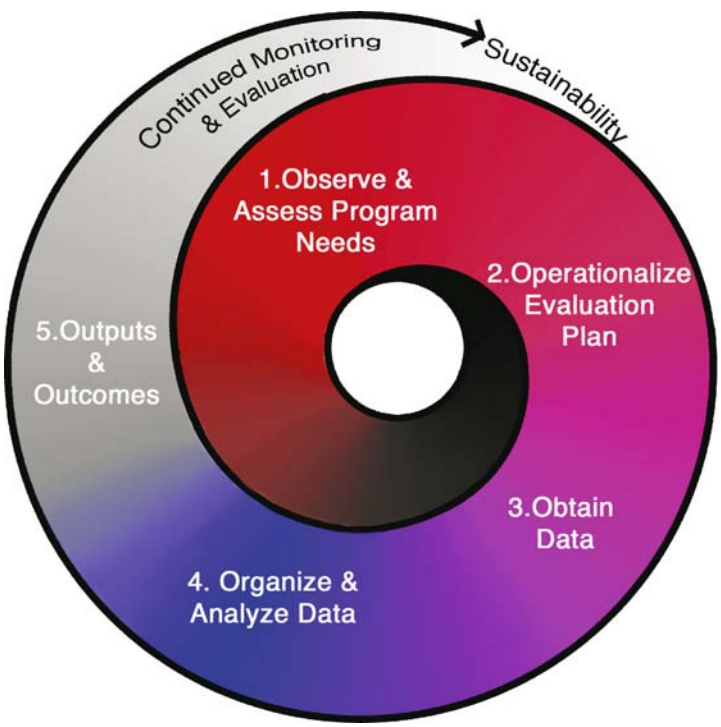
Chapter 2
Operationalize the Evaluation Plan



Contents

Operationalize the Evaluation Plan

This chapter will help you to operationalize your evaluation plan. That means putting together a plan for your evaluation that is clear and achievable, and that meets your program needs.

Building an evaluation plan requires a fair amount of brainstorming and coordination, setting deadlines, and assigning responsibilities to each member of your team. There are many other important components, and therefore this will be one of the longer chapters of this book.

Throughout this chapter and the remainder of the book, the Southern Primary HealthCare Clinic example will be used to illustrate certain points. Although this is a fictitious organization and program, the case study was built using examples from several existing organizations and government survey data. A general summary of the case study is provided below for your information.

Southern Primary HealthCare Clinics is a comprehensive health care provider serving approximately 3,000 patients in two clinics for three semirural counties in a Southeast Sate.

Cardiovascular disease is higher in the Southeast compared to other regions of the country. Health disparities in this State parallel those for the region with the African American population being at greater risk for disability and early death from CVD than the white population. Major risk factors of CVD that can be modified or treated include high blood pressure, high blood cholesterol levels, obesity, and overweight and physical inactivity.

The majority (70%) of the population in the three counties served by the clinics are African American. A large proportion (40%) of the population served lives at 200% of the poverty level, 35% are uninsured, and approximately 15% of the adults have less than a tenth- grade education. Almost half of the clinic's clients are at high risk for CVD, with 48% being obese, 42% having high blood cholesterol levels, and 39% of women and 37% of men having high blood pressure.

To address some of the risk factors associated with CVD, the Southern Primary HealthCare clinics received a 2-year grant to develop and implement a Cardiovascular Disease Prevention and Control (CVDPC) program. The goal of the CVDPC program is to prevent and control CVD among the adult population served by the Southern Primary HealthCare Clinics.

The CVDPC program is based on the Healthy People 2010 goals specific to the prevention of heart disease. In the CVDPC program the routine health care provided by the medical doctor treating the client is enhanced by health education sessions, enrollment in a subsidized drug program, peer support groups, home visitations, and walking groups.

Although your program is likely different than the Southern Primary HealthCare Clinics, use of this example will hopefully help to illustrate key points in this

manual and allow you to think through the components of evaluation as they apply to your own program.

Select an Evaluation Team

Conducting an evaluation is a little like doing detective work. The evidence is there, and it's your job to figure out how to collect it, what to do with it, and how to put it all together to tell the story of what happened.

> If you were a detective, you would want your investigative team to have a wide range of specialties (such as forensic specialist, expert interrogator, media relations specialist, etc). It is the same for your evaluation team. You will need people who are good at different things, and who bring different ideas to the evaluation.

Your program will need an evaluation director, who will be in charge of coordinating all of the evaluation work. Since evaluation is too big a job for just one person, decide who else will be on the "evaluation team." Three or four people are usually sufficient to get started. Later you may need to temporarily recruit more people for some specific tasks that require more manpower or more expertise.

If you have a choice of people (not all projects do), try to get a good mix of staff. The key is to have people who can bring different perspectives and ideas to the table. You especially want:

- Someone who actually interacts with the clients (i.e., nurses, caseworkers, drivers, educators, etc.). Do you have that person that just seems to know *everyone*? You may want to choose that person for your evaluation team.
- Someone with good writing and organizational skills, to keep records and write the evaluation reports.
- Someone who has a good working knowledge of the people, material, and financial resources available at the program. This may be a higher-level project supervisor or it may just be that person who always seems to know everything about your project.

The following decision-making tree may also be useful in deciding on your evaluation team (Fig. 2.1).

In addition to staff members, consider inviting key community leaders, clients of your program, or others who could bring a different perspective on your program and its place in the community to the team. You might be surprised at how much a fresh perspective can help you conduct the evaluation, not to mention the increased support such representation would lend to your evaluation from the community or target population.

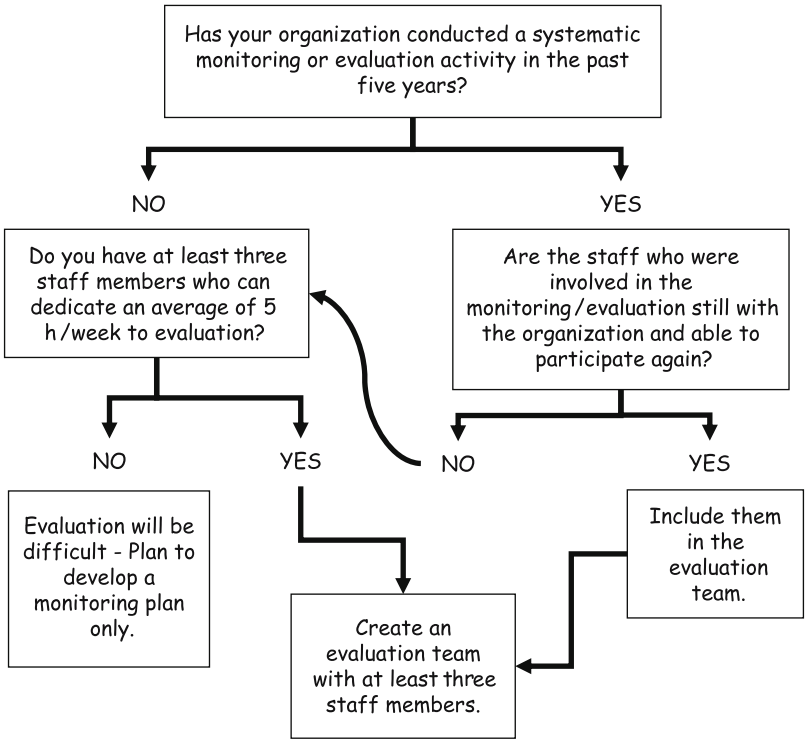


Fig. 2.1 Monitoring or evaluation decision tree

> Choose an interesting program or one that is likely easy to evaluate for your first evaluation. This will hold the interest of your team, and getting positive results can empower your organization and fuel interest in conducting further evaluations.

Many organizations have more than one program going on at the same time. Each program will likely require a separate evaluation, so choose just one to focus on for your first evaluation. Choose a program that is a highlight of your organization, or one that has a lot of interest from the community or your staff. That way, the first evaluation will be an exciting one that is likely to give you positive results.

Review What Your Program Is Targeting

It is imperative that your evaluation team has a clear definition of the problem that your program is to address. Phrase it in terms of the underlying **problem**, not the need itself. An example of *need* would be "the community needs a substance

abuse program," or "the community lacks a substance abuse program." These two statements are not helpful in guiding your evaluation efforts. They state what your program may *provide,* but not what it *targets*.

> When considering why it's better to state the problem than the need, think about how your results will sound to outside persons.
>
> Which is more convincing:
> "Through providing a substance abuse program, our program was able to meet the need in the community to have such a program"
> or
> "Through providing a substance abuse program, our program was able to help decrease substance abuse among our clients by 15%"

A better statement would describe the underlying *problem*, such as, "there is a high rate of substance abuse in the community." This last statement most clearly defines what the evaluation will be measuring, as it is the *problem* that your program is ultimately targeting. To show your program works, you will need to show that there has been an improvement in the problem.

Southern Primary HealthCare Example

What is the problem in the community that this program will address?
Many adults living in the communities served by our clinics are at high risk for CVD.

How did you become aware of this issue?
National statistics from the CDC show the rate of CVD as being higher in our area than in other regions of the USA. 30% of patients reporting to our clinics suffer from CVD, and half of our clients have been labeled by their physicians as being "at risk."

Who is directly affected?	**How are they affected?**
Those with CVD	Suffer poor health, earlier deaths
Families of those with CVD Communities	Emotional & financial burden, loss of loved ones Detracts from community life & economic well-being to have adults in poor health
Medical institutions	Increased burden of caring for patients with CVD
State	Economic loss due to health care costs & loss of otherwise productive adults
What are some possible reasons for this problem?	**Why do these reasons exist?**
Higher rates of blood cholesterol and hypertension in community members	Poor diets / obesity
	Decreased physical exercise
Increased rates of obesity in community	Lack of affordable healthy food choices
	Decreased physical exercise
Decreased physical exercise	Increased work hours among low-income families
	Increased TV watching/ indoor activities

Smoking	High stress among lower-income families Social norm for young adults
Diabetes	Overweight / obesity Genetic predisposition
How has this problem changed over the past several years? *(general trend in community)*	**What influences have led to the changes?** Diets/nutritional habits worsening
Increasing rates of CVD in the community	Crime increase=decrease in outdoor exercise
(who is affected)	Increase in obesity rates
Increasingly common in women	Higher rates of female smokers
(funding levels—public or private sources)	Cutbacks in government-subsidized programs
Government funding has dropped, private funding about the same	Private funding initiatives
(attention paid—media, schools, other)	Concerns over obesity rates in children
Attention is on obesity epidemic	CVD not mentioned much in media or other general information sources
(similar changes elsewhere in country?)	Diets/nutritional habits worsening
Similar elsewhere, and increasing especially in minority/low-income areas of the country	

Who else is working on this?	What have they done?	Has it been successful?
"Healthy hearts, healthy minds" program	Educational programs for adults with chronic disease or depression	Unknown
	Help register qualified patients for Medicaid	More people are enrolled in program than one year ago?

Define Program Goals and Objectives

A program *must* define its goals and objectives. Even if you have previously defined your goals & objectives, take some time to review them with your evaluation team to make sure everyone is on the same track. This is also a good step to engage your stakeholders, and you may be surprised to find out that not all stakeholders agree on what the goals or objectives of your program are!
Use the following decision-making tree to help you as you go through defining your goals and objectives (Fig. 2.2).

A Goal is:

A general statement of what the program is trying to accomplish.

- General expectation
- Can be vague
- May not be measurable

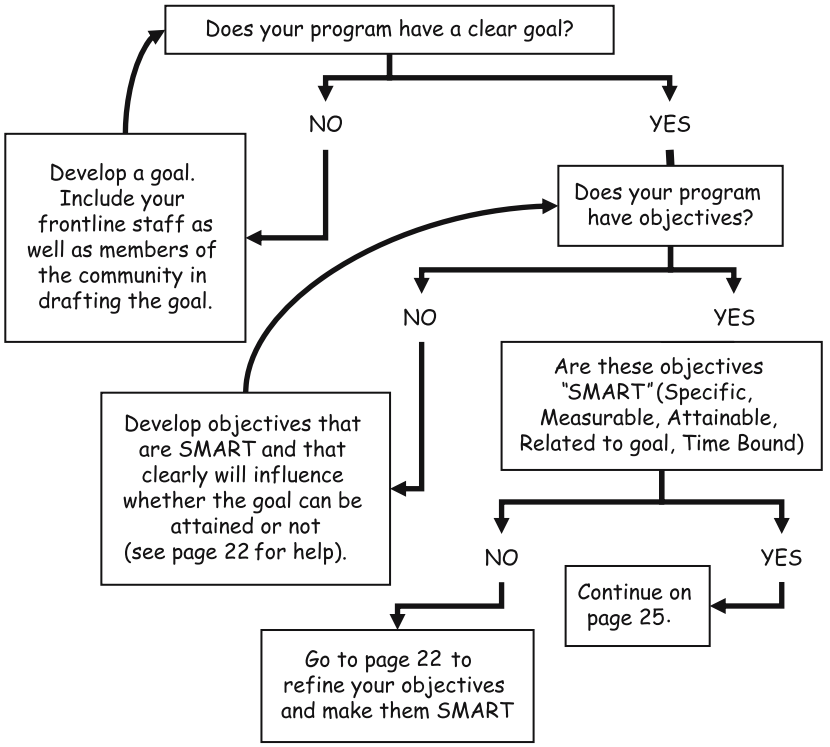


Fig. 2.2 Goals & objectives decision making tree

An objective is:

A specific statement of expected results

- Always measurable
- The means by which the goals are met

A program goal is basically its mission or purpose. A goal is a statement of what you hope to achieve through the program. It is usually very broad, and may not be directly measurable.

> The goal of Southern Primary HealthCare Clinic's Cardiovascular Disease Prevention and Control Program is to prevent and control CVD among the adult population served by the project's two clinics.

An *objective* is a statement of expected or intended change over a given time frame. If you are doing a process evaluation, your objectives will focus on changes in program activities and utilization of your program services. If you are performing

an outcome evaluation, the objectives will focus on changes in the health status of the target population.

Southern Primary HealthCare Clinics CVDPC **process** objectives:

- Increase by 60% the number of eligible hypertensive clients who participate in the CVDPC Program by the end of year 2.
- Increase the percentage of clients receiving twice yearly educational sessions on CVD prevention and risk reduction to 95% by the end of year 2.

We have reduced the example case study to focus on hypertension. In reality, there would be objectives that addressed other risk factors for CVD as well, such as overwight/obesity, smoking, diabetes, etc.

Southern Primary HealthCare Clinics CVDPC **outcome** objectives:

- Increase by 30% the number of hypertensive clients who have reduced their blood pressure by 13 points after being enrolled in the CVDPC Program for 12 months.
- Increase by 40% the number of hypertensive clients who have achieved normal blood pressure (Systolic <120 and Diastolic <80 mmHg) after being enrolled in the CVDPC program for 24 months.

Objectives provide the focus for your evaluation. Poorly written objectives can lead to confusion over how to collect data or how to interpret results. A good objective is SMART: **S**pecific, **M**easurable, **A**ttainable, **R**elated to goal, and **T**ime-bound.

- **S**pecific—clearly defines an event or outcome that will be achieved, with details about time, place and persons
- **M**easurable—defines the level or magnitude of change expected
- **A**ttainable—states an ambitious but realistic outcome given available resources
- **R**elated to goal—the outcome fits into the broader context of the program and can directly affect the overall program goal
- **T**ime-bound—states the timeframe in which the outcome is expected to be achieved

It's tempting to want to include many objectives in your first evaluation. It is best to keep your first evaluation fairly small, however, to make sure you can get good results. Only then will your staff be motivated to continue building your evaluation efforts in the future.

Stakeholders should also be involved in developing the list of goals and objectives. If an important stakeholder has a completely different idea about what your program should accomplish, and none of the goals or objectives address that

viewpoint, then the stakeholder may not value the evaluation results. Having a meeting with key people to brainstorm objectives can be a quick and efficient way of involving stakeholders.

> Stakeholder input is critical to gaining support for your evaluation and ensuring that the results will be used. But remember that this is **your** evaluation. Do not let competing stakeholder interests overwhelm your evaluation efforts. Remember that the people on your evaluation team are your **most** important stakeholders in the evaluation!

Following are some examples of poorly written outcome objectives, along with improved examples.

	POOR objectives	IMPROVED objectives
Not specific!	Increase the percentage of clients who have learned about better diets to 40% by the end of year 1 of the program.	Increase the percentage of clients who are able to demonstrate knowledge of at least three new low-fat recipes to 40% by the end of year 1 of the program.
Not measurable!	Increase the percentage of CVDPC participants who have learned a lot about CVD by the end of each educational session.	Increase the percentage of CVDPC participants who are able to correctly name risk factors for and ways to prevent CVD by the end of each educational session.
Not attainable!	Increase by 100% the number of hypertensive clients who have achieved normal blood pressure (Systolic <120 and Diastolic <80 mmHg) after being enrolled in the CVDPC program for 24 months.	Increase by 40% the number of hypertensive clients who have achieved normal blood pressure (Systolic <120 and Diastolic <80 mmHg) after being enrolled in the CVDPC program for 24 months.
Not related to goal!	Decrease the percentage of CVDPC participants who are unhappy with their weight by 40% by the end of year 1.	Increase by 40% the percentage of CVDPC participants who have achieved a weight goal set by their physician after 12 months of the program.
Not time-bound!	Increase by 30% the number of hypertensive clients who have reduced their blood pressure by 13 points.	Increase by 30% the number of hypertensive clients who have reduced their blood pressure by 13 points after being enrolled in the CVDPC Program for 12 months.

Refer to the goals and objectives worksheet to fill in your own program objectives. Apply the SMART test to each one to ensure that you have well-written objectives. Then prioritize the objectives by their importance to the overall goal of the program.

You may want to involve your stakeholders in this process, or this may be a step your evaluation team will have to complete on its own (if time is short or if the key

stakeholders tend to have a difficult time reaching an agreement). In the end, it is up to your evaluation team to decide what input from stakeholders will be part of the evaluation.

Southern Primary HealthCare Clinics

Objective	Specific?	Measurable?	Attainable?	Related to goal?	Time-bound?	Priority (importance to goal) H- High M-Moderate L- Low
Increase the percentage of clients who are able to demonstrate knowledge of new low-fat recipes to 40% by the end of year 1 of the program.	✓	✓	✓	?	✓	L
Increase the percentage of CVDPC participants who are able to correctly name risk factors for and ways to prevent CVD by the end of each educational session.	✓	✓	✓	✓	✓	M
Increase by 40% the number of hypertensive clients who have achieved normal blood pressure (Systolic <120 and Diastolic <80 mmHg) after being enrolled in the CVDPC program for 24 months.	✓	✓	✓	✓	✓	H
Increase by 40% the percentage of CVDPC participants who have achieved a weight goal set by their physician after 12 months of the program.	✓	✓	✓	✓	✓	L
Increase by 30% the number of hypertensive clients who have reduced their blood pressure by 13 points after being enrolled in the CVDPC Program for 12 months.	✓	✓	✓	✓	✓	H

Develop a Conceptual Framework

Next you will want to lay out your ideas for how the program is expected to achieve its goal, step by step. This is done through developing a conceptual framework. **A conceptual framework shows the sequence of events that are thought to occur in order to bring about the desired changes in the community.**

The conceptual framework diagram, once finished, can then be "read" by following the arrows in order to get the story of how your program is working.

The framework can be completed in any order, the steps given in this section outline just one approach you could take. Your whole evaluation team should be involved in brainstorming the conceptual framework.

Figure 2.3 shows how a blank conceptual framework, to measure the effect of your program activities, looks:

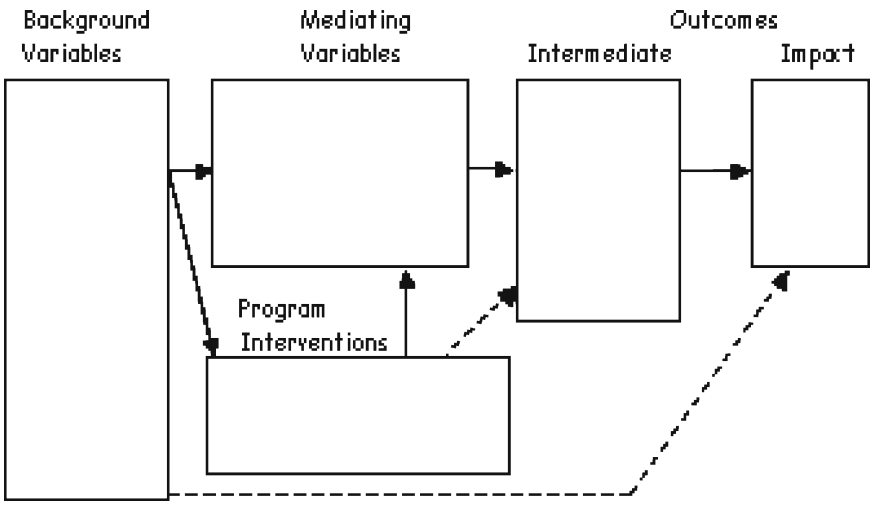


Fig. 2.3 Conceptual Framework for measuring program effectiveness

A Conceptual Framework Consists of Five Basic Components:

- Background variables—these are aspects of the target population (age, sex, education, socio-demographics, past health history, etc.) that are not altered by the program intervention but that may influence a person's access to the program.
- Mediating Variables—these are aspects of your target population such as their knowledge, attitudes, or beliefs.
- Intervention—these are the activities that your program will carry out to achieve its goals and objectives.
- Intermediate outcomes—these are behaviors of the target population that your intervention is trying to change.
- Long-term outcomes (impact)—these are the eventual effects that your program hopes to achieve, usually measured in terms of a biological change (e.g., blood pressure).

You will note from the conceptual framework diagram that there is actually more than one way for the final outcome to be reached.

> Some people will have negative outcomes regardless of how well your program works, so you should never list a goal of '100%' improvement.

- Background variables alone can determine the outcome. For example, "family history of heart disease" could directly lead to an outcome of heart disease in a person despite any change in mediating variables if the cause of disease was

mostly genetic. This means that, even if a program addressing heart disease were to succeed in getting 100% of the population to completely eliminate all behavioral risk factors, it still could not eliminate heart disease.

- There is a pathway from background variables through mediating variables and to outcomes that doesn't go through the program intervention at all. Some of the target population will achieve changes in mediating variables, intermediate and final outcomes even without a program intervention. In the heart disease example, some at-risk people might decide to start exercising more and adopt a healthier diet even without the benefit of the program interventions.

The items you fill in on your conceptual framework are exactly those items that you will collect information on. For example, if you fill in a mediating variable of "Believes that HIV can be prevented," you will later need to determine some way of measuring this among your participants.

Use the 'Developing a conceptual framework' worksheet in page 148 to create your own conceptual framework.

In order to measure the long-term outcomes, it is necessary to gather information at two different time points for the same individual. The first time point should always be at the very start of your program, before those individuals have had any contact with your services (baseline). Only in this way can you show the changes among your participants after having utilized your services.

Just as the name implies, "long-term outcomes" happen over a long period of time. You will probably not be able to measure changes in the long-term impact on your first evaluation. Instead, you will want to measure changes in behaviors—the intermediate outcomes. Later, you can go back and see if changes in the intermediate outcomes truly led to changes in the long-term outcomes for your participants.

On the next page Fig. 2.4 shows an example of what a completed conceptual framework might look like.

Define Methodological Approach for Evaluation

The strongest type of evaluation is one that uses an **experimental design.** In an experimental design, the target population is separated into two groups. The first group receives the program interventions you have developed, the second group does not. Assignment of people into the two groups is made randomly, just as if you had flipped a coin to decide. At the end of some period of time, you observe the

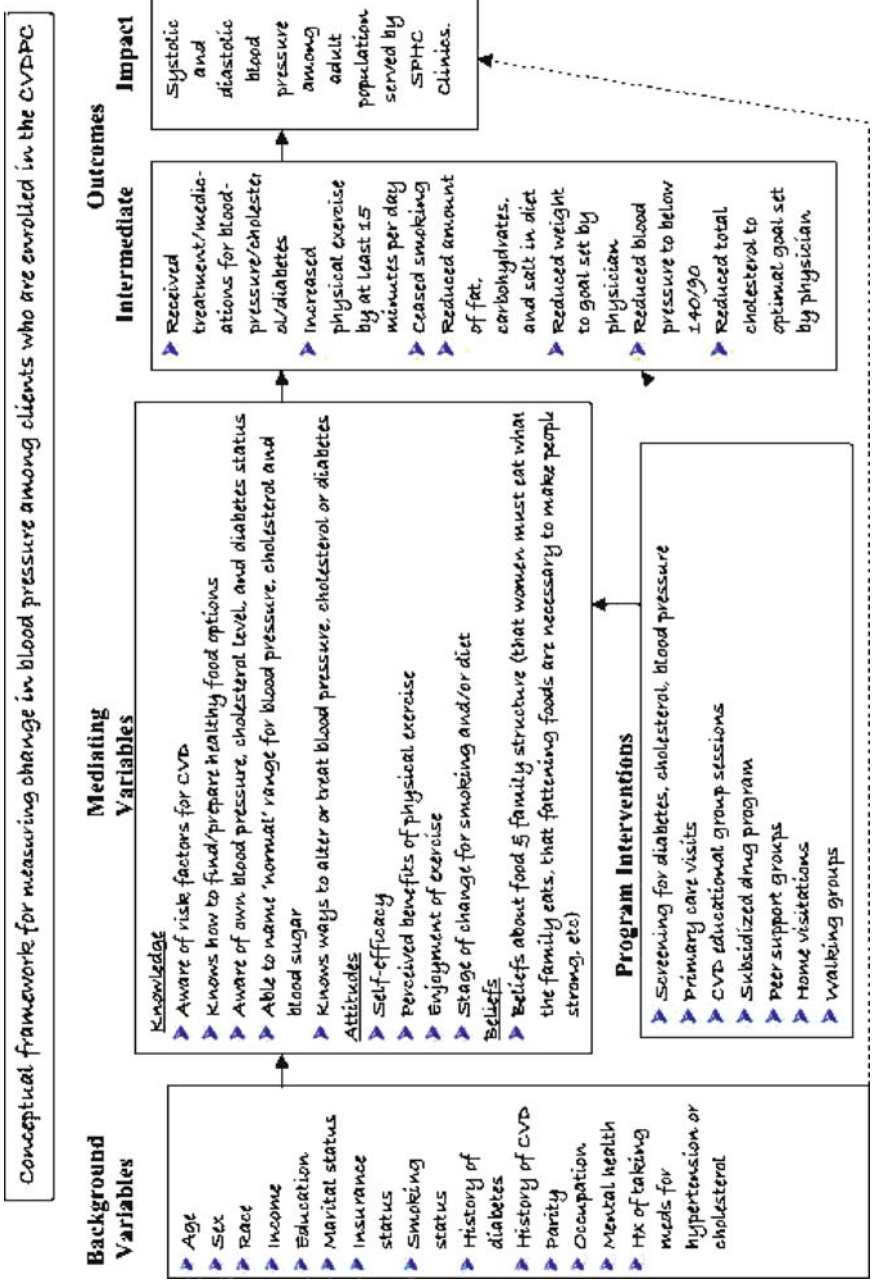

Conceptual framework for measuring change in blood pressure among clients who are enrolled in the CVDPC
Background Variables
Age
Sex
Race
Income
Education
Marital status
Insurance status
Smoking status
History of diabetes
History of CVD
Parity
Occupation
Mental health
Hx of taking meds for hypertension or cholesterol
Mediating Variables
Knowledge
Aware of risk factors for CVD
Knows how to find/prepare healthy food options
Aware of own blood pressure, cholesterol level, and diabetes status
Able to name 'normal' range for blood pressure, cholesterol and blood sugar
Knows ways to alter or treat blood pressure, cholesterol or diabetes
Attitudes
Self-efficacy
Perceived benefits of physical exercise
Enjoyment of exercise
Stage of change for smoking and/or diet
Beliefs
Beliefs about food & family structure (that women must eat what the family eats, that fattening foods are necessary to make people strong, etc)
Program Interventions
Screening for diabetes, cholesterol, blood pressure
Primary care visits
CVD educational group sessions
Subsidized drug program
Peer support groups
Home visitations
Walking groups
Outcomes
Intermediate
Received treatment/medications for blood-pressure/cholesterol/diabetes
Increased physical exercise by at least 15 minutes per day
Ceased smoking
Reduced amount of fat, carbohydrates, and salt in diet
Reduced weight to goal set by physician
Reduced blood pressure to below 140/90
Reduced total cholesterol to optimal goal set by physician
Impact
Systolic and diastolic blood pressure among adult population served by SPHC clinics.

Fig. 2.4

two groups and see if the group that received the intervention had better health outcomes than the group that did not. Although experimental designs are the most convincing, they can be rather complicated and are therefore not as common as other designs.

Strengths of an experimental design:

- Can show that changes are really due to your intervention, and not other factors.

> It is almost never ethical to deny services to one group of people in order to compare them to another group that receives services. Instead, when conducting an experimental design, you may decide to provide expanded or different services to one group, while maintaining the normal level of services for another group in order to see if the changes introduced by the expanded services were beneficial.

Problems with experimental designs include:

- Random assignment takes extra time and effort. It might also not be possible to truly divide people up randomly.
- Random assignment can cause ethical concerns. For example, if running a dental clinic in a school, it would probably not be ethical to offer free dental care to only half the children who needed it.

An alternative to the experimental design is the **quasi-experimental** design. "Quasi" means *as if* or *almost*, so a quasi-experimental design is "almost-experimental." In these types of evaluation, there are again two groups that are compared, except assignment to one group or the other is not random. For example, if conducting an educational session in a school, one classroom may get the session while the other does not. Because students were not assigned randomly, however (they were assigned based on which class they were in), it can be difficult to determine if there were other differences between the classes that was really responsible for any changes seen. Perhaps one class had a more dynamic teacher, or brighter students, or a better atmosphere of communication and collaboration than the other class.

Another form of quasi-experimental design that is quite common is the pretest-posttest design. In this kind of evaluation, participants are surveyed before they engage in the program activities on their knowledge, beliefs, etc. Then, after a set amount of time of participation in the program, they are surveyed again. The results of the later time period are compared to the beginning time period to see if any changes occurred. The benefit of this type of design is that there is no need for a comparison group—participants serve as their own comparison. The drawbacks are the same as any quasi-experimental design, in that you cannot be absolutely sure that the program caused the changes observed.

Bias: refers to some factor that distorts the truth or causes you to reach conclusions that are not correct.

Example: You ask physicians to recommend clients for a new counseling service. You compare the mental health improvements in the clients enrolled in the program to those who were not, and conclude that the program worked in helping people improve their mental health. But the physicians recommended mostly those clients who were compliant, friendly, and already improving. So your results are biased.

Some other factors – in this case: the selection of clients who were already improving – explains why that group did better than the non-enrolled group, not your program intervention.

The most common evaluation design is **observational**. It is the easiest to perform, as participants are not divided or randomized into groups of any sort. You simply *observe* what happens as participants interact with your program and then report on the results. The drawback of this design is that there is often a good deal of *bias* involved, which makes the results less convincing.

To summarize:

- Experimental designs can show that changes in the population were the result of the program.
- Quasi-experimental designs can *suggest* that the changes were a result of the program. Observational designs can only show that the program was *associated* with a change in the population, which may have resulted from the program or may have resulted in some other factors.
- Consider the following example of an experimental, quasi-experimental, and observational design for the same program intervention.

Southern Primary HealthCare Clinics

Experimental design
Southern Primary Health (SPHC) Clinics instructed their physicians that every other client who came to the clinic that was identified as being at risk for CVD were to be enrolled in their new CVDPC program. After assignment to the two groups was finished, the group receiving the new program services were very similar to the group that did not. The average age, body-mass index, blood pressure, cholesterol level, and fat intake were all nearly the same between the two groups, as were smoking status, diabetic status, insurance status, and other key variables.

Because the only real known difference between the 2 groups was the CVDPC program services, the fact that the CVDPC group had much greater improvements in blood pressure y at the end of 2 years was taken as evidence that the program caused the improvements in blood pressure.

Quasi-experimental design

SPHC Clinics decided to offer their expanded CVD prevention and Control program to all of their at-risk clients at 1 of their clinics, but not to the at-risk clients at their second clinic in the same county. A pretest given to all clients at both clinics showed that levels of knowledge about CVD were similar at both. Clients at the intervention clinic had slightly worse health than those at the 'control' clinic, though. At the end of 2 years, 20% of patients at the intervention clinics had achieved normal blood pressure, while only 12% of patients at the control clinic had.

The conclusion was that the program appeared to lead to improvements in blood pressure. There was no way to tell, however, whether perhaps the physicians at one clinic were more engaged than the other, whether the clients at one clinic differed in important ways (such as income, insurance status, motivation to improve health, feelings of self-efficacy, etc), or whether there were other important differences between the clinic environments that could have influenced the results.

Observational design

SPHS offered its new CVDPC program to all of its high-risk clients at all of its clinics. Some clients enrolled, while others declined to participate. At the end of the 2 years, the clinics compared those clients who enrolled to those that didn't. They also compared the overall CVD rate before the program to the rate after 2 years of the program. Clients enrolled in the program had a lower rate of CVD than those not enrolled, and the overall rate had dropped over the 2 years. Also, 20% of clients enrolled in the program had achieved normal blood pressure after 2 years, while only 10% of other at-risk SPHS clients had achieved normal blood pressure over the same time period.

The conclusion was that the program seemed to be associated with a decrease in CVD. Questions that could not be answered included: did only the lower-risk clients sign up for the program, while the higher risk group – who would normally have a higher rate of CVD – decline (explaining the difference between groups)? Was there a general trend in the population towards lower CVD rates over the 2 years of the program (explaining the difference over time)? Were those that signed up for the program already working towards improving their blood pressure, so that the difference would have existed even had the program never existed? These questions reflect the fact that the findings may not be 'real' – there may be bias (other factors that explain the differences between the groups).

Select Indicators

Before you can start planning how to collect data for your evaluation, you have to decide exactly what information you need to collect. Once you have your program goals and objectives outlined, and have a conceptual framework to better visualize the program, decide on indicators to guide the data collection. **Indicators are ways of measuring changes related to your objectives and program activities.** Often, there will need to be more than one indicator for a single objective.

> Whenever possible, you should use established indicators already in use by the census bureau or other organizations working in your field. This makes it easier for others to understand exactly what changes your program is creating. The reference list at the back of the book gives some resources to find already established indicators.

For some objectives, the indicators will be very easy and straightforward. For example, if one objective is "at the end of the first year of the program, 90% of children at School X will be fully vaccinated," then a sensible indicator for the objective would be "the percent of children at School X who are fully vaccinated." The indicator is the actual measurement you will use to assess changes related to the objective.

It is very important not to change your indicators over time. You want to be able to compare your results from one time period to another, but you won't be able to make such a comparison if your indicators were different at the two time points.

Prioritizing Indicators

Collecting data on indicators takes time and resources. If your list of indicators is pretty long, you may not be able to address them all in your first evaluation. Prioritize based on importance to evaluation and ease of measurement.

Develop a Data Collection and Analysis Plan

Once you have your list of objectives and indicators, you will have to decide on the best way to collect and analyze the data. A carefully detailed plan will save you many headaches and frustrations further down the road.

Southern Primary HealthCare Clinics

Objective	Priority (Importance to **goal**) H-High M-Moderate L-Low	Indicators for objective	**Ease of data collection** 0-Data already available 1-easy to collect 2-possible 3- difficult	**Priority of indicator** 1-Critical to **objective** 2-Important 3-Can do without	**Overall score** (H,M, or L – and sum of previous 2 columns Ex: *M-1*)
Increase the percentage of clients who are able to demonstrate knowledge of at least three new low-fat recipes to 40% by the end of year 1 of the program.	L	Pre-post questions #10,11 & 12 on client questionnaire	1	2	L-3
		Score of 10 or above in cooking demonstration session	2	2	L-4
Increase the percentage of CVDPC participants who are able to correctly name risk factors for and ways to prevent CVD by the end of the educational session.	M	Pre-post questions #5, 6 & 7 on client questionnaire	1	1	M-2
Increase by 40% the number of hypertensive clients who have achieved normal blood pressure (Systolic <120 and Diastolic <80 mmHg) after being enrolled in the CVDPC program for 24 months.	H	Blood pressure at or below 120 mmHg systolic and 80 mmHg diastolic	1	1	H-2
Increase by 40% the percentage of CVDPC participants who have achieved a weight goal set by their physician after 12 months of the program.	L	Weight is at or below goal set in clinic records by physician	1	1	L-2
Increase by 30% the number of hypertensive clients who have reduced their blood pressure by 13 points after being enrolled in the CVDPC Program for 12 months.	H	Systolic blood pressure measurement	1	1	H-2

First, take stock of what information is already out there and available. With your list of indicators on hand, consider the following possible data sources and determine if any of them may provide you with enough information to satisfy your indicators:

- ❑ Your own logs & records
- ❑ Client medical records
- ❑ County vital records
- ❑ Client satisfaction surveys
- ❑ Census data
- ❑ Service statistics
- ❑ Intercept questionnaires
- ❑ Inventory logs

> Using a little of both qualitative and quantitative methods is the best way to go! Quantitative tells you 'how much' and qualitative tells you 'why' or 'how'. Together, they give you the full story!

If you need to collect additional information, there are two basic types of data collection methods that you can choose from: qualitative and quantitative. Qualitative data are used for explanatory purposes; they aim to *describe* something. Quantitative data are number-based; they are *counts* of something.

Examples	Used for	Strengths	Weaknesses
QUALITATIVE			
• Interviews • Case Studies • Observations • Journals or diaries • Open-ended survey questions	• Answer the question *why* • Discover ideas, perceptions, feelings, or beliefs • Explore a poorly understood subject • Explains and adds depth to quantitative data	• Open-ended can explore even poorly understood topics • Gives details, context, & "depth"	• Analysis of data can be difficult • Requires more staff and participant time • Cannot answer how large or widespread an issue is • May not apply to entire population (data collected from relatively few individuals)

Examples	Used for	Strengths	Weaknesses
QUANTITATIVE			
• Surveys • Knowledge tests • Activity logs • Clinical records	• Answer the questions "how much" or "how many" • Can be used to compare against other data, statistics, or indicators • Looking at relationships between factors using statistical analysis	• Large number of participants—"wider" data more applicable to full population • Structured methods • Analysis and interpretation easier	• Information restricted to what is asked, cannot explore topics or perspectives outside of standardized questions • Does not provide a context for the data

Along with the method of data collection, decide on the *timing* of collection. For process evaluations, some forms of data collection (logs, diaries, attendance sheets, etc.) will probably be ongoing, while others (interviews, discussion groups, etc.) will be done only periodically. For outcome evaluations, you will want to establish a baseline if the program is just beginning. Whatever stage the project is in, you may need to collect data more than once.

> Take care when establishing a baseline, as information left out at the beginning will limit what you are able to compare later on.

Consider the following:

- Does seasonality influence who uses your program or what the likely results would be? For example, a school-based program may have very different clients in the summer than in the winter.
- Do you serve a stable population base, or do clients rotate through the program often? For programs in which clients come and go frequently, you may want to collect data at several points to capture the range of clients served.
- How quickly do you expect change to occur among those served by your program? If your program focuses on long-term effects, such as stable weight loss, it may be best to space out data collection efforts by a significant (1–2 years) time frame.

> Follow the conceptual framework that you developed and think about how long you expect certain outcomes to take to be achieved.
>
> If you collect data too early, it may look like your program is having no effect when in reality it is simply taking longer for changes to occur.
>
> If you wait too long to collect data you may miss important changes in the population, and it may be more difficult to determine exactly how the program worked.

Data Base Creation

Whichever method(s) of data collection you choose for your evaluation, you must have some system in place for storing and organizing the data if it is to be used to monitor or evaluate the program.

> Chapter 4 and Appendices 1 (data collection tools) and 2 (worksheet) provide more information on database creation and data entry.

For any sort of quantitative data, this means establishing a *database*. There are many software programs that you could use to create your own database, including:

- Epi Info
- CSPro
- Microsoft Excel
- Filemaker Pro
- Microsoft Access

If your project already has a database set up, it may be best to stick with the same system. Most programs allow the data to be exported into different formats. If your program does not have the capacity to do data analysis and create charts and figures, an option may be to export the data to one of the free programs (such as Epi Info) for that purpose.

> A database is an organized collection of information that is stored in such a way as to allow for easy access and analysis.

Qualitative data is a bit trickier to deal with. It is really just words, comments, and stories, which may not be easily grouped or analyzed. For storing qualitative data, you need a word processing program, such as Microsoft Word, Word Perfect, or even just a text editor that comes free on most computers. "Entering the data" means simply typing out the interviews, case studies or discussions into the word processor.

Analyzing qualitative data requires different types of software, such as NUD*IST, Xsight, The Ethnograph, and Atlas/TI, but these are complex and take a while to learn.

The Centers for Disease Control and prevention have a free software package available, called EZ-Text, that may be easier than most. The important thing to make sure of before beginning qualitative data collection is that you have some sort of word processing program and at least one staff member who is a good typist and will be able to spend some time after each data collection to transcribe the information.

> CDC software for quantitative (Epi Info) and qualitative (EZ-Text) data are free and easy to use. Instruction guides and tutorials are also available.
> The websites for these programs are:
> Epi Info: http://www.cdc.gov/epiinfo
> EZ-Text: http://www.cdc.gov/hiv/software/ez-text.htm

Lastly, develop a plan for backing up and storing any databases or files you create during the evaluation. Imagine going through all the effort of conducting a survey, entering the data, and analyzing the information to have the computer crash and take all your hard work with it! Some ways to back up data include:

- Saving it to a central server
- Zip drives
- External hard-drive

It is also a good idea to store back-ups in a different building or location, in the unlikely event of a fire or catastrophic event. Your data is precious, so these simple and inexpensive steps are something to seriously consider!

Mock Tables

A good way to determine if you have are on the right track with your data collection plan is to draft mock tables. What do you want to show at the end of your evaluation? What do your ideal tables or diagrams look like? Draft up some imaginary tables that you would like to see at the end of the evaluation, and then go back through your data collection plan to determine whether you think it is able to produce what you want.

> Chapter 4 will have more information on creating mock tables

Ethics and Confidentiality

Another key aspect to consider during the planning stages of the evaluation is confidentiality. In order for your evaluation to meet ethical standards, you must have a system for protecting the safety and privacy of all the people who will contribute information.

Aspects of ethical conduct that need to be considered include:

- **Informed consent.** All participants in your evaluation must be told what the evaluation is all about, how you will use the information, whether they will be identified, and that they can refuse to participate with no repercussions.

> See chapter 3 for more information on ethics and confidentiality in data collection

- **Confidentiality**. This applies to several stages of the evaluation.
  - *During the data collection*.
  - *During data entering/storage*.
  - *When reporting the results*
- **Safety and well-being**. This includes both physical and mental/emotional safety of people who may participate in your evaluation and of your own staff.

If you plan to publish any part of your evaluation results, you may need to consider getting an IRB (Institutional Review Board) to review and approve your evaluation plan in advance. Most hospitals and universities have their own IRBs, which are often willing to review and approve plans from community organizations. Having IRB approval will help assure that your evaluation is planned in an ethical manner, and will make it easier to use and distribute your evaluation results.

Plan for Dissemination of Evaluation Results

The last part of your evaluation plan should be in preparation for how to disseminate and use the results. All of the stakeholders you named earlier in the evaluation plan are potential audiences for the evaluation results.

> An Institutional Review Board is a group of professionals who review and approve plans for research studies – including evaluations. This is done to protect participants in the study or evaluation.
>
> Each IRB will likely have a different application process and deadlines – so ask early if you think you will need IRB approval.

Stakeholders don't all need the same types or amount of information from your evaluation. Other community health groups will likely desire the most amount of information from your program, including performance measures and outcomes.

Politicians, on the other hand, probably don't need much information on implementation, and community members probably aren't that concerned with the amount of resources used. Plan ahead with your stakeholders to determine what they are interested in and what information needs to be shared with them after the evaluation.

Information dissemination should not wait until after the evaluation is finished. Keep stakeholders engaged in the evaluation process by providing regular reports. A good option may be to schedule periodic meetings with stakeholders, during which you can offer information and solicit feedback from them during the same time frame.

There are many different formats that you could choose to present information about your evaluation, whether giving periodic updates or presenting a final report. Planning ahead will help you ensure you collect the necessary materials for dissemination later.

- Written report
- Oral presentation
- Newsletter
- Press release or newspaper article
- Visual presentation

You will likely want to use a combination of the presentation methods, as different audiences respond to different formats. It is worthwhile to invest in a communication plan. Evaluation results can be great publicity for your program, helping you to gain more funding, obtain additional support from communities and political leaders, and build relationships with other community groups.

> More information on the use and dissemination of evaluation results is provided in chapter 5.

As part of the plan, you should also determine how you will *use* the results of the evaluation. Will the results be used to gain more funding? To advocate for policy changes on a local or state level? To gain support from community members or other organizations? In all cases, the results should be used to improve and enhance your own program, and to provide some accountability to donors and the people your program serves.

Once you have a plan for your evaluation in place, you can move on to the next step-collecting data.

Chapter 2 checklist—Operationalize the Evaluation Plan

- ❑ Evaluation team selected
- ❑ Review of program target, program description
- ❑ Goals and objectives defined
- ❑ Conceptual framework developed
- ❑ Selected study design for evaluation
- ❑ Indicators selected and prioritized
- ❑ Data collection and analysis plan complete
- ❑ Plan for the dissemination and use of evaluation results

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