential surveys, concerns remain that certain kinds of questions are harmful to youth. Questions about sexual abuse, for example, can deeply upset youth who have been abused but have never talked about it before. Some evaluators opt not to ask these kinds of questions unless there is a service provider available. Many evaluators develop a skip pattern in their questionnaires so that youth who have never heard of sex, for example, are not asked about sexual behavior. Some evaluators offer a discussion or question-and-answer period after youth have completed their questionnaires.

Prepare written guidelines for data collection to help ensure high-quality data.

High-quality data collection efforts usually have detailed written instructions on how data will be collected. For large-scale surveys, such as country-level Demographic and Health Surveys (DHS), detailed manuals are prepared as guidelines for interviewers and field supervisors. Guidelines provide step-by-step instructions, as well as guidance on handling problems and questions that might arise during the course of data collection.

While your program may not have the resources to prepare manuals comparable to those used for the DHS, you should develop guidelines for each of the data collection instruments you plan to use. Guidelines ensure some degree of

standardization in the data collection process. Without guidelines, each person collecting data will use his or her own method, procedure and problem-solving strategy. This may produce random error, sometimes referred to as *noise*, in the data. Without standard procedures, evaluation data may be biased because they were not all collected in exactly the same way.

Carefully design and pilot-test survey questions.

While designing a survey instrument, use qualitative exercises to explore young people's meanings and perceptions about the issues you want to measure. Young people's language, priorities and behavioral concepts are different from adults'. For example, a young person might think that taking a single contraceptive pill before having intercourse will protect against pregnancy, and thus will report having used birth control at last intercourse. Also, words can be interpreted in many ways; for example, "friend" can mean many different things to young people.

Budget enough time and resources to pilot-test the questions you plan to ask youth. Use the data collection instruments in conditions that are as similar as possible to your expected field conditions. For example, pilot-test materials with respondents who have the same socio-demographic characteristics of the respondents you plan to collect data from, but in areas where the program is not conducted (to protect future results). Pilot tests will:

- detect questions that respondents have trouble understanding,
- verify how long it will take to collect the data,
- build competence in data collectors, and
- uncover problems in field procedures.

Even if your organization is experienced in data collection, conduct a pilot test. It is best to discover and correct any problems before data collection begins.

Order topics on the survey so that sensitive questions are asked last.

In survey instrument design, questions should move from simpler issues to more complex ones. At the same time, surveys should ask less sensitive questions first, followed by more sensitive ones. What youth consider “sensitive” varies from place to place. For some, reporting about the number of pregnancies is more sensitive than answering questions about premarital sex. In other areas, the most sensitive questions will be about economic issues or partner violence. One way evaluators have increased young people’s comfort in answering questions about sexual behavior is to ask about marital status only at the end of the survey. Asking sensitive questions at the end of a survey also ensures that you will have collected most of the information you’re interested in, even if a young person refuses to answer the sensitive questions.

Build in checks to measure the validity of responses to sensitive questions.

All evaluators are concerned about accuracy of responses, especially on accounts of sexual experience. To make sure the data are valid, ask the same question—in several different ways—throughout the survey, and then compare the responses. For example, ask the date of first sex, the date of marriage and whether the person had premarital sex. If answers contradict one another, you may want to drop that case from the analysis of that particular issue. You might also want to conduct an anonymous, sealed, written questionnaire on a sensitive question and determine whether there are contradictions. Spot-check surveys, paying close attention to responses on sensitive questions, and discuss any problems with data collectors.

Asking about young people’s perceptions of their peers’ behavior may also provide data against which to check the validity of responses to sensitive questions, although in some cases youth perceive that their peers are taking more risks than their peers themselves report doing.

Set a reasonable length for the data collection instrument.

Be sure that you are able to collect the information you really need before youth become bored and refuse to participate in the survey. Collecting too much data will also cause problems in analysis; many evaluators collect so much information that they never analyze all of it fully.

Select data collectors that youth will respond to.

Who collects information from youth may be the most important factor in the validity of your data. In some communities, older, mature interviewers work better; in others, younger interviewers appear to be more effective. In almost all contexts, the age and sex of data collectors are the two major factors to consider. Conduct focus groups with youth before hiring data collectors to find out whom they feel most comfortable with. You might have to balance youth’s preference for younger data collectors and your own need for a well-educated team.

Train every person who is collecting data.

Staff, youth program participants or professional interviewers may be involved in data collection. Regardless of what experience data collectors have, training should include:

- ▶ an introduction to the evaluation objectives,
- ▶ a review of data collection techniques,
- ▶ a thorough review of the data collection items and instruments,

- practice in the use of the instruments,
- skill-building exercises on interviewing and interpersonal communication, and
- a discussion of ethical issues.

Of these, training on interpersonal communication skills—such as establishing a comfortable rapport, maintaining privacy and confidentiality and treating the subject respectfully—is essential when collecting data from youth. Role playing, in which people practice collecting data, can be a useful training device. If possible, training should be concluded with a practice data collection exercise at a site that will not be part of the evaluation sample. After this practice, participants should review their experiences with the entire group.

It is important that data collectors are not a source of unreliability. It is therefore necessary to train them in correct use of the instruments. After the training, administer competency exams and discuss any remaining deficiencies.

A sample training schedule is provided at right. This example represents the minimum time to spend in a training exercise. The length of training you need depends on two things:

- the number and complexity of data collection instruments to be used, and
- the experience of the persons being trained with these instruments.

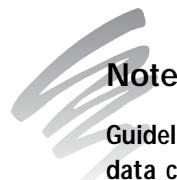
In many cases, it is more appropriate to hire outsiders to collect data.

For example:

- If staff conduct exit interviews with clients, clients may give less than candid assessments of program services (this is referred to as courtesy bias).

Sample Training Schedule	
Day 1	<ul style="list-style-type: none"> • Introductions • Review evaluation purpose and objectives • Discuss possible problems with data collection • Discuss sample selection • Provide overview of data collection instruments • Review data collection instruments
Day 2	<ul style="list-style-type: none"> • Provide guidelines for conducting interviews • Divide into groups; role-play interviews • Discuss experience of role playing
Day 3	<ul style="list-style-type: none"> • Practice data collection at selected sites • Review experiences practicing data collection • Discuss how to resolve problems encountered during data collection • Role-play corrected procedures
Day 4	<ul style="list-style-type: none"> • Plan travel logistics • Cover administrative and financial details

Adapted from Miller et al., 1997.



Note

Guidelines for managing an outside group to undertake data collection

- Develop a written contract outlining exactly what is to be done, by when and how much it will cost.
- Specify the use of data collection methods and instruments, and provide instructions in their use.
- Insert provisions to ensure adequate data quality (such as a minimum number of field supervisors) and procedures to minimize data entry errors.
- Include pilot-testing of data collection instrument, with findings communicated to a designated staff person.
- Maintain final approval of all procedures and data collection instruments before they are used.
- Insist that changes made to procedures or data collection instruments be approved by a designated staff person.
- Designate a knowledgeable person from your staff to serve as a liaison with the contractor to answer questions and monitor data collection work.
- Ensure adherence to the sampling plan.

- Program staff who are needed full-time to implement the project will often not be able to spare the time to collect data.

In such cases, the preferred course of action is to hire an outside group to collect data for you. While hiring outsiders will reduce the amount of preparation needed, you will still have to manage the outside consultants.

Focus your data collection efforts on key issues and ensure that all interviewers are adequately trained.

Limit the length of the entire data collection exercise.

You may find yourself facing a trade-off between the number of interviewers you have to collect information and the time you allow for fieldwork. In some cases, it might be more manageable to collect information over a longer period of time with a smaller group of data collectors. However, some people have found that data collectors get tired of interviewing youth after 2–3 months and may drop out if fieldwork lasts too long.

Types of Data Collection Methods

Monitoring and process evaluation data are collected using a variety of methods, such as reviewing service statistics and administrative reports, and conducting surveys, focus groups and interviews. Once you have selected a data collection method, you will need to develop appropriate *instruments*. An instrument is the tool you will use to collect information, such as a form that your staff completes or a survey in which youth participate.

Monitoring data allow you to track whether your program is reaching its desired audience.

Most monitoring consists of tracking and counting activities related to program implementation. Some data for program monitoring indicate whether systems are being implemented as planned; for example, your program may record how many volunteer trainings took place over a one-year period. Other data for program monitoring are recorded in conjunction with service delivery. Basic service statistics about program operations (such as client visits or trainings offered) can be found in event logs, registers or tally sheets.³ These data are often communicated to program managers via monthly or quarterly reporting forms.⁴ Supervisory or administrative reports, which are often narratives, provide program managers with more in-depth insights into problems being encountered in program implementation and possible solutions.

Don't go overboard collecting too much data. Focus your efforts on key areas so that monitoring does not detract from program implementation.

³ See Instrument 2 for examples of tally sheets.

⁴ See Instrument 3 for examples of reporting forms.

Process evaluation data allow you to observe and interpret how your program is working.

Process evaluations help you assess the quality of your program's staff and volunteer performance, the quality of the activities and events you undertake and how staff, participants and the community are reacting to the program.

DEVELOPING CHECKLISTS

Checklists, which enumerate key features of a setting or process, serve two useful purposes:

- ▶ They guide observers in covering key process evaluation topics in a systematic manner.
- ▶ They establish the criteria or standards to be used in assessing how program activities are being carried out.

For example, in assessing a staff training program, a checklist might be developed that enumerates the key features of the training setting (such as adequacy of space, lighting, tables and chairs and necessary audiovisual equipment) and the standards for trainer performance (such as organization, responsiveness to questions and communication skills). Several examples of checklists are provided in Instrument 1.

INVENTORYING FACILITIES AND SERVICES

A facility inventory form can assess the adequacy of facilities and equipment and verify that:

- ▶ the facility meets program standards in terms of space, lighting, arrangement to ensure privacy, etc.;
- ▶ the equipment needed to provide program services is on hand and in working order; and
- ▶ the facility has adequate supplies of expendable items to satisfy demand for services.

Sample inventory forms are provided in Instrument 6.

INTERVIEWING KEY INFORMANTS

An individual in-depth interview with "informants" can produce valuable information. Individual in-depth interviews are preferable to focus group discussions (where people are influenced by group dynamics) and are often more practical.

The process of interviewing can range from highly structured to completely open-ended. Highly structured interviews use a questionnaire (such as the Interview Guide for Staff Providing RH Services in Instrument 8) that has pre-coded questions and answers that evaluators use to interview respondents. You would use a highly structured interview when you want data that can be standardized, or if you want to collect data that are easily managed.

Semi-structured interviews use a questionnaire that has a mix of structured and open-ended questions, such as the Questionnaire for Debriefing Mystery Clients in Instrument 10. A semi-structured interview allows you to ask open-ended questions that will help you to determine the perspectives of your program participants and staff.

With unstructured or open-ended interviews, an evaluator may have a list of guiding questions to start the discussion but will allow the respondents themselves to shape the discussion. Unstructured interviews are useful because they allow respondents to identify and discuss the issues that they think are most important, rather than being guided by the interviewer's questions. However, they can be difficult to combine, code and analyze because of different content, depth and duration.

In-depth interviews can help you understand young people's actions and

behaviors and how the youth interpret their own actions. For example, you might ask youth who have had STIs how they think they got the infection, whether they sought advice from peers and/or important adults in their lives and where they received treatment. You might also ask them what would happen if their parents or extended family members found out they had an STI, or what they believe the general community thinks about youth who get STIs. In-depth interviews may also allow you to explore new issues or uncover issues you had not realized existed or were relevant. For example, a young person may tell you about a home method of treating an STI that you had never heard of before, or express a concern about a side effect of STIs that you had not realized existed.

SURVEYING STAFF

Staff surveys are a cost-effective way to gather comparable information from a large group of people. Surveys may be self-administered (completed by the respondent with a pencil and paper), or may be administered by an interviewer.

These surveys can assess technical competence, attitudes toward providing services to adolescents, perceptions of service needs, and knowledge or mastery of topics and skills learned in training. This type of survey is often conducted in

conjunction with observations of service transactions and interviews of program participants or clients in order to assess the quality of program services. A sample of a staff interview guide is provided in Instrument 8.

CONDUCTING EXIT INTERVIEWS WITH CLIENTS

Exit interviews are conducted after clients have participated in a program activity or received a program service. Interviewers can ask about:

- ▶ how clients thought they were treated by service providers,
- ▶ how long they had to wait,
- ▶ whether they received the service or services they came for,
- ▶ their assessment of the services and the facility, and
- ▶ whether the service provider gave them enough information about the service provided and any follow-up steps they need to take.

This approach can be used with clients of health services, peer education efforts, youth center programs, workplace programs, etc. Like interviews with key informants, client exit interviews can be either highly structured, based on a pre-coded questionnaire, or unstructured, with open-ended questions.

An example of a client exit interview questionnaire is provided in Instrument 9.

USING MYSTERY CLIENTS

The *mystery* or *simulated client* data collection strategy entails sending trained persons (including trained adolescents) to program facilities in the assumed role of clients, who then report on their experience. For example, an adolescent mystery client might be sent to health facilities to seek counseling or contraceptive services. Afterward, he or she



Note

Ethical concerns around using mystery clients

Some observers believe that undisclosed observations or mystery client visits are unethical because they involve misrepresentation. However, others believe that the benefits outweigh those concerns. They say that because the purpose of using mystery clients is to assess and improve the quality of services, it serves the interests of both clients and the program. In some ways, they say, “mystery” visits can be viewed as substitutes for supervisory visits.

would either complete a questionnaire or be interviewed. The two primary reasons to use the mystery client approach are:

- ▶ to avoid the bias in the service delivery process that often results from having service transactions observed, and
- ▶ to gather a sufficient number of observations of service transactions when the actual volume of service visits by adolescents is low.

Several examples of mystery client scenarios and an illustrative debriefing questionnaire are provided in Instrument 10.

CONDUCTING OBSERVATIONS

While interviewing helps you learn about people's attitudes and values and what they think or say they do, direct observation allows you to witness what people actually do and how they act in particular situations. For example, you can observe how a pharmacist reacts to youth who are seeking treatment for STIs, or what messages a peer educator gives to a young person during a counseling session.

There are two types of direct observation: *obvious* and *unobtrusive*. If your observation is obvious, people know that you are watching them and may therefore demonstrate what they think you want to see. For example, if you observe a peer educator during a counseling session that is usually one-on-one, your presence is very likely to influence the dynamic of the situation. Because they are being observed, the peer educators may give messages that they would normally not give, or youth may not ask questions they would normally ask. If you are unobtrusive, the people being observed do not know that you are watching them. For example, you might pretend to be a customer in a pharmacy and listen to how the pharmacist reacts to a young person seeking treatment for an STI.

While this may eliminate the problem of the person being observed "reacting" to you, it presents ethical problems, such as lack of confidentiality and not having informed consent from those being observed.⁵

SOLICITING UNSTRUCTURED FEEDBACK FROM CLIENTS

Program managers and staff should always seek informal opportunities to obtain feedback from clients about the program. Such information supplements more formal process evaluation activities and may call attention to unforeseen problems or issues.

FREE-LISTING, PILE SORTING AND RANKING⁶

When working with youth, it is necessary to elicit and understand local terms and slang. *Free-listing* is a technique in which you elicit words used to refer to a particular subject of interest.⁷ An interviewer begins with a particular topic and asks the respondents to list the terms that correspond to that topic. For example, an interviewer may ask youth to list the symptoms and names of STIs. The interviewer can then ask questions to get more information about the meaning of each term. This will position the interviewer to use the language that youth are familiar with when asking questions about STIs on a structured survey questionnaire.

Pile sorting, ranking and scoring are techniques used to organize the terms generated from free-listing. In *pile sorting*, informants are asked to write the terms generated by free-listing on cards. Informants then sort the cards into piles so that each pile consists of items that are considered similar to one another.⁸ The piles can be defined in any way, and

⁵ Bernard, 1994.

⁶ For a step-by-step guide on how to conduct free-listing, pile sorting and ranking, see Shah, Zamberi and Sumasky, 1999.

⁷ Weller and Romney, 1990.

⁸ Weller and Romney, 1990.

informants can be asked to sort cards into any number of defined piles. For example, if you do pile sorting after eliciting the names and symptoms of STIs, youth might sort cards into piles that reflect:

- ▶ the severity of each infection (each pile representing a different level of severity),
- ▶ whether they think males or females are more likely to become infected (separate piles for males and females), or
- ▶ how common they think each infection is among their peers (each pile representing those that are more common or less common).

Pile sorting allows you to determine what criteria are most important to youth, since the youth define the categories that each pile sort should be separated into. They can also help determine the similarity between certain terms when pile sorts are done with more than one group of youth. It is a very easy technique that requires relatively little time to administer and analyze.

Ranking and scoring techniques are also used to organize information generated by free-listing to analyze preferences, prevalence and decision-making processes. With *ranking*, respondents evaluate possible options and then present them in a sequence of preference or priority. For example, after free-listing and pile sorting names and symptoms of STIs, an interviewer might then have respondents free-list all the ways youth seek treatment for STIs. These options could then be ranked in terms of where youth most prefer to receive treatment.

With *scoring*, participants assign a value to each option rather than ranking it. Scoring allows for more in-depth analysis because it reveals the different “weight” assigned to each option. For example, youth could

score the ways that they sought treatment of STIs. More frequently used options would receive higher scores, revealing preferences among youth for seeking services.

CONVENING FOCUS GROUPS OR INFORMAL LISTENING SESSIONS

Focus group discussions are used to identify issues, terms and interpretations from a group of individuals with similar characteristics. These discussions are often planned in advance, usually with 6 to 10 participants invited. The facilitator guides the discussion with lead questions and probes in order to gain an in-depth understanding of the attitudes, beliefs and perceptions of a specific group of people. Careful selection of questions will ensure useful information.

Informal listening sessions are a less structured and more spontaneous method of group discussion, for example, talking with peer educators after their monthly meeting. The focus should be on listening, with respondents bringing up and discussing topics of greatest importance to them.

Focus groups and informal listening sessions often provide insights about cultural norms. However, these group discussions usually do not reveal how individuals’ opinions or behaviors deviate from those norms. It is therefore useful to supplement focus group discussions with in-depth interviews. Analyzing focus group discussions can present some challenges, which will be discussed further in Chapter 8. Instrument 13 provides a focus group discussion guide for use with in-school youth.

MAPPING⁹

Mapping is the creation of a visual representation of key features of a residential area, work area or other area of relevance, such as your program's area of geographic coverage. Here we describe three different kinds of mapping: social, census and body mapping.

Social mapping indicates the boundaries of an area, its social infrastructure, its housing patterns or any of its other structures that are relevant to social interaction. Social maps may help you understand where particular groups gather and carry out certain activities, and may reveal diversity within a particular area. For example, a social map may show where youth gather and spend their free time, and allow you to assess whether peer educators are conducting outreach in the appropriate places.

Census mapping is used to gather information about a geographic area, including household data such as the number and gender of youth, education and literacy levels, employment and resource ownership. It is useful because it generates numerical data about the community and can provide more specific data, such as the number of youth out of school or involved in income-generating activities.

Body mapping entails youth drawing maps of the female and male bodies, focusing on the details of the reproductive system and how it functions. This method reveals participants' level of knowledge, the type of information young people have about the human reproductive system, and local explanations of reproductive and other health functions and terminology. For example, once youth draw a female body map, you might ask them how STIs affect

the female reproductive system, where symptoms will appear and what parts of the reproductive system will be affected.

Qualitative methods like free-listing, group discussions, mapping, and case studies may provide valuable insights into the issues in young peoples' lives.

PREPARING CASE STUDIES, STORIES AND PORTRAITS

Case studies, stories and portraits, written by evaluators, include stories or anecdotes heard during group discussions or interviews. They often describe a significant event in a person's life. They may also cover how a particular activity or service affected a participant's life or highlight particular problems, issues or program accomplishments. In general, case studies, stories and portraits add more "life" and meaning to evaluation findings and may provide valuable insight into the issues in people's lives.

⁹ For a step-by-step guide on how to conduct mapping exercises, see Shah et al., 1999

Outcome and impact data allow you to measure the extent to which outcomes are achieved.

Conducting outcome and impact evaluations will require that you collect data using some of the techniques described above, as well as others.

POPULATION SURVEYS

Population surveys are highly structured surveys of a sample of the program's target population, as well as of youth who do not receive the intervention but live in areas that resemble your program's location.¹⁰ Questions on the survey relate to the indicators of your program's outcomes, allowing you to determine whether your target population was exposed to program activities and experienced changes in outcomes. Instrument 12 contains a comprehensive questionnaire for evaluations of youth programs.



Note

Primary data are collected from youth specifically for the evaluation. *Secondary data* consist of information about youth available through recent surveys, already-existing qualitative research or administrative records.

COMMUNITY SURVEYS

Community surveys measure indicators related to outcomes at the community level by surveying stakeholders, youth and parents. The outcomes they address may include youth access to reproductive health information, adult communication with youth about reproductive health, and community support for youth programs. Questionnaires used for community surveys might be structured or open-ended. Instrument 11 is an example of a community questionnaire.

Selecting Appropriate Data Collection Methods

Your selection of methods will depend on your program needs and the population you serve. A few guidelines are suggested below.

Keep data collection simple.

Collect only essential data that can be analyzed and interpreted quickly, so that M&E results are provided in a reasonably short period of time to your program's staff, stakeholders and funding agencies.

Select methods based on availability of existing data and need for new data.

Consider the following issues as you select methods:

- ▶ availability of existing data,
- ▶ need for new data,
- ▶ capacity and availability of staff to help with data collection,
- ▶ need for outside assistance,
- ▶ timing of the data collection, and
- ▶ use of multiple data collection methods.

You should consider the availability of data for your M&E efforts prior to the start of your program's activities and services. This will give you time to assess available data and/or collect new information at the ideal time—your program's starting point. It may be possible to rely on recent surveys, qualitative community research or administrative records as your baseline data. However, even if these data exist, they may not be in a format that is useful for your purposes and will probably have to be extracted from current records or reports.

If you need new information, you should review the following points:

¹⁰ Sampling is discussed in Chapter 6.

- Determine what is available from existing sources, e.g., client records or a survey.
- Identify what information is not available.
- Indicate what information is needed regularly and what is needed only periodically.
- Consider simple, inexpensive methods to collect information to supplement existing data.
- Review how information can be used by different groups (such as clinic staff, peer educators or media campaign workers) to help them in their work.¹¹

Consider the capacity and time of staff and others for data collection.

Data collection for evaluations may involve your program staff, different stakeholders and sometimes outside researchers or evaluation experts, e.g., from a local university or funding agency. Who is actually involved in collecting data depends on who has the time and expertise to do it. You can best judge the capacity and time of your staff to collect data or to assist others with data collection.

You must first determine how frequently information should be collected for your various indicators. Assuming you are fortunate in having baseline data from the start of your program, the interval until follow-up data collection will need to be determined. The interval will depend both on the nature of the indicator and on the method of data collection. For example, assume you wish to assess whether the program has successfully upgraded youth centers to make them more attractive to young adults by adding new equipment. Approximately one month after the center

¹¹ Wolff et al., 1991

¹² Scrimshaw and Hurtado, 1987.

Advantages of Quantitative and Qualitative Methods¹²	
Quantitative (e.g., surveys, records)	Qualitative (e.g., focus groups, case studies)
<ul style="list-style-type: none"> • Consistent and comparable data are collected. • This is a cost-effective way to collect data from large populations. • Self-administered survey questionnaires protect the privacy of respondents and may result in more honest replies. • Questionnaires administered by interviewers are suitable for obtaining data from people who are illiterate. • These methods ensure standardized data collection over time. • Data collection and sampling approaches enable findings to be generalized to larger populations. • Larger sample sizes can be used because data collection is usually less time-intensive. 	<ul style="list-style-type: none"> • The views of young adults, parents and community members are obtained. • Social and cultural contexts experienced by young adults are defined. • Local slang used to describe sexual or reproductive health behavior is identified. • Questions for an interview questionnaire may be formulated and pre-tested. • Vocabularies for health education programs may be developed. • Messages for communication and medical campaigns may be pre-tested. • Unintended results of the project that might not be discovered through use of structured questionnaires may be revealed. • Program goals (e.g., empowerment, increased self-esteem, stronger negotiation skills) that are difficult to measure quantitatively may be assessed.

is scheduled for its upgrade, you might complete a facility checklist during a site visit and interview the center director to determine whether equipment has been delivered and installed. In this case, data collection can take place immediately after the intervention. If, on the other hand, you wish to measure changes in youth’s behavior that result from participation in peer education programs, data collection must take place six months to a year after exposure to the program. Data collection methods might include focus groups or surveys.

Combining Quantitative and Qualitative Methods	
Quantitative Method (Survey)	
Question: Did you use a condom the last time you had sexual intercourse?	Response: Twenty percent of adolescents who were sexually active said “yes.”
Qualitative Method (Focus Group)	
Question: What are the reasons you don't use condoms?	Responses: <ul style="list-style-type: none"> • Using condoms creates distrust between partners. • Purchasing condoms is embarrassing. • You don't always know if you are going to have sexual intercourse or need a condom. • If you're a girl and you carry a condom, boys might think you are promiscuous. • I take (my girlfriend takes) birth control pills and we don't need to use condoms.

Use a variety of methods.

By collecting data in a variety of ways, you will get a more accurate picture of the progress and impact of your program. A review of service statistics, clinic records or surveys involves collecting *quantitative*, or numerical, data. These can be accompanied by *qualitative* methods such as focus group sessions, mapping or case studies, which involve descriptive or text information. Some data collection methods may be characterized as both quantitative and qualitative. For example, survey data typically yield quantitative information but may include open-ended questions that give more qualitative information.

The box above provides an example of how information from a qualitative data collection method (focus group) enhances the information from a quantitative method (survey).

When the information from data collection methods is combined, it shows not only what effect a program is having but also

why it is having this effect. This more detailed information can then be used to modify the program's strategy.

Develop indicators and instruments that are sensitive to your program and population needs.

Whatever data collection method you use, the following process will ensure sensitivity:

- Identify local meanings, terms and issues using qualitative techniques, and identify specific issues for youth.
- Develop and decide on the most relevant issues, categories and terms.
- Quantify the most relevant issues and concerns.
- Analyze and interpret results.

Each of these steps is discussed below.

IDENTIFY LOCAL MEANINGS, TERMS AND ISSUES

In Chapter 2, we discuss the importance of defining and understanding the social and cultural contexts of the young people you are interested in reaching. In order to understand how a community characterizes adolescence, you might use group discussions to have community members categorize the stages of growth from childhood to adulthood. Their responses would be probed by facilitators until the local meaning of “adolescence” becomes clear. Similarly, youth may use specific terminology or slang to describe relationships, types of social groups, types of sexual partners, body parts, symptoms of illness or disease, sexual acts and other kinds of behaviors will help you understand how adolescence is experienced. It is important to identify these terms if they are categories you will measure as outcomes.

Data collection methods that help explore issues and identify local meanings, terms and issues include:

- focus group discussions,
- informal interviews,
- free-listing and pile sorting,
- semi-structured interviews,
- in-depth interviews, and
- observation.

In some cases, you may want to simply adapt terms and concepts for use in your outcome evaluation data collection instruments. Focus groups, free-listing and semi-structured interviewing are useful for such purposes. In other cases, particularly in process evaluation, you may want to explore a phenomenon in depth. For this you may consider a group discussion that includes participatory and visual analytic techniques, or in-depth interviews that allow you to probe deeper into individual perceptions, experiences and concerns.¹³

DEVELOP AND DECIDE ON THE MOST RELEVANT ISSUES, CATEGORIES AND TERMS

Once you have conducted some exploratory data collection to identify terms and uncover issues, you will want to identify the issues that are of greatest relevance to your program and participants. Look for terms or concepts that appear frequently and emerge as patterns, as well as new issues that emerge that you want to explore further or quantify.

Analyze your data critically, considering what type of informant gives specific information and the conditions under which the information is provided. Be receptive to variations in responses and look for patterns that might explain these variations. You should also cross-check your data by using more than one method to collect information on the same topic, and by collecting information on the same topic from different groups of respondents.

QUANTIFY THE MOST RELEVANT ISSUES AND CONCERNS

Once the most relevant issues have been identified, use this information to develop instruments that can collect consistent, comparable and quantifiable data. For example, you may have discovered that young people seek out a variety of reproductive health services, including traditional healers, pharmacies, vendors, private clinics and other sources. In a structured questionnaire, you could list each of these as responses to the question, “The last time you had a health problem, where did you seek treatment?” You will then be able to calculate the proportion of your total sample who sought treatment from each type of provider the last time they had a health problem.

ANALYZE AND INTERPRET RESULTS

Analyzing quantitative data consists of several steps that involve tabulation and statistical analysis. The steps involved in analyzing quantitative data are thoroughly discussed in Chapter 8.

Qualitative techniques, such as case studies and in-depth interviews, are often used after quantitative data analysis in order to help you interpret survey findings. For example, if there has been an increase in service use or a change in behaviors, you may want to ask selected key informants to explain the reasons they think those changes occurred. Similarly, qualitative methods can be used to assess program goals and outcomes that are difficult to quantify, such as stakeholder participation in the program. Qualitative techniques can help you determine participants’ perceptions of the program, how they think it has changed their lives, what kinds of contributions participants made to the program, how they believe the program has impacted their community and what directions it should take in the future.

¹³ Shah et al. (1999) provide a step-by-step explanation of how visual analytic techniques are used with adolescents.

The table below and on the next 3 pages give a comprehensive list of possible data collection methods and sources. The final column of each Indicator Table at the end of Part I of this Guide refers to these

illustrative data collection instruments. In Part II of this Guide, instructions are provided for preparing and carrying out several of the most common data collection methods.

Data Collection Methods: Potential Sources, Advantages and Disadvantages			
Data Collection Method	Sources of Data	Advantages	Disadvantages
Review service statistics (clinic or outreach site)	<ul style="list-style-type: none"> • Client records • Family files • Clinic service register • Client logs <p>All records can be used, or a sample of records can be selected.</p>	<ul style="list-style-type: none"> • Is collected on a routine basis • Is collected by virtually all programs • Is affordable • May be used for longitudinal or panel studies • Allows study of past trends 	<ul style="list-style-type: none"> • May not be complete or accurate • Is limited to few indicators • May not be accessible • May bring up ethical issues of confidentiality
Review administrative reports and documents	<ul style="list-style-type: none"> • Periodic activity reports • Logistics records • Supply or stock inventory forms • Service delivery guidelines • Supervisory reports • Financial records • Personnel records 	<ul style="list-style-type: none"> • Provides context for program and policy • Documents program history • Tracks trends 	<ul style="list-style-type: none"> • May not be well-maintained • May require extra staff time to assemble or extract from files • Requires permission from manager to access data
Review event logs or other types of logs	<ul style="list-style-type: none"> • Include information on actions taken, when, to or with whom, by whom, where, how many participated and outcomes achieved (i.e., change in program, policy or practice) • Other logs include those for ongoing services provided, media coverage and/or resources generated 	<ul style="list-style-type: none"> • Is easy to complete 	<ul style="list-style-type: none"> • May not be kept up-to-date • May not be representative
Review other documents	<ul style="list-style-type: none"> • Program records • Correspondence • Official reports 	<ul style="list-style-type: none"> • Provides view of program development and history 	<ul style="list-style-type: none"> • May not be filed centrally • Requires permission from manager to access data

Data Collection Methods: Potential Sources, Advantages and Disadvantages			
Data Collection Method	Sources of Data	Advantages	Disadvantages
Conduct interviews with key informants	<ul style="list-style-type: none"> Identify knowledgeable individuals to provide information on context and meaning of events Use interview guides to get information from key informants about the history of the initiative and to identify factors that affected its success or failure 	<ul style="list-style-type: none"> Provides detailed, “inside” information Can provide relatively quick assessment of program 	<ul style="list-style-type: none"> Interviewees may not be well-informed Interviewees may be biased Presence of interviewer may influence responses
Conduct surveys*	<ul style="list-style-type: none"> Facility surveys Community surveys Client follow-up surveys Consumer or client intercept surveys Provider surveys Panel surveys 	<ul style="list-style-type: none"> Can be tailored to meet specific evaluation needs Is easy to analyze 	<ul style="list-style-type: none"> May require external help for sampling, implementation or analysis May require considerable time to plan and implement Information may be missed if spontaneous remarks are not recorded
Conduct population surveys*	<ul style="list-style-type: none"> General population surveys, nationally representative or local to particular cities or regions 	<ul style="list-style-type: none"> Is comprehensive Is useful to monitor change, pre- and post-intervention Is useful to define program baseline 	<ul style="list-style-type: none"> Careful sample selection is needed May not be able to disaggregate data for program sites May require external help for sampling, implementation and analysis
Conduct exit interviews with clients*	<ul style="list-style-type: none"> Client interviews 	<ul style="list-style-type: none"> Provides direct and immediate client feedback Is suitable for use with people who are illiterate 	<ul style="list-style-type: none"> Clients may be reluctant to speak openly May show “courtesy bias,” offering a response thought to be wanted by interviewer
Use mystery clients*	<ul style="list-style-type: none"> Mystery client interviews or questionnaires 	<ul style="list-style-type: none"> May reveal biases or prejudices of the provider 	<ul style="list-style-type: none"> May be difficult to recruit suitable “mystery clients” in small communities

*Denotes that an illustrative data collection instrument is included in Part II.

Data Collection Methods: Potential Sources, Advantages and Disadvantages			
Data Collection Method	Sources of Data	Advantages	Disadvantages
Solicit unstructured feedback from clients	<ul style="list-style-type: none"> • Informal interviews • Comment and suggestion cards, boards or boxes 	<ul style="list-style-type: none"> • May provide insight into problems not identified by staff 	<ul style="list-style-type: none"> • Can be biased, depending on who voluntarily provides feedback
Conduct site visits	<ul style="list-style-type: none"> • Clinic flow analysis • Staff interviews • In-depth interviews • Observation • Exit interviews 	<ul style="list-style-type: none"> • Provides on-site evidence of program inputs 	<ul style="list-style-type: none"> • Is time- and labor-intensive • Interpretation of interviews may be subjective and open to bias
Conduct direct observation	<ul style="list-style-type: none"> • Performance checklists • On-site observation, with the evaluator either observing but not participating, or fully participating 	<ul style="list-style-type: none"> • Provides firsthand assessment of performance in context 	<ul style="list-style-type: none"> • Is time- and labor-intensive • If don't use checklists, interpretation may be subjective • May bring up ethical issues of privacy • May encounter observer bias (i.e., observer only notes what is of personal interest)
Use free-listing	<ul style="list-style-type: none"> • Respondents' lists of items that they perceive as belonging to the same group 	<ul style="list-style-type: none"> • Facilitates understanding of common themes and concerns 	<ul style="list-style-type: none"> • Language may differ by sub-group
Use pile sorting	<ul style="list-style-type: none"> • Respondents' characterizations of items 	<ul style="list-style-type: none"> • Facilitates understanding of common themes and concerns 	<ul style="list-style-type: none"> • External reviewers may not understand rationale for piles
Convene focus groups*	<ul style="list-style-type: none"> • Feedback from focus groups 	<ul style="list-style-type: none"> • Provides in-depth, qualitative information 	<ul style="list-style-type: none"> • Participants may be biased • Requires experienced leader to direct focus group

*Denotes that an illustrative data collection instrument is included in Part II.

Data Collection Methods: Potential Sources, Advantages and Disadvantages			
Data Collection Method	Sources of Data	Advantages	Disadvantages
Create social and census maps	<ul style="list-style-type: none"> Maps of facilities and/or that show their relationship to the program sites, the distribution of affiliated programs, barriers to access and other issues 	<ul style="list-style-type: none"> Provides visual display of local resources 	<ul style="list-style-type: none"> Different sub-groups (e.g., males, females, adults, youth) may emphasize different map features
Create body maps	<ul style="list-style-type: none"> Respondents' body maps show how they understand and interpret anatomy and physiology 	<ul style="list-style-type: none"> Provides information about level and accuracy of respondents' knowledge of personal anatomy Reveals local slang and terms used for body parts 	<ul style="list-style-type: none"> Participants may be shy about speaking of personal topics Process may be dominated by a few vocal participants
Prepare case studies	<ul style="list-style-type: none"> Case studies, describing a series of events or behaviors in detail 	<ul style="list-style-type: none"> Yields detailed data about program, including perceptions, feelings and social interactions 	<ul style="list-style-type: none"> Data are unique and not generalizable to other cases
Use population censuses and vital registration systems	<ul style="list-style-type: none"> Census and vital registration systems that provide values for most demographic rates, e.g., fertility, mortality, school registration and criminal justice records 	<ul style="list-style-type: none"> Is suitable for macro-level analysis of major trends 	<ul style="list-style-type: none"> Coverage of vital records may be incomplete Censuses typically done only every 10 years

Collecting Data

Many evaluators experienced with collecting data from youth will find that they cannot transfer the methods used with adults to adolescents. The following tips should help you collect information from youth.

Involve community members in the evaluation design and data collection plan.

Involving stakeholders can decrease suspicion of data collectors in the field, reduce opposition to the data collection effort and make parental consent less difficult to obtain. Be prepared to justify to adults why questions they consider “sensitive” need to be asked. Clarify the purpose of data collection and how the information will be used. Be sure to budget

enough time for authorization and clearance of survey instruments if that is required.

Carefully define who will participate as respondents.

For data collection, the main issue is defining the lower and upper bound of the age range of youth respondents. You may consider setting a lower bound that relates to the age when parental consent is needed. The upper bound may relate to the trends you want to look at. For example, you may set a higher upper age limit for males in cases when you expect that the male sexual partners of young females are slightly older than the target population you’re interested in. To measure impacts that occur 5–10 years after an intervention takes place, you may want to extend the upper age limit of

those interviewed in order to capture longer-term outcomes.

Pay attention to seasonality.

Seasonality affects when youth are available to be interviewed. For example, you may want to collect information during young people's summer vacation from school if you think they are more likely to be at home then. Seasonality may also impact young people's behaviors. For example, in many cultures, marriage ceremonies are timed to take place during an especially "lucky" time of the year; if you survey too close to this time, your data about what percentage of young people are married might be slightly skewed. Similarly, holidays or celebratory festivals often provide young people with opportunities to be sexually active; surveying a month after such an event may yield data that shows higher rates of premarital pregnancy than at other times of the year.

Collect data from places where you know youth will be.

If you plan to conduct a household-based survey, investigate how many youth still live at home. In some communities, large numbers of youth live in boarding houses or on the street, or are in the military. In this case, you might want to sample both from households and from other institutional settings where youth live.

If needed, collect information to help you track adolescents for follow-up.

When conducting certain types of studies, such as panel studies, you will need to interview the same young person at baseline and at follow-up. Locating young people, many of whom are quite mobile, may be difficult. If you are able to collect full names and addresses, that is preferable. If the young person has a nickname, this should also be recorded. Ask young people where they plan to be at the time of the

follow-up survey so that you might locate them more easily. Also ask for the names and contact information of one family member and one friend who will always know where they are. In areas where the postal system is reliable, you may want to mail a postcard to youth respondents you plan to follow up on every few months; those that are returned as undeliverable may be youth whom you need to try to locate quickly. Remember, though, that if identifying information is collected from youth, it should be destroyed after the last follow-up data is collected in order to ensure respondents' privacy.

Allow for a high refusal and absentee rate.

After you determine a sample size, you will need to calculate how many youth you will need to approach in order to get the sample size you require. Refusal rates among youth tend to be high—both because parents refuse to give permission, and because young people themselves do not feel comfortable participating in surveys. Absentee rates may also be high. For instance, when conducting a household survey, you may find that young people are rarely at home. For surveys conducted in an institution, such as a school, you should check the average daily absentee rate to estimate how many youth will be present on the day you do the survey.

Budget time for call-backs.

Since absentee rates are high among youth, budgeting time for call-backs is important. You may find that data collectors need to go back to a household or institution two or three times in order to successfully collect information from a young person. You might also have to schedule interviews later in the evening, after youth have returned home from work, or on weekends when they are more likely to have free time.

Build rapport before asking sensitive questions.

Large-scale questionnaires may not be the best way to collect information about highly sensitive information like sexual behavior. It generally takes a while for youth to open up to those collecting data, and it may require either several rounds of data collection or the use of more comfortable qualitative methods to collect honest information about sexual activity.

Ensure privacy.

Ideally, data should not be collected in the presence of other household members. In cases where adults insist on being present during data collection, ask the least sensitive parts of the survey first and hope that the adult leaves the data collector alone by the time more sensitive questions are asked. Some evaluators also ask data collectors to complete an assessment of whether the respondent seemed nervous or uncomfortable during the survey, to check for accuracy of responses.

Provide adequate supervision.

Careful supervision is the key to making sure that data collection procedures are being followed and that problems that arise are resolved in a timely and consistent manner. Having an adequate number of supervisors and field coordinators will help ensure that data is collected in an ethical, systematic and sensitive way. The type of supervision needed will vary by setting and the types of data being collected, but general guidelines are provided above.

Guidelines for Supervising Data Collection

- Choose experienced supervisors who are careful, honest and attentive to detail.
- Periodically review routine data, such as that collected for monitoring, and provide feedback on data quality. To promote data quality, inform those collecting data on how the data are being used to improve program performance.
- Observe data collectors “on the job” at least twice during the course of data collection. You may conduct “spot checks” without informing data collectors when they will be visited.
- On a regular basis, review a sample of completed data collection instruments for completeness and compliance with procedure.
- Be accessible to data collectors and supervisors so that questions and problems can be resolved quickly. Deal with problems as close to the point of data collection as possible so that, if needed, errors can be corrected by returning to the data collection site.

Developing a Workplan for Monitoring and Evaluation

A workplan for M&E will include several kinds of information:

- tasks involved in carrying out monitoring and evaluation, such as involving stakeholders, assessing the information needs of your project, communicating M&E results and modifying your intervention based on results;
- timelines for each of these tasks, with a space to check off when each is completed;
- lists of who is responsible and who will be involved in each stage of monitoring and evaluation; and
- financial resources needed to complete each task.

Worksheets 7.1 and 7.2 will help you develop your workplan and timetable.

Worksheet 7.1 Evaluation Tasks					
Tasks	Who Is Responsible for This Task?	Who Will Be Involved in This Task?	What Equipment Is Needed?	What Is the Approximate Budget?	What Are Task Start and End Dates?
1. Specify program objectives					
2. Decide focus and scope of the evaluation					
3. Select indicators					
4. Choose evaluation design					
5. Develop workplan, evaluation team and budget					
6. Collect data					
7. Analyze data					
8. Review and use evaluation results internally					
9. Communicate evaluation results externally					

Worksheet 7.2 Evaluation Timetable												
Tasks	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Specify program objectives												
2. Decide focus and scope of the evaluation												
3. Select indicators												
4. Choose evaluation design												
5. Develop workplan, evaluation team and budget												
6. Collect data												
7. Analyze data												
8. Review and use evaluation results internally												
9. Communicate evaluation results externally												

Some evaluations take less than a full year, while others may require two or three years. This worksheet can be adapted to reflect the time frame (in weeks or months) that you estimate will be needed for your M&E effort.

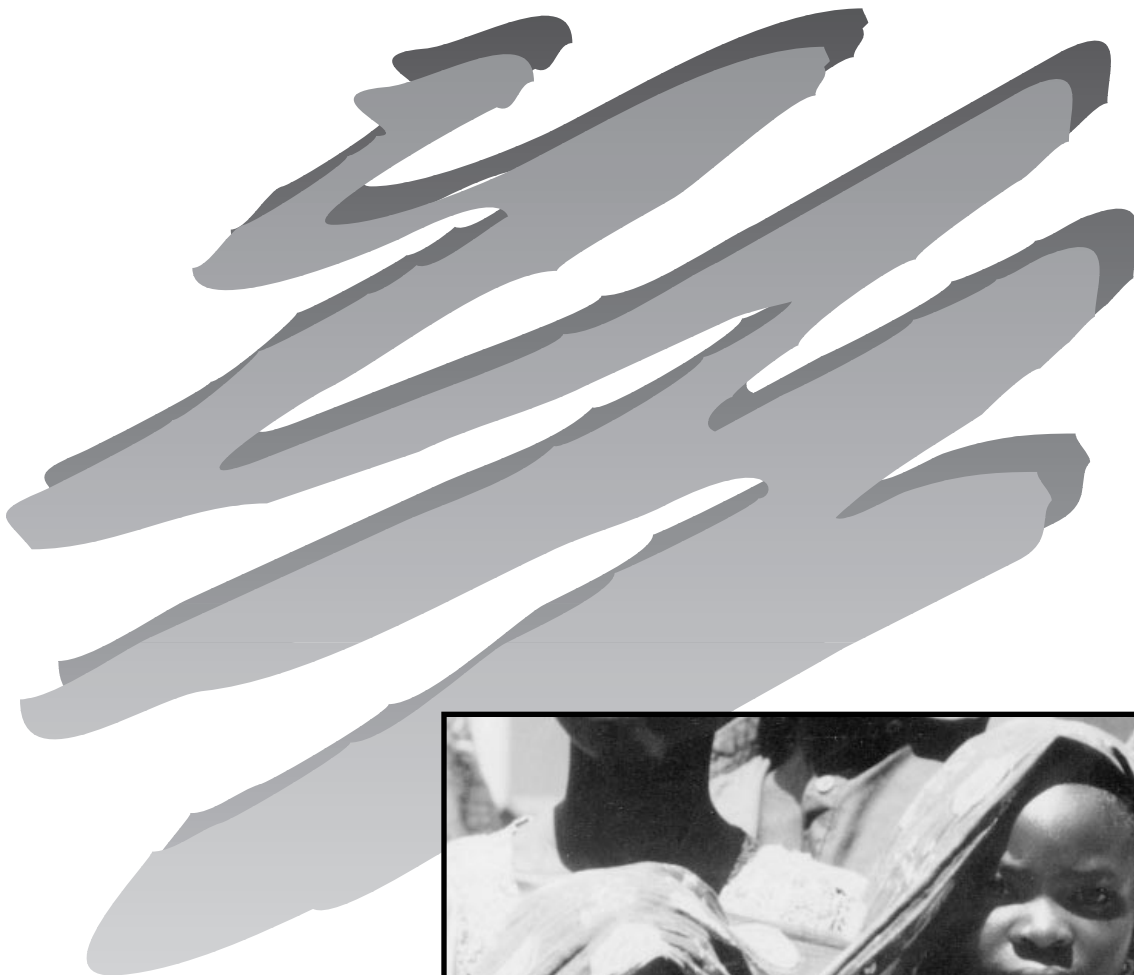


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