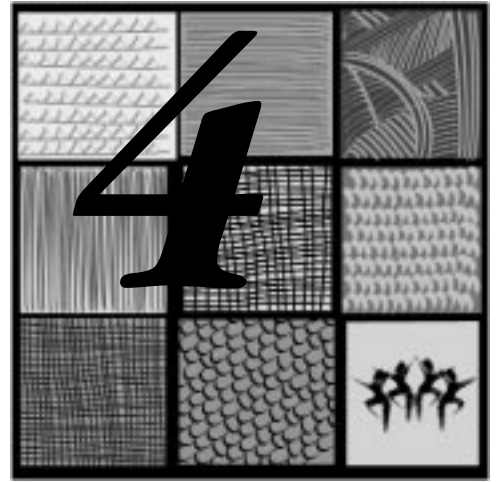


INDICATORS



CHAPTER AT A GLANCE

- ▶ Defines and explains indicators
- ▶ Provides examples of how to select and modify indicators to match your program objectives and activities

What Is an Indicator?

An *indicator* is a measurable statement of program objectives and activities. Once you have defined a program's objectives and activities, you can develop indicators—or measures—for each objective and activity. Some programs may have single indicators, and others have multiple indicators. Generally, it is preferable to have several indicators to capture the multiple dimensions of your program. However, you should carefully select a manageable number of indicators so that they accurately reflect your program objectives and activities and your evaluation priorities.

Continuing with the example presented in Chapter 3, the table below shows some indicators that can be used to measure the objectives and activities associated with delaying the age at sexual initiation through a peer education program.

Indicators can be expressed in different forms.

As you can see in the example above, indicators can be expressed in different ways. Numeric indicators are expressed as counts, percentages, ratios, proportions, rates or averages. The following indicators are counts:

- ▶ Number of radio advertisements aired
- ▶ Number of clients who seek peer counseling services

In evaluation terms, it is usually more informative to state indicators as percentages, ratios and proportions. These measures allow you to see what was achieved in relation to the *denominator*, or total possible number, while counts simply give you an idea of the number of events that took place, or the number of people reached, without indicating the total possible number. For example, you may count the number of youth who have delayed sexual initiation, but if you have a denominator, i.e., the total number of youth in a given geographic area, you will be able to calculate the proportion of youth in that area who delayed sexual initiation. This will allow you to measure the coverage of your program and the effects on behaviors at the population level.

Note

Later in Part I of this Guide, we provide a definition for each of these terms and give instructions for how to calculate different types of numerical indicators.

Determining Objectives, Indicators and Activities			
Objective	Possible Outcome Indicators	Activities	Possible Program Indicators
<p>Population-level objectives:</p> <ul style="list-style-type: none"> • Delay age of sexual initiation among youth ages 14– 19 • Increase the percentage of youth ages 14– 19 who seek counseling services from peer educators to 25 percent 	<ul style="list-style-type: none"> • Average age of sexual initiation among youth ages 14– 19 • Percentage of youth ages 14– 19 who seek counseling services from peer educators 	<ul style="list-style-type: none"> • Promote availability of peer counseling services through radio ads • Implement “ peer counseling corner” in five health clinics • Have peer educators give informational talks at schools twice a week • Have peer educators provide quality counseling services 	<ul style="list-style-type: none"> • Number of radio advertisements aired • Number of new radio advertisements aired • Number of clinics that have peer counseling corners • Number of days peer counseling corner is staffed per week • Number of clients who seek peer counseling services • Number of informational talks by peer educators in schools • Number of youth who attend informational talks • Quality of peer educators’ presentations (based on criteria for curricula) • Proportion of clients who rate counseling as high-quality during exit interviews • Quality score of peer counselors (based on counseling criteria) given by observers
<p>Program-level objectives:</p> <ul style="list-style-type: none"> • Increase capacity of peer educators to provide counseling to youth 	<ul style="list-style-type: none"> • Number of peer educators who are competent to provide counseling to youth 	<ul style="list-style-type: none"> • Recruit peer educators from pool of adolescents who attend clinic • Select 30 peer educators • Develop training curricula • Train peer educators to provide counseling 	<ul style="list-style-type: none"> • Recruitment completed? (Yes/No) • Number of peer educators selected • Training curricula developed? (Yes/No) • Number of “ key topics” training curricula covers as compared to checklist • Proportion of peer educators who demonstrate effective counseling skills during role plays

Non-numeric indicators are expressed in words. They are also referred to as *qualitative* or *categorical* indicators. These indicators usually denote the presence or absence of an event or criteria. The following are non-numeric indicators:

- Peer education recruitment completed? (Yes/No)
- Training curricula included topic on relationships and sexuality? (Yes/No)

Non-numeric indicators can also be used to summarize descriptions or assess quality or comprehensiveness. You can do this by creating an index of items that can each be assigned a number, which are then totaled to produce a score. In the table below, for example, each of the items in the right column would be assigned a point, and then those points would be totaled to determine the overall score of the presentation.

Like objectives, indicators should be specific.

The more specific your indicator, the more likely that you will accurately measure your objectives and activities. Indicators should specify the:

- characteristics of the target population you intend to reach, such as gender, age and residential, marital and schooling status;
- location of the target population, such as rural or urban youth, youth in a certain city or district, youth who participate in your program or youth who attend certain schools or clinics; and
- the time frame within which you intend to achieve your objectives.

Using Non-numeric Indicators to Measure Quality	
Indicator	Index and Quality Score
Peer educator's presentation is comprehensive	<p>Observe presentation. Check each topic that is covered accurately. Give one point for each item checked, and total to determine quality score.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Anatomy and reproduction <input type="checkbox"/> Abstinence <input type="checkbox"/> Contraception <input type="checkbox"/> How to use a condom <input type="checkbox"/> Making the decision to have sex <input type="checkbox"/> How to say "no" to sex <input type="checkbox"/> Resisting peer pressure to have sex <input type="checkbox"/> Where to get counseling <input type="checkbox"/> Where to get health services <p>Total: _____</p>

An indicator should have the same scale as its corresponding program objective.

For example, if your objective is to delay the average age at sexual initiation among youth ages 14–19 who live in your district, then the indicator should measure “average age at sexual initiation among youth ages 14–19 who live in district X.” If your indicator’s scale is different from your objective’s, your results will be misleading.

Types of Indicators

Once you have decided on the scope of your M&E effort, different indicators should be developed for each component of the program to be measured. For example, if you plan to conduct a process evaluation, you should develop indicators for design, systems development and functioning, or implementation. If you plan to conduct an impact evaluation, you should develop indicators for program implementation and outcomes.

In this Guide, we have categorized indicators based on what component of the program will be monitored and evaluated. Chapter 10 provides four Indicator Tables, each containing examples of indicators based on program aspects. You can use these tables to select and adapt indicators to match your program.

Design indicators are related to “key elements.”

Youth programs should be designed based on “key elements” of quality. The international experience of youth programs; lessons from the field of maternal-child health, family planning and HIV/AIDS; and practitioner intuition and experience have produced a number of recommended key elements of youth program design. Some examples are:

- existence of clearly defined goals and objectives,
- involvement of local stakeholders in program planning, and
- assessment of needs and preferences of the target young adult audience for reproductive health services.

Systems development and functioning indicators are related to programmatic objectives and activities.

Programmatic objectives state results in terms of the organizational structure, management or operations of a program, and the corresponding activities involve the development and functioning of your systems. Systems development and functioning indicators measure whether an organization’s or program’s systems are operating and how effectively they have prepared program personnel for implementation. Examples of systems development and functioning indicators include:

- number of peer educators trained to provide youth counseling,

- existence of a clear organizational structure, and
- number of partnerships, networks or coalitions established to support the ARH program.

Implementation indicators are related to both programmatic and population objectives and activities.

Both programmatic and population objectives will be met by the implementation of program activities. Implementation indicators measure whether and how many planned activities have been conducted, and the quality of the implementation of those activities. Examples of implementation indicators include:

- number of youth who seek peer counseling services,
- number and type of involvement by stakeholders in the ARH program, and
- number and type of communication products developed for the target audience.

Outcome indicators are related to population objectives.

Population objectives state results in terms of the program participant and are measurable statements of the outcomes you hope to achieve in your target population. Outcome indicators measure the changes in outcome that your program’s activities are trying to produce in your target population. Examples of outcome indicators include:

- average age at sexual initiation;
- percent of youth who say they would advocate healthy behaviors among their peers and friends;
- pregnancy rate among female youth during a specified time period; and
- incidence rate of STIs for young adults during a specified time period.

How Should Indicators Be Stated?

Precision and clarity about your indicators will produce meaningful results from your M&E effort.

Assess indicators in terms of their importance and ease in data collection.

Indicators are considered of high importance if one or more of the following applies:

- The indicator is a priority, given the purpose and scope of the evaluation.
- The indicator tests a new approach.
- Staff members want to know about the indicator.
- Youth have identified the indicator as important.
- A donor requires information that the indicator will measure.

If you determine that the data needed to calculate your indicators are not available, then new information will need to be collected. It is important to assess how easy or difficult the collection of these data would be. Factors to consider in determining ease of data collection are:

- sensitivity of topics (especially in terms of local norms and cultural context),
- staff resources and expertise,
- logistical requirements (e.g., transport, printing, vehicles),
- time,
- cost, and
- slang, vernacular and professional terms used to refer to subject.

State indicators in clear and precise language.

It is important to use clear and precise words and phrases to state your indicators. General indicators may be open to many

interpretations and will hinder your ability to interpret M&E results. For example, a general indicator might be “Number of youth who seek peer counseling services.” This indicator should be more precisely stated as “Number of youth ages 14–19 who reside in our district who seek counseling services from peer educators during a six-month period.”

Outcome indicators measure the changes in outcome that your program’s activities are trying to produce in your target population.

Avoid changing the wording of indicators after an M&E effort has begun.

Changing the wording of your indicators during program implementation may hinder your ability to interpret M&E results. For example, assume your indicator is “Number of youth ages 14–19 who reside in our district who seek counseling services from peer educators during a six-month period.” If in the middle of your program you change this to count the number of youth ages 14–16 who seek counseling services, it may appear that the number of clients has gone down. Therefore, your results would suggest that fewer youth are utilizing your program, when in fact this may not be true.

If you have already begun your M&E effort and discover that your indicators are not specific enough, it is advisable to *add*

indicators rather than to change existing ones. For example, if you found that youth who seek counseling services are mostly between the ages of 12 and 15, you could add the indicator “Number of youth ages 12–13 who reside in our district who seek counseling services from peer educators during a six-month period.” You would then continue to measure the original indicator for youth ages 14–19, in addition to the new indicator for youth ages 12–13.

Indicators should be consistent over time.

The indicators you use should be consistent for the duration of the monitoring and evaluation effort. If you drop, add or modify

clinics in your catchment area, and find that youth whose symptoms are different from those on your checklist are being diagnosed with STIs. You then add another four symptoms to the checklist used by peer educators. This means that peer educators may begin to record youth who mention any of these four additional symptoms, whereas before these youth would not have been included. Therefore, if the percentage of youth reporting symptoms of STIs subsequently increases, you will not know if this change occurred because of a true increase in the prevalence of STIs, or simply because you added four more possible criteria to the checklist.

Carefully determine the time dimension of outcome indicators.

Most outcome indicators refer to medium- or long-term desired outcomes. For example, it may take several years to document changes in the pregnancy rate among female youth. What you define as medium- and long-term will vary according to the nature and complexity of the program’s objectives and activities.¹ For example, some programs may define medium-term outcomes as those achieved within one year, and long-term outcomes as those achieved in five years.

You should make sure to establish a reasonable length of time to achieve desired outcomes. Youth programs are often under pressure to demonstrate outcomes and therefore try to measure changes in an unrealistic amount of time. Your results might then falsely indicate that you have not met your objectives. Once you determine the amount of time you think it will take to achieve your objectives, you can state the time dimension of your outcome indicators. You will then need to

If you drop, add or modify indicators during the program’s implementation, then you may not be able to assess why changes are occurring in your target population.

indicators during the program’s implementation, then you may not be able to assess why changes are occurring in your target population. For example, consider the following indicator on STIs:

- Percent of young adults who report specific symptoms of STIs

Suppose that to measure this indicator, you initially developed a checklist of six symptoms that peer counselors use to record what their clients report. After six months, you review clinic records at four

¹ Many of the indicators included in the Indicator Tables at the end of Part I of this guide are medium-term (e.g., *No. of times YAs have had STIs in the past year*).

track your outcome indicators for a sufficient period of time to be able to observe changes.

Indicators should be valid and reliable.

Indicators should be *valid*, which means that they accurately measure the concept or event they are supposed to measure. They should also be *reliable*, measuring the issue or event consistently every time. Assessing the validity and reliability of indicators helps to ensure that you minimize *error* in measurement.

Two steps can strengthen the validity of your indicators:

1. Develop indicators whose content adequately samples all possible meanings of a concept. For example, to measure the quality of interactions between youth and their parents, think about all the possible meanings of quality of interaction. You might determine that how often youth communicate with their parents, how long their conversations last, what topics they discuss and the young person's perception of the interaction all contribute to its quality. You therefore might develop a series of indicators that together measure the quality of interactions, such as:
 - frequency of youth communication with parent over past week,
 - average length of time of a parent-child communication,
 - topics discussed by youth and their parents, and
 - youth's perception of the quality of parent-child communication in the last week.
2. Develop indicators that explore the relationship between two measures of the same phenomenon. For example, in exploring a parent-child relationship you consider two related indicators:

- youth's perception of whether their parents understand them, and
- youth's perception of what types of problems they are able to discuss with their parents.

By measuring both of these indicators, you would be able to assess the extent to which hypothesized relationships between related concepts can be verified. For example, you could measure whether all youth who say their parents understand them also say they are able to talk to them about a variety of their problems.

You can increase the reliability of indicators by reducing the chance that random, temporary conditions in a person, situation or set of measurement procedures occur:

- Check the consistency of an individual's responses by asking him or her similar questions more than once during a survey or interview. For example, a young man who reports having quality interactions with his parents but also says that he cannot talk to his parents when he has problems shows inconsistency in his answers. In data analysis, you could check to see how many youth gave similarly inconsistent answers. If many youth did, you would have identified an unreliable measurement of these indicators. If only a few youth did, you would have identified an error in the individual's understanding of these questions.
- Collect data at different times and check how consistent youth's answers are. For instance, you might ask the same series of questions about the quality of interactions with parents on surveys given every six months.

Worksheet 4.1
Preparing a List of Possible Indicators

1. Write your objectives in the table.
2. For each objective, write the activities you have planned to achieve the objective. Refer to the Logic Model you developed to ensure that activities that address all antecedent factors are included.
3. For each activity, note who will participate (for example, youth ages 8 to 12; boys; vulnerable populations) and where it will take place.
4. For each activity, refer to the Indicator Tables (Program Design, Program Systems Development and Functioning, Program Implementation and Program Intervention Outcome) to list all possible indicators, or develop your own indicators.

Objectives	Activities	Target Population	Location	Possible Indicators
Objective 1	Activity 1			Indicator 1
	Activity 2			Indicator 2
	Activity 3			Indicator 3 Indicator 4
Objective 2	Activity 1			Indicator 1
	Activity 2			Indicator 2
	Activity 3			
Objective 3	Activity 1			Indicator 1
	Activity 2			Indicator 2 Indicator 3
Objective 4	Activity 1			Indicator 1
	Activity 2			Indicator 2 Indicator 3

➤ Assess the data you collect by looking for inconsistencies due to error in observation, coding or data entry processes. For example, check to see if youth interviewed by interviewers of different ages have significantly different answers. Also check to see whether answers to open-ended questions are coded correctly, for

example, whether “happy” and “joyful” are coded as the same or a different response.

Rigorously testing validity and reliability may require outside assistance to perform statistical tests. Minimally, it is important that you consider these issues as you develop indicators.

Worksheet 4.2
Assessing Possible Indicators

1. List indicators from Worksheet 4.1 in the first column.
2. Clarify the scope of the program. Is it a large-scale effort to reach all members of the target population, or a smaller, more limited intervention that will reach only those who participate in specific services or activities?
3. For each indicator, write the possible sources of the data needed, such as survey or focus group.
4. For each source of data, circle whether data are available or will need to be collected.
5. Rate ease of data collection, based on availability, time and cost to collect.
6. Rate importance of indicator (high or low).
7. Determine priority based on ease of data collection and importance of indicator.

Possible Indicators (from Worksheet 4.1)	Scope of Program L = Large S = Small	Are Data Available Now? Y = Yes N = No	Need to Collect New Data? Y = Yes N = No	Sources of Data	Ease of Data Collection E = Easy F = Feasible D = Difficult	Importance of Indicator H = High L = Low	Priority (1 is highest)	
							1 = EH 3 = DH 5 = FL	2 = FH 4 = EL 6 = DL
Indicator 1	L S	Y N	Y N		E F D	H L		
Indicator 2	L S	Y N	Y N		E F D	H L		
Indicator 3	L S	Y N	Y N		E F D	H L		
Indicator 4	L S	Y N	Y N		E F D	H L		
Indicator 5	L S	Y N	Y N		E F D	H L		
Indicator 6	L S	Y N	Y N		E F D	H L		



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