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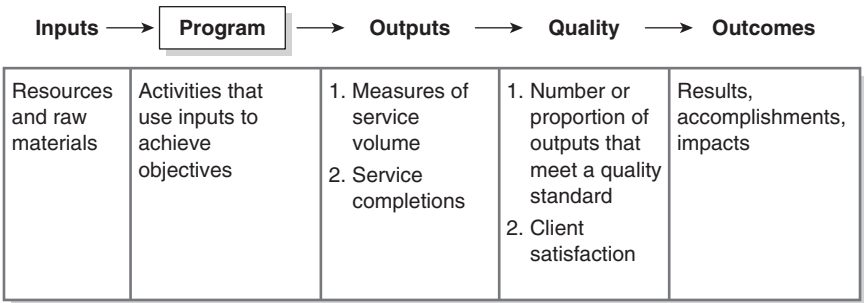
## Logic Models, Human Service Programs, and Performance Measurement

### Introduction

Although the literature on performance measurement has been around for over two decades now, scholars and practitioners still continue to report difficulties in defining, collecting, aggregating, and using performance measures, particularly outcome performance measures (Bliss, 2007; E. Fisher, 2005; Urban Institute, 2002). From the earliest discussions of performance measurement, it has been clear that conceptualizing and defining outcome performance measures is a difficult task.

The expanded system model (Figure 3.1) was introduced and discussed at length in Chapter 1. In this chapter, the expanded systems model is again utilized to discuss the topic of logic models.

A *logic model* is a visual representation of the sequential stages of a client processing system that makes explicit the interrelationships between the inputs, process, outputs, quality, and outcomes of a human service

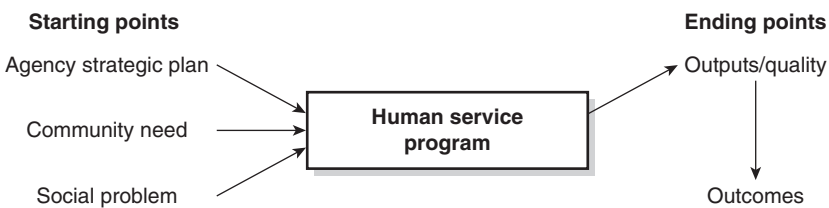


**Figure 3.1** The Expanded Systems Model

program. In addition, the logic model “provides stakeholders with a road map describing the sequence of related events connecting the need for the planned program with the program’s desired results” (University of Wisconsin–Extension, 2003). A logic model is a simple way of connecting a specific human service program to its output, quality, and outcome performance measures.

According to Martin (2008), “logic model” is an umbrella term that includes several different approaches. Figure 3.2 illustrates some of the starting points and ending points for various logic models.

In the *agency strategic plan* approach, the logic model begins with a problem selected by the agency and included in its strategic plan. All subsequent elements of the logic model and the human service program must flow from and support the same set of assumptions as the agency strategic plan. In the *community problem* or *community need* approach, the logic model begins with an identified and clearly defined community problem. All the elements of the logic model must again support the community problem or need. Likewise, in the *social problem* approach,



**Figure 3.2** Different Types of Logic Models

all elements of the logic model must show how they address the identified social problem. Although there is some overlap between a community problem or need and a social problem, we feel it is important to make the distinction. Community problems or needs tend to be identified, defined, and addressed locally, whereas social problems tend to be national.

The social problem of homelessness can be used to illustrate what is meant by insuring that all components of a logic model are interrelated. In addressing the social problem of homelessness, the inputs (clients) should meet the definition of “homeless” (Without a home address for one day? One week? One month?). The program activities should be designed to ensure that a homeless person is matched with whatever meets the program’s definition of a “home” (Shelter? Apartment?). Systematic tracking of outputs should focus on the volume of services provided, on the quality of the services provided, and on the outcomes (results, accomplishments, or impacts) achieved by the human service program (Home finding? Job finding? Medical care?).

## Developing a Logic Model

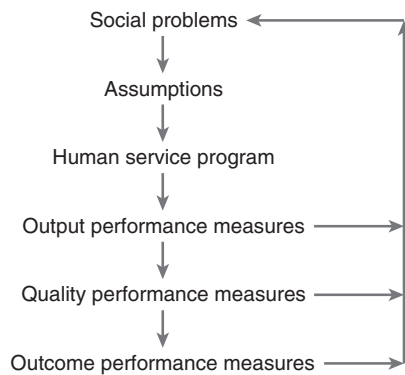
The creation of a logic model for a human service program involves three major tasks:

**Task 1:** Specify the agency, community, or social problem a human service program is expected to address.

**Task 2:** Identify the assumptions the program makes about the agency, community, or social problem it addresses.

**Task 3:** Design the program in a way that makes explicit selected phases of the logic model.

As Figure 3.3 suggests, when these three major tasks are accomplished, the actual development of output, quality, and outcome measures provides accountability information (feedback) on the performance of the



**Figure 3.3** The Logic Model Link Between Social Problems, Human Service Programs, and Performance Measures

human service program in addressing the identified agency, community, or social problem.

### **Task 1: Specify the Agency, Community, or Social Problem**

Task 1 involves specifying the agency, community, or social problem a human service program is expected to address. Most human service programs are created to address a specific problem. In defining problems it is useful to distinguish between a condition and a problem. A *condition* is a phenomenon that is present in a community but has not been formally recognized or labeled as a problem. Formal recognition can come from entities such as state legislatures, county boards of supervisors, city councils, school boards, agency boards, and other such formally elected or appointed groups. A *problem*, then, becomes a negatively defined condition (Netting, Kettner, & McMurtry, 2008). The significance of formal recognition is that without it there is usually difficulty building a base of community support or securing funding.

Some social problems are addressed by programs funded with federal, state, or local government dollars through grants and contracts. These include such programs as Head Start (to address the social problem of educational preparation for disadvantaged children), job training (to address the problem of unemployment), and congregate meals for seniors (to address the problem of socially isolated and malnourished elderly people). For human service programs of this type, the language of the law, statute, or ordinance creating the program or its implementing regulations generally specifies the social problem to be addressed. Even when these sources are silent, there may still be expectations from the funding source that a certain social problem is expected to be addressed. In these instances the social problem can still be identified by a reading of federal or state legislative digests or the transcripts of committee hearings and meetings to get a “sense” of funding source expectations and determine whether there is a good fit with the goals and objectives of the agency’s programs.

Some federal funding sources are designed to address social problems and social welfare needs from a broader perspective. These federal funding sources are not linked to any particular social problem and are seen more as “funding streams” designed to put resources into a local community to deal with local problems and needs. Examples include the

Social Services Block Grant (SSBG) and the Community Development Block Grant (CDBG). These federal sources fund a variety of programs dealing with a range of social problems. The funding is general and is not tied to any specific social or community problem, yet it is not entirely open ended either and cannot be used just anywhere the local agency feels there is a need.

For federal funding streams of this type, the specified social problem cannot be determined by consulting some law, statute, ordinance, or regulation but must be inferred from the nature of the program funded. For example, if SSBG funding is used to support a child care and protection program, then the social problem the program addresses is child abuse. When SSBG funding is used to support a reduction of elderly neglect, then the social problem the program addresses is that of isolated elderly in the community. When CDBG funds are earmarked for housing, then the problems will have to do with homelessness and people living in substandard housing. Human service programs such as SSBG and CDBG actually wind up addressing many different social problems. As funding from the federal level moves more toward block grants, more human service programs at the state and local levels may find themselves in the position of having to infer the social problems they address rather than finding any explicit statement in federal law or regulation.

Regardless of how the connection is made, it is important for the development of useful performance measures that the link between a specified social problem and the human service program it is expected to address is made explicit.

## Task 2: Identify the Program Assumptions

After the connection is made between the specified social problem and the human service program, the second step is to identify the assumptions that are being made about the causes of the problems they address.

Human service programs are also based on assumptions about the *causes* of social problems. Agency, community, and social problems tend to be multifaceted. Problems such as unemployment, poverty, crime, drugs, and others have multiple causes, not just one. On the other hand, human service programs frequently deal with only one cause of a social problem. Unfortunately, the underlying assumptions that human service programs make about the causes of social problems are frequently left unstated. Even when the social problem that a human

service program addresses is explicitly stated in law, statute, or ordinance, the assumptions made about the cause of the social problem may go unstated. The challenge for performance measurement—to say nothing of the challenge of developing better human service programs—is that different assumptions about the cause of a problem may call for different programs and different performance measures. For example, the problem of child abuse is often linked to drug and alcohol addiction, to a lack of parenting skills, and to unemployment. Clearly each of these assumptions would lead to a different type of intervention, and each has implications for screening and selection of clients who fit the program’s assumptions.

The process of identifying the assumptions that human service programs make about social problems is again likely to be more art than science. Support for assumptions can be drawn from the human service literature on the subject, including theoretical frameworks and models, current research, evaluation studies, and practice experience. The examples that follow are designed to demonstrate how the assumptions that human service programs make about the causes of the social problems they address can affect the selection of performance measures.

### **Task 3: Design the Program**

Task 3 involves designing the program in such a way that the interrelated components of the logic model are made explicit. A program, as defined in Chapter 1, is a major ongoing activity or service with its own sets of policies, goals, objectives, and budgets that produces a defined product or service (Martin, 2008). This definition rules out administrative activities such as personnel, finance, facilities management, clerical pool, and the like from being considered human service programs.

Beyond the guidance provided by this definition, the determination of exactly how many human service programs an organization has is really more art than science and depends on such factors as agency mission, strategic planning goals, budget, personnel, and the like. There is an old “rule of thumb,” however, that suggests no organization should have more than 10 programs (Anthony & Young, 1994). The rationale for this cutoff point is that with more than 10 programs, an organization has too many competing priorities (too many goals and objectives) that undermine the chances of any one program being successful.

Identifying and defining human service programs is necessary because performance measurement uses *program* as its unit of analysis. Service efforts and accomplishments (SEA) reporting developed by the Government Accounting Standards Board (GASB) has formally adopted program as the unit of analysis and requires that all performance measures data (both programmatic and financial) be reported by programs. This may mean that when an audit is conducted (depending on the state's use of SEA reporting standards), it's not unlikely that the audit team will be asking not only for balance sheets and financial information, but also for the program's definitions of inputs, activities, outputs, outcomes, and impact and a description of how these indicators are used in program planning and performance measurement.

Other reasons also exist for making programs the unit of analysis for performance measurement. For example, many important stakeholders of human service programs (e.g., elected officials, government funding agencies, and foundations) tend to think of, and to fund, programs. In addition, a canon of the accounting profession, another important stakeholder, is that all government and nonprofit organizations exist for the primary purpose of carrying out programs (Anthony & Young, 2003).

An additional implication of making programs the unit of analysis for performance measurement is that all human service organizations will necessarily have to adopt program budgeting. Program budgeting requires that all costs (both direct and indirect) of operating an organization be allocated to its various programs (Anthony & Young, 2003; Smith & Lynch, 2004). The adoption of program budgeting is necessary to develop the cost per output and cost per outcome ratios suggested by GASB's SEA reporting initiative. An in-depth discussion of program budgeting is beyond the scope of this book, but any basic text on budgeting and financial management for nonprofit organizations (e.g., Anthony & Young, 2003; Smith & Lynch, 2004) should provide an adequate treatment of the subject. And finally, program is the logical unit of analysis in human services because the logic model is designed to lay out the elements of a program in a way that permits performance measurement and program evaluation.

The following three illustrations of logic models are intended to show the relationships between problems, assumptions, human service programs, and the program elements that establish the basis for performance measurement. The first illustration, the increasing use of methamphetamines among high school students, depicts a program that begins with an agency's strategic plan. All elements of the logic model must therefore be

consistent with the program as defined in the strategic plan. The second illustration is of a community problem or need. In this community, the Area Agency on Aging has identified deteriorating mental and physical health among the isolated elderly and possible premature placement in nursing care as a priority community problem to be addressed. The third illustration depicts analysis of a social problem, physical violence against children, which is typically addressed by a federal funding source, and is the type of program that would be delivered by either a state or county level department of social services or child protective services.

### **Agency Strategic Plan Focus**

The example in Table 3.1 involves a program designed to address the problem of the increasing use of methamphetamines among high school students. The program is based on the assumption that students are unaware of the consequences of meth use, and is designed to increase awareness and knowledge about its dangers and risks. The problem, assumptions, program, and performance measures are specified. Although funding may be made available from a variety of sources, the problem is clearly stated in the grant or contract award, and the program is expected to address the problem. The program or intervention may not be specified, and a variety of approaches may be possible, each based on the assumptions about the causes of the problem.

Had the assumption been made that teens were experiencing extreme stress and were using meth as a way of reducing stress and feeling good, some modification would be required on output and quality performance measures, while outcome measures may remain the same. The program illustrated provides for education about the risks of meth. An alternative program might focus on teen stress reduction through counseling, peer group discussions, and exercise.

Is one of these assumptions about the cause of the problem of meth use by high school students more correct than the other? Perhaps, perhaps not—ultimately only extensive research and program evaluation will tell. But until there is a clear-cut cause-and-effect relationship established, programs will continue to experiment with various approaches to problem solving, and at this point the only way the effectiveness of alternative approaches can be established is through the type of logic models proposed here.



**Table 3.1** Logic Model Beginning With Agency Mission and Strategic Plan

<b>Agency strategic planning goal:</b>		Reduction or elimination of steady increases in the use of methamphetamines among high school students over the past 5 years	
		↓	
<b>Assumption:</b>		Students are unaware of consequences of meth use	
		↓	
<b>Human service program:</b>		Multipronged education and information program aimed at high school students	
		↓	
	<i>Output performance measure</i>	<i>Quality performance measure</i>	<i>Outcome performance measure</i>
<b>Definitions</b>	Measurements of services provided and completion of all services	Measures of quality of services provided	Demonstrated benefits to those receiving service (results, accomplishments, impacts)
<b>Performance measure</b>	<i>Media:</i> Number of radio, TV, and print ads placed  <i>Education:</i> Number of students attending presentations	Percentage of high school students who rate the program good or excellent	Number or percentage decrease in the number of new meth users among high school students

## Community Problem or Need Focus

In the example illustrated in Table 3.2, the Area Agency on Aging (AAA) is making funding available for services to the elderly. The local agency, Independence for Seniors, Inc., already has in place a program called “Elder Outreach,” and is attempting to tap into AAA funds to underwrite the costs of delivering these services. If it is determined that this program falls within the range of services that fit with AAA’s intent, then the program analysis might look something like that depicted in Table 3.2.

For Independence for Seniors, Inc., in applying for funding it would be their intention to convince AAA personnel that their program works toward the intent and expectations of AAA’s plan for providing services to the elderly in the region. Once again, to emphasize the importance of assumptions, the Elder Outreach program assumes that there are at-risk elderly (65 and older) who have unmet needs and are unaware of or unable to access available community services. Another agency in town, Senior Services, Inc., may assume that premature physical and mental deterioration in seniors is caused by social isolation. To prevent further deterioration, they have chosen to provide a congregate meal program with opportunities for games and social interaction before and after meals. Clearly assumptions about premature deterioration have led to two very different forms of intervention. Both may be correct. But the assumptions will lead to different designs for the two programs; different definitions of input, output, quality, and outcome performance measures; and different data sets used to analyze and, hopefully, validate the program. Ultimately that validation will be based on effectiveness of the programs in preventing premature institutionalization among seniors in Jefferson County.

## Social Problem Focus

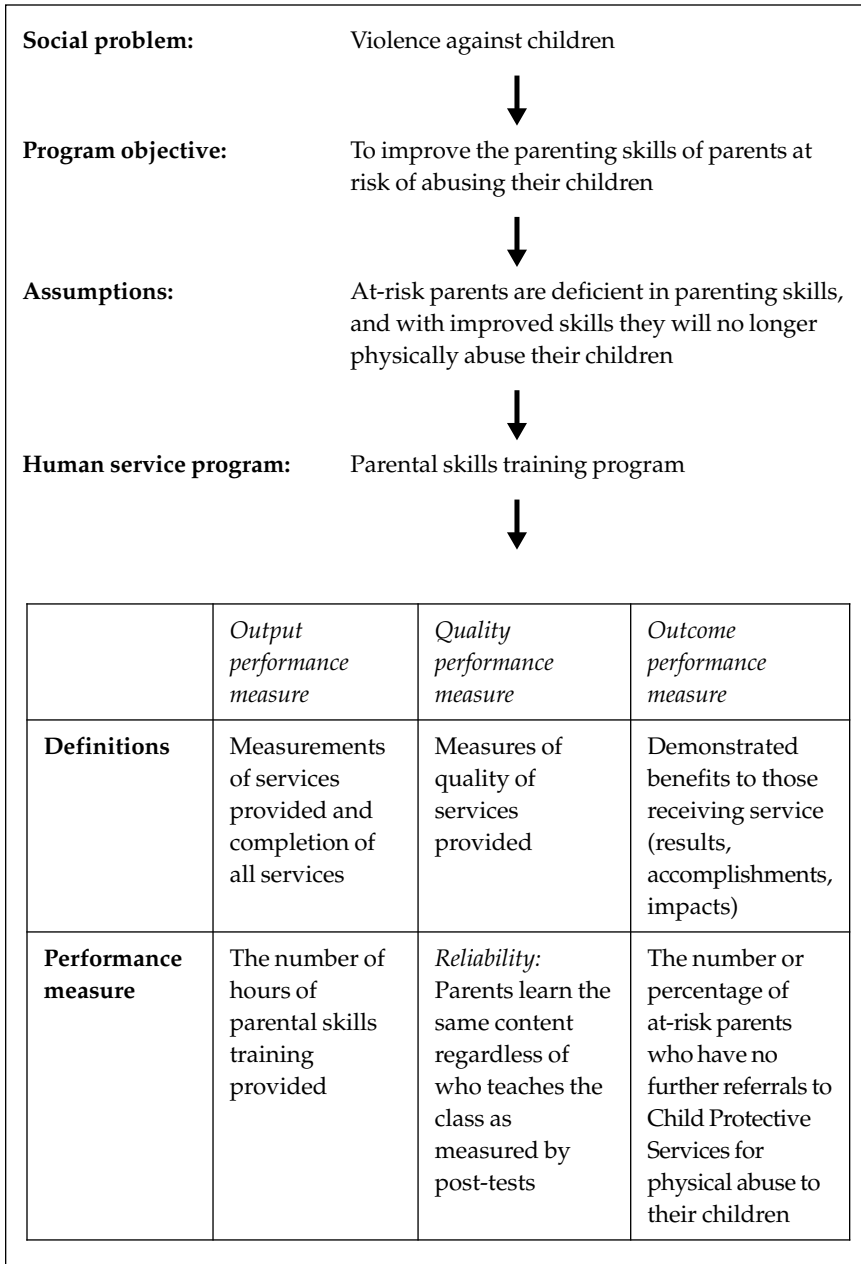
In the third illustration a community-based agency, Child Care, Inc., provides child care and protection services to families at risk of abuse (Table 3.3). One of their programs is a parent training program in which they provide 12 classroom sessions to groups of 10 people or less, covering basic principles of healthy parenting together with professional observation of parents in interaction with their children and follow-up counseling.

In this example the focus of the programs to be funded is driven by goals and objectives established by the funding source—in this case the U.S. Department of Human Services—and passed on to the state Department of

**Table 3.2** Logic Model Beginning With Community Need or Problem

<b>Community need or problem:</b>	To keep at-risk elderly in Jefferson County in independent living situations for as long as possible		
	↓		
<b>Assumptions:</b>	There are at-risk elderly (65 and older) who have unmet needs and are unaware of or unable to access available community services.		
	↓		
<b>Human service program:</b>	Elder Outreach, including identifying at-risk elderly, assessment of client need, and transportation		
	↓		
	<i>Output performance measure</i>	<i>Quality performance measure</i>	<i>Outcome performance measure</i>
<b>Definitions</b>	Measurements of services provided and completion of all services	Measures of quality of services provided	Demonstrated benefits to those receiving service (results, accomplishments, impacts)
<b>Performance measure</b>	<p><i>Outreach:</i> The number of hours of outreach services</p> <p><i>Transportation:</i> The number of trips provided to target group</p>	<p><i>Responsiveness:</i> The number of clients brought into service within 72 hours of initial request</p> <p>The number of clients who arrive at their destinations on time.</p>	Number or percentage of clients who continue in independent living status

**Table 3.3** Logic Model Beginning With a Social Problem



Social Services. Their stated goal is to reduce the incidence of violence against children, and their stated objective is to improve the parenting skills of parents at risk of abusing their children. In exploring this funding opportunity, Child Care, Inc., believes that their parent training program is well positioned to help the Department achieve these goals and objectives. They have defined their output indicators as the number of at-risk parents participating in classroom training and the number observed in live interactions with their children and counseled on parenting techniques. Quality performance will be determined by reliability, meaning that parents learn the same content regardless of who teaches the class as measured by post-tests. The outcome performance measures selected include the number and percentage of at-risk parents who have no further referrals to Child Protective Services for physical abuse to their children.

Another option that might have been considered by planners and program designers at Child Care, Inc., might have been based on the assumption that child abuse is linked to drug and alcohol abuse—that it's not that parents don't know how to parent but that their rational capacities are diminished under the influence of these substances and they tend to react violently when upset. Had that been the direction they had taken, indicators would be structured around overcoming addictions, dealing with stress, and behaving in more rational ways. Since the funding source established the goals and objectives for use of these funds, the burden of proof would be on the program to validate its assumptions by demonstrating that a significant number and percentage of parents who receive these services have no further referrals to Child Protective Services for physical abuse to their children. Also, the state would continue to hold out the expectation that there would be a reduction in the overall incidence of child abuse in the state as recorded by the Child Protective Service division of the state Department of Social Services.

The purpose of this chapter has been to emphasize and reinforce the importance of using the logic model framework to define the elements of a program in a way that will permit program evaluation and performance measurement. In support of this framework we have also attempted to emphasize the importance of a clear understanding of the agency, community, or social problem to be addressed. There are often multiple stakeholders involved in defining the problem, and a clear and explicit statement of assumptions about the causes of the social problem is critical to a sound analysis. In the following chapters we will discuss in more detail the elements of the logic model necessary to performance measurement.

