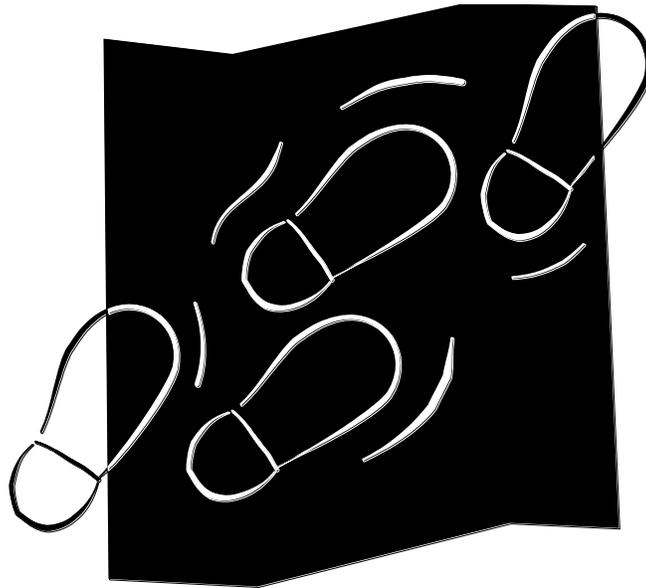


8 Steps for Project/Program Planning and Monitoring/Assessment Leading to Evaluation For Community Service Agencies/Programs¹



ASSESSMENT PLANNING GUIDE

**Prepared for
Workshop on Getting Started: Basics of Performance
Measurement and Evaluation**

¹ Prepared by Joseph Telfair, DrPH, MSW/MPH (336-334-3240 ♦ j_telfai@uncg.edu) based on the work of Telfair (2000) and others (Peoples-Sheps, 1997; (Peoples-Sheps, Rogers & Finerty, 1990; VanGendern & Norris, 1996; Telfair, 1997, Telfair & Mulvihill, 2000)
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INTRODUCTION



Identifying measurable 'Best Practices', Grant development, project/program and assessment planning can be frustrating and time consuming; however, it must be done. Through these workshops and training materials we have attempted to streamline and simplify the process. Lesson # 1 - *You must read the material or suffer from the agony of de 'feat'.*

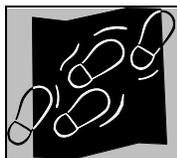
Joseph Telfair – SOPH, University of Alabama at Birmingham, 2001

Eight Steps

- Step 1.** Define the desired goal of the project
- Step 2.** Define your desired objective(s) for each goal
- Step 3.** Define your target value
- Step 4.** Define one or more indicators/measures for your objectives
- Step 5.** Identify your formula to measure progress towards achieving each objective(s)
- Step 6.** Define steps/activities (interventions) that you believe are effective toward achieving the objectives
- Step 7.** Identify the source (s) of the data for each measure
- Step 8.** Record the results of the steps/activities/intervention

INSTRUCTIONS MANUAL

To apply this project/program and assessment planning guidance, you and your team will need to follow the *eight-step model* described below. General discussion points on these steps are included here. Some are discussed at length, others only briefly. However, more detailed explanations and descriptions have been expanded in the *Glossary and Modified Achievement Index*. You will need the *Project/Program and Assessment Planning Worksheet* to record your responses. Use the *Modified Achievement Index or completed example* to help clarify confusing points, both of which can be found in the Appendix of this guide. You may need to walk through the steps several times, so make copies of the blank Worksheets before you begin.



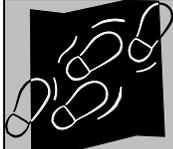
STEP 1

DEFINING PROJECT GOALS

One of the most important assessment questions that you can ask is, “What best practices efforts am I building on?” “What do I expect to accomplish through this project? Another way to phrase this is: What challenges/opportunity does the project address (e.g., lack of coordination for health services, poor nutrition, dental health)? Often projects are established to meet one or more specific goals and build on evidence from promising efforts. These goals and efforts are often described in the original project plans. Goals do not need to be measurable, but they must be consistent with the overall purpose and intent of what you want to accomplish.

Depending on the scope and size of your project or service you may have one or more goals. Each objective with accompanying activities can cost your project thousands of dollars to include staff time, data collection, analyses and dissemination of results. **Depending on the type of project to be implemented, keep in mind, the more funding you receive, the more goals and objectives you can have.** You and your project staff will probably need to rethink and scale down your goals and objectives submitted in the application.

Action Step 1: *Write the project’s goal onto the worksheet*



STEP 2

DEFINING PROJECT OBJECTIVES

A prerequisite for evaluation is the development of a project plan with measurable objectives that are logically related to one another and to the goals and interventions defined in the project proposal. All project objectives should specify what is to be done and by when. It is imperative that project staff **clarify the project's objectives for each goal**. You and your project staff must review your project's objectives, and if necessary, you may have to rewrite some of the objectives to reflect what you can measure. If your pre-project planning was done thoroughly, then, it should be relatively easy to determine program goals, objectives and activities.

- **IT IS CRITICAL TO HAVE CLEARLY STATED OBJECTIVE(S)**
 - **Need to Ask: Are your objectives S-M-A-R-T? – Are they:**
 - **Specific – linked to clear tasks and outcomes, Performance Measures**
 - **Measurable (Process–Monitoring, Outcome–Evaluation)**
 - **Attainable – Given Socio-Cultural, Political and Technical Reality and Capacity of Your System**
 - **Relevant - Current and Planned Programs and Services**
 - **Time-Bound – tasks to be accomplished within well thought out timeframes**

Action Step 2: Write the project objectives onto the worksheet and then answer for each objective, the following questions (Circle Yes or No)

1. **Y** **N** Do the objectives specify what is to be done?
2. **Y** **N** Do the objectives clearly state when project activities are expected to start and/or finish?
3. **Y** **N** Is the time frame reasonable, doable and linked to the project goals and objectives?
4. **Y** **N** Is the target population to be served or who you will monitor and assess described in as much detail as possible?
5. **Y** **N** Is the relationship between the intervention activities and the goals of the project clear?
 Why will these activities achieve those objectives?
6. **Y** **N** Can you determine through some form of measurement or observation whether the project will reach its goal?
7. **Y** **N** Can you identify the target population in an existing data system or in the one you will be collecting information for or creating?

If you answered “Yes” to the majority of these questions, go to **2a**. If you answered “No” to any questions, go to **2b**.

2a. If all the objectives are clearly defined and measurable, then, *congratulations!* After much thought, your hard work has paid off. Now, apply these questions to **each** objective.

1. Do you need to delay at this time some of your objectives and/or planned activities until more funding can be found?
2. How do the parts fit together?
3. Does it all make sense? Why, or why not?
4. Is there anything missing, unclear, or problematic about it?
5. How does it fit with your personal experiences or staff capacity to do the work?
6. Could there be other ways of looking at it?
7. What more do you need to find out?
8. What resources are available to the project?
 - Number of staff
 - Total budget
 - Sources of funds

If something does not make sense, or seems unresolved, try to identify with your project staff why and in what way. Start again with the problem objective (s). Again, you may want to start from scratch. The more closely you look at the material, the clearer the information will become and the answer will come to you.

2b. Before you and your project staff can determine your projects (outcomes), you need to specify your target population. That is, Who are you going to serve? Who are your clients/participants?

- It is important to be as specific as possible here. Regardless of your population of interest, in order to analyze or report on any indicators or measures (to be discussed), **you must be able to identify the population in the data system being used or you are collecting information** for. *For this reason*, it is important to describe in as much detail as possible the population you hope to monitor or evaluate.
- **Remember:** You may determine that you are serving several subgroups within a particular target population. For instance, a project-serving women in poverty may find they need to break this into two distinct subgroups with different needs—working poor women and women on welfare.
- The *target population* may be described using (but not limited to):
 - Descriptive *demographic* characteristics such as: age, race, ethnicity, sex, location and income
 - *Project participation and eligibility*, which may include WIC participation or eligibility, Healthy Start, the State CSHCN/SCD programs and so on
 - *Population groups* such as households, organizations, communities, etc.

The types of information needed on your target population will be guided by the objective(s) you are assessing. *For example*, when the objective refers to what you plan to do, you must collect information on who are the person's eligible to receive the service or participate in the program; types of services, activities, or educational/training products that are developed and implemented; who received them; and their duration and intensity.

A few logistical points to remember:

- When the objective concerns who will participate, you must collect information about such things as the characteristics of the participants, the numbers of participants, how they were recruited, barriers encountered in the recruitment process, and factors that facilitated recruitment.
- To assure quality and consistency, when the objective pertains to who will do it, you must collect information on and be comfortable with, the characteristics of program staff (including their background and experience), how they were recruited and hired, their job descriptions, the training they received to perform their jobs, and the general staffing and supervisory arrangements for the program.

Use of staff information as part of the assessment process is optional and should depend on the program or service purpose of and the analyses and use of the assessment data.

- Regardless of your population of interest, in order to analyze or report on any indicators or measures (*to be discussed*), you must be able to identify the population in the data system being used or those for whom you are collecting information from. *For this reason*, it is important to describe in as much detail as possible the population you hope to monitor or assess.

Action Step 2b: *Describe the target population (s) in detail (age, sex, income, location, etc.) for the problem (e.g., Hispanics, women of childbearing age, children with no health insurance)*

- 2c.** Outcome and process objectives provide a quantitative measurement of change that the project staff can and should accomplish by some future date. Once you have determined who you are serving and have begun to develop expectations of your objectives. Though simplifying it a bit, it's convenient to think of measuring progress and impact in terms of quantitative and qualitative data. **You will next need to decide how change information can be efficiently and realistically gathered and the type of information you wish to collect.** Therefore, consider program documentation, observation of program personnel and clients in the program, questionnaires and interviews about clients' perceived benefits from the program, case studies of program failures and successes, etc. Based on the time and resources you have committed to the assessment of your project, you will have to decide the level of detail or complexity of the assessment. *For example*, can you assess the project at all levels of implementation (individual, program or state level) **and** will data be gathered from all or selected sources and will a comparison group be used?

You may not need all of the above, so consider the following methods to collect needed information and understand that expected effects or changes (outcomes) as a result of intervention activities may be (but are not limited to):

Quantitative Measurement

- Quantitative measures are counts or rates and are reported in the outcomes as numbers or percentages such as health status, health-related knowledge, skills, behavior, and satisfaction with care
- For quantitative long-term **monitoring or process evaluation** you might assess not only the number of people who attend but how their composition (age, race, or economic class) represents the composition of your community. You might assess participant satisfaction over time. You might also measure if you did what you said you would do. (Keep in mind **process evaluation** measures how well the program or service process is working in relation to the achievement of expected change—it is the intermittent, comparative assessment of change or outcomes.)
- You can also select one or more methods to complete your Quantitative Measurement process (not an exhaustive list):
 - Counting participation
 - You might also measure if you did what you said you would do. (Keep in mind **process evaluation** measures how well the process is working.)
 - Measuring knowledge (scales of esteem knowledge of facts)
 - Measuring changes in attitude
 - Measure changes in behavior
 - Measure satisfaction level (rating scales)
 - Using a pre/post/follow-up about learning process
 - Using posttest measures only
 - Using a post-then-pretest regarding the learning process
 - Tracking community changes (demographics, events)
 - Tracking psychological benefits
- Use Sample data that would be collected with process evaluation: (for example, (a) Seventy-five pregnant teens attended the initial orientation meeting for the NEW program or (b) Eighty-five percent of parents report they intend to use the information from the workshop or (c) Thirty-seven percent of county high school seniors report a decrease in the use of alcohol in the past 30 days)

Qualitative Measurement

- Quantitative measures are consensus statements, observations, etc., such as achieved composition of stakeholder advisory group, achieved agreement between groups or agencies on how to conduct project activities, achieved agreement on consistent participation of key players in focus or related decision-making groups
- Qualitative data are usually collected by document review, observation, and interviews. However, qualitative data can also be linked with numbers (number of persons needed to determine consensus)
- You can also select one or more methods to complete your **Qualitative Measurement** process (not an exhaustive list):
 - Professional observation and feedback
 - Judgments and comments by participants
 - Stories that describe events and historical events leading up to changes

- Success stories
- Focus group discussion
- Interview data
- Meeting or discussion notes
- Input from community professionals

Note: Sometimes you will need to evaluate the program or service on more than one level. Process only data may be insufficient, outcome only data doesn't get at the whole picture, but examination of both types of data can provide evidence of the full program or service effect.

A few logistical points to remember:

- Because the assessment of qualitative information is more time and labor intensive, you should plan for a more frequent schedule of summarizing/analyzing gathered information.
- It might also be useful for you to summarize/analyze gathered information about every few weeks or months depending on the resources available to you and your staff/team/collaborators.
- By doing periodic summary analyses you can more readily see how all the different kinds of assessment information can help you improve your program or service and persuade stakeholders of the merit of your program or service.
- Also, cumulated summaries /analyses will save you a great deal of time (as well as enhance) when completing required project reports.

For most service projects (particularly those located in community settings) it is highly recommended that both types of objectives be combined and used. This combination is usually called a *Mixed Measures* assessment. To illustrate, see the following sample objectives:

Goal 1: To promote competent parenting and prevent repeat pregnancies and births among pregnant teens 12 -17 years old

<i>Example Quantitative Objective</i>
To enroll 50% of all pregnant adolescents, 12 to 17 years old in Newman High School Safe Mothering Program in the program by the end of December 2001
<i>Example Qualitative Objective</i>
Establish an Oversight Committee (OC) by the fourth month of the program (qualitative)

Action Step 2c: Under each of your project objectives write whether it is quantitative or qualitative –if you are unsure see Glossary for Some Key Examples That May Be Helpful in Determining the Type of Project Objectives Questions

2d. Once you have determined whom you are serving, what are the expectations of your objectives, you must now identify **and define (operationalized) the terms** you/your team will use in describing the targeted valuable(s) or indicators of the action or activities of your planned work.

The key is to document clearly defined statements and terms that accurately describe the project actions and activities. The types of information you will need for these definitions will be guided by the expectations (outcomes) you are assessing.

For example, when the objective refers to behaviors you will change, you must identify and define information on the types of behaviors that are expected to be changed; is it your or your team's definition or does it come from another sources such as the measurement tool you are using, the literature or related sources. (Also see example under Step 2b above and the attached glossary)

Terms or variables that describe the targets of your project's/program's action that need to be defined may be (but are not limited to): (terms or variables are in **bold**)

- Develop **parenting skills**
- Gain **copng skills**
- Expand **social skills**
- Increase **participation** in ...
- Increase **knowledge** about...
- Improve **problem solving skills**
- Strengthen **communication skills**
- Understand **prevention** curriculum
- Practice **safe sex** skills
- Improve **social** skills
- Strengthen **family relations**
- Organize **coalitions**
- Improve **quality of life**
- Increase number of **services**
- Increase **attendance**
- Decrease **risky behaviors**

When making decisions on the identification and definition (operationalization) of action terms keep in mind the following:

- Sometimes it is not possible to easily type, group or find meaningful categories for some variables unless the variables are made operational or measurable with one or more precise **INDICATORS** (see attached glossary)
- It is critical to spell out the concrete and specific definition of a term or variable or question in terms of the operations by which observations are to be categorized (made measurable). That is, the actions or criteria by which the phenomena are made measurable. The operational definition of "adequate attendance" might be: "be present at at-least five training sessions" or of "adequate advisory group participation" might be "consensus that key stakeholders have been present at a majority of meetings".
- The phrasing of the questions chosen to operationalize a term or variable of interest should reflect the level of measurement - nominal, ordinal, interval or ratio - appropriate for the types of analysis that you or your team wants to carry out, (see attachment on Types and Measurement of variables)

Step 2d. *Select a term(s) to identify the target variable(s) or indicator(s) of the action your program will take*

2e. Once you have determined who you are serving, what are the expectations of your objectives, how you have identified and defined (operationalize) the terms you/your project staff will use in describing the action or activities of your planned work, you must now indicate the **time frame** in which work is to be accomplished. Objectives must include a measurable component and the data to measure the objective must be available. The time frame must be reasonable, doable and linked to the goals and objectives of the project or program. The key is to document and clearly state when project activities are expected to start and/or finish.

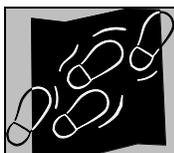
For example, when the project funding is for one year and you are expected to develop and implement an advisory work group in order to identify, plan and implement project activities, you must decide upon the start and finish dates for each set of tasks to be carried out; tasks related to:

- identifying and recruiting members
- defining and achieving consensus on the work plan for the group
- carrying out the work of the group and tasks related to measuring the success or failure of the group

(Also see example under Step 2b above and the attached glossary)

➔ The **timeframe** must be reasonable, doable and linked to the goals and objectives of the project or program.

Action Step 2e: *Specify the time frame in which you expect to achieve each of the project objectives*



STEP 3

DEFINING TARGET VALUES

Once all aspects of the objectives have been determined, the target value must be defined and documented. The **target value** allows the indicators or terms to be measured, interpreted and analyzed. Without an expected target level for your measure it will be very difficult to interpret and analyze your indicator data. In other words did the plan do well or poorly on this measure? Was the measure accomplished as expected or not?

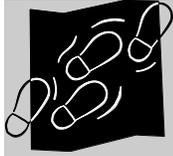
- The target value adds specificity to the project expectation or outcome statement(s).
- Remember that **Quantitatively** the target value is the level of change you would like to obtain for all persons described in your target population. **Quantitatively**, it is that level of information needed or deemed acceptable to help you/your team make decisions about your targeted actions (see Step 2b).

- You will need to **identify a value or set of information** as the baseline from which to develop a meaningful analysis of the measurement of your defined target. Under Step 5 (for coming) your target values serves as your denominator.
 - If you are using **numbers/counting**, the range of values would be from 0 to the number you choose.
 - If you were using **percents**, then range of values would be form 0% to 100%.
 - If you are using **rates**, then your values will be based on designated numerators and denominators (e.g., values per 100, per 1,000 or per 10,000, etc.).
 - If you are using **texts or documents**, then you have to use summary statements of you expected results
- If no baseline is available, then you will need to indicate that it is to be determined (TBD) after a certain amount of project time has elapsed (this is especially true for new or innovative projects without a history) or as information is provided to you from various advisory and consultative sources.
- Baseline values and information come from existing information (e.g., trend information), local, state or national survey and existing documents (e.g., reports, evaluation or research literature).

Goal 1: To promote competent parenting and prevent repeat pregnancies and births among pregnant teens 12 -17 years old

<i>Quantitative Objective</i>	Target Value
1. To enroll 50% of all pregnant adolescents, 12 to 17 years old in Newman High School Safe Mothering Program in program by the end of December 2001	<i>50% by the end of project year 2</i>
<i>Qualitative Objective</i>	Target Value
2. Establish an Oversight Committee (OC) by the fourth month of the program	<i>Consensus on establishment of OC</i>

Action Step 3: *Define your target value(s) for each objective. For example, specify a "target" goal of clients, i.e., what number or percent of clients you commit to achieving specific outcomes with, e.g., "increased self reliance (an outcome) for 70% of adults*



Define one or more indicator (s) and measure (s) for your objective

STEP 4

Indicators are measurable approximations or variables of the results you are attempting to achieve.

The types of information needed will be guided by the objective you assess. For example, when the objective refers to what you plan to do, you must collect information on the types of services, activities, or educational/training products that are developed and implemented; who received them; and their duration and intensity.

- When the objective concerns **who will participate**:
 - you must collect information about the characteristics of the participants
 - the numbers of participants
 - how they were recruited
 - barriers encountered in the recruitment process
 - factors that facilitated recruitment
- When the objective pertains to **who will do it**:
 - you must collect information on the characteristics of project staff (including their background and experience)
 - how they were recruited and hired
 - their job descriptions, the training they received to perform their jobs
 - and the general staffing and supervisory arrangements for the project
- When the objective refers to **what you plan to do**:
 - you must collect information on the types of services activities, or educational/training products that are developed and implemented who received them and their duration and intensity

In reviewing objectives you have written, you may find that you do not have the data sets or data collection systems to measure some of the objectives. You may have to rewrite some of the objectives to reflect what you can measure. Afterward, you can work on developing the data collection systems pertinent to what you need to be able to measure in the future.

Measures are the *tools* and *formulas* for determining or calculating the extent that objectives are achieved. *For qualitative objectives*, a measure is the extent to which consensus is reached on which components of the objective have been achieved.

- **Tools** are devices such as questionnaires, interview forms (open- and closed-ended), standardized measures or physical instruments used to gauge progress.

- A **Formula** is a method used to provide a result (in the form of a fraction or summary statement) that specify the extent to which an objective or sub-objective is achieved. To calculate a formula you must have a baseline (starting figure), numerator (top figure) and denominator (bottom figure). For purposes of the *Modified Achievement Index* the denominator is the target value or point of observation (in the case of qualitative objectives) and the numerator is targeted activity or type of change (quantitative or qualitative) that is be achieved (see the example in the *Modified Achievement Index*).
- **Consensus** (for qualitative objectives) is agreement based on preset criteria or formula that allows for determination of objective achievement to be made. For example, in determining whether the objective or sub-objective of getting the right persons for a project advisory group, consensus that representatives from agencies a, b, c and e would be adequate, is indicative of achievement of the objective.
- See the **attached glossary** for a more detailed description and examples.

Defining and identifying indicators and measures it is often the most challenging and even confusing step, because you're suddenly going from a rather intangible concept, e.g., increased self-reliance or self-esteem, to specific activities, e.g., supporting clients to get themselves to and from work, staying off drugs and alcohol, decreasing at-risk behaviors, etc. *It helps* to have outside supporters or consultants or several project staff meetings (whichever you need or can afford) during this phase of identifying indicators, i.e., someone or others who can question why you can assume that a result (outcome) was reached because certain indicators were examined or measures were used.

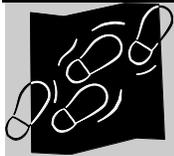
➔ **Critical points:**

- **Outcomes and indicators** are often confused as one and the same, when they are actually distinct concepts as has been described above.
- **Each project** is unique and is aimed at achieving a range of different results (outcomes).

Goal 1: To promote competent parenting and prevent repeat pregnancies and births among pregnant teens 12 -17 years old

<i>Quantitative Objective</i>	<i>Target Value</i>	Indicators/Measures
1. To enroll 50% of all pregnant adolescents, 12 to 17 years old in Newman High School Safe Mothering Program in program by the end of December 2001	50% by the end of project year 2	<i>% of pregnant adolescents, 12 -17 years enrolled in program at the end of year 2</i>
<i>Qualitative Objective</i>	<i>Target Value</i>	Indicators/Measures
1. Establish an Oversight Committee (OC) by the fourth month of the program	Target Open	<i>Consensus that committee established as a result of contacts and recruitment by month four</i>

Action Step 4: Define one or more indicators and measures for each objective. For each outcome, specify what observable measures, or indicators, will suggest that you're achieving that key outcome with your clients



IDENTIFYING FORMULAS TO MEASURE THE PROGRESS

STEP 5

Once the target, indicators and measures have been identified, defined and documented, the next step is to **determine and document the defined numerator and denominator** that will provide a **fraction or summary statement** that will allow for the determination of how much progress toward achievement of the objective. **This is your formula to measure project/program progress.**

A **Formula** is a method used to provide a result (in the form of a fraction or summary statement) that specify the extent to which an objective or sub-objective is achieved. To calculate a formula you must have a baseline (starting figure), numerator (top figure) and denominator (bottom figure). For purposes of **the Modified Achievement Index** the denominator is the target value or point of observation (in the case of qualitative objectives) and the numerator is targeted activity or type of change (quantitative or qualitative) that is to be achieved (see the example in the **Modified Achievement Index**).

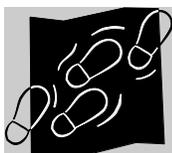
Consensus (for qualitative objectives) is an agreement based on preset criteria or formula that allows for determination of objective achievement to be made. For example, in determining whether the objective or sub-objective of getting the right persons for a project advisory group, consensus that representatives from agencies a, b, c and e would be adequate, is indicative of achievement of the objective.

Goal 1: To promote competent parenting and prevent repeat pregnancies and births among pregnant teens 12 -17 years old

<i>Quantitative Objectives</i>	<i>Target</i>	<i>Indicators/ Measures</i>	Formula to Measure Progress
1. To enroll 50% of all pregnant adolescents, 12 to 17 years old in Newman High School Safe Mothering Program in program by the end of December 2001	50% by the end of project year 2	% of pregnant adolescents, 12 - 17 years enrolled in program at the end of year 2	<p>Numerator: <i>% of pregnant adolescents, 12 -17 years enrolled in program at the end of year 2 (indicator/measure)</i></p> <p>Denominator: <i>50% (Target)</i></p>

<i>Quantitative Objective</i>	<i>Target</i>	<i>Indicators/ Measures</i>	Formula to Measure Progress
2. Establish an Oversight Committee (OC) by the fourth month of the program	Target Open	Consensus that committee established as a result of contacts and recruitment by month four	<i>Consensus that committee established as a result of contacts and recruitment by month four</i>

Action Step 5: Identify the formula to measure progress towards achieving each of your objectives to the worksheet



STEPS, ACTIVITIES, TASKS OR INTERVENTIONS

STEP 6

A **critical next step** after the indicator(s), measure(s), numerator(s) and denominator(s) have been defined and documented **is to define and clarify what it will take to get the work done**. What is to be done depends on what defines the desired result or type of objective.

- **Steps/activities/tasks** are actions that are necessary to accomplish the desired result. As shown in the *Modified Achievement Index* example, they are descriptions of the details or logistics. Depending on time and resources, these details can be intricate or simple. However, they must be logically linked to the indicators and measure and the desired results.
 - *For example*, steps/activities/tasks for establishing an advisory group must be specific to achieving this objective; so using the advisory group to assist with the development of a needs assessment form would not fit, the latter would occur after the group has been formed and would be a part of a separate objective or sub-objective.

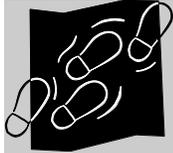
- **An Intervention** is any planned effort *designed to produce intended changes* in a target population. *If the objective is focused (also) on changing something* (e.g., attitude, behaviors, system operation, etc.) than it becomes necessary to identify, define and document what type(s) of intervention will be needed.
 - *Intervention(s) must be* clearly linked to the stated objective(s) or sub-objective(s).
 - *Intervention(s) must be* targeted for the achievement of a specific change or set of changes.
 - *Intervention(s) must be* clearly linked to an indicator or measures or set of indicators and measures.
 - *Intervention(s) must* involve steps/activities/tasks that will allow for the measurement of change to occur. This will involve developing and implementing a means by which **a comparison of those receiving the intervention and those not receiving the intervention**, be they before vs.

after or criteria comparisons, can be made. In such a case, the employment of an **experimental or quasi-experimental evaluation design** will be needed (see attached glossary for the definition of experimental and quasi-experimental designs). If the means for comparison cannot be made, then some acceptable and valid measure of the worth of the intervention must be agreed upon.

- *Intervention(s) must be realistic given the intent, time and resources of a project.*
- *For example, if it is known that ‘looking and sounding good’ increases one’s self-esteem, than classes on dress, hygiene and speech improvement, are interventions. Each class will require some before and after or criteria measure of participants or non-participants. The measure needs to be specific to or consistent with the curriculum of each class activity. These measures can be existing standardized ones or those developed specifically for the project, as long as the validity and reliability of the measures are adequate.*

<i>Quantitative Objective</i>	<i>Target</i>	<i>Indicator(s)/ Measures(s)</i>	<i>Formula to Measure Progress</i>	<i>Steps/Activities/Tasks</i>
1. To enroll 50% of all pregnant adolescents, 12 to 17 years old in Newman High School Safe Mothering Program in program by the end of December 2001	50% by the end of project year 2	% of pregnant adolescents, 12-17 years enrolled in program at the end of year 2	<i>% of pregnant adolescents 12-17 years enrolled in program at the end of year 2</i> <i>50% (Target)</i>	<i>Announce Program</i> <i>Speak to all Pregnant Teens 12-17 years old</i> <i>Obtain consent (parent)</i> <i>Obtain Assent (teen)</i>
2. Establish an Oversight Committee (OC) by the fourth month of the program (qualitative)	Target Open	Consensus that committee established as a result of contacts and recruitment by month four	<i>Consensus that committee established as a result of contacts and recruitment by month four</i>	<i>Obtain a list of potential Committee Members from Diverse Sources</i> <i>Contact potential members and obtain consent for participation</i>

Action Step 6 : *Transfer your steps/activities that you believe are effective toward changing the measure to the worksheet*



IDENTIFYING DATA SOURCES

STEP 7

There are four **basic ways to collect assessment data**: document review, observation, interview and surveys. In **determining the source(s) of information/data** the following must be considered: What data are on hand? What other obtainable data sources (e.g., from vital statistics, local surveys or other state and national data sources) are available?

1. Determine the Sources of Data. Sources of data may include:

- Client service database
- Client Intake profile database
- Interview documents or notes
- Meeting documents or notes
- Pre and post-test

2. Determine the availability of data (*Need to know what you have*). Which measures to use?

- **Identify an existing set of measures** - what data are already in documents on hand or in other obtainable data sources (e.g., from vital statistics, local surveys or other state and national data sources)?
- **Identify a few sentinel (illustrative) measures** - if resources are limited you may want to identify a few sentinel measures that are well known and consistent and/or target a small definable population with your measures.
- **Identify (where possible) measures that have established baseline (starting) data**- may want to use known and more broadly collected measures like those conducted by the agency, local, state or national sources (e.g., the NHIS). In the case of **qualitative information**, a baseline may have to be established.

➔ **Remember: Measurement tools should be integrated** into the flow of client service delivery and communications between providers of services at all levels. *See below.*

3. Develop additional measures relevant to the program or project that are

- Routinely available from the program or agency (e.g., intake records)
- Routinely available at the local level (e.g., school, city and county service records)
- Sometimes available at the local level (e.g., birth defects or infant death review registries, needs assessment surveys, CHIP enrollment data)
- Sometimes available at the local level and collected through periodic state and national surveys (e.g., teen pregnancy data, hospital discharge or ambulatory (outpatient) care data, employment and related economic data)
- Routinely available at the state level, but not at the local level (e.g., Behavior Risk Factors Surveillance Survey data)

- Sometimes available at the state level, but not at the local level (e.g., PRAMS, Youth Risk Behavior Survey)
- Only available from periodic national surveys (e.g., NHANES, NHIS, NSFG)
- Not routinely collected or periodically available at any level, requires a special survey (e.g., county small area analysis data)

➔ **Remember:** There are two methods for obtaining stakeholder feedback on quality and service satisfaction: *structured methods* (e.g., surveys) or *unstructured* (e.g., focus groups). Because both are regularly collected **the integration of qualitative and quantitative data** is important. This is particularly true if assurances that the program is family or community centered and culturally appropriate or competent, is an expectation.

4. Determine the Sources of Data (*Need to Know Where to Get Data*)

a. Sources of Data may include

- Claims data
- Client service database
- Client Intake Profile database
- Local, state and national economic characteristic database
- Population-based Data
- Interview documents or notes
- Meeting documents or notes
- Provider special services logs
- Client personal logs

5. Attend to data/Indicator and data/Indicator availability issues to be considered:

- Population group(s) data is available for (e.g., young children only) or not for (e.g., residents living in rural or remote areas)
- Availability of recent documents, studies, revisions and values for each data type/indicator or measure
- Known reference source, person(s), person(s) knowledge of data/indicator or measure, and person(s) length of time working with data
- Known source for high risk or “difficult to access” populations
- Known existing data source, numerator
- Known existing data source, denominator
- Known existing data source, measure
- Known existing data source, indicator
- Lack of knowledge of the above data sources, what next

6. Careful consideration needs to be give to which data collection tools too use or are needed – Methods of data collection (see above discussions) and tools may include:

- Medical/Clinical records
- Utilization surveys
- Satisfaction surveys
- Stakeholder surveys
- Direct observation
- Claims Applications
- Minutes of relevant meetings
- Findings of utilization review
- Summaries of Interview notes
- Keeping log books/notes
- Access and Utilization (service) records (Project, Program, Local and State level)
- Direct Interview or group

Indicators/Measures	Formula to Measure Progress	<i>Data Sources</i>
% of pregnant adolescents, 12-17 years enrolled in program at the end of year 2	% of pregnant adolescents, 12-17 years enrolled in program at the end of year <u>2</u> 50% (Target)	<i>Health Office Record of pregnant teens</i> <i>Consent/Assent Forms</i> <i>Enrollment Record</i>
Indicator (s)/Measures (s)	Formula to Measure Progress	<i>Data Sources</i>
Consensus that committee established as a result of contacts and recruitment by month four	Consensus that committee established as a result of contacts and recruitment by month four.	<i>Planning Notes</i> <i>Committee minutes</i> <i>Committee Notes</i>

Action Step 7: *Identify the source (s) of the data for each indicator/measure and transfer to the worksheet*



RECORDING RESULTS

STEP 8

Documentation of the result comes from the product of the Formula to Measure Success. As discussed earlier that formula provides a fraction or summary statement that indicates the degree to which the objective or sub-objective has been achieved within a certain time frame (e.g., by the end of six months or one year). The examples below illustrate this point (using the example from Step 5):

Indicators/ Measures	Formula to Measure Progress	Data Sources	Results
% of pregnant adolescents, 12-17 years enrolled in program at the end of year 2 (Quantitative)	% of pregnant adolescents, 12 -17 years enrolled in program at the end of year 2 50% (Target)	<i>Health Office Record of pregnant teens</i> <i>Consent/Assent Forms</i> <i>Enrollment Record</i>	<i>Objective 1.</i> <i>26% (achieved at the end of year 2) /50%(target) = .52</i> <i>end of project year 2 achievement score</i>
Indicators/Measures	Formula to Measure Progress	Data Sources	Results
Consensus that committee established as a result of contacts and recruitment by month four (Qualitative)	Consensus that committee established as a result of contacts and recruitment by month four	<i>Planning Notes</i> <i>Committee minutes</i> <i>Committee Notes</i>	<i>Objective 2.</i> <i>Advisory group established by month six of year 1</i>

- **Ultimately**, staffs want to ensure that the findings from the assessment process are useful.
- **It is suggested** that project/program staff, stakeholders, evaluation team and/or consultants jointly discuss how the results will be used to make decisions about next steps.
- **Before moving on** it is important to think through how the different result (outcome) data will be used and what specific actions might be taken, depending on the findings.
- **Joint discussions will increase the likelihood** that after project/program refinements, assessment will focus on; a) the identification of critical outcomes; b) the selection of the most accurate and meaningful indicators; c) the collection of the most appropriate data; and d) the analyses and interpretation of this data in the most meaningful ways.
- **In addition**, Joint discussion will increase the likelihood that staffs will act on what is found because it is understood from the beginning **what** was being collected and **why** it was collected.

Action Step 8 :Record the results of the steps/activities or intervention and transfer to the worksheet

Glossary of Terms

Activity - What the program does as it works towards achieving its objectives.

Goal - A broad statement of a desired health or social status. The statement does not necessarily need to be in measurable terms. Goals are the ultimate purpose of the program

Objectives - Mileposts that evaluators set out to pass on the way to achieving a goal. They must be written out, clearly stated, measurable, unique to the program(s) or intervention(s) of focus, and specific to the time frame for their accomplishment

Objectives Are of Three Primary Types

1. **Program level:** A specific, measurable statement of desired change in knowledge, behavior, biomedical measures or other intermediate characteristics that are expected to occur because of the intervention. For example: "the proportion of unenrolled CSHCN in Roland County who are eligible for special Insurance services will decrease by 10% by June 30, 1999."
2. **Operational level:** A specific, measurable statement of activity (tasks) to be carried out by the program. For example: "50% of all CSHCN deemed eligible for special Insurance services in Roland County will be enrolled the regional center program . . . "
3. **Outcome level:** A specific, measurable statement of desired change that is deemed the ultimate result or impact of the service or intervention. For example: "eligible children in undeserved Roland county receiving Special Insurance services by 1999 will report 10% fewer problems in getting access to needed services . . . "

Baseline - Information regarding each indicator at the point from which the community begins. It is accurate, quantitative data at a stated point in time.

Denominator - Depending on your question or indicator, it is comprised of the total at-risk or target population or entity (e.g., total number of CSHCN in a particular county or the state). The **bottom number**.

Indicator - A measurement that reflects the status of a system and/or "something" that points to a problem or a condition." It is a measure of the expected program outcome that corresponds to the cognitive, health, or social condition of the population targeted by the program for intervention. Indicators are what it is you are going to measure. Indicators provide a means for talking about how current conditions do not match the desired state for any given system, condition or resource.

Note 1: The most important point about indicators is that they be as relevant as possible to the community they serve or the program under observation, that they be used to spur constructive change and that they are true measures of the condition or population.

Note 2: Characteristics of a good indicator (and the data it comprises) means that it is (should be): a) relevant; b) credible; c) valid; d) reliable over time; e) comparable; f) accessible and affordable; and g) understandable.

Key indicator: one of a number of primary indicators that when compiled give an overall picture of the progress made towards achievement of the objective.

Supporting Indicator: a potentially more detailed or finely focused indicator, several of which may add up in a congregate fashion to support a key indicator.

Index: a collection or set of indicators that when considered as a whole, provide an image of the overall health, well-being and quality of life in the community. For example, an index of basic health services would include measures of % of primary care providers for adolescents, % of providers accepting Medicaid, % services for special needs population, or the Quality rating of local health services by consumers, etc.

Note: Categories of indicators is a helpful way to organize the Index. Best organization examples are those from the Title V MCH Core Services (Direct Health Care Services indicators, Enabling Services indicators, Population-Based Services indicators and Infrastructure Building Services indicators)

Intervention - Any planned effort designed to produce intended changes in a target population.

Target:

- A) A numerical quantity or amount (count) that indicates the minimum desirable level of achievement for a particular activity or indicator(outcome). A numeric target usually has two parts: 1) quantity or amount; and 2) date of anticipated achievement.
- B) An agreed upon (consensus) set of qualitative statements or observations that indicate the minimum desirable level of a particular activity or indicator has been reached. A qualitative target is usually part of mixed-method evaluation and has two parts: 1) an agreed upon timeframe for the statements to be collected or observations to be made; and 2) date of anticipated merging (mixing) with the numeric targets.

As part of the operational level objective a target is usually linked with a date of anticipated achievement. **For Example:** 10% increase in enrollment by the twelfth month of the program's implementation. **Define target populations carefully.** Target populations *must be* defined *narrowly (if possible) and homogeneously* (includes issues of sampling). Ask who is the program really designed to reach?

Target population: Are the persons, households, organizations, communities, or other units at which programs or interventions are designed or directed

Target problems: are conditions, deficiencies, or defects at which programs or interventions are designed or directed. **For Example:** determining which children should be covered under an insurance program.

Tasks or program elements: Are identifiable and discrete intervention activities carried out by designated program personnel (or others) for the purpose of achieving the program objective(s). They are what the program will do to achieve the objective(s). Each task *must be* linked to a specific objective. Tasks *must be* written out, clearly stated, measurable, and linked to a specific objective.

Tasks or Intervention - Identifiable and discrete intervention activities carried out by designated program personnel (or others) for the purpose of achieving the program objective(s). They are what the program will do to achieve the objective(s). Each task must be linked to a specific objective. Tasks must be written out, clearly stated, measurable, and linked to a specific objective.

Program impact model; Is the formal statement about the expected relationships between a program or intervention and its designated goals and objectives. It is the strategy that outlines and operationalizes the process of evaluating the link between goals and objective set forth during the planning process and what is actually happening.

Measures - Tools and formulas for calculating the extent that objectives are achieved. For qualitative objectives, the extent to which consensus is reached on which components of the objective has been achieved.

Numerator - Depending on your question or indicator, it is the actual sample (number) from the total at-risk or target population that you have information on or have identified (e.g., number of CSHCN from a particular county or state that is on record for being eligible for or using a particular service). The top number.

Qualitative Measurement - The expected changes are more often expressed in words rather than numbers. Qualitative data are usually collected by document review, observation, and interviews. However, qualitative data can also be expressed in numbers. For example, interview responses can be tallied to report the number of participants who respond in a particular way (i.e., consensus statements, observations) such as achieved composition of stakeholder advisory group, achieved agreement between groups or agencies on how to conduct project activities, achieved agreement on consistent participation of key players in focus or related decision-making groups.

Qualitative, Perceptual or Subjective Indicator - also objectively measurable, but it is an indicator that tells the community members' perception of something. Example: how safe do community residents feel after dark?

Quantitative Measurement - Information that is measured and expressed with numbers or percents, as ranges or averages, and in tables and graphs. They can also be used to compare different groups or participants-girls and boys, clients from different socioeconomic or ethnic backgrounds, or clients in your program who are non-participants (counts, values, percentages, rates) such as health status, health-related knowledge, skills, behavior, and satisfaction with care.

Quantitative or Objective Indicator - measurable data that has no human perception or opinion involved. Example: the number of good air quality days in a community each year.

NOTE: Quantitative measures are counts or rates and are reported in the outcomes as numbers or percentages. This is usually quantitative (quantity) documenting numbers.

For quantitative long-term monitoring or process evaluation you might assess not only the number of people who attend but how their composition (age, race, or economic class) represents the composition of your community. You might assess participant satisfaction over time. You might also measure if you did what you said you would do. (Keep in mind process evaluation measures how well the process is working.)

Outcome - The result, effect or impact (expected or unexpected, intended or unintended) that can be reasonably attributed to the activities or actions of a program. These can be intermittent (short-term/ongoing) or ultimate (long-term or end-of-program) outcomes.

Note: Of particular concern and interest to community and state-level programs are outcomes that follow directly from the initiation of program activities (called immediate or proximal outcomes) and those that are further away (called distal or ultimate outcomes). See Exhibit 3-j handout from Rossi, Freeman and Lipsey (1999).

Short-term achievement score or summary: Value produced when the formula for the measure is applied. Used to monitor the achievement of operational objectives over a short time period (e.g., one year or less).

Short-term achievement index: A measure of the overall extent to which operational objectives are achieved. This index is calculated from aggregation of short-term achievement scores.

Long-term achievement score or summary: Value produced when the formula for the measure is applied. Usually calculated at the end of the project period. However, in the case of quantitative data a partial score can be calculated at more frequent intervals to intermittently monitor the achievement of policy and program objectives. In the case of qualitative data, summaries can be written more frequently for the same reason.

Long-term achievement index: A measure of the overall extent to which program and policy objectives are achieved. The index is calculated from aggregation of long-term achievement scores.

Experimental design: A plan for finding the solution to a research or evaluation problem or the testing of a research hypothesis or set of hypotheses posed by investigators or programs. The true or simple experimental design involves the random sampling of subjects or units and their assignment to treatment (intervention) or control (non-treatment) groups. The complexity of the randomization process and assignment of the subjects or units may vary depending on the rigor need for testing or problem solving. This design is used when it is necessary and possible to have control over the experimental or evaluation process.

Quasi-Experimental design: A plan for finding the solution to a research or evaluation problem or the testing of a research hypothesis or set of hypotheses posed by investigators or programs. This design allows for the non-random selection and assignment of subjects or units to treatment and control (comparison) groups or criteria. This design is used when the control over the experimental or evaluation process is limited or not possible (e.g., when programs want all clients to have access to the proposed intervention.)

References

- Bond, SL, Boyd, SE, Rapp, KA, et al, (1997). Taking Stock: A practical Guide to Evaluation Your Own Programs. Chapel Hill, NC: Horizon Research, Inc.
- Herman, J.L., Morris, L.L., and Fitz-Gibbon, C.T., (1987). Evaluator's Handbook, Newbury, CA: SAGE
- Mattessich, P W (2003). The Manager's Guide to Program Evaluation: Planning, Conducting and Managing for Useful Results. Saint Paul, MN: Amherst H. Wilder foundation.
- Monahan, C.A. and Sykora, J. (1999). Developing and analyzing performance measures: A guide for assessing quality of care for children with special health are needs. Maternal and Child Health Bureau, DHHS/PHS/RSA MCJ 17R18-01-0.
- Patton, M. (1997). Utilization-Focused Evaluation: The New Century Text. Newbury Park, CA: SAGE Publications.
- Patton, M. (1990). Qualitative Evaluation and Research Methods. Newbury Park, CA: SAGE Publications.
- Peoples-Shep, M.D., Rogers, M.M. & Finerty, E.J. (1990). Monitoring Progress Towards Achievement of Objectives. Chapel Hill, NC: University of North Carolina at Chapel Hill.
- Peoples-Sheps, M.D. (1997). Planning and Monitoring Maternal and Child Health Programs. In J. Kotch (ed), Maternal and Child Health: Programs, Problems and Policy in Public Health. (423-460). Gaihersburg, MD: Aspen Publishers, Inc.
- Peoples-Sheps, MD & Telfair, J., MCH Program Monitoring and Performance Appraisal, (2005), in Kotch, J (ed) Maternal And Child Health: Programs, Problems And Policies In Public Health (Chapter 16) Mississauga, ON L5C 2W6, Canada: Jones and Bartlett Publishers Canada.
- Rossi, P.H., Freeman, H.E. & Lipsey, M.W. (1999). Evaluation: A systematic approach, 6th edition. Thousand Oaks, CA: SAGE Publications.

- Telfair, J. (1997). Evaluation Research. In J. Kotch (ed), Maternal and Child Health: Programs, Problems and Policy in Public Health. (404-419). Gaihersburg, MD: Aspen Publishers, Inc.
- Telfair, J. and Mulvihill, B., (2000). Bridging Science and Practice: The Integrated Model of Community-Based Evaluation (IMCBE). J. Community Practice, 7(3): 37-65.
- VanGenderen, H. & Norris, T. (1996). You get what you measure: A guide to community indicators of health and sustainability (draft). Boulder, CO: Tyler Norris Associates.