

Defining the Problem

What is the problem-solving process?

"We must try to trust one another. Stay and cooperate."

- Jomo Kenyatta, (1891 - 1978), former president of the Republic of Kenya

Imagine for a moment that your coalition's mission is to encourage development in a traditionally poor downtown neighborhood. Your first goal is to recruit members, but you find a lack of interest among area residents. So you work for months to convince people to join, and meet with some modest success. Then, at your first all-coalition meeting, you find that members don't want to work together. The students you have recruited don't trust the police officers who have shown up; the police officers, in turn, pay no attention to the students; and an argument has broken out in one corner of the room between a few fundamentalist Christians and gay rights activists. Your head is in your hands.

You are halfway through your grant, and seemingly haven't made any headway whatsoever towards your stated goal. What are you going to do now?

Problems are a fact of life at home, at play, and at work. Unfortunately, problems aren't always isolated cases. They tend to be like onions - you peel away one problem, only to find another, and then another, and you can't solve the problem you were first interested in until you solve a variety of related problems. For example, you can't increase safety at a crosswalk until you hire more crossing guards. And nobody will apply for the job until you can increase the salary.

In short, we will always be confronted with problems, so the importance of problem solving can't be overstated. That's why this chapter of the Tool Box is focused wholly on the subject. Because most of us labor in groups or coalitions that are working together on an issue, we will focus primarily on the *group* problem-solving process.

About problems

So, what's a problem? How would *you* define one? We usually define a problem fairly negatively: a problem is a hassle, it's a pain in the neck. This is often true, but more generally, a problem can be considered the difference between what is, and what might or should be.

And believe it or not, problems have their advantages, too. What are some of the good things about problems? Well, for starters:

- Most or all problems are *solvable* (or partially solvable, or at least improvable). We can do something about them. The task may seem overwhelming (it surely did when David fought Goliath, or when suffragettes worked to give women the right to vote), but it's not hopeless. Our optimistic assumption is that we *can* change the world.
- Problems are *opportunities* to make some good things happen. If it weren't for problems, what would be our motivation to create change?
- Problems are also *challenges*. They call upon the best of our abilities, and ask us to go beyond what we thought we could do. They make life interesting, and, at least sometimes, fun. Without problems, life could be pretty boring.

You don't agree? Think of all of the games based on problem solving. Chess is thousands of years old and is still as popular as ever based on the number of books you might find on it at your local bookstore. The Rubik's Cube was a national rage some years back. True the stakes may be very different between a chess game and finding a way to connect with local young people. But both can present a challenge that stretches us in the same ways.

With all this in mind, what is "problem solving"? A good definition can be found in [Lead on! The complete handbook for group leaders](#). Within, the authors define problem solving as "an individual or collaborative process composed of two different skills: (1) to analyze a situation accurately, and (2) to make a good decision based on that analysis."

Why is a *group* process particularly important?

Why are we focusing on the *collaborative* process? Well, for several reasons. You probably already do a lot of individual problem solving, but many of the problems and challenges we face as members of our organizations affect everyone in the group. It makes sense then, that *everyone* is part of the solution. And, as the saying goes, two heads are better than one - so just imagine what can be accomplished with a room full of dedicated people!

Now, let's change the emphasis for a moment. Why are we focusing on a collaborative *process* in this chapter? Maybe your group is used to doing things haphazardly on an as-absolutely-necessary basis. Why should you take more time (already a precious commodity among most groups) to go through a lengthy process?

Because:

- Effective group processes enhance a group's ability to solve problems and make decisions. When working with more than just a couple of people, solving a problem with a set process becomes more manageable.
- It increases the group's efficiency and productivity.
- It increases the group's participation - more people tend to be involved, and, as a result,
- It increases group satisfaction. This means, among other things, that the group is more likely to want to take on other problems. And when they do so, they'll be better placed to solve them.

What is the problem-solving process?

Like any other process, there are many different tasks that need to be done to properly solve problems. And again, like any other process, skipping some of the steps will make the job more difficult in the long run. Here is a brief explanation of each of the steps, to be discussed in more detail in the following sections:

1. Running effective meetings - Since your work will be in a group, the first thing you need to understand is how to hold a good meeting. You may have the problem-solving process down pat, but that won't make any difference if nobody shows up at your meeting, or if no one pays attention to what goes on.

2. Developing facilitation skills - Strong facilitation skills go hand in hand with running an effective meeting. A good facilitator helps diffuse explosive emotions, makes sure everyone's voice is heard, and steers the group towards the best decisions.
3. Developing recorder skills - Again, these skills are part of running an effective meeting. A good recorder works hand in hand with the facilitator, and together, they make sure that not only are everyone's opinions heard, they are also seen, remembered, and followed up on. Having a good recorder is one of the most important parts of setting up an effective meeting.
4. Defining and analyzing the problem - This is the core of the problem solving process. Sometimes, the real problem isn't originally apparent.
5. Generating and choosing solutions - With the legwork you have done in [Section 5](#), you are ready to decide on the best solution for your problem.
6. Putting your solution into practice

To sum it up:

As we said before, the world is full of problems, and some of them look pretty challenging, to say the least. But the rewards are great. In the 1950's, polio was a terrible, debilitating disease that had killed millions and left many more paralyzed. Today, as we round the corner to a new century, we speak hopefully of "a world without polio." Solutions that are well thought out and carefully implemented can work. How much can you do?

Analyzing the problem

We've all had our share of problems - more than enough, if you come right down to it. So it's easy to think that this section, on defining and analyzing the problem, is unnecessary. "I *know* what the problem is," you think. "I just don't know what to *do* about it."

Not so fast! A poorly defined problem - or a problem whose nuances you don't completely understand - is much more difficult to solve than a problem you have clearly defined and analyzed. The way a problem is worded and understood has a huge impact on the number, quality, and type of proposed solutions.

In this section, we'll begin with the basics, focusing primarily on four things. First, we'll consider the nature of problems in general, and then, more specifically, on clarifying and defining the problem you are working on. Then, we'll talk about whether or not you really *want* to solve the problem, or whether you are better off leaving it alone. Finally, we'll talk about how to do an in-depth analysis of the problem.

The nature of problems

So, what is a problem? It can be a lot of things. We know in our gut when there is a problem, whether or not we can easily put it into words. Maybe you feel uncomfortable in a given place, but you're not sure why. A problem might be just the feeling that something is wrong and should be corrected. You might feel some sense of distress, or of injustice.

Stated most simply, a problem is the difference between what *is*, and what *might or should be*. "No child should go to bed hungry, but one-quarter of all children do in this country," is a clear, potent problem statement. Another example might be, "Communication in our office is not very clear." In this instance, the explanation of "what might or should be" is simply alluded to.

As these problems illustrate, some problems are more serious than others; the problem of child hunger is a much more severe problem than the fact that the new youth center has no exercise equipment, although both are problems that can and should be addressed. Generally, problems that affect groups of people - children, teenage mothers, the mentally ill, the poor - can at least be addressed and in many cases lessened using the process outlined in this Chapter.

Although your organization may have chosen to tackle a seemingly insurmountable problem, the process you will use to solve it is not complex. It does, however, take time, both to formulate and to fully analyze the problem. Most people underestimate the work they need to do here and the time they'll need to spend. But this is the legwork, the foundation on which you'll lay effective solutions. This isn't the time to take shortcuts.

Three basic concepts make up the core of this chapter: clarifying, deciding, and analyzing. Let's look at each in turn.

Clarifying the problem

If you are having a problem-solving meeting, then you already understand that something isn't quite right - or maybe it's bigger than that; you understand that something is very, very wrong. This is your beginning, and of course, it makes most sense to...

1. *Start with what you know.* When group members walk through the door at the beginning of the meeting, what do they think about the situation? There are a variety of different ways to garner this information. People can be asked in advance to write down what they know about the problem. Or the facilitator can lead a brainstorming session to try to bring out the greatest number of ideas. Remember that a good facilitator will draw out everyone's opinions, not only those of the more vocal participants.

2. *Decide what information is missing.* Information is the key to effective decision making. If you are fighting child hunger, do you know which children are hungry? *When* are they hungry - all the time, or especially at the end of the month, when the money has run out? If that's the case, your problem statement might be, "Children in our community are often hungry at the end of the month because their parents' paychecks are used up too early."

Compare this problem statement on child hunger to the one given in "The nature of problems" above. How might solutions for the two problems be different?

3. *Gather information on the problem.* You might collect any of several types of information available. Most commonly, what you hear or read will fall into one of the following categories:

- Facts (15% of the children in our community don't get enough to eat.)
- Inference (A significant percentage of children in our community are probably malnourished/significantly underweight.)
- Speculation (Many of the hungry children probably live in the poorer neighborhoods)
- Opinion (I think the reason children go hungry is because their parents spend all of their money on cigarettes.)

When you are gathering information, you will probably hear all four types of information, and all can be important. Speculation and opinion can be especially important in gauging public opinion. If public opinion on your issue is based on faulty assumptions, part of your solution strategy will probably include some sort of informational campaign.

For example, perhaps your coalition is campaigning against the death penalty, and you find that most people incorrectly believe that the death penalty deters violent crime. As part of your campaign, therefore, you will probably want to make it clear to the public that it simply isn't true.

Where and how do you find this information? It depends on what you want to know. A very few of the possibilities before you include:

- Surveys
- Interviews
- The library
- The Internet

4. *Define the problem.* With the information in front of you, you're ready to write down a "problem statement" - a comprehensive definition of the problem. Before you do, remember two general principles:

- Define the problem in terms of needs, and not solutions. If you define the problem in terms of possible solutions, you're closing the door to other, possibly more effective solutions. "Violent crime in our neighborhood is unacceptably high," offers space for many more possible solutions than, "We need more police patrols," or, "More citizens should have guns to protect themselves."
- Define the problem as one everyone shares; avoid assigning blame for the problem. This is particularly important if different people (or groups) with a history of bad relations need to be working together to solve the problem. Teachers may be frustrated with high truancy rates, but blaming students uniquely for problems at school is sure to alienate students from helping to solve the problem.

Now, you're ready to define the problem. You can do this in several different ways.

- The facilitator can write a problem statement on the board, and everyone can give feedback on it, until the statement has developed into something everyone is pleased with.
- You can accept someone else's definition of the problem, or use it as a starting point, modifying it to fit your needs.

After you have defined the problem, ask if everyone understands the terminology being used. Define the key terms of your problem statement, even if you think everyone understands them.

Your organization, the Hispanic Health Coalition, has come up with the problem statement "Teen pregnancy is a problem in our community." That seems pretty clear, doesn't it? But let's examine the word "community" for a moment. You may have one person who defines community as "the city you live in," a second who defines it as, "this neighborhood" and a third who considers "our community" to mean Hispanics.

Deciding to solve the problem

At this point, you have already spent a fair amount of time on the problem at hand, and naturally, you want to see it taken care of. Before you go any further, however, it's important to look critically at the problem and decide if you really want to focus your efforts on it. You might decide that right now isn't the best time to try to fix it. Maybe your coalition has been weakened by bad press, and chance of success right now is slim. Or perhaps solving the problem right now would force you to neglect another important agency goal. Or perhaps this problem would be more appropriately handled by another existing agency or organization.

You and your group need to make a conscious choice that you really do want to attack the problem. Many different factors should be a part of your decision. Some of the more significant ones include:

- *Importance.* In judging the importance of the issue, keep in mind the following:
 - The frequency with which the problem occurs
 - The number of people affected
 - The severity of the effect
 - The perceived importance of the problem to you
 - The perceived importance of the problem to others
- *Feasibility.* Even if you have decided that the problem really is important, and worth solving, will you be able to solve it, or at least significantly improve the situation? The bottom line: Decide if the good you can do will be worth the effort it takes.
- *Are you the best people to solve the problem?* Is someone else better suited to the task?

For example, perhaps your organization is interested in youth issues, and you have recently come to understand that teens aren't participating in community events mostly because they don't know about them. A monthly newsletter, given out at the high schools, could take care of this fairly easily.

Unfortunately, you don't have much publishing equipment. You do have an old computer and a desktop printer, and you could type something up, but it's really not your forte.

A better solution might be to work to find writing, design and/or printing professionals who would donate their time and/or equipment to create a newsletter that is more exciting, and that students would be more likely to want to read.

- *Negative impacts.* If you do succeed in bringing about the solution you are working on, what are the possible consequences? If you succeed in having safety measures implemented at a local factory, how much will it cost? Where will the factory get that money? Will they cut salaries, or lay off some of their workers?

Even if there are some unwanted results, you may well decide that the benefits outweigh the negatives. As when you're taking medication, you'll put up with the side effects to cure the disease. But be sure you go into the process with your eyes open to the real costs of solving the problem at hand.

Choosing among problems

You might have many obstacles you'd like to see removed. In fact, it's probably a pretty rare community group that doesn't have a laundry list of problems they would like to resolve, given enough time and resources. So how do you decide which to start with?

A simple suggestion might be to list all of the problems you are facing, and whether or not they meet the criteria listed above (importance, feasibility, et cetera). It's hard to assign numerical values for something like this, because for each situation, one of the criteria may strongly outweigh the others. However, just having all of the information in front of the group can help the actual decision making a much easier task.

Analyzing the problem

Now that the group has defined the problem and agreed that they want to work towards a solution, it's time to thoroughly analyze the problem. You started to do this when you gathered information to define the problem, but now, it's time to pay more attention to details and make sure everyone fully understands the problem.

Answer all of the question words

The facilitator can take group members through a process of understanding every aspect of the problem by answering the "question words" - what, why, who, when, and how much. This process might include the following types of questions:

- **What is the problem?** You already have your problem statement, so this part is more or less done. But it's important to review your work at this point.
- **Why does the problem exist?** There should be agreement among meeting participants as to why the problem exists to begin with. If there isn't, consider trying one of the following techniques.

1. The "but why" technique. This simple exercise can be done easily with a large group, or even on your own. Write the problem statement, and ask participants, "Why does this problem exist?" Write down the answer given, and ask, "But why does (the answer) occur?"

For example, your problem might be:

"Children often fall asleep in class,"

But why?

"Because they have no energy."

But why?

"Because they don't eat breakfast."

But why?

And so on.

Continue down the line until participants can comfortably agree on the root cause of the problem. Agreement is essential here; if people don't even agree about the source of the problem, an effective solution may well be out of reach.

2. "Force field analysis." The "but why" technique asks you to dig deep to find the cause of the problem. With force field analysis, you will be looking more broadly at the issue and the forces surrounding it.

- Start with the definition you penned above.
- Draw a line down the center of the paper. Or, if you are working with a large group of people who cannot easily see what you are writing, use two pieces.
- On the top of one sheet/side, write "Restraining Forces."
- On the other sheet/side, write, "Driving Forces."
- Under "Restraining Forces," list all of the reasons you can think of that keep the situation the same; why the status quo is the way it is. As with all brainstorming sessions, this should be a "free for all;" no idea is too "far out" to be suggested and written down.
- In the same manner, under "Driving Forces," list all of the forces that are pushing the situation to change.
- When all of the ideas have been written down, group members can edit them as they see fit and compile a list of the important factors that are causing the situation.

Clearly, these two exercises are meant for different times. The "but why" technique is most effective when the facilitator (or the group as a whole) decides that the problem hasn't been looked at deeply enough and that the group's understanding is somewhat superficial. The force field analysis, on the other hand, can be used when people are worried that important elements of the problem haven't been noticed -- that you're not looking at the whole picture.

Who is causing the problem, and who is affected by it? A simple brainstorming session is an excellent way to determine this. Brainstorming is covered in depth in

When did the problem first occur, or when did it become significant? Is this a new problem or an old one? Knowing this can give you added understanding of why the problem is occurring now. Also, the longer a problem has existed, the more entrenched it has become, and the more difficult it will be to solve. People often get used to things the way they are and resist change, even when it's a change for the better.

How much, or to what extent, is this problem occurring? How many people are affected by the problem? How significant is it? Here, you should revisit the questions on importance you looked at when you were defining the problem. This serves as a brief refresher and gives you a complete analysis from which you can work.

If time permits, you might want to summarize your analysis on a single sheet of paper for participants before moving on to generating solutions, the next step in the process. That way, members will have something to refer back to during later stages in the work.

Also, after you have finished this analysis, the facilitator should ask for agreement from the group. Have people's perceptions of the problem changed significantly? At this point, check back and make sure that everyone still wants to work together to solve the problem.

To sum it up:

The first step in any effective problem-solving process may be the most important. Take your time to develop a critical definition, and let this definition, and the analysis that follows, guide you through the process.

What are "root causes?"

Root causes are the basic reasons behind the problem or issue you are seeing in the community. Trying to figure out why the problem has developed is an essential part of the problem -- what we call "solving process" -- both to guarantee the right responses and also to help citizens "own" the problems.

What is the "but why?" technique?

The "But why?" technique is one method used to identify underlying reasons that affect a community issue. The underlying factors are called "root causes."

The "But why?" technique examines a problem by asking questions to find out what caused it. Each time an answer is given, a follow-up "But why?" is asked.

For example, if you say that too many people in poor communities have problems with alcoholism, you should ask yourself "but why?" Once you come up with an answer to that question, probe the answer with another "but why?" question, until you reach the root of the problem, the root cause.

Why should you identify root causes?

Identifying genuine solutions to a problem means knowing what the real causes of the problem are. Taking action without identifying what factors contribute to the problem can result in misdirected efforts. That wastes time and resources. It also builds ownership, that is, by experiencing the problem you will understand it better, and get motivation to deal with it.

The "But why?" technique can be used to discover basic or "root" causes either in individuals or broader social systems:

1. It can be used to find which *individual* factors could provide targets of change for your cause, such as levels of knowledge, awareness, attitudes, and behavior.

- Do people need more knowledge about nutrition?
- Do children need to learn refusal skills to avoid smoking?
- Do teenagers need to learn how to use contraceptives?

2. It can explore *social* causes. For example, it could help us ask why a certain neighborhood seems to have a higher rate of a specific problem. These social causes divide into three main sub-groups:

- Cultural factors, such as customs, beliefs, and values;
- Economic factors, such as money, land, and resources;
- Political factors, such as decision-making power.

3. It will uncover multiple solutions for a certain problem and allow the user to see alternatives that he or she might not have seen before. It increases the chances of

choosing the right solution, because many aspects of the problem are explored during the "But why?" exercise.

When should you identify root causes?

Whenever you are faced with addressing a challenging community problem. Of course, the "But why?" technique is not always your best bet and should not be used 100% of the time. It's extremely efficient to find a variety of solutions, besides being a quick and inexpensive technique that can be done by anyone, at any time, anywhere. For different results, you should use more sophisticated methods, such as surveys, interviews and data collecting.

When there is support for a "solution" that does not seem to get at the real causes of the problem. For example, if there's hunger in community, let's distribute free turkey at Thanksgiving.

When there is ignorance or denial of why a community problem exists.

How does the "but why" technique work?

Technique Guide

Here's how it works. A group examines a community problem by asking what caused it. Each time someone gives an answer, the "asker" continues to probe, mostly by asking "but why?" or "how it could have been prevented." Example:

Problem:

Too many (too few) people are _____.

Q: But why?

A. Because...

Q: But why?

A. Because...

Q: Could that have been prevented?

A. Yes

Q: How?

Q: But why?

A. Because...

Q. But why?

A. Because...

Q But why?

(and so forth)

1. First, invite people who are both affected by the problem and are in a position to contribute to the solution.

2. The working group then examines a community problem, such as substance abuse or violence, by asking what caused it. Each time someone gives an answer, the group asks, "But why?" Here's an example:

Problem:

A child has an infected foot.

Q: But why?

A. She stepped on broken glass while walking.

Q: But why? Could that have been prevented?

A. Yes.

Q: How?

Q: But why doesn't the child have shoes?

A. Because the family can't afford shoes.

Q. But why?

A. The father or mother has no job.

Q. But why?
(and so forth)

In this example, the "But why?" analysis leads to at least two very different conclusions, as in options 1 and 3. The criterion for choice between them is to look into the environment of each one. Many solutions may apply to your problem, so it's up to you to find the one that fits it better. The "But why?" analysis by itself doesn't lead automatically to the best solution. It just points out many paths you may take or not.

Tackling the problems of youth at risk must involve many people and organizations in communities. Developing coalitions of concerned individuals and groups can improve the efficiency and effectiveness of efforts by combining strengths and resources.

Once the coalition is formed, training in areas such as group dynamics, methods of problem solving, dealing with conflict and controversy, public policy process, issue analysis, and working with public officials may be beneficial. One task of a coalition might be to adapt, create or develop public policy.

Clearly, not all problems that affect you are public policy problems. Some may be readily resolved through the problem-solving process. The effectiveness of problem-solving can improve when the method is understood.

The Problem Solving Method

Define the Problem. Compare how things are now and the way you, would like them to be. How long has the problem existed? How frequently does it occur? Who is affected?

Determine the cause(s). This involves finding the cause of the gap between the present and the desired state.

Develop Alternative Approaches. List all possible solutions.

Assess the Consequences. Consider possible results of each alternative. Who is affected? Who pays?

Select a Solution. Choose one feasible alternative that is acceptable to the group.

Implement the Chosen Solution. Plan strategies for carrying out the plan. Most of the work is in this step.

Evaluate. Look back to review how things went. What was successful? What went wrong? Why?

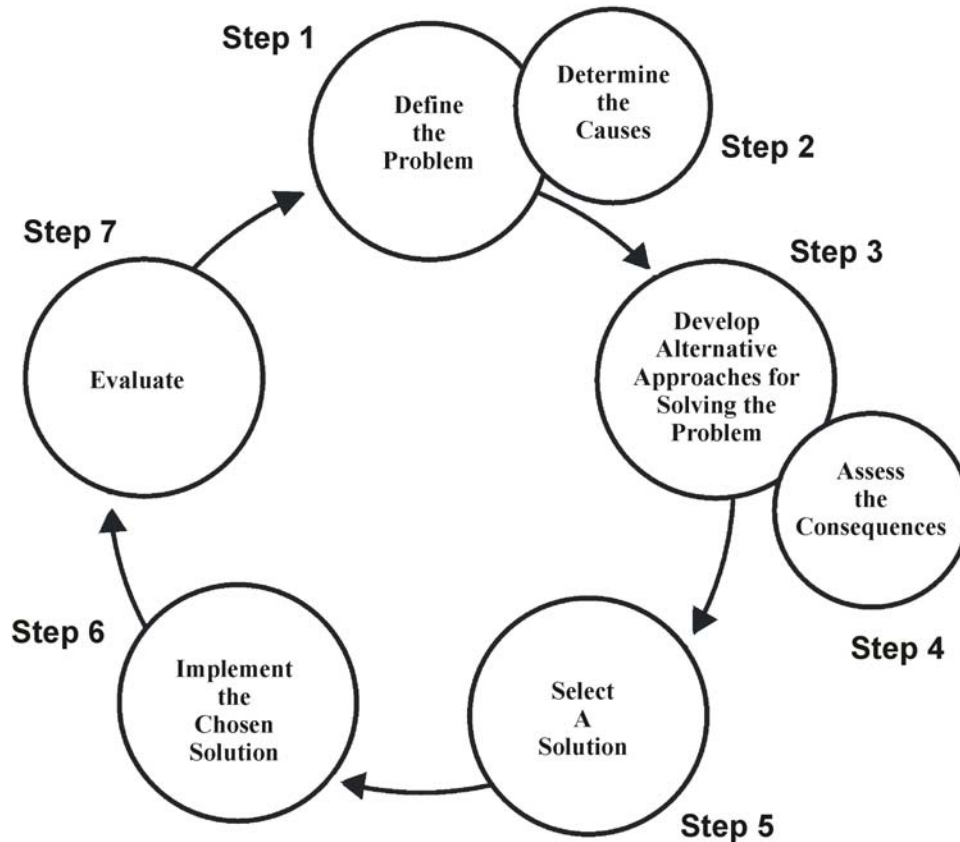
These questions guide a coalition or individual through the policy analysis process.

Selecting Issues For Analysis

- Is there a decision to be made by government?
- Can the analysis significantly influence the adoption of various alternatives?
- Does the issue involve large costs or major consequences for services?
- Is there substantial room for improving program performance?

- Is the public as a whole affected? How, directly or indirectly?
- Who else will the policy affect?
- What are the possible side effects ... immediate and long-run?

Systematic Problem Solving



Feasibility of Analysis

- Can the problem be handled by program analysis?
- Is there time for the analysis to be done before key decisions must be made?

- Are personnel and funds available to do the analysis?
- Does sufficient data exist to undertake the analysis?
- Can the needed data be gathered within the time available?

Generic Critical Questions Regarding Policy Analysis

- What are the purposes of the policy?
- Why should it be adopted?
- What is to be changed by it in both the immediate future and long term?
- How would you know if the policy had the intended impact?
- What would be accepted as evidence of its success?
- Who or what is the target of the policy?
- What would the likely consequences be if the new policy were implemented or another discontinued.
- What would be the reaction of citizens in the community?
- Who would complain?
- Who would be glad? Why?

Criteria for Selecting Final Set of Measures

Importance. Does the measure provide useful and important information on the program that justifies the difficulties in collecting, analyzing, or presenting the data?

Validity. Does the measure address the aspect of concern? Can changes in the value of the measure be clearly interpreted as desirable or undesirable? Can the changes be directly attributed to the program?

Uniqueness. Does the information provided by the measure duplicate or overlap with information provided by another measure?

Accuracy. Are the likely data sources sufficiently reliable or are there biases, exaggerations, omissions or errors that are likely to make the measure inaccurate or misleading?

Timeliness. Can the data be analyzed in time for the decision?

Privacy and Confidentiality. Are there concerns for privacy or confidentiality that would prevent the analyst from obtaining the required information?

Costs of Data Collection. Can the resource or cost requirements for data -collection be met?

Completeness. Does the final set of measures cover the major aspects of the concern?

SWOT Analysis

What is it?

You can use a SWOT analysis to identify and analyze the **Strengths** and **Weaknesses** of your organization, as well as the **Opportunities** and **Threats** revealed by the information you have gathered on the external environment.

Who uses it?

The team members, the managers.

Why use it?

To develop a plan that takes into consideration many different internal and external factors, and maximizes the potential of the strengths and opportunities while minimizing the impact of the weaknesses and threats.

When to use it?

While developing a strategic plan or planning a solution to a problem, after you have analyzed the external environment (for example, the culture, economy, health, sources of funding, demographics, etc.).

How to use it:

1. **Internal Analysis:** Examine the capabilities of your organization. This can be done by analyzing your organization's **strengths** and **weaknesses**.
2. **External Analysis:** Look at the main points in the environmental analysis, and identify those points that pose **opportunities** for your organization, and those that pose **threats** or obstacles to performance. Decide whether the answers or the data collected reveal external **opportunities** or **threats**.
3. Enter the information you have collected in steps one and two into a table as illustrated below:

	POSITIVE	NEGATIVE
INTERNAL	Strengths	Weaknesses
EXTERNAL	Opportunities	Threats

Defining the Problem

Effective/Functional Problem Statements:

- Identify one issue or problem at a time
- Avoid blame
- Avoid naming specific solutions
- Define the problem by the behaviors and conditions that effect it
- Are specific enough to be measured
- Reflect your assessment findings

