A Guide to Monitoring and Evaluation of Capacity-Building Interventions in the Health Sector in Developing Countries

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Prologue

Capacity development[1] has moved to center stage of the agendas of development organizations. Substantial sums are being invested in capacity-building programs. Yet, their design and management leave much to be desired. Marred by untested, unrealistic assumptions, the results of many programs fall short of their goals and expectations.

"Evaluations are needed to test the theories and assumptions on which capacity development programs are based, to document their results, and to draw lessons for improving future programs. However, few capacity development programs have been systematically and thoroughly evaluated" (Horton et al., 2000).

[1] Capacity building and capacity development are used interchangeably throughout this document.

List of Acronyms and Abbreviations

API	AIDS Program Effort Index
BASICS	Basic Support for Institutionalizing Child Survival
CHW	Community Health Worker
DHS	Demographic and Health Survey
DOSA	Discussion-Oriented Organization Self-Assessment
FHI	Family Health International
FP	Family Planning
FPE	Family Planning Effort
FPEI	Family Planning Effort Index
FPMD	Family Planning Management Development Project
FPPE	Family Planning Program Effort
HR	Human Resources
IAI	Institutional Assessment Instrument
IDA	Institutional Development Assessment
IDRC	International Development Research Centre
IEC	information, education, and communication
IHFA	Integrated Health Facility Assessment
IISD	International Institute for Sustainable Development
ISNAR	International Service for National Agricultural Research
M&E	Monitoring and Evaluation
MDA	Management Development Assessment
MEASURE	Monitoring and Evaluation to ASsess and Use REsults
MES	Materials, Equipment, and Supplies
MFSS	Management/Financial Sustainability Scale
MIS	Management Information System
MOH	Ministry of Health
MOST	Management and Organizational Sustainability Tool
MSH	Management Sciences for Health
NGO	Nongovernmental Organization
OCAT	Organizational Capacity Assessment Tool
OSI	Outcome Sustainability Index
PASCA	Program for NGOs that provide HIV/AIDS services in Central America
PHR	Partnership for Health Reform
PI	performance improvement
PROSE	Participatory, Results-Oriented Self-Evaluation
PSI	Program Sustainability Index
RH	Reproductive Health
SAIDIA	Local Kenyan NGO
SFPS	Santé Familiale et Prévention du SIDA
STD	Sexually Transmitted Disease
TOT	Training of Trainers
WHO	World Health Organization

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About This Guide

This guide has grown out of the collective experience of health and development organizations working to build health sector capacity in developing countries. The focus of the Guide is the measurement of capacity for the purpose of monitoring and evaluating capacity-building interventions. It responds to a demand among public health planners, evaluators, and practitioners for advice on assessing the many aspects of health programming that fall under the rubric of capacity building.

The purpose of this guide is to assist health planners and evaluators to

- gain a clear understanding of the concepts of capacity and capacity building
- critically evaluate the strengths and limitations of current approaches to capacity measurement
- design a capacity-building M&E plan that outlines a systematic approach to measuring capacity and assessing the results of capacity-building interventions in the health sector

The Guide was developed based on a request from the United States Agency for International Development under the MEASURE Evaluation Project.

Many readers of this guide may not be aware that there is a lack of widespread experience in the field of capacity-building M&E in the health sector. Capacity-building programs proliferate. Yet, methods for testing and tracking their results are rare. We have therefore based the advice in this guide mainly on lessons learned from current practices in capacity *assessment* (see Table 1 for discussion of the differences between assessment and M&E). Sources include: a review of the state of the art of capacity measurement (Brown, LaFond, and Macintyre, 2001); a review of capacity-building measurement tools and indicators; formal and informal consultations with practitioners; and an in-depth exploration of four different capacity measurement experiences (Box 1). The Guide also draws on lessons learned about capacity-building monitoring and evaluation in other sectors, such as agriculture and housing, and on new evaluation approaches designed to support learning in development programming (Horton et al., 2000; Morgan, 1997; Earl, Carden, and Smutylo, 2001).

Box 1: Capacity Measurement Case Examples

- SAIDIA, a health and community development nongovernmental organization (NGO) in Kenya;
- the PRIME I and PRIME II index of capacity of training institutions;
- A Workshop on Sustainability and Capacity Building hosted by PLAN International in May 2001, in Dakar, Senegal; and
- MEASURE Program Technical Assistance to NGO Networks for Health.

From the discussion that follows on the concept of capacity building and capacity measurement techniques readers will come to understand why this guide is neither prescriptive nor exhaustive. Standardized approaches to monitoring and evaluating capacity-building interventions are not found because of the wide variety of circumstances in which capacity building takes place. Capacity building has been applied to actions as distinct as policy formulation, supplying basic health commodities, and identifying danger signs of

malnutrition. In short, capacity building demands adaptation to its context and capacity-building evaluation techniques must reflect this potential variation. The Guide acknowledges this and other challenges by providing a link between the theoretical and practical aspects of capacity measurement in the health sector and offering an approach to monitoring and evaluation that is relevant in a variety of settings.

It is also important to keep in mind that the monitoring and evaluation of capacity building, while singled out for discussion in this document, is normally part of an overall plan or system for monitoring and evaluating a health program or health sector intervention. This guide should therefore be used as a tool for orienting planners to capacity measurement in the context of developing a project-level or overall program-level performance-monitoring plan (particularly programs where sustainability and scaling-up are a central concern). As such, it will aid the process of thinking through the role capacity and capacity measurement play in improving performance.

Structure of the Guide

Part 1 of the Guide briefly discusses attributes of capacity and capacity building, and how these attributes influence M&E approaches.

Part 2 introduces a series of conceptual frameworks for understanding the role of capacity in the health sector and illustrates possible capacity variables (📖) at each level of the health system.

The heart of the Guide is found in **Part 3**, which suggests *a 6-step approach to developing an M&E Plan for Capacity-building* that centers on the process of *capacity mapping* (📖). Mapping involves the construction of a visual framework that helps the evaluator understand relationships (or assumed relationships) among the many factors that contribute to or detract from capacity and, ultimately, performance. Mapping can be used to identify untapped, constrained, or missing elements of capacity. It also can be used to guide intervention choices and to build a monitoring and evaluation framework. Part 3 also comments on indicator selection for M&E and practical lessons from field experience, as well as methods and data sources, and dissemination of results. The indicators and tools referenced in this section are provided as examples to stimulate thinking and discussion about capacity-building and M&E strategies rather than as prescribed approaches.

Part 4 concludes the Guide with a summary and checklist for developing a capacity-building M&E plan. Annexes contain details of M&E approaches and a **summary of Web-based resources** on capacity-building M&E. The Glossary at the end of the Guide explains many of the technical words and jargon used in the field of monitoring and evaluation. In the text they are marked with the following symbol: 📖

Introduction

Over the last decade, capacity building has become as central to the business of developing health systems in lesser-developed countries as providing financial resources and applying the latest science. Capacity is believed to contribute directly to improving performance in the health sector, and is thought to play an important role in *sustaining* adequate performance over time. Despite increased attention to capacity, experience in gauging the effectiveness of capacity-building interventions in the health sector is still limited. Unlike other aspects of health-related monitoring and evaluation (M&E), capacity measurement is not supported by a comprehensive history of theory and practice. While methods for monitoring and evaluating health service coverage, access, and quality are well advanced, there are few tried and true approaches for capturing "the interim state or process that reflects the ability to achieve and sustain coverage, access, and quality over time" (Brown, LaFond, and Macintyre, 2001). Thus, capacity measurement in the health sector is both new and experimental.

There are intrinsic challenges to measuring capacity that are reflected in the concept and role of capacity itself. For example, capacity derives its relevance from the contribution it makes to performance. There are endless areas where performance is required in the health sector, and an equally wide range of possible capacity variables that influence performance. In addition, contextual factors (or factors outside the control of most health sector actors 🕮) can have a strong influence on capacity or the desired outcome of capacity-building intervention. These and other characteristics of capacity and capacity building explain why there are no gold standards for capacity-building M&E. There is no short list of valid indicators of capacity in the health sector, nor are there standardized measurement tools applicable to every capacity-building experience.

Many of these challenges have also discouraged widespread testing of methods of capacity-building monitoring and evaluation. The extent of experience is so limited that, at this stage, capacity measurement is considered to be an art rather than a science. Evaluators must therefore approach M&E of capacity-building interventions with a willingness to test strategies and share what they have learned in order to build a body of theory and practice.

Despite the conceptual and practical challenges of tackling capacity measurement, there are a number of reasons to put energy and time into developing a sound approach to monitoring and evaluation of capacity-building interventions. The most significant reason is that measurement is an important part of achieving capacity-building and performance goals. Monitoring and evaluation can help health program professionals understand the relationship between capacity-building interventions, capacity and performance, and to focus strategies used for improving performance. Specifically, monitoring and evaluation can help answer a range of questions about

- the *process* of capacity change (how capacity building takes place),
- capacity as an *intermediate step toward performance* (what elements of capacity are needed to ensure adequate performance), and
- capacity as an *outcome* (whether capacity building has improved capacity)

Table 1: The Use of Assessment vs. M&E in Capacity-Building Intervention

Capacity Assessment	Capacity Monitoring and Evaluation
❑ Purpose: diagnostic or descriptive; defines constraints	❑ Purpose: predictive; for accountability or comparisons; gauges results
❑ Measures gap between actual and desired performance	❑ Measures results or progress toward desired results
❑ Findings are used for internal purposes (design and planning)	❑ Findings are used for internal and external purposes (management; accountability)
❑ One time measurement	❑ Often uses repeat measurement
❑ Action oriented	❑ Action, analysis and accountability oriented
❑ Looks broadly at existing situation	❑ Uses conceptual frameworks to discern relationships between variables

In this guide, when we talk about monitoring and evaluation of capacity building or capacity development, we are mainly interested in the last question, that is, measuring changes in capacity and linking them (directly or indirectly) to capacity-building interventions.

Defining Capacity-Building Monitoring and Evaluation

Most capacity measurement experience to date has emphasized capacity *assessment* rather than M&E (Brown, LaFond, and Macintyre, 2001). Assessment normally takes place at the beginning of an intervention as part of an organizational diagnosis or formative design process. Evaluators can learn a great deal from capacity *assessment* tools (as we have in developing this guide). However, it is worth noting that while capacity assessment is an important first step in planning a capacity-building intervention, capacity-building M&E differs from assessment by virtue of its explicit focus on measuring change. Capacity-building monitoring and evaluation tracks or identifies changes in capacity that take place in the course of a capacity-building intervention. It uses stated objectives for capacity building and performance improvement as a reference for gauging progress. As such, it guides program management as well as informs funding agencies about the results of capacity-building investments. A final aspect of M&E (as opposed to diagnosis or assessment) is the use of conceptual frameworks that make assumptions about the relationship between different variables that influence capacity and performance. Table 1 describes many of the differences between capacity assessment and M&E.

> ***"In the evaluation of capacity development, the impact metaphor should be avoided. The militaristic impact metaphor fails to capture the essential features of capacity development, which is a process of change and growth." (Horton, 2002).***

Capacity *monitoring* normally would be used to understand the effectiveness and efficiency of a capacity-building intervention during implementation (i.e., is capacity improving and at what cost?), to contribute to strategic or operational decisions related to capacity building, or to enable a periodic look at a program or system. **Capacity *evaluation*** is normally more complex than monitoring, and is

conducted to gain understanding of the relationship between capacity-building interventions and capacity outcomes, or the links between capacity and performance variables. The term "impact evaluation" 🕮 is not appropriate or useful in the context of capacity-building M&E because of the difficulty of quantifying many elements of capacity and attributing capacity change to any single intervention or even a range of interventions.

Capacity-Building M&E Has Many Roles

A final introductory observation relates to the role that measurement plays in a capacity-building intervention. Many experienced capacity-building practitioners feel that capacity measurement cannot be separated from the process of building capacity itself. Program managers often use capacity assessment tools to raise awareness about capacity problems, stimulate commitment to improving capacity among stakeholders, and for setting self-determined benchmarks. The focus is internal. In practice, capacity-building M&E is often encouraged (or required) by external stakeholders to be used mainly for accountability. Defining the purpose of M&E is therefore not always easy for managers and evaluators. The discussion that follows considers the pros and cons of these various approaches and informs critical measurement choices. It begins with a discussion of the rationale for capacity-building M&E and explores the concept of capacity and its role in improving performance.

Part 1 Concepts, Definitions, and Attributes of Capacity and Capacity Building

Why Build Capacity?

In the context of results-based programming, resources are invested in different aspects of the health sector with the ultimate aim of enhancing health system performance and improving the health of populations. Translating these resources into sustained performance often requires new or improved capabilities in individuals and organizations (including communities) operating in the health sector. *Capacity* represents the potential for using resources effectively and maintaining gains in performance with gradually reduced levels of external support.

What is Capacity Building?

Used alone, the term *capacity building* is intangible and vague. What constitutes capacity building in practice can vary enormously, and the concept continues to develop as field experience grows. In the early days of capacity-building intervention, many practitioners equated capacity building with training. If there was a gap in performance, the solution was often to hold a workshop to "retrain" or "refocus" the individuals whose performance was faltering. Organizational development experts and field-level capacity-building efforts inform us today that individual skills are only part of the complex mixture of elements that constitute capacity to perform a certain function or groups of functions effectively and consistently over time. Individual health workers, no matter how skilled, are unlikely to deliver essential health and family planning services effectively without adequate supplies and equipment, proper motivation and support, a good relationship with the community served by the health center, and so on. Capacity building may be required in all of these and other areas to ensure performance goals are met.

Useful Definitions 🕮

It is useful to start with definitions of capacity, capacity building and performance to guide measurement efforts and M&E planning. This guide returns frequently to such issues because meaningful capacity measurement depends on clear understanding of capacity and its role in the health sector.

***Capacity* is "the ability to carry out stated objectives" (Goodman et al, 1998).** It has also been described as the "stock of resources" available to an organization or system as well as the actions that transform those resources into performance (Moore, Brown, and Honan, 2001).

***Capacity building* (or capacity development) is a process that improves the ability of a person, group, organization, or system to meet objectives or to perform better.**[2]

***Performance* is a result or set of results that represent productivity and competence related to an established objective, goal or standard.**

Attributes of Capacity and Capacity Building

The definitions of capacity and capacity building above reflect certain attributes of each concept that inform this guide's approach to monitoring and evaluation. These attributes are as follows:

[2] For other definitions of capacity building, see Brown, LaFond and Macintyre, 2001.

Box 2: Measuring the Effectiveness of Capacity Building in Training: PRIME I

The PRIME I project provided technical assistance to strengthen the capacity of local institutions in developing countries to train health personnel for reproductive health (RH) service delivery. A key M&E strategy for this project was development of a capacity index specific to the features of RH training institutions. The index was tested in 14 countries and later revised and applied to monitor the results of PRIME's capacity building in training activities. Detailed reports of these evaluations in El Salvador, Dominican Republic, Ghana, and other countries are available from the PRIME II project (Catotti, 1999; Ampomah, 2000; Luoma, 2000; www.prime2.org).

♦ **Capacity building can be defined only in terms of a specific objective or goal.**

In the health sector, capacity does not exist for its own sake. Health planners and managers are concerned with capacity because it enables performance. For example, a health facility that experiences regular stock-outs of pharmaceuticals might require additional capacity in financial planning or supplies management (i.e., interventions that are specific to the particular performance goal of commodity supply). It follows that a capacity development strategy for improving pharmaceutical supply would call for a different approach than one aimed at strengthening community involvement in health. The link between capacity and performance, therefore, serves as the guide for both programming and evaluation of capacity-building interventions. Improved performance, in turn, is a good indicator of success in capacity development.

♦ **Capacity (and capacity building) are dynamic and volatile.**

Capacity can be perceived as a moving target. At any given time, capacity can improve or decline. It often develops in stages that indicate improved readiness to influence performance (Goodman et al., 1998). *Capacity building*, therefore, is an ongoing process (the development of abilities), whose stages can be measured as "development outcomes" 🕮 through monitoring and evaluation. The dynamic nature of capacity is often a reflection of the many different forces that influence its development or decline.

♦ **Capacity building is multidimensional.**

Capacity building can be described in terms of levels. In the health sector, capacity is required at four different levels: health system,[3] organization, health personnel, and community. Yet, to date, most capacity-building experience and measurement have focused on organizational and health personnel capacity. In practice, capacity at one level is often influenced by actions at other levels. A single missing aspect of capacity rarely explains performance failures. The PRIME project (Box 2), for example, constructed an index of the capacity of training institutions that included 13 critical elements, ranging from political support for training in reproductive health to community involvement in training (Fort, 1999).

Analysis of capacity levels through measurement encourages evaluators to think in terms of complex, multifaceted systems. Connections and forces within a system are critical to

[3] Some have labeled this level institutional development (Kotellos, 1998; INTRAC, 1998), while others use the terms organization and institution interchangeably. To avoid confusion, we have adopted the term system.

understanding constraints to capacity and how to overcome them. Paying too much attention to one part of the organization or system may limit results at the overall organization or system level and fail to improve overall performance (Morgan, 1997). Take the example of delivering immunization services at the organization level. The effectiveness of this service depends on elements that go beyond the capacity of the facility alone. The Cold Chain 🕮 must function from the central level to the facility to ensure vaccine viability. Civil service norms, regulations, and salary levels can influence health worker motivation and acceptance of the value of immunization among caregivers and encouragement from community leaders can affect service utilization. If performance falters (i.e., coverage declines), it may be the result of limited capacity at the facility or other levels. An evaluation framework should consider all these variables, although it may focus measurement efforts on a smaller number of them.

♦ **Capacity depends on the context.**
Contextual factors or elements of the external environment influence capacity directly and indirectly. Contextual influences include cultural, social, economic, political, legal, and environmental variables. The influence of these factors may be crucial to the success of capacity building, yet they are often difficult to control or measure. For example, Sierra Leone's Ministry of Health (MOH) may have the capacity to deliver childhood immunization services. However, frequent political instability in the country can challenge that capacity and reduce performance (e.g., immunization coverage) dramatically. Taking a more general example, the stagnation and decline of economic growth that occurred in Africa in the 1980s severely undermined public sector capacity to meet recurrent costs for salaries and supply of basic health commodities. Even well-established health systems, such as Ghana's, were unable to withstand the decline in health sector financing, and capacity gradually eroded to a very low level (LaFond, 1995).

Capacity Building Is Behavior Change

In addition to these attributes, current thinking about capacity building reflects two ways of capturing the changes expected as a result of intervention. Traditional approaches to capacity building concentrate on the internal functioning of organizations and systems (structures, strategies, staff, and skills). Morgan (1997), however, notes the necessity of considering the "macro" aspect of capacity building that relates to the *behavior* and *operations* of groups of organizations or individuals and their role in wider systems (such as the role of public sector health systems, ministries of health, or district-level health units in rural health improvement). In general, there is more experience working on and measuring capacity at the micro level than at the macro level.

Taking both a micro and macro look at capacity building suggests that capacity development goes beyond a simple technical intervention. It is to a great extent focused on inducing behavior change, a process that involves learning, moderating attitudes, and possibly adopting new values at individual, organization, and system levels. Therefore, the focus of capacity-building interventions and M&E must capture related conditions and concepts such as motivation, culture, and commitment, as well as changes in resource availability, skill levels, and management structure (Morgan, 1997; James, 2001). Examples of different types of organizational capacities are found in Box 3.

Box 3: Examples of Organizational Capacities

Six General Areas of Capacity in the CSTS Institutional Sustainability Assessment

1. Strategic management practices
2. Organizational learning
3. Use and management of technical knowledge and skills
4. Financial resource management
5. Human resource management
6. Administrative infrastructure and procedures

Source: Sarriot, 2002a

Structural or technical

- The organization has effective program recruitment, development, and retention of staff that it can perform its critical functions adequately. It must have a basic set of competencies that can enable it to cope with its workload and environment.
- The organization has a structure, technology, and set of procedures that enable staff to carry out the critical functions.
- The organization has the ability, resources, and autonomy to focus on a manageable set of objectives over a reasonable period of time. Its goals are reasonably clear, accepted, and achievable.
- The organization can alter its structure and functioning by including new actors, new partnerships, decentralization, delegation, creation of new organization, downsizing, privatization, participation, devolution, and changing responsibilities for government.

Behavioral

- The organization understands the implications of its experiences and can change its collective behavior in line with this understanding. It can learn and adapt. It has a self-renewing capacity.
- The organization can form productive relationships with outside groups and organizations as part of a broader effort to achieve its objectives. It can manage these relationships for both its own gain and that of its partners.
- The organization has the ability to legitimize its existence. It must be able to persuade key external stakeholders of the value of supporting its continued functioning. It has an identity that is accepted internally and externally, and the loyalty of its clients, customers, and stakeholders gives it protection and resources.
- The organization has a culture, a set of values, and organizational motivation that values and rewards performance.
- The work community has a population of groups and organizations that is sufficient to carry out the tasks and services needed to implement such critical functions as analysis, production, mediation, communication, networking, fund-raising, and so on.

Source: Morgan, 1997

Why Monitor and Evaluate Capacity Building?

Given the nature of capacity development—the volatility of capacity, its many levels, and links to performance—some authors describe capacity building as a high-risk investment (UNICEF, 1999). Yet, most development organizations agree that facilitating growth in capacity among local partners' systems, organizations, and communities is key to the success of social development overall. As such, all stakeholders need dependable methods for answering such questions as

- What capacity exists now, and how does it affect performance?
- What improvements in capacity or new kinds of capacity are required?
- Is capacity being built? Is the capacity-building intervention focused on the right elements?
- What has been learned about capacity-building strategies?
- How does capacity contribute to sustainability?

In addition, there is value in not restricting monitoring and evaluation of health and development interventions to a few important outcomes or results (i.e., quality, coverage, and health status). Organizations and systems produce many different and critical effects. For strategic purposes, and to manage change in programs, organizations and systems effectively, regular information on a number of operational indicators is required (Moore, Brown and Honan, 2001). A well-defined monitoring and evaluation strategy will help make sense of these many facets of capacity and performance. Monitoring and evaluation should help local practitioners and their external partners to think strategically about capacity development and to learn, through practice, what works under different circumstances. At the same time, systematic measurement of capacity contributes to results-based management of programs where capacity building is part of the overall strategy for improving performance.

What Is Different about M&E of Capacity Building?

Traditionally, monitoring and evaluation focuses more on measuring performance and less on the way performance is achieved or sustained. In contrast, capacity-building M&E focuses fundamentally on *processes* (e.g., building alliances, mobilizing communities, decentralized planning, learning) and other qualitative aspects of individual or organizational change (e.g., motivation to perform) that contribute to better performance. Consequently, M&E of capacity building often seeks to capture actions or results that often are not easily measured.

That said, results of capacity building are as important as processes. In capacity-building intervention, the *process and result* of capacity building becomes the "intermediate outcome" that is expected to lead eventually to improved and sustained performance. Exploring the links between changes in capacity and changes in performance is therefore key. However, it often involves considerable speculation about the capacity needed to achieve those goals. One of the main gaps in the knowledge base that informs capacity measurement is the lack of common understanding of the relationship between capacity and performance. Little is known about what elements or combinations of elements of capacity are critical to performance. Moreover, there is considerable variation in what constitutes "adequate" performance.

Implications for Capacity-Building M&E

Clearly, the attributes of capacity and capacity building noted above have implications for monitoring and evaluation. Broadening the concept of capacity building beyond technical skills and resources and thinking about capacity building in terms of multiple levels and influences helps planners and evaluators to hypothesize about what aspects of capacity are critical to performance and to define entry points for targeting capacity-building interventions. A measurement approach should also reflect a clear understanding of the interaction among different aspects of capacity and how they work (or fail to) work together, particularly with respect to individual and organizational behavior. These types of variables may be represented by indicators in an evaluation plan, but may require additional interpretation to ensure a complete grasp of capacity and its role in improving performance.

As noted in the Introduction, it is also important to keep in mind the conventional wisdom about how to monitor and evaluate capacity. Conventional wisdom notes that it is not productive to separate measurement practices from capacity building itself (Morgan, 1997; Horton, 2001; Earl et al, 2001). Because capacity-building M&E focuses on behavior change, the success of capacity development is often directly related to the extent of ownership and commitment to the process on the part of the participants. This commitment includes, in some cases, ownership of the design, procedures, and reporting of monitoring and evaluation activities. Applied in this way, monitoring and evaluation of capacity can become a key strategy for improving performance. However, many of the M&E methods that promote ownership (i.e., involve self-evaluation and relying on respondents' perceptions) may also affect the validity of findings. Specifically, they may compromise the use of capacity-building M&E for accountability, predicting performance, or making comparisons between different interventions or sites (common reasons for conducting evaluation). This theme surfaces often in the discussion of capacity-building M&E, and will be addressed in Part 3 of this guide.

Summary for Managers and Evaluators

- Capacity is a pre-condition for performance. Capacity building is used to improve performance in a variety of ways and situations.

- Capacity-building M&E is normally part of an overall plan or system for monitoring and evaluating a health program or health sector intervention.

- There are no standardized approaches for capacity-building M&E because of the wide variety of circumstances in which capacity building takes place. There is no short list of valid indicators of capacity in the health sector, nor are there standardized measurement tools applicable to every capacity-building experience.

- Monitoring and evaluation should help local practitioners and their external partners to think strategically about capacity development and to learn, through practice, what works under different circumstances. At the same time, systematic measurement of capacity contributes to results-based management of programs where capacity building is part of the overall strategy for improving performance.

- Capacity building in the health sector can be described and measured in terms of four levels: health system, organization, health personnel, and community. Capacity at one level can be influenced by actions at other levels.

- Contextual factors or elements of the external environment influence capacity directly and indirectly.

- Capacity development goes beyond a simple technical intervention, focusing on behavior change in individuals and organizations. Thus, capacity-building M&E must capture conditions and concepts such as motivation, culture, and commitment, as well as changes in resource availability, skill levels, and management structure.

- Any strategy monitoring capacity should reflect a clear understanding of the interaction among different aspects of capacity and how they work (or fail to work) together.

Part 2 Understanding the Role of Capacity in the Health Sector: Introducing a Conceptual Framework

The first step in developing a vision of capacity development, and a plan to measure it, is to understand the role capacity plays in the health sector in developing countries. What are the expectations and assumptions surrounding capacity and its relationship to performance and health outcomes? Clear thinking about these variables helps planners define realistic objectives for capacity-building interventions and express desired capacity outcomes explicitly and precisely. Evaluators must rely on these parameters of capacity building in order to develop a capacity-building M&E plan.

The following series of conceptual frameworks are provided as a reference to help planners and evaluators develop their own vision of the role capacity (and capacity building) plays in the health sector. We have found that directed discussion using these types of frameworks prior to M&E planning can stimulate strategic thinking within project or work teams, clarify individual and collective expectations and thereby improve capacity-building M&E. Figure 1 – The Overview – illustrates the critical role capacity plays in influencing and *sustaining* performance in the health sector. It takes a system-wide view of capacity, including all possible levels where capacity building might take place. The four other frameworks (Figures 2-5) take capacity at each level and break it down into defined components: inputs, processes, outputs, and outcomes (See Table 2). In breaking down capacity at each level, the frameworks provide a starting point for identifying the key variables that influence capacity and performance at that level.

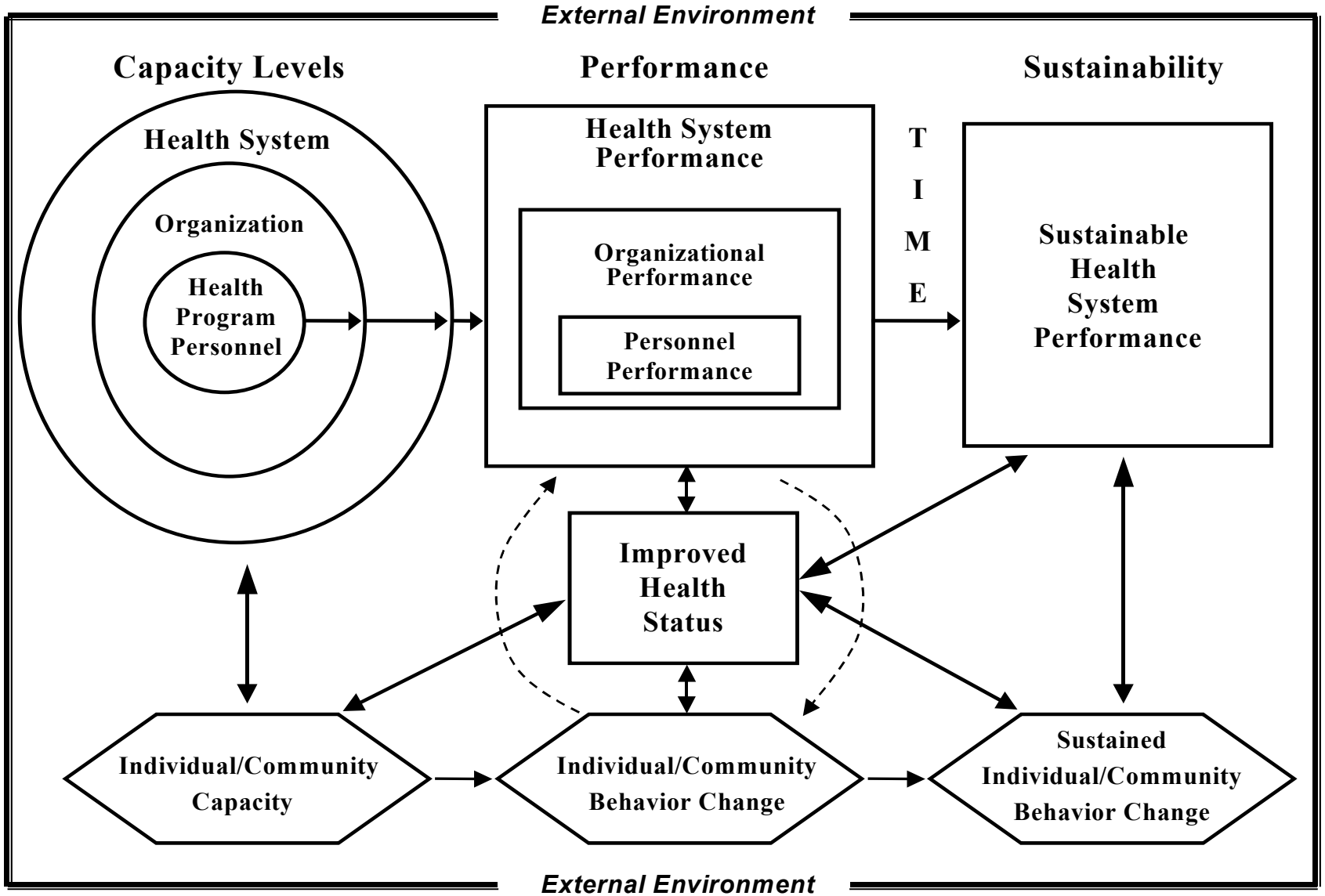
Overview Framework: The Role of Capacity in the Health Sector

Health system performance depends on capacity. Figure 1 provides an overview of that relationship and specifies four levels where capacity is needed to ensure performance: system, organization, health personnel, and individual/community. The diagram suggests that capacity contributes to performance at all levels, and capacity at each level collectively enables overall health system performance.

> ***"Understanding capacity and performance of individuals and organizations demands careful consideration of their role in larger systems, and their relationships within those systems" (Morgan, 1997).***

Figure 1 also implies that capacity plays a role in *sustaining* health system performance. If health system performance remains adequate over time (supported by consistent capacity), performance is said to be sustained. Although few health systems in developing countries can boast this accomplishment, the underlying aim of capacity development should be a sustained change in resources or behavior that leads to improved and sustained performance. The goal is not short-term gain but a lasting or robust change in ways of doing business that becomes imbedded in the system or organization itself.

Figure 1. Overview of Capacity in the Health Sector



At the center of the framework is the ultimate goal of capacity building in the health sector: improved health status. Capacity does not directly influence health status but contributes to it through its link to performance at system, organization and health personnel levels. In this illustration, the health system interacts with individuals or groups of individuals (e.g., the community) to influence health status. Individuals and communities contribute to health system capacity by interacting with providers and organizations (receiving care, determining priorities, or providing resources) and to health system performance by using health services. In addition, individuals and communities can improve their health status independent of the health system by promoting and adopting preventive measures, such as regular hand washing, not smoking, or eating well. Improvements in individual and community capacity should result in sustained behavior change over time, representing this level's contribution to sustained health system performance and improved health status.

At the perimeter of Figure 1 we mark the influence of environmental or contextual factors, including cultural, social, economic, political, legal, and environmental variables that influence capacity and performance at all four levels (Africa Bureau, 1999; Horton, 2001; James 2001). The obvious importance of these factors for improving and sustaining both capacity and performance suggests that special efforts are needed for tracking their status overtime. In this guide, we focus mainly on variables that donors, governments, private agencies, and individuals can influence through health sector interventions. However, we also encourage evaluators to identify and monitor key contextual variables and examine their relationship to program outcomes.

Capacity at a Single Level

The four levels of capacity are detailed further in the following related frameworks (Figures 2-5).

These conceptual frameworks take a broad look at capacity at one level to *illustrate* many of the potential factors that might come together to influence capacity and performance. The purpose of these frameworks is to show how capacity can be broken down at each level into inputs, processes, outputs, and outcomes in order to

- identify the different factors that contribute to capacity, and performance
- hypothesize about the potential relationships among these factors within a single level

Conceptual frameworks like these differ from logical or strategic frameworks in that they do not reflect the linear logic of a particular capacity-building intervention, and its presumed effect on capacity outcomes. Rather, they show the range of *all* possible variables that might influence capacity and performance. In this way they help *planners* at the early design stages to determine the scope and focus of a capacity-building intervention, and *evaluators* to design valid measures for determining the success of those interventions. Conceptual frameworks can become gradually more specific as decisions are made about capacity-building interventions and the capacity and performance changes expected from them.

Defining Variables Related to Capacity and Performance

Capacity inputs represent the resources (human, financial, material, etc.) that contribute to capacity and performance. Processes represent the activities or behaviors at each capacity level that transform resources (inputs) into capacity outputs and outcomes. Capacity outputs and outcomes are the results of inputs and processes, and indicate products (outputs) and "an ability to carry out stated objectives" (outcomes). In many cases, capacity outcomes are expressed as knowledge, skills and behavior. Performance is the expected result of capacity (a "stock of resources") and the environment, the final link in the hypothesized chain of causality. Performance is defined as results that represent productivity or competence related to an established objective, goal, or standard.

System Level

Figure 2 refers to the health system. It includes the resources, actors, and institutions related to the financing, regulation, and provision of health actions (Murray and Frenk, 1999; WHO 2000).[4] The system is seen as a collection of institutions or organizations, plus the personnel in those organizations working together to deliver health care and/or promote better health. The health system performs certain functions independent of those performed by the organizations, and personnel within it, and therefore possesses its own capacity that can be assessed over time and targeted for intervention.

Performance at the health system level is often defined in terms of access to services, quality of care, equity, and efficiency, although there are many other possible indicators of performance at this level.[5] The framework includes a range of possible capacity inputs, processes, outputs and outcomes that contribute to performance at this level.

The system level is a complex area in which to define or address capacity development or to assess changes in capacity resulting from external or internal intervention. Despite the use of an inputs-process-outputs-outcomes framework, in practice, relationships among elements of capacity are not perfectly linear. Change (or the lack of it) in capacity results from multiple influences, some of which can be unexpected (Sarriot, 2002a). Contextual factors such as political and economic stability can also play a dominant yet poorly understood role in ensuring system capacity. Good examples come from health sector reform activities that seek to improve national health sector performance by changing sector priorities, laws, organizational structures, and financing arrangements. For instance, the actual results of legal reform in Zambia were achieved but not well communicated to health workers, which led to internal resistance to "delinking" or separating health workers from the civil service (Lake et al., 2000). Despite addressing key constraints such as laws or regulations, capacity to manage human resources more effectively did not emerge as planned.

[4] A health action is defined as "any set of activities whose primary intent is to improve or maintain health" (Murray and Frenk, 1999).

[5] The World Health Organization proposed new indicators for monitoring health system performance in the *World Health Report 2000*, including measures of stewardship, financing, resource generation, and service provision.

Figure 2: Health System Capacity

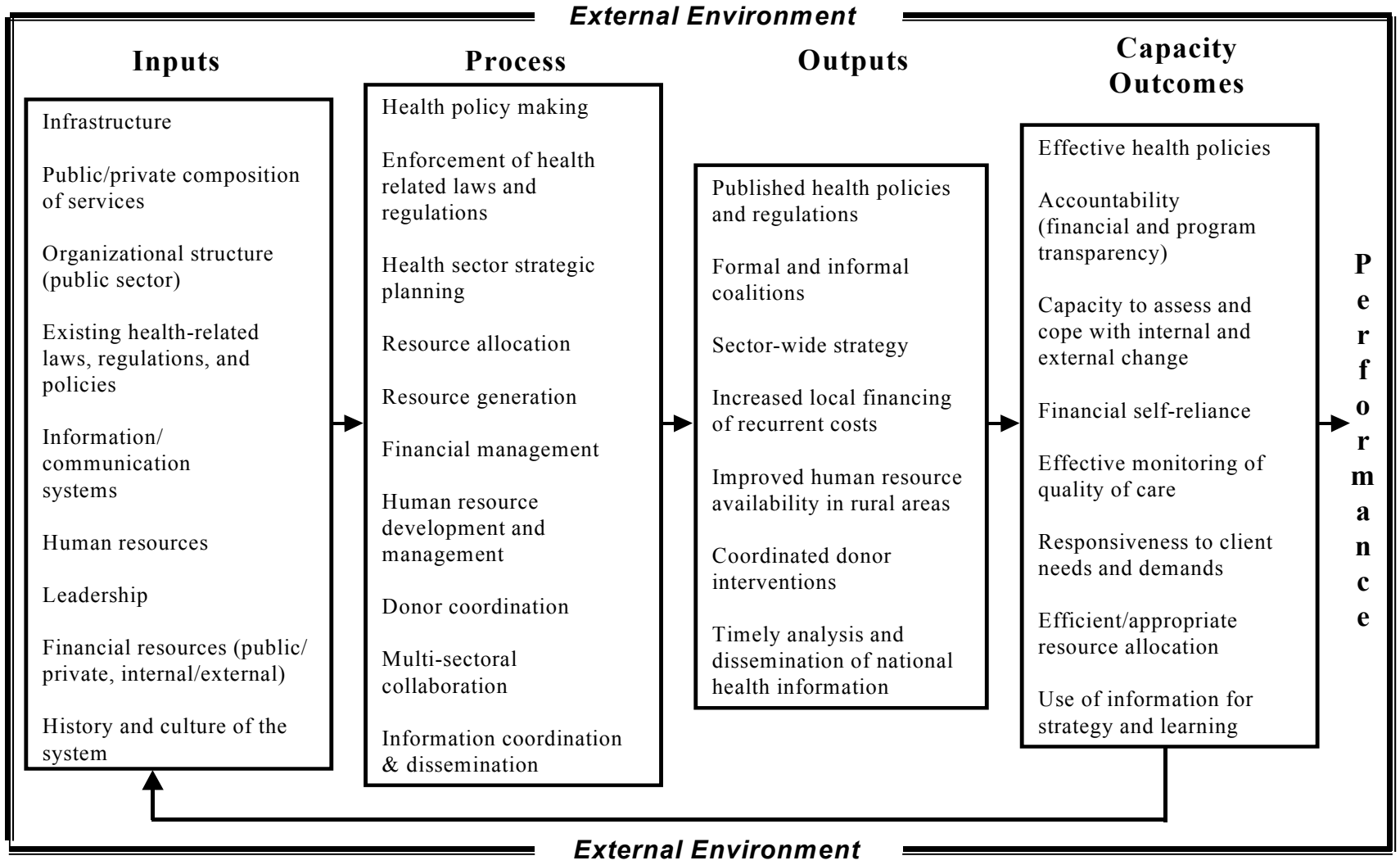


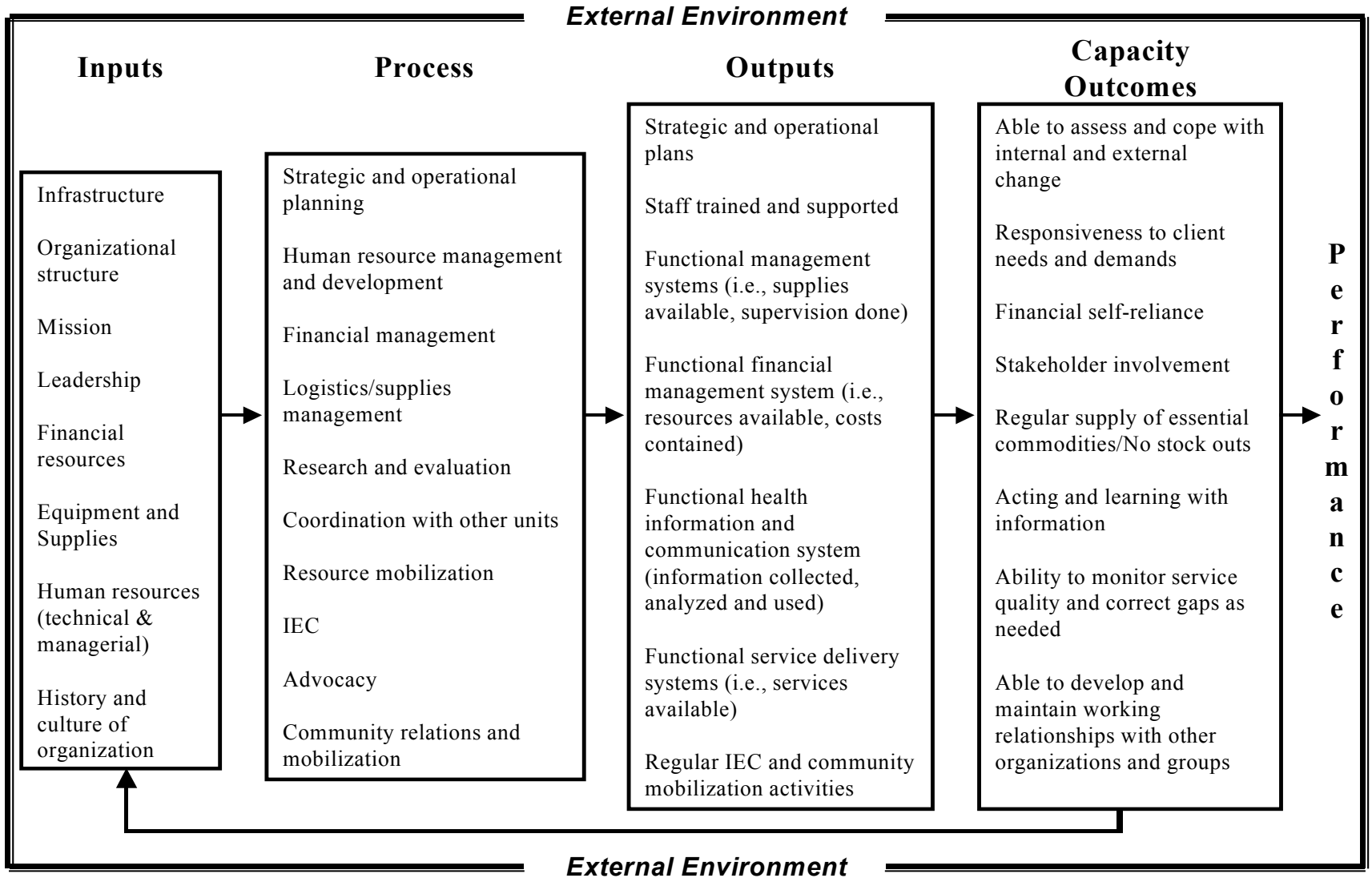
Table 2: Capacity and Performance Variables Defined

Input	Set of resources, including health personnel, financial resources, space, policy orientation, and program service recipients, that are the raw materials that contribute to capacity at each level (system, organization, health personnel, and individual/community).
Process	Set of activities, practices, or functions by which the resources are used in pursuit of the expected results.
Output	Set of products anticipated through the execution of practices, activities, or functions.
Outcome	Set of results that represent capacity (an ability to carry out stated objectives), often expected to change as a direct result of capacity-building intervention.
Performance	Set of results that represent productivity and competence related to an established objective, goal or standard. The four capacity levels together contribute to overall system-level performance.
Impact	Long-term results achieved through improved performance of the health system: sustainable health system and improved health status. Impact measures are not addressed in capacity-building M&E.

Organization Level

Figure 3 depicts a similar categorization of capacity variables at the organization level that contribute to organizational performance. Performance at the organization level might be described in terms of the ability of the organization to produce goods and services to an acceptable standard (e.g., the quality of care; coverage of the catchment population). This framework relates to organizations whose main function might be health service delivery (in the public or private sector) and those considered to be civil society organizations (nongovernmental or nonhealth service agencies). Civil society organizations generally are not involved in the direct delivery of health services, but they do influence health service delivery, policies, and behaviors in many societies throughout the world. Civil society organizations of particular importance could be cooperatives, community development organizations, advocacy groups, informal pressure groups, and others. The MOH is a unique organization for conceptualizing capacity building since it can be a significant actor at both the system and organization levels. The contextual factors influencing organizational capacity are represented at the perimeter of the diagram and include system level factors as well as typical political, economic, cultural, and other variables.

Figure 3: Health Service and Civil Society Organization Capacity



Health Program Personnel Level

Figure 4 presents the health program personnel level. The term *health personnel* refers to all those who perform clinical, managerial, advocacy or other work within the health system. In contrast to the system and organization levels, comprehensive interventions to build and maintain capacity are more common at the health personnel level. Ideally, in each health system there is a plan for producing and maintaining a cadre of qualified personnel (personnel with capacity) and providing them with an adequately supportive environment in which to perform effectively. It is less common to find comprehensive organization- and system-level capacity-building plans, although one could argue they are equally important.

The vast majority of capacity-building interventions in the health sector focus on changing the skills and behavior of health personnel because managers and providers play a critical role in ensuring organization and system level capacity and performance. This framework attempts to tease out some of the key variables at this level that relate directly to individual health personnel capacity, but we must acknowledge that organizational context is equally important. Organizations and systems are often responsible for the inputs and processes that enable health personnel to perform effectively. Thus, there is a significant overlap between the inputs and processes that contribute to capacity at the organization and the health personnel levels. Many of the variables listed in system and organization level frameworks also contribute to health personnel capacity.

Inputs such as sufficient funds, space and materials for professional development are transformed into capacity outcomes through processes such as educational and training events or other opportunities for improving or maintaining health personnel capacity. Capacity outcomes relate to the knowledge, skills, experience, and motivation resulting from inputs and processes. Performance at this level includes the application of knowledge and skills in management, health services delivery, training, and other related activities.

Individual/Community Level

The final figure, Figure 5, represents the "demand side" of the equation for capacity building as well as the role individuals and communities play in shaping health systems and improving health status. In addition to system, organization, and health personnel levels, capacity is required within individual clients and communities to ensure demand for appropriate services to promote their role in contributing to or influencing service delivery, and to encourage the practice of certain behaviors conducive to good health. For example, clients' capacity to demand improved or new services or to engage with health care personnel and organizations is vital to health system performance and achieving adequate health status of the population.

Figure 4: Health Program Personnel Capacity

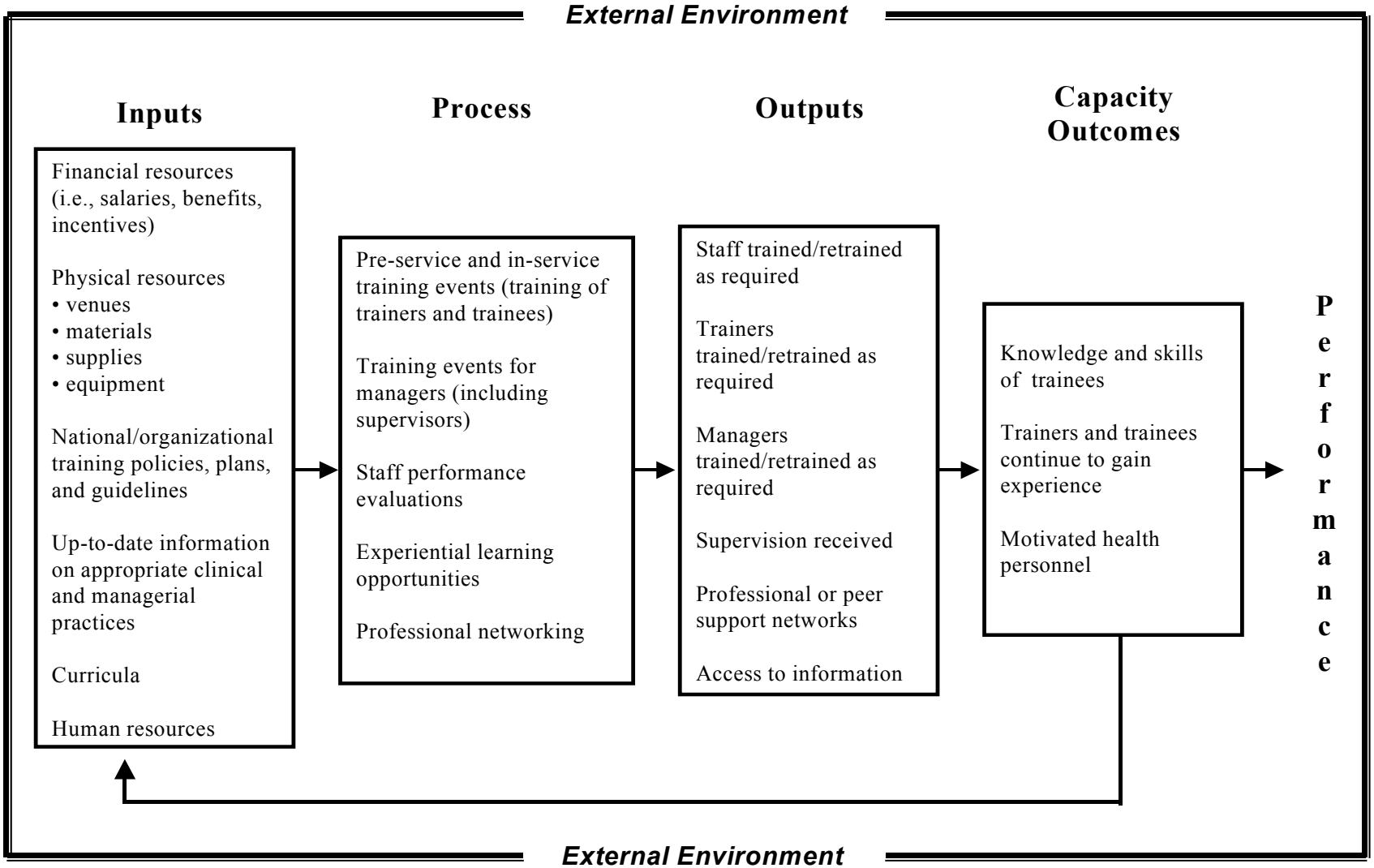
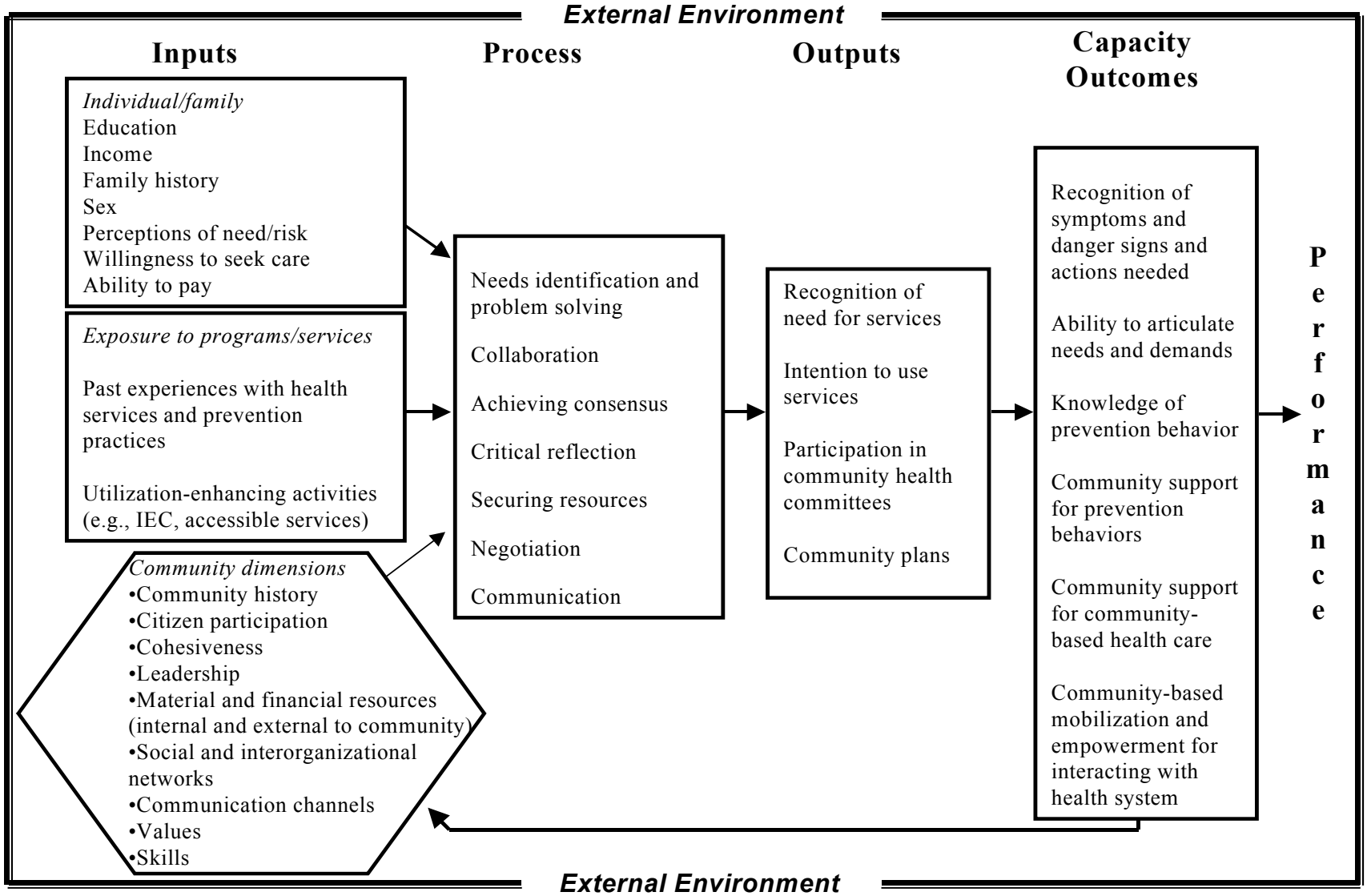


Figure 5: Individual/Community Capacity



Here the individual/community level represents all those who could benefit from and participate in the health care system; thus it includes all current and potential clients of the services offered and the communities in which they live. The inclusion of individual and community capacity in this framework represents a departure from conventional thinking on capacity in the health sector. References to community capacity are found mostly in literature on community empowerment and strategies for improving community mobilization and participation (Goodman et al. 1998; Israel et al, 1994; Israel et al. 1998; and Eng and Parker, 1994). The inputs in this framework represent the resources available to individuals and communities. They include individual/family factors, community factors, and factors outside the immediate influence of the community, such as exposure to health and education programs. Processes explain how individuals and communities use their resources to act in support of their own capacity development. Capacity outcomes relate to knowledge, motivation, skills and behavior that support individual and the community's health and well-being. Performance is the actual behavior on the part of individuals or communities that might include interaction with the health system (participation or advocacy), as well as behavior that directly influences health outcomes: utilization of health services, self treatment, compliance, prevention behavior.

Using These Conceptual Frameworks

While it is useful to separate levels of capacity for facilitating M&E planning, these levels are clearly interdependent, as shown in the nesting of health personnel and organization levels in the system level, and the arrows connecting individuals/communities to the health system and its parts. A health system is made up of organizations and health personnel, and organizations cannot function without health personnel. Without individual users of health services, the other levels cannot begin to perform effectively. Going beyond one-dimensional diagrams to understand the dynamics of capacity building at each level and between levels will guide the development of M&E strategies and techniques.

For example, the processes listed at the system level in practice are often activities carried out by the MOH with support from donors and in collaboration with other actors in the health sector (e.g., NGOs, private companies). There is a clear overlap between system and organizational capacity since the capacity of the system to carry out certain functions may depend directly on the capacity of the MOH to play its organizational role effectively. An M&E plan should attempt to monitor changes at both levels to explain capacity development (or lack of it) well.

The overview diagram that describes the relationship between capacity, performance and sustainability also suggests a logical progression from capacity to performance to sustained performance, when in fact both capacity and performance can improve or decline in uncoordinated or illogical ways. Because capacity is a fluid notion that responds to many influences, linear frameworks, often used in research and evaluation, are sometimes considered too mechanical for monitoring and evaluating capacity. Cause and effect chains related to capacity are seldom linear, suggesting the need to break out of a rigid, inflexible way of thinking.

Figures 2 – 5 suggest one way to look beyond the linear representation of capacity variables by depicting the process of capacity development as a cycle. Once one stage of capacity development is achieved, capacity outcomes become the new inputs and processes for the next stage of improvement. Indicators in this sense become relative, in that an indicator of

capacity expressed as an outcome might be described as another type of variable as capacity improves or declines.

This guide recommends the development of conceptual frameworks as a useful process for thinking through a capacity-building intervention strategy, clarifying expectations of stakeholders and in hypothesizing the variables that are considered important to program results in a specific context. However, these tools should be used along with strategies such as creative thinking, revisiting assumptions, and reflecting on results with stakeholders when conducting capacity-building M&E. Part Three of the Guide will elaborate on the use of frameworks or maps in M&E and discuss these and other strategies for understanding changes in capacity and their relationship to performance.

Summary for Managers and Evaluators

- The first step in developing a vision of capacity development, and a plan to measure it, is to understand the role capacity plays in the health sector in developing countries.

- We have found that directed discussion using conceptual frameworks or maps prior to M&E planning can stimulate strategic thinking within project or work teams and clarify individual and collective expectations, and thereby improve capacity-building M&E.

- The conceptual frameworks (Figures 1 – 5) illustrate the critical role capacity plays in influencing and *sustaining* performance in the health sector, including the four levels where capacity is needed in the health sector: system, organization, health personnel and individual/community.

- Figures 2 – 5 depict capacity at each level. The purpose of these frameworks is to show how capacity can be broken down into inputs, processes, outputs, and outcomes in order to identify the different factors that contribute to capacity and performance, and hypothesize about the potential relationships among these factors within a single level.

- The frameworks provide a starting point for identifying the key variables that influence capacity and performance at that level, and will help evaluators define capacity variables to track in the M&E plan.

Part 3 Monitoring and Evaluating Capacity-Building Interventions

Part 2 described a generic conceptual framework for understanding the role of capacity in the health sector and suggested possible capacity variables for each level. This part presents the six steps for developing a monitoring and evaluation plan for a specific capacity-building intervention. At the heart of this process is the development of a "capacity map" or conceptual framework that applies to the particular capacity-building intervention under study. The six steps are listed in Box 4.

Ideally an M&E plan should be formulated during the design and planning of a capacity-building or performance improvement intervention. Evaluators and program planners should work together with key stakeholders to conduct a needs assessment, define the intervention strategy, and construct an M&E plan. Since capacity building is often one strategy in a broader approach to improving performance, capacity-building M&E should fit into the overall performance-monitoring plan.

An M&E plan for capacity building states what is to be evaluated, what evidence is needed to answer key evaluation questions, how the data will be used, who will use the data, and for what purpose. The intended result of the planning steps is a clearly defined guideline for data collection, analysis, and use for assessing the effectiveness of a capacity-building intervention. In general, capacity-building M&E plans contain the following:

- a conceptual framework
- a definition of essential variables of capacity and performance
- hypotheses on important links between these capacity and performance variables
- identification of the stages of capacity
- indicators, and methods
- a timeframe, and
- a dissemination strategy

Box 4: Six Steps for Developing a Capacity-Building M&E Plan

1. Define the purpose of the evaluation
2. Define performance objectives
3. Map capacity: Build a conceptual framework for the specific capacity-building intervention
4. Identify capacity indicators
5. Identify appropriate methodological approach and sources of data
6. Develop an implementation and dissemination plan

STEP 1 Define the Purpose of the Evaluation

There are different types of evaluation, each with a different purpose. In designing an evaluation strategy, the evaluator first needs to **identify the key question(s) that he/she wishes to answer and thus the type of monitoring or evaluation to conduct**. Table 3 illustrates some of the research questions addressed by different types of capacity-building M&E.

A second question to address at the outset of planning is: who are the intended users of evaluation results? M&E of capacity-building interventions can be used for different purposes and to meet the needs of many different stakeholders. It is advisable to specify the primary and secondary users at the outset of planning to avoid confusion and aggravation. In the NGO Networks for Health Project, the project partners and the donor expected to use capacity-building monitoring data in different ways. The NGOs sought information to monitor the results of detailed internal organizational capacity-building plans. The funding agency desired information on more general capacity changes related to the quantity and focus of programming in order to demonstrate the overall results of the project. Until the main purpose of collecting data was specified, it was impossible to define the methods or indicators in the M&E plan.

Table 3: Questions Posed by Different Types of Capacity-Building M&E

Type of Evaluation	Key Questions Answered
Needs assessment	What is the current level of capacity? Where are the gaps in performance and capacity? What capacity is needed? How can the intervention best address the gaps in capacity and performance?
Monitoring	Inputs: Are inputs available to the program in appropriate quantities and at appropriate frequency? Did the type or quantity of inputs change? Processes: Are key processes carried out to an acceptable standard or at an acceptable frequency? Did the processes change? Outputs: Are products related to capacity available? Did the products expected emerge or change? Outcomes: Is capacity appropriate and adequate? Did capacity improve? Performance: Is performance appropriate and adequate? Did performance improve?
Evaluation	Did the capacity-building intervention lead to changes in capacity and/or performance?

In practice, one finds an inherent tension in defining the purpose of capacity-building M&E. Managers generally use capacity-building M&E results for two main reasons. The first is primarily an internal function, that is, improving capacity and capacity-building strategies. The second is primarily an external function, that is, reporting on the progress of a capacity-building intervention to various funders and other external stakeholders. While the two purposes are not mutually exclusive, managers must guide the M&E process carefully to ensure the best possible outcome. Too much attention to serving external (often donor) needs has been found to dilute the use of M&E for improving capacity-building strategies and organizational learning (Horton, 2001; Morgan, 1997). Lack of attention to valid measures of change (or relying too much on self-reported perceptions of capacity) can undermine the credibility of evaluation results. Box 5 summarizes key advice on constructing a capacity-building M&E plan.

Box 5: DO'S AND DON'TS of Developing an M&E Plan for a Capacity-Building Intervention

DO

- Develop capacity-building M&E plan during the intervention design phase
- Develop capacity-building M&E plan with respect to broader performance objectives
- Involve all stakeholders, both internal and external, in developing the M&E plan, particularly the purpose of the evaluation
- Be prepared to negotiate with stakeholders on the purpose of the evaluation and make all expectations transparent

DON'T

- Base M&E plans only on the needs of external stakeholders (mostly donors) at the expense of meeting internal information needs
- Miss opportunities to reflect and learn about capacity development through M&E

STEP 2 Define Performance Objectives

Before launching into monitoring and evaluation of any capacity-building program or intervention it is critical to step back and fully understand its focus and strategy. It is particularly crucial to understand how the stated capacity-building strategy is expected to improve performance and what signs of improved effectiveness are expected from capacity building. Although it is not possible to prove causality, it is important to clearly define the expected pathways between capacity building and performance.

To begin, evaluators should address the following questions:

- What is the purpose of the capacity-building intervention?
- What type of performance is expected in a given period and at what level: health system, organization, health personnel, or community?
- What processes or activities are being used to build capacity?
- What external influences should be taken into consideration?
- Who has a stake in capacity building and capacity measurement?

Defining Performance

Performance objectives should relate to the mandate or specific purpose of a system, organization, or community, or to health personnel functions. The more specific one can be about performance expectations, the easier it will be to construct a capacity map. If the M&E plan is being developed after a capacity-building intervention has been designed, then articulating the performance focus and expectations should not be difficult (assuming the design document is sufficiently explicit about performance objectives). Moreover, some organizations already may adhere to a set of performance indicators for internal monitoring or reporting to external stakeholders. Thus, there may already be clearly stated performance standards. If, however, M&E planning takes place as part of the design process (starting with needs assessment and intervention design) then focused discussion among program planners, managers, and evaluators about what would constitute adequate performance in this context will be needed.

In practice, perceptions of performance can vary widely among stakeholders. For example, a manager of a clinic may define performance in terms of benefits to the clients; whereas the clinic's financial managers might define performance as the acquisition of new clients (and a correlating increase in income). There is a growing body of literature about Performance Improvement in the health sector, particularly organizational performance[6] that can be useful for defining performance expectations and identifying gaps in performance and possible reasons for those gaps. Performance objectives should be expressed as variables or indicators that can be measured against international or national standards, or locally determined expectations. Normally, the definition of performance objectives reflects both external and internal criteria. See Box 6 for characteristics of a good performance objective and two examples of performance objectives that will be used to illustrate capacity mapping in Step 3.

[6] See Lusthaus, C., M. Adrien, G. Anderson, and F. Carden. 1999. *Enhancing Organizational Performance: A Toolbox for Self-Assessment*, Ottawa: IDRC; http://www.pihealthcare.org; McCaffrey, J., M. Luoma, C. Newman et al. 2000. *Performance Improvement: Stages, Steps and Tools*, Chapel Hill, NC: INTRAH.

Box 6: Characteristics of a Good Performance Objective

- Measurable
- Reflects a needed change
- Relates to a clear product or action
- Relates to a defined target population
- Performed by specific delivery agent (e.g., organization, community group, etc.)
- Relevant to a particular context/situation

Examples

- Consistent delivery of a package of family planning services by X organization to a defined population (defined in terms of coverage, quality, and consistency)

- Improved demand for immunization services in communities served by community health workers (CHW) (defined in terms of utilization and coverage)

STEP 3 Mapping Capacity: Build a Conceptual Framework for a Specific Capacity-Building Intervention

Once performance objectives and expectations are defined, planners and evaluators must make assumptions about the capacity required to meet these objectives. *Capacity mapping* is a structured process of thinking through the role capacity plays in ensuring performance by developing a conceptual framework that is specific to a particular capacity-building intervention. During capacity mapping, all the possible factors of capacity that influence performance and the relationships between them must be identified. Once the factors are all laid out, the program staff or evaluator can focus on those that are most essential for the evaluation.

Mapping capacity can be a critical step in developing an M&E plan. The map is a tool that guides the design of the plan, from selection of indicators and methods to presentation of evaluation results. As stated by Morgan (1997), evaluation designers and their program partners need "a sense of what capacities they need to develop and for what reason. Most groups and organizations can articulate such a vision of the future given sufficient time and productive discussion." Mapping capacity makes plain to all stakeholders assumptions about key variables that affect the desired outcome of a capacity-building intervention. A mapping exercise is an excellent way to bring all stakeholders to a common understanding of the scope and focus of a capacity-building intervention, the performance outcomes expected from capacity development, and the role of M&E in tracking and influencing change.

For the evaluator, the objective of this stage of M&E planning is to create a conceptual framework that links capacity-related inputs, processes, outputs, and outcomes to performance of a *system*, *organization*, *health personnel*, *or community*. The advantage to the evaluator of developing a capacity map is twofold. First, through mapping, the evaluator gains a better understanding of how key decision-makers and stakeholders believe the system, organization, health personnel, or community should be working. Second, mapping enables evaluators to define exactly which capacity variables are to be evaluated over time.

When to Map Capacity

As noted above, an M&E plan should be formulated during the design and planning of an intervention. If program planning and M&E design are conducted simultaneously, capacity mapping can contribute to the choice of intervention strategies and to the M&E strategy. However, sometimes circumstances do not permit this ideal type of coordination on program and M&E design. Frequently, evaluation designers are brought in well after program planners have defined the intervention strategy and specific activities. In this case, evaluators must still work with program planners to understand the intervention strategy and the role of evaluating it. Capacity maps should reflect and/or inform this overall strategy. If a conceptual framework already

Box 7: The Process of Capacity Mapping

1. Identify primary level of capacity building
2. Define outcomes for that level
3. Develop a one-dimensional level capacity map
4. Develop a multi-dimensional level capacity map

exists for the intervention, designers should review the assumptions and relationship among variables depicted in this diagram to understand the expected role of capacity building. If an overall conceptual framework for the intervention does not already exist, it is essential to construct one to support capacity mapping.

How to Map Capacity

The process of developing a capacity map is outlined in Box 7. During this process, planners, evaluators, and key stakeholders might like to use the series of questions in Box 8 to guide discussion. At a minimum, they should consider the following two questions:

1. At which level is capacity required to ensure the stated performance objectives?

In other words, what level is likely to be the main focus of capacity-building efforts? The generic capacity map (Part 2, Figure 1) defines four different levels where capacity is needed in the health sector: system, organization, health personnel, and individual/community level. Careful definition of the performance objectives in Step 2, and a clear understanding of the capacity-building strategy should help evaluators answer these questions. For example, if performance gaps are found in a specific health facility, then it is likely that capacity-building interventions will seek to improve capacity outcomes at the organization or individual level. The first map would focus on one of those levels.

2. What capacity outcomes are expected at that level to improve performance?

Once the level has been specified, designers should identify aspects of capacity that might influence the specific performance objective at that level and express them as capacity outcomes. Morgan (1997) defines capacity outcomes as the "product of new learning and abilities that eventually become part of the organization or system, and support new levels of performance." Designers can refer to guides on organizational capacity development, for example, to help guide the choice of capacity outcomes. However, capacity outcomes should always be tailored to performance objectives or standards of the particular intervention or organization under study.

At the intervention design phase, it is worth casting a wide net to consider all possible aspects of capacity that might relate to desired performance. Brainstorming on capacity can then lead stakeholders or participants in this mapping process to begin to prioritize areas for capacity-building intervention. Where parameters of an intervention are already set or where a structure for brainstorming is needed, designers might choose two or three different areas of capacity development, express them as capacity outcomes, and then map them. Although capacity building often tries to address multiple capacity gaps simultaneously, for measurement purposes, it is advisable to choose a limited number of key capacity outcomes for capacity mapping.

For example, in Maps 1-3 below, the performance objective for the (fictitious) Family Health Organization is defined as "consistent delivery of a package of essential, good-quality family planning services to a defined population." Performance variables might include coverage, quality, and consistency, which would be expressed as indicators. The three key capacity outcomes for this specific performance objective are defined as financial self-reliance, quality assurance practices institutionalized, and health services able to respond to client needs. Although many other aspects of capacity might influence coverage, quality and consistency in the delivery of family planning services, this organization has chosen to concentrate on these three areas.

Box 8: Questions to Guide Discussion for Capacity Mapping

Describing the link between capacity and performance

- What elements of capacity are needed to ensure performance?
- Where are the capacity gaps?
- What might be the cause of poor capacity?
- What are two or three key aspects of capacity required for performance?
- At what level is capacity required?

Identifying capacity variables

- What essential inputs and processes contribute to capacity at that level?

Describing the process of capacity development

- Could capacity develop in stages?
- How would one define possible stages of capacity?
- What benchmarks might be used to mark these stages?
- How would stages of capacity development manifest themselves in terms of improved performance?

Single-Level Capacity Mapping

Once the two questions about levels and outcomes have been answered, it is necessary to draw up a table or matrix that maps each capacity outcome at a single level. The process involves identifying the variables that influence the specific capacity outcome at that level. Capacity variables include inputs, such as physical and human capital (defined by Morgan, (1997) as "knowledge, infrastructure and skills") and processes representing changes in human behavior (such as growth of new skills, attitudes, values, and relationships) that are reflected in the functions performed by individuals or groups. These inputs and processes come together to produce improved capacity outputs and outcomes. It is often expected, in the course of capacity development, that individuals or groups add to or build on their existing assets to make positive changes with respect to managing those assets. A capacity map tries to capture these critical assets and behaviors and link them to capacity outcomes and new levels of performance.

Once completed, the map illustrates conceptually the pathway to achieving desired performance results. It includes specific variables that may be targeted for intervention and then monitored over the course of the intervention to understand changes in inputs and processes and any resulting improvements in capacity outcomes. Evaluators are reminded that the variables depicted in the capacity map are those that relate to the inherent or desired capacity of the system, organization, health personnel, or individual/community targeted for intervention. They do not represent elements of the capacity-building intervention itself.

Box 9: Guidance on Capacity Mapping

- **Capacity mapping should refer to the logic of the overall program, project or intervention**. Horton et al. describe this approach as "referring to a theory of action" 🕮 that binds interested parties into a single vision (Horton, 2001). Whether mapping capacity during intervention design or in the context of an already defined intervention strategy, it is advisable to refer to existing data on the intervention area, including needs assessment, capacity assessments, etc.

- When mapping capacity it may be helpful to **refer to the conceptual framework in Part 2** for a general review of the role capacity plays in improving performance in the health sector and examples of capacity variables.

- **Be realistic about your expectations of the role of capacity**. There is a tendency to consider every aspect of resources and behavior in an individual, organization, or system as a capacity variable, and to risk measuring too much.

- **Look beyond individual capacity and training solutions to identify capacity variables.** For example, during discussions on the capacity framework with SAIDIA, a Kenyan NGO (nongovernmental organization) that provides health services and community development opportunities, staff at first claimed that training health workers and community members was their only work in capacity building. Yet, with further discussion, participants illustrated a wide range of capacity-building activities at all levels, including their work in coordination and collaboration with the public sector, and courting relations with donors that fund the NGO.

- **Map capacity with a wide range of stakeholders to inspire a sense of ownership of capacity building and appreciation of the use of evaluation in programming.** Since capacity-building M&E delves into many internal characteristics and processes found within systems, organizations, and communities, it requires considerable investment on the part of the members of these groups to achieve success. The quality of information obtained from evaluation, therefore, is directly affected by the extent to which participants develop a feeling of ownership of the M&E activity and value the data being collected.

To build such a capacity map, planners and evaluators can use a facilitated discussion among stakeholders as well as tap existing data from needs assessments, capacity diagnoses and prior monitoring. Evaluators might also draw on the experience of system and organizational theory, theories of adult learning, and community development to hypothesize the most likely causes of poor performance. Box 9 provides some general guidance for capacity mapping.

The following three diagrams (Maps 1, 2, and 3) provide examples of capacity maps that define *in a very general sense* some possible inputs, processes, and outputs related to the three particular organizational capacity outcomes for the hypothetical Family Health Organization: financial self-reliance, quality assurance practices institutionalized, and health services able to respond to client needs and demands.

Multi-Level Capacity Mapping

The three single-dimension capacity maps provide a list of possible variables that influence capacity outcomes at one level. However, it is equally important to consider the connections among levels where capacity building might take place and their role with respect to realizing capacity outcomes and performance objectives. Although performance may be faltering at the facility, the strategy used to improve performance may require additional capacity improvements at both the health personnel and system levels. In this case, designers may choose to construct a capacity map that includes several levels and that will provide even greater detail on possible variables that contribute to capacity outcomes. Thus, once the single-level map is completed a second map is developed that includes more than one dimension to illustrate the interdependence among different levels of capacity and determine which factors at other levels might influence capacity outcomes at the focus level. The two types of maps (single-level and multiple-level) will be used to identify the variables to be assessed as part of the M&E plan.

In Map 4, we have taken the same basic matrix but added a second axis to account for the four possible levels of capacity. This example focuses on the community level but the map depicts variables at the four different levels that might influence the specific community-level outcome.[7] As noted in Map 4, the overall performance goal is to "improve demand for immunization services at the community level," expressed as immunization service utilization and coverage. The capacity of Community Health Workers (CHW) to deliver IEC services was chosen as the capacity outcome for mapping. In this case, the designers began by listing a large number of possible capacity variables and then narrowed them down to the key variables to be monitored over the course of the intervention. Shaded areas represent an explicit decision not to monitor an indicator in that category.

Dealing with Context

When assessing the effectiveness of capacity-building interventions it is also critical to understand the environmental or contextual factors that influence capacity and performance. Horton and colleagues (2000) describe context as "formal and informal rules of the game and how they are used." As noted in Part 2, context can relate to the administrative, legal, political, socio-cultural, economic, and technical forces that shape capacity and performance. Clearly, many of these forces are well beyond the reach of a typical capacity-building intervention. Nevertheless, it is advisable for program managers to track environmental changes periodically. Organizational theory describes a successful (and sustainable) organization as one that understands its environment and is able to adapt to environmental changes to ensure its survival. Thus, tracking changes in the operational context informs strategy for capacity development, even if planners or managers feel there is little they can do to change it. The publication, *Enhancing Organizational Performance*, published by the International Development Research Centre (IDRC) provides a useful list of questions related to environmental influences on organizational capacity. These questions are reproduced below in Box 10. In each map found in this guide there is an additional box at the bottom where key environmental variables are recorded.

[7] This matrix is adapted from an exercise completed by participants at a Workshop on Sustainability and Capacity Building hosted by PLAN International in May 2001 in Dakar, Senegal.

Map 1: Organizational Capacity Map - Single Level
Capacity outcome: Financial self-sufficiency

Intervention
Performance objective: Consistent delivery of a package of family planning services to a defined population (coverage, quality, and consistency).
Capacity-building objective: Improve financial self-reliance of health facilities in District One.
Strategies and activities: Improve leadership and financial planning skills of district managers; introduce new procedures for strategic planning; develop links between health facilities and communities leading to joint planning and management; develop skills in grant application writing and reporting to funders.

Inputs	Processes	Outputs	Capacity Outcome	Performance Objective
Leadership Finances Infrastructure Human resources Finance policy Organizational culture	Strategic & operational planning Financial management Resource mobilization Human resource management & development Research, monitoring & evaluation Coordination with other internal units Creation & maintenance of linkages with external groups (specifically, funders) Advocacy Managing quality of care Community mobilization	Strategic & operational plans developed and implemented Staff trained Functioning financial management system External linkages established (to donors, partners, individuals, community)	**Financial self-reliance (ability to generate resources & maintain a healthy funding base)**	**Consistent delivery of essential package of good-quality family planning services to a defined population (coverage, quality, and consistency)**
Context or operational environment				
National policy on fee-for-service National financial management procedures				

Map 2: Organizational Capacity Map - Single Level

Capacity outcome: Quality assurance practices institutionalized

Intervention

Performance objective: Consistent delivery of a package of family planning services to a defined population (coverage, quality, and consistency).
Capacity-building objective: Improve quality assurance practices in health facilities in District One.
Strategies and activities: Improve leadership of facility managers and supervisors; introduce norms and procedures, clarify job descriptions and expectations; improve links to supplies and logistics unit.

Capacity Inputs	Capacity Processes	Capacity Outputs	Capacity Outcome	Performance Objective
Leadership Financial resources Infrastructure Human resources Technology Organizational culture	Operational planning Human resource management & development Incentive practices Training and supervision Research, monitoring & evaluation Logistics/supplies management Creation & maintenance of linkages with other organizations (specifically, managers and suppliers)	Operational plans developed and implemented Staff, managers & supervisors trained Quality assurance standards clearly stated & reference material available Staff expectations clear to them Monitoring reports on quality, utilization, & client satisfaction Functional relationships between facilities and suppliers	**Quality assurance practices institutionalized**	**Consistent delivery of essential package of good-quality family planning services to a defined population (coverage, quality, and consistency)**
Context or operational environment				
Published norms and standards for care National health information system use of data to assess quality Central stores policies and procedures				

Map 3: Organizational Capacity Map - Single Level

Capacity outcome: Health services able to respond to client needs and demands

Intervention

Performance Objective: Consistent delivery of a package of family planning services to a defined population (coverage, quality and consistency).
Capacity-building objective: Improve the ability of the health services to respond to client needs in District One.
Strategies and activities: Introduce incentives for quality of care practices; improve client provider communication skills; research and design optimal mechanisms for communication and interaction between communities and health facilities.

Capacity Inputs	Capacity Process	Capacity Outputs	Capacity Outcome	Performance Objective
Leadership Finances Infrastructure Human resources History of health service organization Organizational culture	Human resource management & orientation Organizational incentive practices M&E, research Coordination and communication with referral units Creation & maintenance of linkages with community groups IEC Community mobilization	Staff trained in technical & communication skills Functional community outreach & communication mechanisms Feedback from routine client satisfaction & community monitoring Quality of referral service monitored	**Health services able to respond to client needs and demands**	**Consistent delivery of essential package of good-quality family planning services to a defined population (coverage, quality, and consistency)**
Context or operational environment				
National policy on consumer roles and rights Published norms and standards of care				

Map 4: Community Capacity Map on Multiple Levels
Capacity outcome: Effective delivery of IEC services

Intervention
Performance objective: Increase demand for childhood immunization in Sierra Leone.
Capacity-building objective: Improve capacity of CHWs working with local NGO to provide IEC on childhood immunization.
Strategies and activities: Develop curricula for training of trainers and training of CHWs; conduct training of trainers and supervision; health personnel support CHWs from health centers; NGO supervises and supports health center personnel working in service delivery.

Level	Capacity Input	Capacity Processes	Capacity Outputs	Capacity Outcomes	Performance
System	National policy on immunization and community-based workers				
Organizational (Local NGO)	Health center personnel (quantity/basic training) Community health worker (quantity)	Designing & planning a training program Supervision and mentoring of CHWs	Training plan developed Training materials developed	Successful organization & execution of training of trainers Ability to recognize training needs and meeting them	
Personnel	Curricula for: Training of Trainers & for Community Health Workers	Participation in Training of Trainers Participation in CHW training on IEC	Trainers meet standards following course CHWs meet standards following course IEC session provided	Capacity of CHWs to deliver IEC on immunization: - CHWs skilled & motivated to provide services	Effective delivery of IEC services *(Quality of IEC sessions)*
Community	Exposure to immunization program	Community meetings with CHWs	Level of participation in health care learning activities Recognition of need for immunization	Community knowledge of immunization benefits and side effects Caregivers value immunization	Improved demand for immunization in communities served by CHWs (*coverage)*
Context or operational environment					
National economic growth National health expenditures on immunization Donor support for immunization					

Interpreting and Using Capacity Maps

The examples of capacity maps above illustrate how the different factors of capacity work together to drive or influence performance. They enable designers to view these elements in a more systematic way that promotes common understanding and evaluation. When capacity mapping is conducted *after* an intervention has been planned, it can be used to help evaluators understand the intentions of managers in terms of their strategy for capacity development. During mapping, managers are encouraged to pinpoint and define clearly the areas of potential change that will serve as indicators of progress in capacity development. Used after the design phase, the mapping exercise can reinforce existing capacity-development strategies, thereby increasing their specificity. Sometimes mapping can also prompt planners to reexamine strategic choices and change their tactics. Indeed, this use of capacity mapping for strategic planning, and the linking of M&E with program strategy should be encouraged throughout the course of the capacity development/performance improvement intervention.

Each type of mapping (single-level or multiple-level) can be done in two or three iterations. The first iteration of a map should attempt to provide a full list of capacity variables that may influence capacity outcomes and performance. It should present capacity variables in a general way. Planners and evaluators then can discuss these variables and narrow them down to priority areas of intervention or measurement, and describe them more specifically. The second or third iteration of a map should be more precise in depicting the variables to be monitored over the course of the intervention. Map 5a provides an example of the first iteration of multiple-level capacity mapping. It contains a wide range of general categories. Map 5b illustrates the second iteration in which variables are specified in greater detail.

Through mapping, evaluators can identify and organize the key questions to be addressed regarding expected changes in the quantity, quality, cost, and other key aspects of capacity which require monitoring over time. As planners and evaluators interpret the map, they will narrow down the focus of monitoring and evaluation activities. In Step 4, below, evaluators define indicators that measure these variables and build them into a monitoring and evaluation plan.

Box 10: Questions to Guide Discussion on the External Environment and Its Influence on Organizational Capacity

Administrative

- Is your organization influenced by the rule of other organizations, institutions, and groups to which it is related or might be expected to be related?
- Is your organization influenced by expectations of consumers, policymakers, suppliers, competitors, and other organizations in its external environment?
- Are your organization's objectives and activities influenced by governments, donors, and other organizations?
- Is your organization influenced by important sector rules and regulations?
- Do administrative norms/values in your country support or hinder the work your organization intends to carry out?

Legal

- Do the laws of the country support the role played by your organization?
- Does the legal framework support the organization's autonomy?
- Is the legal framework clear?
- Is the legal framework consistent with current practice?
- Is the legal regulatory context conducive to your organization's work?
- Does your organization monitor changes in the legal context that could affect the position of the organization?

Political environment issues

- Do the political and ideological trends of the government support the kind of work the organization does?
- Does the government system facilitate collaborative arrangements?
- Does the organization play a role in national or sector development?
- Does the organization have access to government funding?
- Does the organization have access to international funding?
- Does the organization have access to the government's knowledge and publications?
- Do government policies and programs support the organization?

Sociocultural environment

- Is equity in the workplace a social value?
- Does the organization account for the effect of culture on program complexity?
- Do values found in the sociocultural environment support the work of the organization?
- Does the organization have access to a pool of capable human resources to recruit staff?
- Does the organization analyze and link demographic trends to its work?

Economic environment

- Does the government's economic policy support the organization's ability to acquire technologies and financial resources?
- Is money available to do the organization's work?
- Do donors support the organization?

Technological environment

- Is adequate physical infrastructure (telecommunication, transport) in place to support the organization's work?
- Is the technology needed for your work supported by the overall level of national technology development?

- Does the government system facilitate the organization's process for acquiring needed technology?
- Is the level of human resource development in your organization adequate to support new technology?

Stakeholder environment

- Is the community involved in the organization?
- Are partners involved in the organization?
- Do governments value the organization's products and services?
- Do governments request or use the organization's products and services?
- Do similar organizations compete or cooperate with your organization?
- Do donors influence the organization?
- Do funders support the organization?

The questions above are adapted from *Enhancing Organizational Performance* (Lusthaus et al., 1999). While they are focused on the organization level, many of them can be adapted for any level of the health system.

STEP 4 Identify Capacity Indicators

The next step in developing an M&E plan for capacity building is to define indicators for the elements of capacity identified during capacity mapping. 🕮 **Indicators** are specific variables that describe a given situation and can be used to *measure* inputs, processes, outputs, and outcomes at any level (system, organization, health personnel, or individual/community). They can be constructed from qualitative or quantitative data according to the type of variable one is interested in tracking. For example, the indicator "number of personnel per health facility trained in control of sexually transmitted infections (STI)" tracks the inputs that influence capacity of a public health system. Alternatively, measures of provider knowledge of appropriate treatment for different sexually transmitted infections and the availability of key STI pharmaceuticals at each facility are outcome indicators signaling capacity in service delivery. All three of these indicators could be tracked to determine whether capacity exists to meet system-level performance objectives, such as "quality of STI care."

What Are Capacity Indicators?

Capacity indicators generally project an aspiration or a sought-after state or ability. They capture the current "stock of resources available" for various uses or an individual or organizational behavior that puts those resources into action (Moore et al., 2001). Defining or choosing indicators for M&E encourages planners and evaluators to be precise about the inputs and processes that influence capacity and performance and what types of changes might result from capacity-building interventions. Well-defined indicators provide a reference framework for guiding all stakeholders toward the same goals. Indicators also allow for standardized measurement of change during implementation, which enables evaluators to understand the process of capacity development over time and its relationship to capacity-building intervention.

There is no agreed upon menu of "standard" indicators of capacity development. As Morgan (1997) states, "It is difficult to find useful examples of indicators that have been used effectively to measure or assess capacity building." Examples of common health sector-related indicators are found in the MEASURE Evaluation Compendium of Indicators for Evaluating Reproductive Health Programs (Bertrand and Escudero, 2002) and other indicator handbooks. However, no single indicator manual focuses exclusively on capacity building or differentiates between capacity and performance measures. The obvious consequence is the need to work carefully and systematically during M&E planning to develop indicators that accurately reflect capacity development in each particular context. Some capacity indicators can be drawn from experience in human performance improvement, organizational assessment and theory, and other disciplines. Others will require testing through practice. When the PRIME project developed an index of capacity in training organizations, it built on years of experience working in this area and the collective understanding of what it takes to provide good-quality training on a sustainable basis (Pyle and LaFond, 2001).

Even with the benefit of a generic indicator reference material, most indicators used in capacity-building M&E require some molding or adaptation to a particular situation. For example, if evaluators would like to study the progressive stages of capacity development in a specific organization, they might choose indicators based on defined scales of organizational development, as in the Management and Organizational Sustainability Tool (MOST) developed by Management Sciences for Health (MSH, 1996). However, they

should also adapt these indicators to a particular organization's baseline assessment of capacity and its particular product or service. Expectations for improved performance and the timeframe of a specific capacity-building intervention also matter. An organization pursuing capacity improvement in reproductive health service delivery would choose different measures of change from one seeking capacity improvement in networking and partnering. Thus, at the outset of M&E planning, one should begin defining indicators based on the capacity variables identified in mapping rather than selecting indicators from a generic list. Map 6 illustrates how indicators can be added for each capacity variable, using the format from Map 3. The discussion on indicators below begins with general guidance on indicator design, provides examples of capacity indicators, and concludes with lessons learned from a variety of capacity development experiences (in health and other sectors).

Working with Capacity Indicators

By now most program managers and evaluators at least have heard about what makes a good indicator. In general, all indicators should share the following traits:

- **Validity:** Validity refers to whether the indicator is measuring what it is supposed to measure. Indicators should have a close connection with the intervention.
- **Reliability:** Reliability refers to the degree of random measurement error in an indicator. Error may result from sampling or non-sampling; whether the response is inherently objective or subjective.
- **Well-defined:** Indicator definitions should use clear and precise terms so everyone involved can understand what is being measured.
- **Sensitivity:** A sound indicator is sensitive to the changes in program elements being assessed.

Evaluators also need to take into account the *availability of data* for "operationalizing" indicators and the *potential costs* of gathering data, in terms of financial resources and time.

Table 4 provides examples of health-sector capacity indicators by level (system, organization, health personnel, and individual/community) and measurement variable (input, process, output, and outcome) taken from various sources (Morgan, 1997; Horton et al, 2000; Bertrand and Escudero, 2002; Brown, LaFond, and Macintyre, 2001). It suggests wide variation in the indicators currently used to measure capacity and the need for both quantitative and qualitative data sources. The table is not intended to represent relationships among these specific indicators. Box 11 provides examples of capacity indicators used in non-health sector programs. Table 5 gives examples of performance indicators at each level for reference.

Lessons for Indicator Development

The following lessons on indicator development are drawn from field experience in capacity measurement in health and other sectors (Morgan, 1997; Horton et al. 2000; Fort, 1999; Luoma, 2000; Ampomah, 2000; Catotti, 1999; Pyle and LaFond, 2001).

Lesson 1: Indicators should reflect an understanding of the change strategy for capacity development.

The process of choosing capacity indicators should feed into the overall change strategy designed for building capacity and improving performance. Indicators should be developed alongside capacity mapping while designing a capacity-building intervention. Evaluators also might seek to understand how information is currently used in the organization or system to ensure that indicators become incentives for change and not barriers.

Box 11: Examples of Capacity Indicators from Non-health Sector Capacity-Building Interventions

Example 1
1. Capacity indicator related to decentralized payment functions administered by local officials, district assembly members, and financial and political employees:
Ability of the system to transfer funds between authority levels (for example, within 45 days of the end of the quarter) and/or produce audited statements within six months of the end of the fiscal year.

2. Capacity indicator related to community water management committee's role in water pump maintenance:
A functioning Pump Management Committee that meets at least once a month and keeps the pump functioning 90 percent of the time in normal circumstances.

3. Capacity indicator related to coordination of information among six ministries working on soil erosion:
Twenty-five percent increase in the number of projects that require contributions from two or more departments.

4. Capacity indicator related to government department to carry out joint surveys of client farmers in delta area of cotton region:
Acceptance of survey methods as an effective tool by senior research officers and their incorporation into the work program of the agencies.

Source: Morgan, 1997

Example 2
Indicators related to motivation
Motivation to implement the strategic approach
Motivation to undertake strategic planning
Interest in improving the management information system
Interest in designing and managing competitive projects
Indicators related to capacity
Knowledge of the strategic approach
Skills to undertake strategic planning
Knowledge about designing and managing competitive projects
Knowledge about the foundations of an information management system
Indicators related to context or environment
Degree to which tasks demand conceptual and methodological creativity and innovation
Positive appreciation of performance in institutional evaluations
Degree of autonomy to undertake work
Contribution to improvement of the management information system

Source: Horton et al, 2000

Lesson 2: Capacity indicators should capture organizational and behavioral change as well as material and technical change.

The most challenging demand of capacity measurement is constructing meaningful measures of human and organizational behavior change. There is a tendency, particularly in the health sector, to advance technical explanations for what are just as likely to be organizational or human behavioral problems. For instance, it is often presumed that training health providers alone will address performance gaps in service delivery when the root causes of poor performance can range from unreliable sources of supplies to low health worker motivation. Capacity developers and evaluators need to have a sense of how people and organizations change, what brings about lasting change, and why change in certain values and practices makes a difference. Capacity indicators should capture the essence of these changes in human and organizational behavior.

Lesson 3: In planning capacity-building M&E, it is important to monitor not only capacity but also key aspects of performance and the environment.

Improved performance serves as the main reference for mapping capacity and is the goal of capacity building. Evaluators should review changes in performance alongside capacity to examine the relationships among different capacity and performance variables. In addition, evaluators should track environmental changes. Environmental factors typically help to explain changes (or lack of change) in capacity and performance. Indicators that monitor external conditions serve as a warning to organizations that capacity and performance may be in jeopardy.

Lesson 4: Indicators should encourage ownership and appreciation of the capacity-building and M&E process.

Indicators should be designed to promote ownership of the capacity-building process. Evaluators should work with capacity-building stakeholders to define indicators that reflect locally determined and accepted notions of change. Keeping indicator definitions simple and relevant to local needs will encourage widespread use of M&E for capacity development. Designing indicators to serve external (often donor) needs rather than local decision making can adversely influence ownership of capacity development (Morgan 1997). This type of approach can "diminish the contribution that capacity indicators can make to project effectiveness." Evaluators are advised to balance the desire for more information for accountability purposes with the value of using information to motivate positive behavior changes in individuals and organizations.

Evaluators should also keep in mind that measuring capacity can also be a sensitive issue. Organizations, and people, do not relish having their "weaknesses" documented. They feel even less enthusiastic about having their weaknesses broadcast to their superiors, partners, and funders. The quality of data gathered for constructing capacity indicators could be distorted and/or obstructed unless the purpose of monitoring and evaluation is clear to all stakeholders, including the usefulness of certain indicators. Indicators should be as non-threatening as possible.

Map 5a: Mapping Capacity First Iteration

Intervention
Performance objective: Consistent delivery of a package of family planning services to a defined population (coverage, quality, and consistency).
Capacity-building objective: Improve ability of health services to respond to client needs and demands in health facilities in District One.
Strategies and activities: Introduce incentives for quality of care practices; improve client provider communication skills; research and design optimal mechanisms for communication and interaction between communities and health facilities.

	Inputs	Processes	Outputs	Outcomes	Performance
System	Civil service administration practices Supplies & delivery of essential goods				
Organization	Leadership Human resource Supplies	Supervisors Incentives Referral	Quality of referral system Feedback Supplies management	Health services able to respond to client needs and demands	**Consistent delivery of essential package of good quality family planning services to a defined population (coverage, quality, and consistency)**
Personnel	Number of staff	Outreach Learning Provider-client interaction			
Community	Experience with family planning Local health organizations Leadership	Links to community	Number of contacts	Outcome of contacts	
Context or operational environment					
National policy on consumer roles and rights Published norms and standards of care					

Map 5b: Mapping Capacity Second Iteration

Capacity outcome: Health services able to respond to client needs and demands

Intervention

Performance objective: Consistent delivery of a package of family planning services to a defined population (coverage, quality, and consistency).
Capacity-building objective: Improve ability of health services to respond to client needs and demands in health facilities in District One.
Strategies and activities: Introduce incentives for quality of care practices; improve client provider communication skills; research and design optimal mechanisms for communication and interaction between communities and health facilities.

	Inputs	Processes	Outputs	Outcomes	Performance
System	Civil service administration practices that support counseling and provision of family planning Supplies & delivery of essential goods family planning supplies				
Organization	Leadership within management teams with knowledge and training in family planning Human resource (quantity & quality of existing training/skills) Supplies of family planning and IEC materials (quantity & reliability)	Behavior of supervisors (content, communication & modeling of desired behavior among health workers) Incentives for supervisors & providers to perform adequately Referral system (designating, enabling & following up referrals)	Number of commodity reports Worker feedback on supervision Client feedback on services Supplies management checklist used Frequency of needed referral	Health services able to respond to client needs and demand: (Expressed as: Utilization; Client satisfaction; and Supplies availability/ stockouts)	**Consistent delivery of essential package of good-quality family planning services to a defined population (coverage, quality, and consistency)**
Personnel	Number of staff in each professional category related to family planning	Community outreach activity (frequency and quality) Availability & use of learning opportunities for improving communication on family planning Provider-client interaction index (quality)	Number of outreach visits	Health workers motivated to address client needs Health workers' ability to conduct client interview	
Community	Experience with family planning Local organizations/unit focused on health Leadership	Mechanisms for linking health services & community groups (frequency & quality)	Number of contacts with health facilities	Outcome of contacts in terms of client satisfaction	
Context or operational environment					
National policy on consumer roles and rights Published norms and standards of care					

Map 6: Community Capacity Map on Multiple Levels with Indicators (in Italics)

Intervention

Performance objective: To increase demand for childhood immunization in Sierra Leone.

Capacity-building objective: Work with a local NGO to improve Community Health Workers (CHW) capacity to provide Information, Education, & Communication (IEC) on childhood immunization.

Strategies and activities: Develop curricula for training of trainers and training of CHWs; conduct training of trainers and supervision; health personnel support CHWs from health centers; NGO supervises and supports health center personnel working in service delivery.

Level	Capacity Inputs	Capacity Processes	Capacity Outputs	Capacity Outcomes	Performance
System	National policy on immunization & CHWs *(Policy exists & is favorable)*				
Organization (Local NGO)	Health center personnel *(Quantity/ basic training)* Community health workers *(Quantity/ basic training)*	Designing & planning a training program *(Planning mechanisms exist & planning skills demonstrated)*	Training plan developed *(Plan exists)* Training materials developed *(Quantity/quality of materials)*	Successful organization & execution of Training of Trainers *(TOT completed; trainees' knowledge improves; trainees satisfied)* Ability to recognize training needs and meet them *(assessment process leads to training)*	
Personnel	Curricula for: - Training of Trainers and - Community Health Workers *(curriculum exists)*	Participation in Training of Trainers Participation in CHW training on IEC *(% of personnel or CHWs completing training)*	Trainers meet standards following course *(Post-test scores)* CHWs meet standards following course *(Post-test scores)* IEC sessions provided *(Number/frequency of IEC sessions)*	Capacity of CHWs to delivery IEC on immunization - CHWs motivated to provide services *(attitudes of CHWs to IEC)*	Effective delivery of IEC services *(Quality of IEC sessions)*
Community	Exposure to immunization program *(Past experience with childhood immunization)*		Perceptions of CHWs *(Community relationship with CHWs and acceptability of their role)*	Community knowledge of immunization benefits and side effects (*Index of immunization program message recall)*	Improved demand for immunization services in communities serviced by CHWs *(Immunization service utilization & coverage)*
Context or operational environment					
National economic growth *(GDP)* National health expenditures on immunization *(% of health budget spent on immunization; total expenditure on immunization)* Donor support for immunization *(% of immunization expenditure from external sources)*					

Lesson 5: The results of indicator-based capacity-building M&E should be interpreted wisely.

There are documented challenges to using indicators to monitor and evaluate capacity building. Evaluators can manage each challenge with careful planning of M&E. Some of these challenges are detailed below.

Capacity development is context specific. It reflects qualitative (as well as quantitative) changes in resource availability and behavior. Given the wide range of possible scenarios and capacity/performance objectives, it is often not possible to establish objective standards that would allow local or regional comparisons in capacity across similar types of entities. Internal benchmarks can be set, but they may not be valid for other entities or contexts. It follows that aggregation of indicators on a district, regional, or national scale is not likely to result in useful information for M&E.

Selection of capacity indicators is often highly subjective. To encourage ownership and relevance, evaluators often rely on perceptions of capacity and capacity change among participants in the capacity development process as the basis for measuring progress. Thus, there is a need to balance these subjective measures with a range of objective indicators and data-gathering strategies.

Capacity is influenced by many different variables. Hence, there is a tendency to try to monitor a number of indicators at the same time. We encourage the use of multiple indicators for each level within the capacity map because they provide greater insights into the state of capacity and can serve to validate findings. Use of multiple indicators is often recommended to explain what can be an imprecise situation or occurrence. At the same time, however, evaluators should prioritize indicators based on program objectives and develop a manageable set to monitor over time.

Evaluators are experimenting with indices or complex indicators that combine a short list of essential indicators (sometimes weighted by strength of influence) into a single measure of capacity. Of the few examples in the health sector, the PRIME project used a single index to assess capacity dimensions of organizations that conduct training in reproductive health (Fort, 1999; Ampomah, 2000; Catotti, 1999). This index also takes into account different possible stages of capacity by using a scale from 0 to 4 to assess progress of an organization for each indicator under study. An example of the indicators and scales used in the Training Organizations Index and a presentation of the results of a capacity assessment in El Salvador are found in Annexes A and B. The PRIME Project did not use this index to conduct routine monitoring and evaluation of training organizations; however, it has adapted many of these indicators and the scaling approach for use in its performance monitoring plan (PRIME II, 2001). Other examples that use scales or scoring as part of a capacity index can be found in the Management and Organizational Sustainability Tool (MOST) (MSH, 1996), and tools developed to evaluate the capacity of agricultural research organizations (Horton et al., 2000).[8]

[8] It is important to note that indices can be difficult to interpret if they are presented out of context or to an audience that does not understand how the index is constructed.

Table 4: Examples of Capacity Indicators in Current Use in Health Programs

Level	Inputs	Process	Outputs	Outcomes
Health system	• Doctors per population • Ratio of health care spending on primary health care vs. tertiary care • Percent of health budget funded by external sources • Percent of national budget allocated to health	• Donor coordination committee meets every 6 months • Collaborative "arrangements" exist between social sectors – e.g., meetings between health & agriculture or health & education • Percent of districts with decentralized budgeting	• Number of multisectoral meetings held • Number of collaborative projects initiated in sectors outside health • Existence of national standards for professional qualifications • Existence of sector-wide strategy	• Widely distributed sector-wide strategy • Regular auditing of system-wide accounts by independent company • Percent of recurrent costs covered through local resource generation
Organization	• Existence of clear mission statement • Number of trained managers per unit • Percent of district medical officers with public health degree/training • Clearly defined organizational structure • Organizational culture that values and rewards performance	• Coordination with other organizations evident through internal reporting mechanisms • Number & quality of jointly administered activities with partner organizations • Job descriptions updated regularly to reflect real work requirements & responsibilities • Team planning (frequency and quality) • Supervisors playing mentoring role	• Presence of financial management system that regularly provides income/revenue data & cash flow analysis • Number of commodity tracking reports • Individual work plans are prepared for all staff • Sufficient number of sites functioning as clinical training sites to meet clinic practice needs • Percent of MIS reports complete and on time	• Supervisors able to guide on-site learning • Ability to adjust services in response to evaluation results or emergencies • Cost-sharing revenue as a proportion of the annual MOH non-wage recurrent budget • Percent of facilities with stock-out of essential commodities in the last 6 months • Regular review of MIS data for routine planning
Health Personnel	• Adequacy of training materials/supplies has been assessed in one or more institutions • Adequate training supplies available in sufficient quantities to support ongoing RH/FP training in one or more institutions • Up-to-date curricula • Percent of training budget from external assistance	• Number of training sessions to improve human resource management addressing needs expressed by providers • Managers trained in and using performance evaluation • Percent of courses where training methodology is appropriate for transfer of skills/knowledge • Professional networking (frequency and quality)	• Number of providers trained, by type of training & cadre of provider • Number of staff trained in finance, MIS, strategic planning, financial planning • Number of managers trained, by type of training • Number of monthly staff newsletters produced	• Percent of trainees (providers) with knowledge in skill area (meet national standard) • Level of staff motivation • Percentage of senior staff with continuing education opportunities
Individual/ Community	• Average level of education attained in the district • Mean income level • Proportion of adults whose partner recently died in central hospital • Community leadership (type and quality)	• Number of health committees who meet regularly and take action • Percent of dispensary budget supported with community-based funding • Level of community cohesiveness • Community experience negotiating with district health office	• Proportion of non-users who desire to use contraception in the future • Level of participation in community health committees • Number of health action plans	• Community needs presented to district health office on regular basis • Proportion who knows anemia prevention practices • Level of community mobilization and empowerment • Community support for maintaining new well

Table 5: **Examples of Performance Indicators in Current Use in Health Programs**

Level	
Health system	• Average time/distance to the nearest reproductive health facility offering a specific service • Percent of facilities where percent of clients receive the service that meets the expected standards • Number/percent of trainees deployed to an appropriate service delivery point and job assignment • Percent of facilities that experience a stockout at any point during a given time period • Percent of health facilities providing STI services with adequate drug supply • Contraceptive prevalence rate (CPR) • Disability adjusted life years (DALY) • Disability adjusted life expectancy (DALE) • System responsiveness to clients • Index of equality of child survival • Total health expenditure as a percent of GDP • Public expenditure on health as a percent of total public expenditure • Out of pocket expenditure as a percent of total health expenditure
Organization	• Percent of mothers examined every 30 minutes during the first two hours after delivery • Percent of data elements reported accurately in MIS reports • Family planning continuation rates in catchment population • Percent of annual revenue generated from diverse sources • Percent of target population that received DPT 3 immunization • Cost of one month's supply of contraceptives as a percent of monthly wages
Health Personnel	• Percent of deliveries in which a partograph is correctly used • Percent of newborns receiving immediate care according to MOH guidelines • Percent of pregnant women counseled and tested for HIV • Percent of STI patients appropriately diagnosed and treated
Individual/ Community	• Percent of communities with active health center management committee • Percent of target population that received DPT 3 immunization • Percent of non-users who intend to adopt a certain practice in the future • Percent of infants 0 - < 6 months of age who are exclusively breastfed • Percent using condoms at last higher-risk sex

Determining cause and effect are not easily done with capacity-building M&E, even though a capacity map might clearly state assumptions about relationships among variables. The multiplicity of capacity variables and the frequent improvement and decline in capacity make it difficult to draw definite conclusions from a complex situation. It is not surprising, therefore, that some evaluators have found linear evaluation frameworks and the strict use of indicators too inflexible and mechanical to be used effectively in monitoring and evaluating capacity (Morgan, 1997; Earl et al., 2001). For these and other reasons, Morgan cautions evaluators not to rely too heavily on indicators to provide complete insights into capacity development. In spite of the growing list of capacity measures, "indicators used in monitoring and evaluation of capacity do not explain why complex systems work the way they do" (Morgan, 1997).

In light of these challenges, the way in which indicators are developed, measured and used becomes a critical determinant of the credibility and usefulness of monitoring and evaluation of capacity building. Many of these constraints can be addressed with careful indicator development and the use of a range of data-collection instruments that are sensitive to the intangible nature of what is being measured in capacity-building evaluation. At the same time, the use of linear evaluation frameworks also requires careful management. Evaluators need to focus on critical process aspects of capacity building, and use maps to guide but not restrict M&E.

STEP 5 Identify Appropriate Methodological Approach and Sources of Data

The fifth step in developing a capacity-building M&E plan involves defining the methodological approach, identifying sources of data, and choosing (or developing) data collection tools. Evaluators should ask the following questions:

- Which methodological approach is appropriate?
- What sources of data are necessary for measuring the indicators defined in Step 4?
- Are there any existing tools for measuring capacity that are appropriate for my purposes?

Methodological Approaches and Challenges

As discussed throughout this guide, monitoring and evaluation require different methodological approaches and have different data needs. The choice of methods and data sources relates mainly to the purpose of the evaluation (see Step 1).

- Is the purpose to monitor the implementation of a capacity-building intervention, assess its effectiveness, or both?
- Will the results be used mainly for internal improvements or external reporting?

Clearly, all capacity-building programs need to be monitored to ensure they are working well (i.e. to track changes in inputs, processes, outputs and outcomes). However, the evaluation of program effectiveness happens less frequently and only for selected interventions due to cost and complexity. In the case of capacity-building evaluation, it can be particularly difficult to conduct evaluations that look for an association between capacity-building intervention and changes in capacity or performance. These changes can occur for a number of reasons in addition to the capacity-building intervention itself (e.g. contextual influence). Since capacity measures are not easily quantified, and identifying similar organizations or systems to facilitate comparison (as in a case-control study) is difficult, experimental designs are not feasible or practical for capacity measurement. As James (2001) notes about capacity-building evaluation, "precise measurement and attribution of cause and effect is rarely possible and never cost effective. The best we can hope for is plausible association."

Evaluators are therefore advised to recognize the challenges to capacity-building M&E and set realistic aims for evaluation. Many of these challenges have been discussed previously in this guide. Some of them relate to the inherent nature of capacity (capacity and capacity building are dynamic and multidimensional; contextual), while others are a function of the early stage of development of capacity measurement. Four of the main challenges are detailed below.

Capacity develops in stages

Capacity measurement tools should be able to capture different stages of development of communities, health personnel, organizations, or health systems. The "MSH organizational profile" used in the Management and Organizational Sustainability Tool (MOST), for example, has identified different benchmarks according to an organization's stage of development (nascent, emerging, mature). Capacity measurement must be able to capture individual elements of capacity and combinations of elements, and relate them to the stage of development of the entity being assessed.

Changes in capacity need to be measured over time

Repeated measures are needed to capture the interim steps in capacity-building processes as well as trends in outcomes. While there are examples of repeated application of capacity

measurement tools (INTRAH, SFPS, and PASCA), to date, only limited reports of findings from longitudinal evaluations are available (PASCA). Better techniques are needed to capture the effects of capacity building over time and elaborate the link between capacity development and performance improvement.

Internal versus external validity
Capacity building should be a self-motivated and self-led process of change. Evaluation strategies that use self-assessment techniques and locally determined benchmarks of progress inspire ownership of capacity development and increase the likelihood that evaluation results will be used. Nevertheless, there can be a cost to this approach in terms of the perceived validity of findings. External stakeholders often prefer to measure progress against performance standards (of either national or local origin) using standardized indicators to allow comparisons or a reference to other similar types of capacity-building programs. Self-reported measures of capacity may not meet the reporting expectations of external stakeholders even if they support better capacity development strategies. Box 12 describes the experience of one project in using the two different approaches.

Lag time between changes in capacity and changes in performance
It is very common to experience considerable lag time between a capacity-building intervention and changes in capacity, as well as between changes in capacity and changes in performance. Timing of capacity or performance measurement should take into consideration these delays and consider interim measures of change or longer timeframes for M&E.

Tackling Methodological Challenges

Many of the tools and methods reviewed for this guide were able to tackle challenges to capacity-building measurement. Others provided useful lessons on how to move capacity-building M&E forward. Advice to evaluators follows:

- use *multiple data-collection instruments*, reflecting the multidimensional nature of capacity. Multiple data-collection instruments are useful to get a comprehensive picture of capacity or to assess capacity from different perspectives (e.g., assessing the views of managers and health workers or assessing internal perspectives and those of external examiners).

Box 12: PASCA: From Self-Assessment to External Assessment

PASCA is a USAID-funded project focusing on capacity building of nongovernmental organizations (NGOs) that provide HIV/AIDS services in Central America. During the first year of the project (1996), PASCA conducted a self-administered needs assessment study among the NGOs receiving support. Although the needs assessment provided useful information for planning, the researchers felt that the self-administered methodology exaggerated the programmatic, administrative and managerial capacity of the NGOs. Thus, managers decided to conduct an externally administered Validation Study in 1997 using mixed methods to determine the validity of the self-reported data, and provide an in-depth assessment of the management and programmatic needs of each NGO. When compared to the Needs Assessment survey, capacity scores from the Validation Study were markedly different. The Validation Study, in which self-reported answers were validated with document observation, provided data that more accurately reflected the capacity of the NGOs (MEASURE Evaluation, 1998).

- *combine qualitative and quantitative methods*, such as focus groups, individual interviews (with both closed- and open-ended questions), surveys, and document reviews.

- *address more than one level*. Capacity often occurs at several levels simultaneously. New measurement tools are needed to capture capacity building at a single level and address the relationship between levels.

- *include self-assessment techniques* in combination with external or standardized methods. (See Box 13 for a discussion of self-assessment and external assessment.) Evaluators are urged to strike a balance between meeting the need for evaluation data that different stakeholders will deem "objective" or credible, and promoting performance improvement through monitoring and evaluation.

- *triangulate methods and data sources*. Triangulation examines results from a variety of data-collection instruments and sources, strengthening the findings of capacity-building monitoring and evaluation. If all data lead to the same conclusion, then there is some confidence the result actually will reflect changes. Where there is discordance in the results, it is necessary to examine possible sources of the differences. Looking at other sources of data on similar topics can help understand findings as well.

- *use data interpretation workshops* to obtain input from a range of stakeholders involved in the program (both internal and external).

Sources of Data

A number of data sources are available for monitoring and evaluating capacity building. Since capacity measurement often includes the use of multiple indicators, monitoring and evaluation usually requires multiple data sources. Indicator design should take into account the potential availability of data particularly from existing sources. Organizations and systems often have records and reports that provide insights into different aspects of capacity. Some examples of existing data sources are presented below.

In many cases, however, it will be necessary to collect new data to operationalize the indicators selected. As noted above, issues such as data sensitivity (with respect to its effect on validity), the purpose of monitoring and evaluation, and the cost in terms of time and resources required should guide evaluators in determining what data will be collected and how they will be collected.

Sources of data by level of capacity include:

S*ystem:* national health policy records, national data-collection efforts (census, vital statistics, national /regional surveys), international surveys (e.g., FPPE, API, DHS).[9] MOH policies, financial reports, legal or regulatory statements (bills, acts, recommendations, white papers, etc.).

Organization: routine health service records and reports, budget and expenditure records, financial statements, personnel records, program and donor reports, constitutional documentation, strategic and annual plans, meeting minutes, evaluations and audits, organizational networking analysis, organizational assessments.

[9] FPPE (Family Planning Program Effort Score); API (AIDS Program Effort Index); DHS (Demographic and Health Survey).

Health personnel: personnel records (job descriptions, performance evaluations, background checks, training summaries), supervision reports, self-evaluations.

Individual/Community: community-based and social marketing surveys, community health worker reports, meeting minutes, maps, focus groups, and participatory appraisals.

In planning for data collection, it is often helpful to develop a data chart that spells out the key questions to be addressed, the indicator that links to the question, and the data sources needed to answer the question. An example of a data chart is found in Table 6.

Tools for Measuring Capacity at Different Levels

A number of data-collection instruments and tools have been developed and used to measure capacity at the four levels. (See Table 7 for a list of tools and their key characteristics). In most cases, these tools have been used for capacity *assessment* rather than for monitoring and evaluation. In addition, most of the tools identified are designed to assess *organizational* capacities, although many of them assess the capacity of health program personnel because of their central role in organizational functions and performance. We identified a more limited number of tools to measure the health system and individual/community level capacity. However, the field of capacity measurement is changing quickly and several agencies are currently developing approaches to understanding changes in performance at the system level (Partnerships for Health Reform, 1997; Murray and Frenk, 1999).

The tools listed in Table 7 are provided for reference only. To determine if a tool might be useful for a particular capacity development intervention, evaluators should address the following questions:

- At what level(s) do I want to assess capacity?
- Do any of the existing instruments measure the dimensions or indicators I have identified through mapping?
- How could I adapt one of these instruments for my needs?

Box 13: Advantages and Disadvantages of Self-Assessment and External Assessment Techniques

While practitioners value the role of self-assessment tools in stimulating interest in capacity building and launching a change process, for monitoring and evaluation purposes it is important to consider the potential advantages and disadvantages of both internal and external approaches.

Advantages of self-assessment tools:

- Greater involvement of those whose capacities are being assessed (e.g., staff of an organization), which can lead to greater ownership of the results and, ultimately, greater likelihood that capacity improvements (based on results of the assessment) will take place
- Non-threatening way to raise awareness of the importance of capacity improvement among those involved in the assessment process

But self-assessment tools

- Require an external facilitator
- Rely on perceptions and may be less reliable when used repeatedly and are prone to various biases (e.g., optimistic bias)
- Become less useful with high staff turn-over (which results in changing the 'self' in 'self-assessment)
- In many cases are interventions in and of themselves

Advantages of external assessments tools:

- Often considered more objective

But external assessment tools

- May be more costly due to the cost of external consultants; self-assessments, particularly those that require intensive facilitation, can also be demanding in terms of time
- May not reflect internal views accurately

Recommendation:

- Use a mixture of methods that combine subjective and objective measurement.

Table 6: Example of a Table of Data Sources for an Organizational Assessment

M&E Question(s)	Objective(s)	Indicator	Method(s)	Data Sources
1. Did financial and human resource inputs change over time? 2. Did the source of financial resources change over time?	1. Determine whether capacity-building interventions increased budgetary resources of the organization and the number of trained personnel. 2. Determine whether change in reliance on donor/NGO funding has decreased.	1. Amount of budgetary resources by source over time 2. Number of management and staff positions filled over time	1. Records review (organization and donor) 2. Record review of personnel resources 3. Interviews with senior management in organization and donors/NGOs	1. Accounts, budgets, annual reports 2. Personnel records, annual reports 3. Finance manager, accountant, donor/NGO representative
1. Did the organization establish new relationships or improve links with other organizations that contributed to achieving performance objectives?	1. Determine the extent of networking and its effect on organizational behavior.	1. Number of joint activities with other organizations 2. Frequency of contact with higher and lower level organizations within public sector 3. Types and frequency of outcomes from links with other organizations analyzed by organization type (public or private)	1. Prospective recording of links to other organizations 2. Interviews with management and staff 3. Facility survey (observation, exit interviews, provider interview, inventory)	1. Record forms 2. Questionnaire and focus groups 3. Survey data 4. Organizational networking analysis
1. Did staff capacity to assess client needs improve?	1. Determine the effectiveness of training and mentoring.	1. Client satisfaction index 2. Provider satisfaction index	1. Facility survey (exit interviews, provider interview) 2. Client focus groups 3. Provider focus groups	1. Survey data 2. Focus group data
1. Did staff capacity to meet client needs improve?	1. Determine the effectiveness of training and mentoring.	1. Client satisfaction index 2. Provider satisfaction index	1. Facility survey (exit interviews, provider interview) 2. Client focus groups 3. Provider focus groups	1. Survey data 2. Focus group data

Table 7: Capacity Measurement Tools

Tool	Developed By	Level	Methods	Self/ External Assessment	Single/ Multiple tools	Short description
Enhancing Organizational Performance: A Toolbox for Self Assessment http://www.idrc.ca	IDRC	Organization	Qualitative and quantitative	External and self-assessment	Multiple	Measures the results of an organization's programs, products and services and then integrates these results with the techniques of formative assessment in which the assessment team becomes involved in helping the organization meet its goals.
Outcome Mapping: A Method for Reporting on Results http://www.idrc.ca/telecentre/evaluation/html/29_Out.html	IDRC	System Organization	Qualitative and quantitative	Self-assessment	Multiple	Outcome Mapping characterizes and assesses the contributions a project or organization makes to significant and lasting changes (outcomes). In Outcome Mapping a program is assessed against its activities that contribute to a desired outcome, not against the outcome itself.
Integrated Health Facility Assessment (IHFA) http://www.basics.org/publications/pubs/hfa/hfa_toc.htm	BASICS	Organization	Quantitative assessment	External assessment	Multiple	This manual outlines the key steps for planning and conducting an integrated health facility assessment at outpatient health facilities in developing countries. This assessment is designed for use by primary health care programs that are planning to integrate child health care services.
Management and Organizational Sustainability Tool (MOST) http://erc.msh.org/mainpage.cfm?file=95.40.htm&module=toolkit&language=English	Family Planning Management Development (FPMD)/ MSH	Organization	Qualitative	Self-assessment	Single	The Management and Organizational Sustainability Tool (MOST) is a package (instrument and user's guide) designed to facilitate management self-assessment and to support management improvement. MOST uses an instrument to help focus an organization on the actual characteristics of their management, identify directions and strategies for improvement, and set priorities for the management development effort.
Management Development Assessment (MDA) http://erc.msh.org/mainpage.cfm?file=95.50.htm&module=toolkit&language=English	FPMD/MSH	Organization	Quantitative	Self-assessment	Single	This tool includes four steps: 1) develop a preliminary management map to guide assessment; 2) develop and administer MDA questionnaire to collect information on the management capabilities of organization; 3) analyze survey results and develop a post-survey management map; and 4) develop action plan for making improvements.
The Child Survival Sustainability Assessment (CSSA) http://www.childsurvival.com	Child Survival Technical Support (CSTS) Project/ORC MACRO	System (local) Organization Community	Qualitative and quantitative	Self and internal client assessment	Multiple	Evaluation framework to systematically measure progress toward sustainable health goals. Process that projects can use to lead a participatory assessment with communities and local partners.
The Institutional Strengths Assessment (ISA) Tool http://www.childsurvival.com/tools/project_planning.cfm	CSTS Project/ORC MACRO	System (local) Organization	Qualitative and quantitative	Self and internal client assessment	Multiple	This self-assessment tool is currently being pilot tested by CSTS.

Tool	Developed By	Level	Methods	Self/ External Assessment	Single/ Multiple tools	Short description
INTRAH/PRIME Capacity Building In Training Questionnaire http://www.prime2.org/prime2/techreport/home/50.html	INTRAH/ PRIMEII	Organization	Qualitative and quantitative	Self and internal client assessment	Multiple	The framework and tool developed at the end of PRIME I has been used to aid program evaluation in different countries (e.g., Mexico, Ghana, India, and Bangladesh), when interventions have focused on the strengthening of training and service delivery institutions. The tool encourages organizations to discover root causes of obstacles with a sustainable effort to build capacity in the organization to recognize, address, analyze and prioritize problems.
Client-Oriented Provider Efficient (*COPE*®) http://www.engenderhealth.org/ia/sfq/qcope.html Note: COPE has now been adapted for use with maternal health services and community partnership http://www.engenderhealth.org/news/newsreleases/020516.html	Engender Health	Organization	Qualitative and quantitative	Self-assessment	Multiple	COPE encourages and enables service providers and other staff at a facility to assess the services they provide jointly with their supervisors. Using various tools, they identify problems, find the root causes, and develop effective solutions.
Transformational Development Indicators Field Guide http://www.worldvision.org NOTE: Tool not yet available online	World Vision	Community	Qualitative and quantitative	External and self-assessment	Multiple	Provides technical guidance for measuring the Transformational Development Indicators. It includes 8 volumes that cover indicator definitions and methods for collecting, analyzing, and reporting on the indicators.
Communication for Social Change: An Integrated Model for Measuring the Process and Its Outcomes http://164.109.175.24/Documents/540/socialchange.pdf	Center for Communications Programs (CCP)/Johns Hopkins University	Community	Qualitative and quantitative	External and self-assessment	Multiple	Presents model, process and outcome indicators, and some data collection and analytical tools for use by communities.

Tool	Developed By	Level	Methods	Self/ External Assessment	Single/ Multiple tools	Short description
Assessing Institutional Capacity in Health Communication: A 5Cs Approach Work in Progress. http://www.jhuccp.org	CCP/Johns Hopkins University	Organization	Quantitative	External and self-assessment	Multiple instruments	Scores organizational competence, commitment, clout, coverage and continuity.
Management/Financial Sustainability Scale (MFSS) http://www.pasca.org	PASCA	Organization	Quantitative	External and self-assessment	Single instrument	Tools are in Spanish only.
Systematic Approach Scale (SAS) http://www.pasca.org	PASCA	Organization	Quantitative	External and self-assessment	Single instrument	Tools are in Spanish only.
Institutional Assessment Instrument (IAI) http://www.worldlearning.org or http://www.worldlearning.org/pidt/docs/wl_instcape.pdf	World Learning Project Inc.	Organization	Qualitative and quantitative	External assessment	Multiple instruments	Provides a framework for assessing the institutional needs of a single organization or a community of organizations. Pinpoints six key areas generally agreed to be the components of effective institutions.
Institutional Development Assessment (IDA) http://www.fhasfps.org/documentsdownload/Institutional%20Development%20Assessments.PDF	SFPS	Organization	Qualitative and quantitative	External assessment	Multiple instruments	Documents existing capacity and identifies potential areas of collaboration and capacity building in overall dimensions of management, financial management and technical capacity.
Organizational Capacity Assessment Tool (OCAT) http://www.pactworld.org	Pact/Ethiopia	Organization	Quantitative	Self-assessment	Multiple instruments	A methodology for organizational capacity assessment and strengthening that helps organizations anticipate and overcome the greatest barriers to organizational change and growth. Through a guided self-assessment and planning process, organizations reflect upon their performance and select the tools and strategies they need to build capacity and broaden impact. A four-staged process that includes: Participatory tool design; guided self-assessment; data-guided action planning; reassessment for continual learning that allows organizations to monitor change, track the effectiveness of their capacity-building efforts, and integrate new learning as their needs change and capabilities increase.

Tool	Developed By	Level	Methods	Self/ External Assessment	Single/ Multiple tools	Short description
Participatory, Results-Oriented, Self-Evaluation (PROSE) SEE POET at: http://www.undp.org/csopp/poet.htm	Education Development Center and PACT	Organization	Qualitative and quantitative	Self-assessment	Single instrument	Participatory Organizational Evaluation Tool (POET) is an organizational capacity assessment tool used to measure and profile organizational capacities and consensus levels in seven critical areas and assess, over time, the impact of these activities on organizational capacity (benchmarking). POET is based on a methodology called PROSE. PROSE stands for Participatory, Results-Oriented, Self-Evaluation, a new methodology for assessing and enhancing organizational capacities. PROSE is designed for use by service organizations, schools, and government units. It is suitable for assessing capacity and catalyzing organizational change in relation to such concerns as: practices related to exceeding customer expectations, organizational effectiveness in achieving mission, community participation, equity, decentralization, and managerial effectiveness.
National program effort indices Family Planning Effort Index (FPEI) http://www.agi-usa.org/pubs/journals/2711901.pdf The AIDS Program Effort Index (API) http://www.policyproject.com/pubs/countryreports/api.pdf	The Futures Group/ Population Council	System (national) Organization	Quantitative and qualitative	External assessment	Single instrument	Each index measures national level effort and identifies strengths and weaknesses of those efforts.

STEP 6 Develop an Implementation and Dissemination Plan

The final step in planning for capacity-building M&E is to develop an implementation plan to monitor and evaluate capacity. At a minimum, the implementation plan should include a timetable for data gathering and review of data, individual responsibilities, a dissemination strategy, and a budget. In practice, capacity measurement, as a reflection of capacity development, is likely to be an iterative process rather than a perfunctory "before and after" look at capacity. Experienced evaluators (Horton et al, 2000; Lusthaus, 1999; Earl et al., 2001; Morgan, 1997) recommend regular review and discussion of monitoring results with stakeholders to guide the process of capacity development and encourage ownership of the monitoring process. Setting aside enough time to present the results periodically and allow for discussion and feedback from the stakeholders will greatly enhance data interpretation and the impact of the evaluation itself. As Morgan (1997) notes, "Indicators by themselves provide few answers. The information they produce must be screened through the mental models of the participants to acquire any diagnostic value."

When developed before the evaluation begins, a dissemination strategy guides data collection and analysis. Developing a format for presentation of the results to the appropriate audience identifies weaknesses and gaps in the evaluation plan. It also helps to guide the direction of the evaluation by emphasizing what is needed for addressing the needs of the data users and raising awareness of possible sensitivities. Gaps or excess data collection becomes obvious, and further refinement of the number or type of indicators being measured is often necessary. In the process, evaluators identify all key stakeholders that should be alerted to the results, if they are not directly involved in the evaluation itself. The recommended forum for disseminating results is one that promotes discussion and interaction among the key stakeholders and those in a position to influence the future direction of the capacity-building efforts. Sufficient funds must be set aside so that all those who make a credible contribution to the evaluation receive at least summary results in a timely and relevant fashion.

Part 4 Summary Checklist: Steps for Designing a Capacity-Building M&E Plan

This guide is designed to assist manager and evaluators working in international health-sector capacity development to

- gain a clear understanding of the concepts of capacity and capacity building
- critically evaluate the strengths and limitations of current approaches to capacity measurement
- design a capacity-building M&E plan that outlines a systematic approach to measuring capacity and assessing the results of capacity-building interventions in the health sector

The manual presents a discussion of the concept of capacity and capacity building, and the influence of attributes of capacity on M&E approaches. It outlines a conceptual framework for understanding the role that capacity plays in enabling performance in the health sector and suggests an approach to identifying key factors that influence capacity and performance. Finally, it outlines some basic steps for capacity-building M&E that result in a plan for evaluating a specific capacity-building intervention. These steps are summarized in the checklist that follows.

Checklist: Steps in Designing a Capacity-Building M&E Plan

The Guide recommends a six-step approach for developing an M&E plan for capacity building. The key components of each step are outlined below.

Define the purpose of the evaluation (Step 1)

- ❑ Evaluators and program planners should work with key stakeholders to develop an M&E plan during the design of a capacity-building or performance improvement intervention.
- ❑ Capacity-building M&E can be used internally to improve capacity development interventions or to report results to external stakeholders. While these two purposes are not mutually exclusive, managers should understand the benefits and drawbacks of emphasizing one objective at the expense of the other.

Define performance objectives (Step 2)

- ❑ Capacity is a prerequisite for performance. Evaluators must clearly state the performance objectives of a capacity-building intervention at the outset of M&E planning and understand the program's approach to improving performance.
- ❑ Performance objectives can be expressed as variables or indicators that can be measured against international or national standards or locally determined expectations. Normally, the definition of performance objectives reflects both external and internal criteria.

Mapping capacity: Build a conceptual framework for the specific capacity-building intervention (Step 3)

- ❑ Capacity mapping is a structured process of "thinking through" the role capacity plays in ensuring performance by developing a conceptual framework that is *specific* to a particular capacity-building intervention. Mapping identifies key factors of capacity and assumptions about how they interact to influence capacity and performance. If program planning and M&E design are conducted simultaneously, capacity mapping can

contribute to the choice of intervention strategies and to the M&E strategy.

- ❑ The external or operational environment may have a considerable effect on the pace, process, outcome, and sustainability of capacity development. It is advisable for program managers to track environmental changes periodically.
- ❑ Each type of mapping (single-level or multiple-level) can be done in two or three iterations. The first iteration of a map should attempt to provide a full list of capacity variables that may influence capacity outcomes and performance. It should present capacity variables in a general way. The second or third iteration of a map should be more precise in depicting the variables to be monitored over the course of the intervention.
- ❑ Capacity mapping is sometimes confused with Performance Improvement (PI). 🕮 For clarification, the reader is referred to the definition of PI in the Glossary and the table in Annex D.

Identify capacity indicators (Step 4)

- ❑ Well-defined indicators provide a reference framework for guiding all stakeholders toward the same goals. Indicators also allow for standardized measurement of change during implementation, which enables evaluators to understand the process of capacity development over time and its relationship to capacity-building intervention.
- ❑ Capacity indicators generally project an aspiration or a sought-after state or ability. They capture the current "stock of resources available" for various uses, or an individual or organizational behavior that puts those resources into action (Moore et al., 2001).
- ❑ When selecting capacity indicators it is advisable to be clear about specific performance and capacity development objectives as well as particular capacity-building activities.

Identify appropriate methodological approach and sources of data (Step 5)

- ❑ All capacity-building programs need to be *monitored* to ensure they are working well (i.e. to track changes in inputs, processes, outputs and outcomes). However, *the evaluation of program effectiveness* happens less frequently and only for selected interventions due to cost and complexity.
- ❑ Impact evaluation is not advisable in capacity-building M&E since capacity measures are not easily quantified, and identifying similar organizations or systems to facilitate comparison (as in a case-control study) is difficult.
- ❑ Capacity measurement tools should be able to capture different stages of development of communities, health personnel, organizations, or health systems.
- ❑ M&E tools are needed that allow for repeated measures to capture the interim steps in capacity-building processes as well as trends in outcomes.
- ❑ Capacity building should be a self-motivated and self-led process of change. Evaluation strategies that use self-assessment techniques and locally determined benchmarks of progress inspire ownership of capacity development and increase the likelihood that evaluation results will be used. However, there can be a cost to this approach in terms of the perceived validity of findings.
- ❑ In the design of capacity-building M&E strategies, evaluators are advised to use multiple data-collection instruments, combine qualitative and quantitative methods, address more than one level of capacity and relations between levels, include self-assessment techniques in combination with external or standard-

ized methods, triangulate methods and data sources, and use data interpretation workshops.

Develop an implementation and dissemination plan (Step 6)

- ❑ In disseminating results evaluators should review findings regularly, and discuss them with stakeholders to guide capacity development and encourage ownership of the M&E process.

Annex A Example of Scoring Used for Measuring Capacity Building in Training, PRIME I (Fort, 1999)

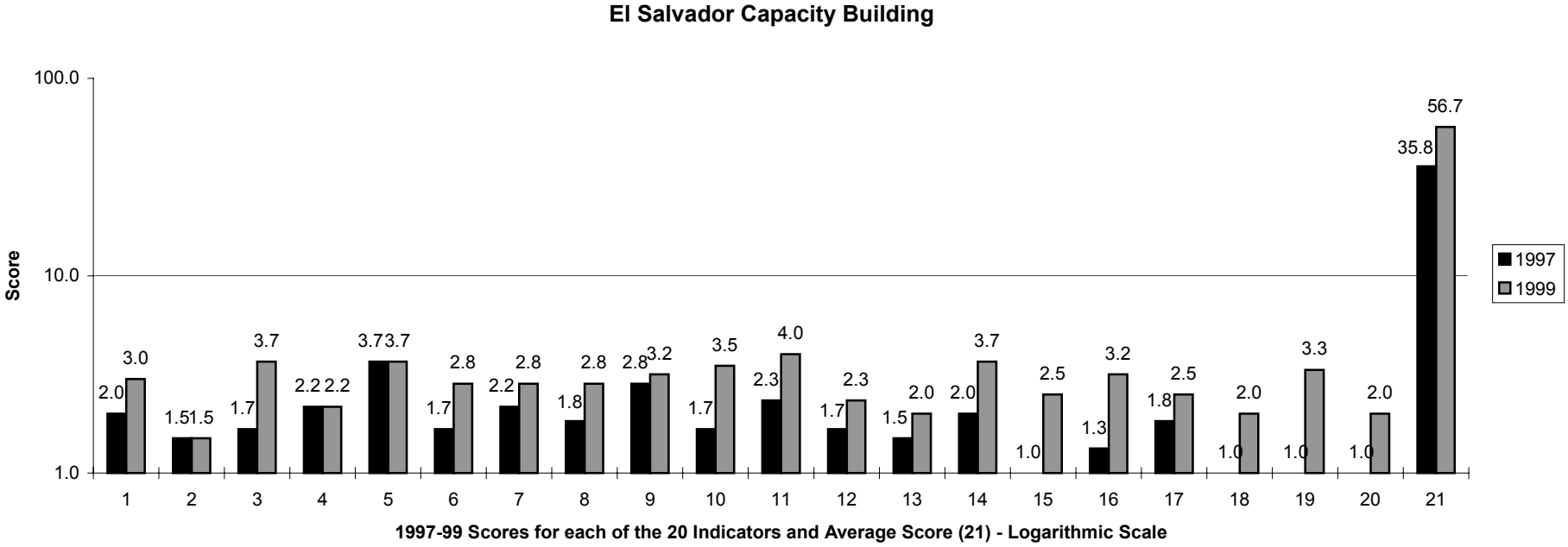
Dimensions	Objectives	Indicator	Scoring
I. Legal/Policy Support	National FP/RH service guidelines and training are official	1. Existence of updated official FP/RH service and training guidelines	0=Nonexistent guidelines (both service and training), to 4=Complete/updated, disseminated, and official guidelines
	Political support for training institutionalization	2. Official (written) policy supporting institutional training capacity - e.g., training units, cadre of master trainers, venues, etc. - for health providers	0=Nonexistent written policy to 4=Written/updated, disseminated, and official
		3. Favorable public statements on FP/RH training (for the improvement of services) at least twice a year by senior officials	0=No mention, to 4=Mentioned on several private and at least twice on public occasions
II. Resources	**Financial** Existence of sufficient and diversified training budget	4. </= 20% of training budget comes from external assistance	0=No in-country training budgets; funds are allocated on ad hoc basis, to 4=20% or more of training budget comes from external assistance
		5. Budget covers all aspects of training (including materials and equipment, travel and per diem by consultants and staff, venue hire and maintenance, etc.)	0=Budget does not cover all aspects of training, to 4=Budget covers all training costs
	Venues/Equipment Adequate venues	6. Accessible and available (own, rented) venues (at least one local venue in each training area) of standard quality (continuous power, food, lighting, acoustics, and sufficient capacity), accessible to participants, and available when needed	0=Nonexistent venue, (incrementally scoring coverage, capacity, and/or quality of venue), to 4=Fully accessible, high-quality, and sufficient-capacity local venue for training events

Dimensions	Objectives	Indicator	Scoring
	Materials, equipment, and supplies (MES) Appropriate and cost-efficient MES, (including AV equipment and teaching aids)	7. MES are pertinent, updated, sufficient, and adapted to local culture (including locally produced)	0=MES are insufficient and/or outdated, to 4=MES of standard technical and material quality and readability are available for each event participant
	Systems are in place for replacement and upgrading of MES	8. Financial, printing and planning capabilities exist for replacing and upgrading MES	0=There are no or insufficient means for replacing MES, to 4=The means exist to produce, replace and upgrade MES
	Human Trainers/preceptors formed have updated and standardized technical and presentation knowledge and skills	9. Trainers/preceptors are constantly formed (TOT) and do periodic refresher courses and pass standard tests on FP/RH technical and presentation knowledge and skills	0=Trainers/preceptors not regularly formed and/or do not update their technical and presentation knowledge and skills, to 4=Trainers/preceptors constantly formed and undergoing periodic (at least once every two years) refresher courses
III. Training Plans and Curriculum	Updated and periodically reviewed training plan	10. Training plan exists and is reviewed annually	0=No training plan performance (training conducted on ad hoc basis), to 4=Training plans are drawn periodically (at least annually) and reviewed
	Updated curriculum is official standard for training institutions	11. Existence of a standard official training curriculum guiding training institutions	0=No standard training curriculum or curriculum is inadequate / outdated, different ones used by different institutions, to 4=There is a standard curriculum, reviewed periodically (at least once every 2 years) and used officially by training institutions

Dimensions	Objectives	Indicator	Scoring
IV. Organization	**Leadership** Vision of training as a means to improve services	12. Training plans are linked with quality of care and increased service access	0=Providers' training plans are not coupled with service and quality of care objectives, to 4=Training plans form part of the quality of care and service improvement strategies
	Training is an integral part of organization's strategic planning	13. A training plan and activities are part of the organization's strategic plans	0=Training is not part of the organization's strategic plan, to 4=Training is part of the organization's long-term strategic plan (multiannual)
	Promotion of public-private collaboration	14. Evidence of public-private collaboration	0=No evidence of public-private collaboration, to 4=Evidence of public-private collaboration
	Infrastructure Existence of decentralized training units in all areas	15. Active training units exist at central and peripheral levels	0=No decentralized training units (even if there is one at central level), to 4= Active training units in central and peripheral levels
	Human resource development HR training (TOT, formative and refresher courses) is an integrated part of a Performance Improvement system (e.g., incentives, follow-up and supervision, efficacy)	16. HR development is part of a performance improvement (PI) strategy	0=Training is not coupled with providers' improvement objectives, to 4=Training is part of HR development and performance
	Administrative Existence of a reporting system for tracking number and characteristics of trainees and materials, according to needs	17. Existence and use of a Training Needs Assessment 18. Existence of an MIS for trainees and materials matching TNA	0=No TNA customarily done, to 4=TNA is integral and continuous part of training strategy 0=No MIS for tracking progress, to 4=MIS for training

Dimensions	Objectives	Indicator	Scoring
	Technical capability Technological transfer and development through networking, evaluation, and research	19. Contacts with other training institutions and institution' evaluation and research feed into training improvement (e.g., trainee selection, training contents and formats)	0=No/little use of evaluation and research of information from other training institutions to improve, update training capabilities, to 4=Extensive use of internal and external data and resources for improvement
	Track record Proven capacity to conduct/replicate courses autonomously	20. Replica/other courses carried out independently (with institutional resources)	0=No replica or independent courses carried out by the organization (or only done with foreign assistance), to 4=Evidence of ongoing replication/expansion of courses with institutional resources
V. Community Development -Participation	Community representatives are involved in planning and execution of training activities, are aware of their rights, and/or demand competent provider performance	21. Evidence of community involvement in providers' training and/or performance assessment (e.g., quality of care circles)	0=No/little community involvement, to 4=Extensive involvement / participation in provider training and/or performance assessment; organized demand/petitions to improve services, etc.

Annex B Example of Results of PRIME Training Capacity Index (Catotti, 1999)



Note: See Annex A for definitions of indicators.

Annex C Key Internet Resources for Monitoring and Evaluating Capacity-Building Interventions

There is a wealth of information on capacity measurement and evaluation in general on the Internet. The list that follows describes Internet sites that focus specifically on capacity measurement; it also includes sites that provide general evaluation information and resources. The details of many of the capacity measurement tools found on these sites are found in Table 7 in Part 3 of the Guide. Please note that inclusion on the list does not imply any judgment about any item listed or not listed.

Capacity Measurement Sites

1. The Manager's Electronic Resource Center – Management Sciences for Health

http://erc.msh.org/
http://www.msh.org/

The Health Manager's Toolkit is an electronic compendium of tools designed to assist health professionals at all levels of an organization to provide accessible, high-quality, and sustainable health services. It is particularly useful for managers who lead others to produce results.

The Health Manager's Toolkit includes spreadsheet templates, forms for gathering and analyzing data, checklists, guidelines for improving organizational performance, and self-assessment tools that allow managers to evaluate the systems underlying their entire organization. The tools have been developed by organizations working throughout the world to improve delivery of health services.

For more information, contact Gail Price or Amanda Ip by e-mail (toolkit@msh.org).

2. INTRAH/Prime II

http://www.prime2.org/

The PRIME II Project is a partnership combining leading global health care organizations dedicated to improving the quality and accessibility of family planning and reproductive health care services throughout the world. Funded by USAID and implemented by the University of North Carolina at Chapel Hill School of Medicine, PRIME II focuses on strengthening the performance of primary care providers as they work to improve services in their communities. To accomplish its goals, PRIME II applies innovative training and learning and performance improvement approaches in collaboration with host-country colleagues to support national reproductive health goals and priorities.

Since 1997, The PRIME Project has been committed to applying the guiding principles of performance improvement (PI) to real-world reproductive health contexts. Work in Yemen, Burkina Faso, the Dominican Republic, and India indicates that PI users like the clear, highly participatory process and the focus on cost-effective interventions to address the most important problem areas.

This interactive Website, created by the PRIME II Project and INTRAH, presents a revised edition of *Performance Improvement Stages, Steps and Tools,* first issued in print form in 2000. INTRAH/PRIME II published this site online in August 2002 (www.intrah.org/sst/).

For more information, please contact Marc Luoma by email (mluoma@intrah.org).

3. JHPIEGO

http://www.jhpiego.org

Through advocacy, education and performance improvement, JHPIEGO helps host-country policymakers, educators and trainers increase access and reduce barriers to quality health services, especially family planning and maternal and neonatal care, for all members of their society. JHPIEGO's work is carried out in an environment that recognizes individual contributions and encourages innovative and practical solutions to meet identified needs in low-resource settings throughout Africa, Asia, and Latin American and the Caribbean.

TIMS is a computer-based tool to track and monitor training efforts. Each person's skills, qualifications, and location are stored, along with courses taken and taught, through a Microsoft Access 2000 database application that stores information about training course content, timing, participants, and trainers. In the standard form, TIMS tracks the following training results over a period of time:

- Which providers from which service sites have been trained, and in what topic(s)
- Which trainers have been conducting courses, and how many people they have trained
- How many courses have been held, summarized by training center, district, or province

TIMS allows senior and mid-level program managers to monitor the variety of training activities and track results in a number of perspectives. TIMS is designed to be part of a country's training information system, replacing paper-based reporting and aggregation with a computer database. Ministries of Health, Planning and/or Finance can use TIMS to supplement service information for policy decisions on training, retraining, and provider deployment.

For additional information about TIMS, contact Catherine Schenck-Yglesias by e-mail (cschenck-yglesias@jhpiego.org).

4. Child Survival Technical Support Program (CSTS)

http://www.childsurvival.com/

The Child Survival Technical Support Project (CSTS) assists PVOs funded through the Office of Private and Voluntary Cooperation's Child Survival Grants Program. The technical support CSTS provides to PVOs is targeted specifically towards increasing their capacity to achieve sustainable service delivery in public health interventions.

The program's goal is to help these organizations grow and to develop successful programs that will continue to serve mothers, children, and communities even when the PVO is no longer present in the area.

5. International Development Research Centre-Canada (IDRC)

http://www.idrc.ca/

The International Development Research Centre (IDRC) is a public corporation created in 1970 to help developing countries find long-term solutions to the social, economic, and environmental problems they face. IDRC's Evaluation Unit has been working in the area of organizational assessment for over 5 years and has developed a number of tools, including: *Enhancing Organizational Performance,* a guidebook that presents an innovative and thoroughly tested model for organizational self-assessment. The tools and tips presented in the guidebook go beyond measuring the impact of programs, products, and services to integrate techniques of formative assessment, in which the assessment team becomes involved in helping its organization become more effective in meeting its goals. The tools and techniques are flexible, and the model can be adapted to any type or size of organization. Worksheets and hands-on exercises are included.

Enhancing Organizational Performance will be useful to any organization that is initiating a process of self-assessment, internal change, or strategic planning. It will appeal particularly to heads and staff of research organizations, university administrators, staff of research-granting agencies, and academics and professionals in organizational development and evaluation.

6. International Institute for Sustainable Development (IISD)

http://iisd1.iisd.ca/measure/

IISD has been working on measurements and indicators since 1995, with the aim of making significant local, national, and international contributions, and building the Institute into a world center of expertise in this field. One of IISD's strategic objectives is to develop robust sets of indicators for public and private sector decision-makers to measure progress toward sustainable development and to build an international consensus to promote their use.

7. World Health Organization (WHO)

http://www.who.int/whr2001/2001/archives/2000/en/index.htm

World Health Report 2000. Health Systems: Improving Performance
The World Health Report 2000 aims to stimulate a vigorous debate about better ways of measuring health system performance and thus finding a successful new direction for health systems to follow. By shedding new light on what makes health systems behave in certain ways, WHO also hopes to help policymakers weigh the many complex issues involved, examine their options, and make wise choices.

8. USAID – Development Experience Clearinghouse (DEC)

http://www.dec.org/

The DEC includes Evaluation Publications such as the TIPS series, which provides guidance on using the Results Framework, measuring institutional capacity and general quality of indicators and performance measures.

9. Pact

http://www.pactworld.org/services/oca/index_oca.htm
http://www.pactworld.org/

Pact's unique methodology for organizational capacity assessment and strengthening (OCA) helps organizations anticipate and overcome the greatest barriers to organizational change and growth. Through a guided self-assessment and planning process, organizations reflect upon their performance and select the tools and strategies they need to build capacity and broaden impact.

Pact's OCA is the product of ten years of research and field practice in partnership with the Education Development Center and USAID's Office of Private & Voluntary Cooperation. Hundreds of local and international NGOs, private-sector corporations, and municipal governments around the world have used this methodology.

OCA is a four-staged process that includes:

- *Participatory tool design* that empowers organizations to define the critical factors that influence their performance and to identify relevant indicators for evaluating their competency.
- *Guided self-assessment* that leads employees, board members, and constituents through structured discussions followed by individual scoring on a series of rigorous performance indicators.
- *Data-guided action planning* that provides organizations with an opportunity to interpret the self-assessment data and set change strategies most appropriate to their environment.

- *Reassessment for continual learning* that allows organizations to monitor change, track the effectiveness of their capacity-building efforts, and integrate new learning as their needs change and capabilities increase.

For more information on Pact's Organizational Assessment, please contact Betsy Kummer by email (ekummer@pacthq.org).

Publications Available from Pact
www.pactpublications.org

From the Roots Up: Strengthening Organizational Capacity through Guided Self-Assessment
by World Neighbors
Publisher: World Neighbors
Year: 2000

Basic Guide to Evaluation for Development Workers
by Frances Rubin
Publisher: Oxfam
ISBN: 0-85598-275-6
Year: 1995

This book will help groups to plan for and carry out evaluations as an integral part of development activities. Easy to follow, it focuses on the principles underlying evaluation and deals clearly and simply with the issues to be considered at the planning stage. It then examines the steps involved in carrying out different types of evaluation, for specific purposes. The importance of involving local people in evaluations is emphasized throughout.

Participatory Monitoring, Evaluation and Reporting: An Organisational Development Perspective for South African NGOs
by Pact
Publisher: Pact Publications
Year: 1998

This manual explains why participation is important and how to achieve effective stakeholder participation; the role of monitoring in sustaining progress toward better organizational effectiveness; how evaluation helps an organization to assess its capacity; and the critical role of reporting to stakeholders. It then deals with applying the Organizational Capacity Assessment Tool (OCAT) in practice, together with examples. A step-by-step guide to designing and implementing a Participatory Monitoring, Evaluation and Reporting (PME&R) information system is included. Although it has been specifically adapted for use by South African NGOs, NGOs can use OCAT in other countries.

10. The International HIV/AIDS Alliance

www.aidsalliance.org/ngosupport

The AIDS Alliance has developed an HIV/AIDS NGO/CBO Support Toolkit that is available on their Website or by CD-Rom with over 500 downloadable resources and supporting information.

The toolkit includes practical information, tools and example documents to help those working to establish or improve NGO/CBO support programs. The toolkit also describes key components of NGO/CBO support programming, based on the Alliance's experience. It also includes resources from a wide range of other organizations to bring different perspectives and experiences together.

The HIV/AIDS NGO/CBO Support toolkit has been developed for those wishing to establish or improve NGO/CBO support programs. The toolkit will be useful both for NGO-led support programs and for government-led or multi-sectoral programs, especially in the context of Global Fund and World Bank financing for NGOs and CBOs working on AIDS. The toolkit will also be useful to organizations that provide only funding or only training.

Order single or bulk copies of the CD-ROM and supporting publication free of charge from: publications@aidsalliance.org

11. International NGO Training and Research Centre (INTRAC)

http://www.intrac.org/

International NGO Training and Research Centre (INTRAC) provides support to organizations involved in international development. Their goal is to improve the performance of NGOs by exploring relevant policy issues and by strengthening NGO management and organizational effectiveness.

Documents can be ordered through their Website including:

Practical Guidelines for the Monitoring and Evaluation of Capacity-Building: Experiences from Africa
ISBN: 1 897748-64-7
OPS No. 36, November 2001.

Capacity building and monitoring and evaluation have become two of the most important priorities of the development community during the last decade. Yet they have tended to operate in relative isolation from each other. In particular, capacity-building programs have been consistently weak in monitoring the impact of their work. This publication aims to help NGOs and donors involved in capacity building to develop appropriate, cost-effective and practical systems for monitoring and evaluation. While not under-estimating the complexity of these tasks, this publication puts forward some practical guidelines for designing monitoring and evaluation systems based on experiences with three organizations in different parts of Africa.

12. Performance Improvement in Healthcare

http://www.picg.net/

This Website is designed to provide information, tools, and guidelines for planning, implementing, monitoring and evaluating performance improvement processes and activities in health services delivery organizations. The site is especially tailored for managers, leaders, providers and other employees working in international health organizations and institutions, whether they are health ministries or health departments in the public sector or NGOs in the private non-profit sectors. The site is also for those working as partners with people in these institutions.

Performance Improvement (PI) is a process for enhancing employee and organizational performance that employs an explicit set of methods and strategies. Results are achieved through a systematic process that considers the institutional context; describes desired performance; identifies gaps between desired and actual performance; identifies root causes; selects, designs and implements interventions to fix the root causes; and measures changes in performance. PI is a continuously evolving process that uses the results of monitoring and feedback to determine whether progress has been made and to plan and implement additional appropriate changes.

The goal of PI is to solve performance problems or realize performance opportunities at the organizational, process or systems and employee levels in order to achieve desired organizational results. The overall desired result in our field is the provision of high quality, sustainable health services.

The Website includes information on the performance improvement process and factors affecting worker performance, PI tools, and experiences using PI in different health care settings,

For more information or questions email info@pihealthcare.org.

13. Capacity.org

http://www.capacity.org/index_en.html

Capacity.org is a Website dedicated to advancing the policy and practice of capacity building in international development cooperation. Issue 14 of the web-based magazine *Capacity.org* presents highlights of the UNDP initiative on capacity building and related information on the policy and practice of capacity building in international development cooperation (also see UNDP website at http://www.undp.org/dpa/publications/capacity.html).

14. ISNAR/CGIAR - Evaluating Capacity Development in Research & Development Organizations:

http://www.isnar.cgiar.org/ecd/index.htm

This site promotes the use of evaluation as a tool to advance the development of organizational capacity and performance. Its main purpose is to support a group of managers and evaluators

who are evaluating capacity development efforts in their own organizations in Africa, Asia and Latin America. This site presents the work of a global project, "Evaluating Capacity Development Project (The ECD Project)." National and international research and development organizations are participating in the ECD Project, which is supported by five donor agencies and coordinated by ISNAR.

The site features the ECD Project's activities since 2000 and its result to date. It provides access to project reports and events. Lists of useful concepts and terms, bibliographic references and Internet resources are also provided for use by capacity developers and evaluators

15. Reflect-Learn.org - The Organizational Self-Reflection (OSR) Project

http://www.reflect-learn.org/

The Organizational Self-Reflection (OSR) project aims to improve organizational learning by increasing access to self-reflection tools. The process of reflection implies an organizational diagnosis that will allow learning from experiences, styles of work and results in order to foster strategic vision, decision making, organizational change and capacity building. The organization keeps control over orientation of the process and use of results.

The project links a direct service, based on the Internet, and a research agenda designed to create knowledge about self-reflection and its contribution to organizational learning. The OSR project seeks to engage diverse organizations in the use of self-reflection resources and also catalyzes the development of a learning community that focuses on OSR, organizational learning, and the use of the Internet for institutional strengthening. Several useful frameworks and tools for organizational assessment are presented

16. UNDP United Nations Development Project

http://www.undp.org/dpa/publications/capacity.html

Developing Capacity through Technical Cooperation: Country Experiences provides some concrete inputs to rethinking technical cooperation for today's challenges based on six country studies – Bangladesh, Bolivia, Egypt, Kyrgyz Republic, Philippines and Uganda.

Capacity for Development: New Solutions to Old Problems, with prominent academics and development practitioners as contributors, proposes new approaches to developing lasting indigenous capacities, with a focus on ownership, civic engagement and knowledge. It is a contribution to a process of debate and dialogue around the broader issue of improving effective capacity development.

Development Policy Journal is a new forum for presenting ideas on applied policies. The subject of capacity for sustainable development is addressed in this first issue.

17. EngenderHealth

http://www.engenderhealth.org

EngenderHealth works worldwide to improve the lives of individuals by making reproductive health services safe, available, and sustainable. EngenderHealth provides technical assistance, training, and information, with a focus on practical solutions that improve services where resources are scarce in partnership with governments, institutions, and health care professionals.

EngenderHealth's trademarked COPE (client-oriented, provider-efficient services) is a set of flexible self-assessment tools that assist providers and supervisors to evaluate and improve the care offered in clinic and hospital settings. Using self-assessment, client-interviews, client-flow analysis and facilitated discussion, staff identify areas needing attention and develop their own solutions and action plans to address the issues. Originally developed for family planning services, COPE has been successfully applied in a variety of healthcare settings all over the world for over 10 years. With the growing popularity of COPE, healthcare providers from related disciplines asked if the tools could be adapted to a wider range of health services. EngenderHealth has answered the demand by creating these new products: *COPE for Maternal Health Services* and *Community COPE: Building Partnership with the Community to Improve Health Services*.

General Evaluation Sites

1. American Evaluation Association

http://www.eval.org

The American Evaluation Association, an international professional association of evaluators, is devoted to the application and exploration of program evaluation, personnel evaluation, evaluation technology and other forms of evaluation.

The American Evaluation Association has a Collaborative, Participatory and Empowerment Evaluation topical interest group that is dedicated to the exploration and refinement of collaborative, participatory and empowerment approaches to evaluation. You can find more information about them at: http://www.stanford.edu/~davidf/empowermentevaluation.html

2. Canadian Evaluation Association

http://www.evaluationcanada.ca/

The Canadian Evaluation Association is dedicated to the advancement of evaluation for its members and the public. This site is also available in French.

3. The Evaluation Center at Western Michigan University

http://www.wmich.edu/evalctr/

The Evaluation Center, located at Western Michigan University, is a research and development unit that provides national and international leadership for advancing the theory and practice of evaluation, as applied to education and human services.

4. Essentials of Survey Research and Analysis

http://freenet.tlh.fl.us/~polland/qbook.html

This site contains a complete manual entitled *Essentials of Survey Research and Analysis: A Workbook for Community Researchers*, written by Ronald Jay Polland, Ph.D.,1998.

5. German Center for Evaluation (in German)

http://www.uni-koeln.de/ew-fak/Wiso/

This is the homepage for the German Center for Evaluation at the University of Cologne. It includes the German translation of the Program Evaluation Standards of the American Evaluation Society.

6. Government Performance Information Consultants

http://members.rogers.com/gpic/evalwebindex.htm

This site offers links to many Web resources on evaluation.

7. The Michigan Association for Evaluation

http://www.maeeval.org/

The Evaluation Promotion Committee has compiled a list of resources in an effort to provide MAE members and others interested in evaluation with sources for educational materials, tools, and other resources that may be interesting and helpful. For each resource, the site provides a brief description (generally from the resource itself) and where to find it.

8. Innovation Network, Inc. (InnoNet)

http://www.innonet.org/

Innovation Network, Inc. (InnoNet) is an Innovation Network, a national nonprofit dedicated to building the evaluation capacity of nonprofits so they can better serve their communities. InnoNet has two services to meet this end: a search service to find model programs, and an evaluation service that guides agencies through a planning and evaluation process. Description of their evaluation methodologies and documents available for ordering are listed on this site.

9. International & Cross-Cultural Evaluation Topical Interest Group (I&CCE)

http://home.wmis.net/~russon/icce/

International & Cross-Cultural Evaluation Topical Interest Group is an organization affiliated with the American Evaluation Association. The purpose of the I&CCE is to provide evaluation professionals who are interested in cross-cultural issues with an opportunity to share their experiences with one another.

10. MandE News

http://www.mande.co.uk/

MandE News is a news service focusing on developments in monitoring and evaluation methods relevant to development projects and programs with social development objectives. It is edited by Rick Davies in Cambridge, UK who can be contacted by email (Editor@mande.co.uk).

11. Sociometrics

http://www.socio.com/eval.htm

Sociometrics offers a wide variety of evaluation products and services to professionals across the world. Their evaluation workshops and training services, technical publications, evaluation tools, and data sets are all designed to assist practitioners, administrators, evaluators, and funders of social interventions to design and implement successful evaluation systems.

For additional information, contact Dr. Shobana Raghupathy by email (shobana@socio.com) or by phone at 1.800.846.3475 x209.

12. Bill Trochim, Cornell University

http://trochim.human.cornell.edu/kb/conmap.htm

Bill Trochim is a faculty member at Cornell University; his work in applied social research and evaluation is described on this site. His published and unpublished papers, detailed examples of current research projects, useful tools for researchers, an extensive online textbook, a bulletin board for discussions and links to other websites related to applied social research methods are included. Concept mapping is a general method that can be used to help individuals or groups to describe their ideas about some topic in a pictorial form.

13. UNICEF

http://www.unicef.org/reseval/

This site lists some of the monitoring and evaluation tools recently developed by UNICEF and its partners, including the *UNICEF Guide to Monitoring and Evaluation.*

14. United Way

http://www.unitedway.org/outcomes/

The United Way's Resource Network on Outcome Measurement offers a guide to resources for measuring program outcomes for health, human service and youth- and family-serving agencies. Their manual, *Measuring Program Outcomes: A Practical Approach,* can be ordered at the Website.

15. National Science Foundation, Division of Research, Evaluation and Communication (REC)

http://www.nsf.gov/pubsys/ods/getpub.cfm?nsf97153

This site contains a complete manual, *User-Friendly Handbook for Mixed Method Evaluations* (August 1997), edited by Joy Frechtling and Laurie Sharp Westat, and developed with support from the National Science Foundation, Division of Research, Evaluation and Communication.

Annex D Capacity Mapping and Performance Improvement Compared

	Capacity Mapping	Performance Improvement in RH
What is it?	Tool for M&E planning (primarily)	Tool for improving RH services
What is the purpose?	Helps planners and evaluators decide: What M&E approach to take to determine whether this strategy succeeded in building capacity (primary use)? What capacity-building strategy to use? (secondary use).	Helps managers decide: what PI strategy to use? Did performance change as a result of the PI process?
Answers the question…	What factors of capacity are required for performance? How should I measure these factors?	Is progress being made toward goals? Are appropriate actions being undertaken to promote achieving those goals? What are the problem areas?
What is the approach?	**Conceptual:** Evaluators are encouraged to consider a wide range of factors that might influence capacity and performance. Guides planners and evaluators in viewing capacity systematically and identifying all areas that affect performance. Encourages understanding of capacity in the health sector as a system that includes four interdependent levels: the system, organizations, health personnel, individuals and communities.	**Focused:** Root causes of performance problems are linked to six performance factors - job expectations; performance feedback; workspace, equipment, and supplies; incentives; organizational support; and knowledge and skills. Guides organizations in viewing problems systematically and addressing all areas that enhance performance. Encourages understanding of the organization as a system of interdependent functions and people.
When to use it?	Can be used to organize and analyze information before or after a capacity-building intervention is designed.	Used to organize and analyze information before deciding what intervention is needed.
Focus of study/action	Applies to systems, organizations, humans, and communities	Applies to humans within organizational systems
Who is involved?	Encourages stakeholder involvement	Encourages stakeholder involvement
View of performance	Performance is the result of capacity and context	Human performance is a factor of knowledge, skills, capacity and motives, and context

Glossary

Capacity is the ability to carry out stated objectives. It has also been described as the "stock of resources" available to an organization or system as well as the actions that transform those resources into performance.

Capacity building (or capacity development) is a process that improves the ability of a person, group, organization, or system to meet objectives or to perform better.

Capacity evaluation is normally more complex than monitoring, and is conducted to gain understanding of the relationship between capacity-building interventions and capacity outcomes, or the links between capacity and performance variables.

Capacity mapping is a structured process of thinking through the role capacity plays in ensuring performance by developing a conceptual framework that is specific to a particular capacity-building intervention. During capacity mapping, all the possible factors of capacity that influence performance and the relationships between them must be identified. Once the factors are all laid out, the program staff or evaluator can focus on those that are most essential for the evaluation.

Capacity monitoring normally would be used to understand the effectiveness and efficiency of a capacity-building intervention during implementation (i.e., is capacity improving and at what cost?) to contribute to strategic or operational decisions related to capacity building or enable a periodic look at a program or system**.**

Cold chain: The system that ensures vaccine viability from manufacturing to delivery.

Contextual factors: external factors relating to the economic, social, cultural and political environment. Factors normally outside the control of most health sector actors.

Impact: Long-term results achieved through improved performance of the health system: sustainable health system and improved health status. Impact measures are not addressed in capacity-building M&E.

Impact evaluation: An evaluation that uses experimental or quasi-experimental study design to attribute changes in capacity or performance to program interventions. Impact evaluation is not appropriate or useful in the context of capacity-building M&E because of the difficulty of quantifying many elements of capacity and attributing capacity change to any single intervention or even a range of them.

Input: Set of resources, including service personnel, financial resources, space, policy orientation, and program service recipients, that are the raw materials that contribute to capacity at each level (system, organization, health personnel, and individual/community).

Outcome: Set of results that represent capacity (an ability to carry out stated objectives), often expected to change as a direct result of capacity-building intervention.

Output: Set of products anticipated through the execution of practices, activities, or functions.

Performance: Set of results that represent productivity and competence related to an established objective, goal or standard. The four capacity levels together contribute to overall system-level performance.

Performance Improvement (PI): Performance Improvement (PI) is a process for enhancing employee and organizational performance that employs an explicit set of methods and strategies. Results are achieved through a systematic process that considers the institutional context; describes desired performance; identifies gaps between desired and actual performance; identifies root causes; selects, designs and implements interventions to fix the root causes; and measures changes in performance. PI is a continuously evolving process that uses the results of monitoring and feedback to determine whether progress has been made and to plan and implement additional appropriate changes.

Process: Set of activities, practices, or functions by which the resources are used in pursuit of the expected results.

Theory of action: Part of a capacity-building plan that includes common objectives and shared concepts. A coherent theory of action agreed on by the key groups involved in the process states how activities are expected to produce intermediate and longer-term results and benefits. "Without a theory of action, a capacity development effort could become a fragmented exercise in wishful thinking, rather than a coherent initiative with a high probability of success" (Horton, 2001).

Triangulation: The use of multiple data sources or methods to validate findings, discover errors or inconsistencies, and reduce bias.

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