

Evaluating Leadership Development and Organizational Performance

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CHAPTER EIGHT

EVALUATING LEADERSHIP DEVELOPMENT AND ORGANIZATIONAL PERFORMANCE

Nancy Vollmer LeMay and Alison Ellis

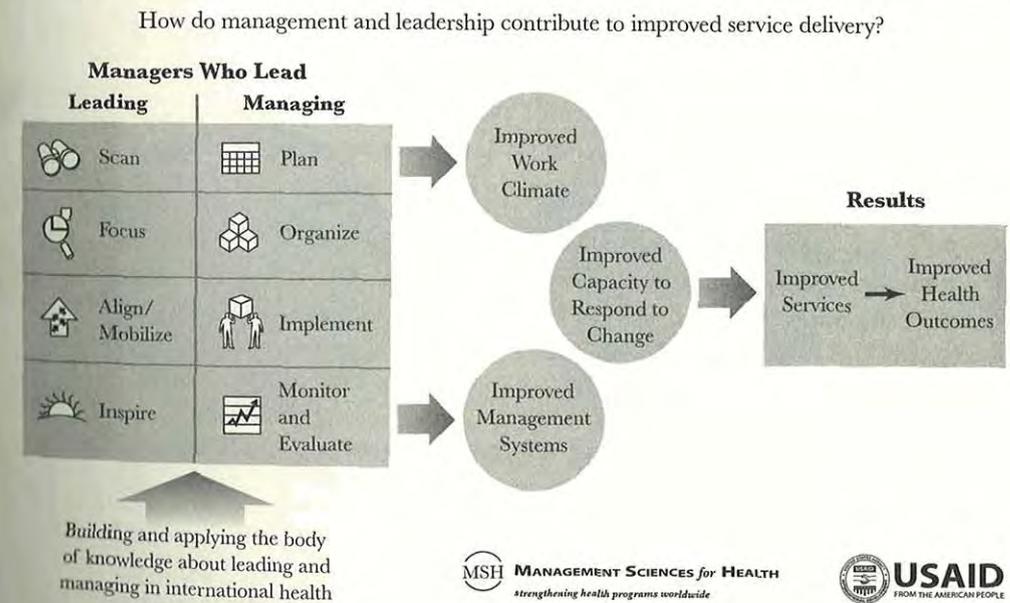
Through experimentation and the application of a variety of methods, the Management and Leadership (M&L) Program of Management Sciences for Health (MSH) has developed a practical yet thorough approach for evaluating the outcomes of its leadership development programs with health sector participants in developing countries. An overarching question is explored: How does leadership development contribute to measurable changes in organizational performance? Organizational performance is defined in terms of behavioral-level changes within participating teams and the results they produce that contribute to their organization's overall goals. Examples are provided from evaluations carried out by the M&L Program during 2003–2005 in order to illustrate the concepts presented in this chapter.

The M&L Program was a five-year cooperative agreement between the U.S. Agency for International Development (USAID) and MSH implemented from October 2000 to September 2005. The primary clients of M&L leadership programs are managers and their workgroups from ministries of health and nongovernmental organizations (NGOs), including private voluntary organizations (PVOs), faith-based organizations (FBOs), and community-based organizations (CBOs) working in the health sector of developing countries.

The purpose of M&L was to strengthen the leadership capacities of health managers and the management systems that are necessary to deliver high-quality health services. The M&L Program was charged with measuring and documenting the main outcomes of its leadership and management interventions according to the Leading and Managing for Results Model, as illustrated in Figure 8.1 (Galer, Vriesendorp, and Ellis, 2005).

While MSH continues to develop leadership capacity under a follow-on project called Leadership, Management, and Sustainability Program (August 2005–2010), all leadership development programs and evaluations described in this chapter were carried out under the M&L Program with funding from the USAID Office of Population and Reproductive Health, Bureau for Global Health, award number HRN-A-00-00-00014-00. The opinions expressed in these pages are those of the authors and do not necessarily reflect the views of USAID.

FIGURE 8.1. LEADING AND MANAGING FOR RESULTS MODEL.



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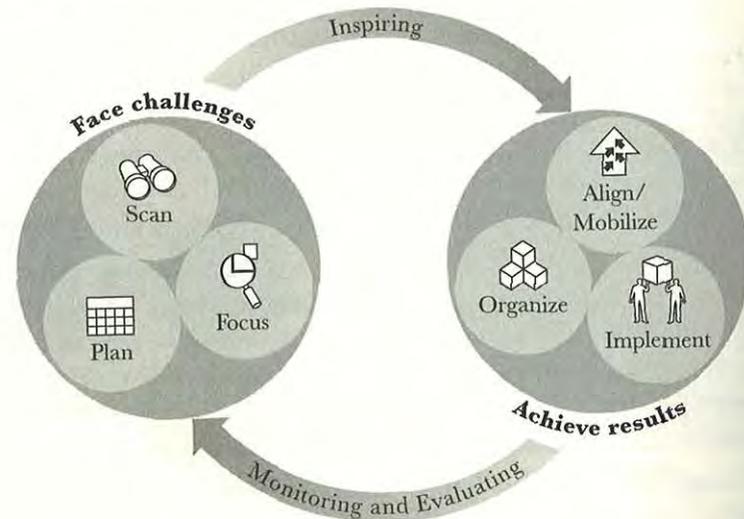
Design and Content of M&L Leadership Development Programs

Overview

M&L's approach to leadership development is to use a structured, participatory process in which health managers and their workgroups learn to apply a set of leading and managing practices to face an organizational challenge while receiving feedback and support from program facilitators. The Leading and Managing Process is visually represented in Figure 8.2 and summarizes the application of this set of practices.

The M&L Leadership Development Program, whether operating face to face or using distance learning, is intended for teams that already work together

FIGURE 8.2. LEADING AND MANAGING PROCESS.



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on the job. The leadership program relies primarily on an action-learning approach to build capacity within teams at any level of an organization (Galer, Vriesendorp, and Ellis, 2005). The assumption of this approach is that capacity in leading and managing can be developed through an experiential learning process in which participants gain the skills to address real workplace challenges and produce desired results.

While specific program designs vary across countries and according to the type of organization that is targeted, all programs are founded on five guiding principles (Galer, Vriesendorp, and Ellis, 2005):

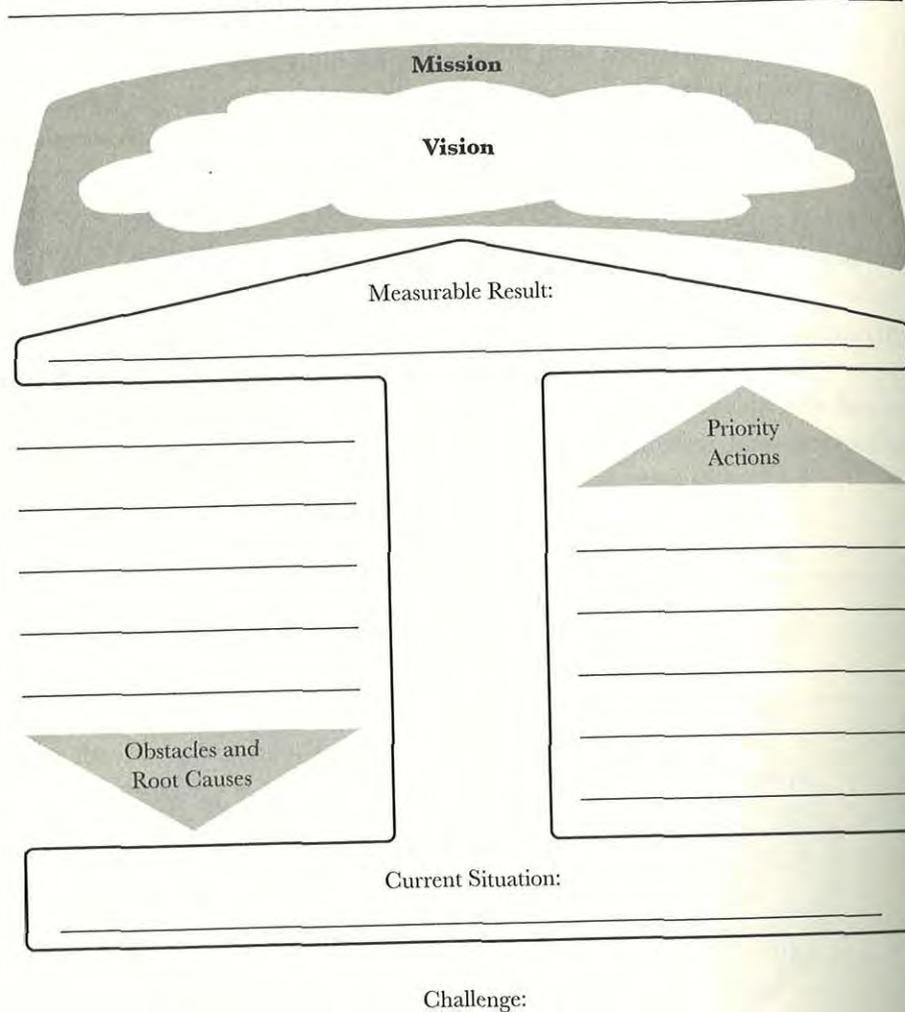
1. *Focus on health outcomes.* Good management and leadership result in measurable improvements in health services and outcomes. Only by focusing on real organizational challenges can managers develop their ability to lead.
2. *Practice leadership at all levels.* Good leadership and management can and must be practiced at every level of an organization. Working with their teams, managers at all levels—from health posts to national institutions—can confront challenges and achieve results.
3. *Leadership can be learned.* Leadership practices improve through a process of facing challenges and receiving feedback and support. By using this process, managers develop the leadership abilities of their staffs.
4. *Leadership is learned over time.* Becoming a manager who leads is a process that takes place over time. This process works best when it is owned by the organization and takes on critical organizational challenges.
5. *Sustain progress through management systems.* Gains made in health outcomes can be sustained only by integrating leadership and management practices into an organization's routine systems and processes.

Teams, Challenges, and Implications for Evaluation

The evaluation approach used by M&L is closely linked to the design of the leadership development program, in particular working with teams to implement the Challenge Model illustrated in Figure 8.3 (Galer, Vriesendorp, and Ellis, 2005). This model is a simple analysis tool derived from the Performance Improvement process (Luoma and Voltero, 2002).

The Challenge Model allows a team to analyze its local situation and select a specific organizational challenge around which the team members rally.

FIGURE 8.3. CHALLENGE MODEL.



(How will we achieve our desired result in light of the obstacles we need to overcome?)



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The team then measures their baseline (current situation) vis-à-vis the challenge, determines their expected or measurable result, identifies obstacles and their root causes that must be addressed to achieve their expected result and a series of priority actions or activities necessary to address the challenge, and defines indicators to measure whether it has reached the measurable result. This information is translated into an action plan that serves as a management tool for participating teams and forms one basis for the evaluation of outcomes.

Because the majority of M&L leadership development programs focus on working with teams rather than individuals, the team forms the unit of analysis for most evaluations. This program orientation is a departure from traditional leadership training, which tends to focus on top leaders and their individual development of leadership skills. These programs often reinforce the notion that some people are born with the natural ability to lead and others are not. In contrast, the M&L Program maintains that all members of a workgroup, regardless of their positions, are valuable contributors toward creating a positive work climate and achieving results. All have the ability to change the way they work with others when given the opportunity to reflect on their workplace interactions and to apply a set of leading and managing practices.

The Leadership Development Program invites managers and teams at all levels of an organization to participate. It demystifies leadership by encouraging participants to apply concrete leading and managing practices to the challenges they face in their unit or organization. The group decides how it wants to work together to create a more positive work climate. The role of the workgroup manager is to support the team in making a commitment to a new workgroup climate and to provide the direction to make needed changes.

Inherent to this design is the challenge of defining, recruiting, and evaluating teams. Our experience shows that intact teams who worked together before beginning the leadership development program and who continue to work together after the program ended are more successful in addressing their challenges. Teams that are formed artificially for the purpose of participating in the leadership development program have greater difficulty implementing their plans and measuring their progress after the program ends. These teams are often made up of individuals from geographically or administratively dispersed groups. They may work together well during the program, but after its completion, when they return to their normal routines, they may no longer

be motivated to work together as a team. Teams that disintegrate after the program ends are usually lost to follow-up. Thus, not only for an effective program design, but also for evaluation purposes, it is preferable to recruit intact teams for leadership programs.

Delivery Mechanisms

MSH facilitates leadership development through face-to-face and virtual (distance learning) mechanisms. The face-to-face programs are delivered on-site to teams from a single organization, and the virtual programs are delivered to teams from one or more organizations in a single country or geographic region. The virtual programs extend our reach beyond those countries receiving on-site technical assistance. This section of the chapter defines the major content and design features of both delivery approaches.

Face-to-Face Leadership Development Programs. The face-to-face leadership development program lasts from four to nine months and is intended for members of intact teams from the public sector or NGOs, PVOs, CBOs, and FBOs. During the program, team members actively address their challenges through a series of workshops and follow-up assignments they complete together at their work site. Participants learn to adopt specific leading and managing practices to address their selected challenges and realize their desired outcomes. These outcomes are defined in the action plans the teams produce during the program. To help organize and support their work, five kinds of program activities are held.

1. *Senior alignment meeting:* An initial meeting that generates commitment and ownership of the program among key organizational stakeholders
2. *Workshops:* A series of workshops comprised of twelve half-day sessions during which participants learn core leading and managing practices and concepts
3. *Local team meetings:* On-the-job meetings between workshops in which participants transfer what they have learned to the rest of their work team, discuss strategies to address their challenges, and apply leading and managing practices
4. *Regular coaching:* Sessions in which local health managers support the teams in implementing the tools they have learned

5. *Stakeholder meetings:* Meetings in which stakeholders are periodically updated and enlisted as resources to support the teams

The Virtual Leadership Development Program. The Virtual Leadership Development Program (VLDP) is a twelve- to sixteen-week blended learning program that provides practical leadership training linked to organizational challenges selected by participants. The VLDP combines Internet-based facilitation, course material, and individual exercises with face-to-face (on-site) team meetings for reflection and shared learning. As additional support, all participants receive a printed workbook and CD-ROM containing the course content. Participants in the VLDP come from public sector and nongovernmental organizations, including PVOs, FBOs, and CBOs. They enroll in the program as teams that generally range in number from four to ten members.

The VLDP consists of seven learning modules on such topics as leadership in health institutions, facing leadership challenges, competencies in leadership, communication, and change management. During each module, participants carry out individual work on the VLDP Web site. They read the module content, case studies, and editorials; complete module exercises; and participate in electronic discussions. Following this, participants convene for face-to-face group meetings with other team members to discuss what they learned during the module and to complete group work assigned in the module. Two of the Web site features—the Café and the Forum—provide mechanisms for interaction between teams as they move through the modules. The Café is a location on the VLDP Web site where participants are encouraged to exchange ideas and questions on specific themes presented in a threaded discussion format. The Forum is another VLDP Web site element, where at the conclusion of each module a coordinator from each team describes how and what the team produced in response to the module exercise assigned to the group. Throughout the program, two facilitators provide virtual facilitation and coaching via e-mail and postings on the Web site.

Evaluating M&L Leadership Development Programs: Measures of Success

This section of the chapter presents the main outputs and outcomes of the M&L Leadership Development Program. *Outputs* are defined as the application of specific leading and managing practices by participating teams both

during and after the program. *Outcomes* include both intermediate outcomes (work climate) and longer-term outcomes (expected changes in organizational results defined by participating teams). An overview of the methods used to measure each is discussed, including the challenges of measuring work climate as a robust outcome and the pros and cons of measuring health service delivery as a long-term outcome.

Leadership Practices and Competencies. M&L assumes there is a common set of leadership practices that can be developed and used by managers and workgroup members at any level of an organization to address their workplace challenges. These include four key leading practices (scan, focus, align and mobilize, and inspire) and the essential leadership competencies (communication, negotiation, change management) needed to achieve the given goal. The ability of the team to apply these practices in the workplace is the immediate result (output) of a leadership development process. Figure 8.4, the Leading and Managing Framework, defines the leading and managing practices and the expected organizational-level results (outcomes) of their application.

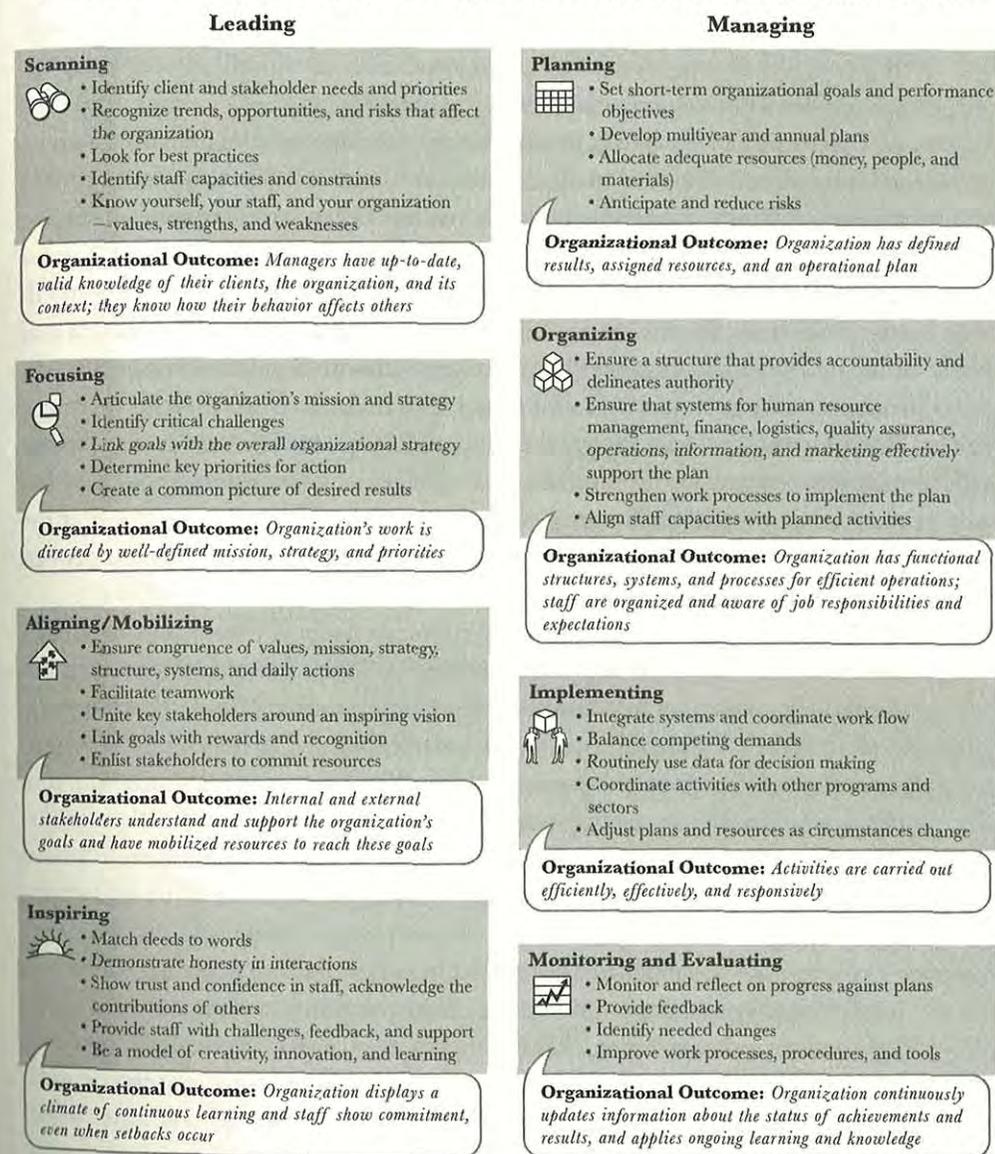
During its leadership development programs, M&L attempts to monitor the use of the four leading practices with a set of indicators described in the section following on evaluation instruments. Because the use of the indicators has been irregular across programs, information is also collected on the use of the practices and competencies through postprogram interviews and focus groups with participants and nonparticipants, including those who report directly to the workgroup manager and those who do not. This method has provided useful information on behavior change among program participants and the distinct processes the participating team used to achieve their results.

Workgroup Climate. M&L defines intermediate outcomes at the team level. The primary team-level outcome is workgroup climate, defined as the prevailing workplace atmosphere that is experienced by the members of a given workgroup. *Climate* is what it feels like to work together in a group (MSH, 2002). Every organization, office, and workgroup has a climate that affects how people behave at work and worker motivation. A positive work climate motivates staff because it provides conditions under which people can pursue their own goals while working toward organizational objectives (McGregor, 1966).

Workgroup climate is influenced by external and internal factors. Most external factors are beyond the control of the workgroup and include the

FIGURE 8.4. LEADING AND MANAGING FRAMEWORK.

Practices That Enable Work Groups and Organizations to face Challenges and Achieve Results



organization's history and culture, organizational strategies and structures, and the *external environment*. What happens inside the workgroup, however, usually can be controlled. In fact, the practices and competencies of the manager and workgroup staff influence workgroup climate more than any other factor. Together, the manager and staff members can create a positive workgroup climate, even if the organization's overall climate is poor.

According to the M&L Results Model, workgroup climate is an outcome measure that is sensitive to change as a result of a leadership development process involving managers and their teams. There are two assumptions underlying the Results Model: (1) when team members work together on a shared challenge, a positive work climate is created; and (2) workgroup climate influences results (long-term outcomes). Research from the business and education sectors has shown that workgroups with a positive, supportive climate tend to perform well and to achieve their desired results (Goleman, 2000; Laschinger, Finegan, and Shamian, 2001). Positive workgroup climate motivates employees to improve their performance by going above and beyond job expectations. Better performing workgroups contribute to better organizational performance, which in our context translates into improved health service delivery.

Evidence was collected in several countries to show that as participants in the leadership development programs learn to adopt new practices and to address their challenges as a team, they create a positive climate that supports staff motivation. A brief assessment form (explained in depth in the section on evaluation instruments) was used to measure team members' perception of climate before the leadership program was implemented and at the conclusion of the program to demonstrate changes in workgroup climate. Without a comparison group, there are limits to showing change over time and attributing changes to the intervention.

Nevertheless, similar trends have been seen across participating teams that tend to corroborate the positive effect of the program on climate: teams in different environments have generally shown improved climate levels following participation in the leadership program (including teams from the central, provincial, and decentralized levels of a health system and among teams working in nongovernmental organizations). The operational settings and specific challenge of each team differ, yet most of the time internal climate levels improve as the teams go through the program and learn to adopt and apply leadership practices to solve their pressing management problems.

To help explain these climate data, evocative data (see Chapter Three for a discussion) and stories are collected through focus groups and individual interviews with the workgroup members, managers, and other key staff in the organization who might have been involved in the process. This provides insight into the processes that have taken place within the workgroup and throughout the organization during the implementation of the leadership program. It also allows the documentation of specific practices used by teams that are associated with improved climate. Over time a catalog of the commonly used approaches associated with improved climate has been developed and used to strengthen the content of the leadership programs.

Future evaluation plans include testing the relationships outlined in the Results Model (Figure 8.1), most likely using a quasi-experimental design. A control group may be used, but the random assignment of participants is not feasible in the context of these programs. Participation in the leadership program is not indiscriminate and teams are not uninformed; teams that participate are either self-selected or are recommended by an organizational executive or administrator. Nevertheless, the use of a nonrandom comparison group that has not received the leadership intervention would make the measurement of climate a stronger and more compelling program outcome.

Improvements in Health Service Delivery. M&L's approach to leadership development is guided by the belief that the proof of good leadership lies in the achievement of measurable improvements in health outcomes (for example, changes in the use of health services comparing one period to another; changes in the knowledge, attitudes, or practices of a target population or client group). The leadership program focuses on improving these health outcomes through the development of leadership capacity to improve the delivery of health services. Therefore, where possible, the results of the leadership programs are measured in terms of changes in health service delivery (for example, increase in the number of clients served or improved quality of services).

The expected outcomes of the leadership program are defined by the participants themselves and depend on the organizational challenge they choose to address during the program. In fact, a significant part of the program's design is the focus on challenges. The selected challenge connects leadership development content to the participants' work environment. The challenge involves overcoming obstacles to move from a state of actual performance to an improved state of desired performance, both of which should be measurable.

However, because of the donor's focus on reporting against its results framework, some M&L programs have felt the need to measure service results even when teams have not selected a service delivery challenge to address during the program. This has led to disappointing results in some programs, particularly when the scope or time frame of the program was too limited to accomplish outcomes at this level. In such cases, intermediate outcomes were also measured, such as changes in organizational management processes and systems and in workgroup climate—the necessary precursors to improving health services. The ability to measure change at the service delivery level is determined by a number of factors, including

- The length of time and comprehensive nature of our work with an organization
- The particular challenge selected by participants
- Whether interventions are focused on addressing organizational challenges at the central level or at the district or local level, closer to the point of service delivery
- The organizational functions, roles, and responsibilities assigned to the particular level involved in the leadership program (whether central, regional, or local)

Evaluation Instruments

This section describes three primary tools that M&L uses to monitor and evaluate the leadership programs: leadership indicators to measure outputs related to application of the leadership practices; the Work Climate Assessment, a simple and reliable tool designed to measure workgroup climate in teams; and action plans that form the basis for the evaluation of longer-term outcomes defined by each team. We discuss the advantages and disadvantages of each tool, including a detailed description of the validation of the climate tool and lessons learned associated with its use. Excerpts from the leadership indicators and climate tool are provided.

Assessment of Leadership Practices. In order to track the use of the four leadership practices (scanning, focusing, aligning and mobilizing, and inspiring), M&L developed a set of indicators (see Exhibit 8.1) to measure the practices

EXHIBIT 8.1. OUTPUT INDICATORS FOR LEADERSHIP DEVELOPMENT.

Scanning. The workgroup can provide valid and relevant evidence about the nature of its internal and external environment, the quality and extent of its performance, and the resources available on best practices; and it can identify challenges within and facing the team.

Focusing. The workgroup has identified priority challenges to be addressed within a defined time period and selected measurable actions that address barriers to achieving results.

Aligning and mobilizing. Workgroup responsibilities and resources are internally aligned and workgroup goals are externally aligned in order to address selected challenges and meet stated objectives.

Inspiring. Workgroups are committed to the organization's mission and to continuous learning, improvement, and innovation.

and behaviors of managers and their teams. These indicators attempt to measure the extent to which workgroups engage in these practices as a matter of organizational routine, no matter what specific challenges they may face. The indicators are designed as a simple self-assessment tool that a team can apply periodically to monitor its use of the leadership practices.

Despite their simplicity, use of the leadership indicators in M&L programs to date has been limited for three reasons: (1) the leadership programs are relatively short (maximum nine months), leaving little time to monitor outputs along the way; (2) the programs have not adopted the indicators as a monitoring tool to use during program delivery; and (3) MSH and donor interest emphasizes final, often quantitative results, such as teams' achievements of objectives for improved health service delivery. The set of indicators were tested in Senegal by district-level teams participating in a leadership program, but have not yet been systematically used to measure progress and change during a program. The leadership indicators need to be further tested and refined by MSH so that leadership development programs will incorporate them as a program monitoring strategy. This way, participants may better understand and use the indicators to track their own progress during a leadership program and MSH

will receive the necessary data to analyze the training processes linked to leadership outcomes. In the meantime, individual and group interviews are used once the program is complete to gain insights into the processes that took place.

Workgroup Climate Assessment. Workgroup climate is not directly observable, but is estimated through the use of a questionnaire measuring the perceptions of workgroup members. Because such an instrument did not exist for use in public health organizations in developing countries, M&L developed the Workgroup Climate Assessment (WCA) in 2002. The individual climate items in the survey are derived from the original work of George Litwin and Robert Stringer, who developed the first surveys to measure climate in corporate environments (Litwin and Stringer, 1968; Stringer, 2002).

The WCA is a self-scoring questionnaire with eight items, designed to measure climate among intact teams or workgroups in the health sector of developing countries (see Exhibit 8.2). Its secondary purpose is to engage workgroup members in a conversation about their particular climate so that together they can find ways to improve it. The WCA encourages a participatory process: team members individually respond to the survey and afterward they are encouraged to discuss and act upon the results together.

M&L validated the WCA in 2004 with forty-two workgroups from different administrative levels in Brazil, Mozambique, and Guinea (Perry and others, 2005). Respondents in the study represented a wide variety of settings, including central-level ministry staff, district-level managers, hospital admin-

EXHIBIT 8.2. WORKGROUP CLIMATE ASSESSMENT ITEMS.

1. We feel our work is important.
2. We strive to achieve successful outcomes.
3. We pay attention to how well we are working together.
4. We understand the relevance of the job of each member in our group.
5. We have a plan that guides our activities.
6. We understand each other's capabilities.
7. We seek to understand the needs of our clients.
8. We take pride in our work.

istrators, laboratory technicians, and clinic personnel. The WCA's validation items were tested against the Stringer Organizational Climate Survey, which served as the gold standard for measuring climate. The WCA was originally designed to measure three subdimensions of climate (clarity, support, and challenge), but the study did not confirm that these exist as separate subscales. Results of the validation showed that the eight items in the WCA survey do not discriminate between subdimensions of climate but rather capture a single perception of climate. Study results also indicated that the individual items cannot be analyzed or interpreted separately; they must be analyzed together as a composite score for climate. Finally, responses to the items were similar across gender, culture, language, and management level, thus confirming that the tool measures climate equally well in the different cultures and settings.

To date, the WCA has been used to provide pre- and postintervention measures of workgroup climate in the context of face-to-face leadership development in six countries (Brazil, Egypt, Guinea, Kenya, Mozambique, Senegal) and in nine VLDPs (three for Latin America, one for Brazil, one for the Caribbean region, one for Haiti, one for Iraq, and two for Africa). To apply the survey, all members of the workgroup (both managerial and staff) respond to the survey. Respondents rate how they feel about each item on a scale of 1 to 5. The scores are then tabulated across all items to produce individual-level composite scores and an overall workgroup climate score. An additional two items in the tool measure perceptions of the team's outcomes in terms of their quality and productivity, but these are not included in the climate measure.

Using the individual and workgroup composite scores, comparisons can be made between workgroups in an organization, between pre- and posttest assessments of the same workgroup, or between a single workgroup and a predetermined value of climate serving as a target goal.

Based on experience using the WCA, there are several lessons learned that affect the quality of the data produced by the tool. First, it is essential to apply the WCA with intact teams. Intact teams have a history of working together and as a result can respond to the survey items in a meaningful way. All members of the workgroup need to fill out the WCA in order to obtain a valid measure of workgroup climate. This is difficult to guarantee during the postintervention application of the tool when workgroup members may have already moved to positions outside their original workgroup. It is even more challenging with a nonintact team that does not continue to work together after the leadership program has ended.

Second, because the WCA is applied by program facilitators, the quality of the data depends on their ability to explain to participants the purpose of the tool and how it is used. It is especially important that participants understand the five-point scale used in the tool in order to correctly respond to the items. This scale has been a source of confusion in several cases. The facilitator must also be able to help participants interpret the results and determine ways to address the deficiencies in order to improve their climate. Finally, although the WCA is validated for use in different countries and languages, low literacy populations and those not accustomed to using a self-administered questionnaire tend to have trouble responding. As a result, difficulties in using the WCA are related more to respondents' education level than to their culture or language.

In addition, unless the WCA tool is properly introduced and explained by program facilitators, respondents may not understand the value in using the tool and the evaluation will suffer from incomplete data or poor response rates. For example, during the replication of the leadership development program in Egypt, the Egyptian facilitators did not include the use of the WCA in the program design. They perceived it as an external measure (used for M&L reporting purposes) that was not essential to the replication of the program. Hence they lacked postintervention climate data to use for comparison purposes.

Team Action Plans. During the leadership program, teams develop action plans and define indicators to measure their desired and actual performance levels. M&L has relied on the action plan as an evaluation instrument to measure organizational-level results achieved by participating teams. However, tying measurement to participant indicators has not worked well all of the time. The main difficulty is that the evaluation is dependent on the team's ability to use adequate methods to measure their progress and supply data. Except in the case of those programs that focus on using service statistics, teams often do not monitor their performance using the indicators in their plans; therefore, the data are not available for the evaluation. Reasons for this lack of data include the fact that some teams do not monitor their performance on a regular basis, so the data are not available; some do monitor performance but on a larger scale using organizational-level indicators; other teams do not fully implement their action plan and therefore have nothing to measure. New content has been added to the program design that will help teams to improve their selection and use of indicators to monitor progress. This should allow for better measurement of organizational results in the future.

Evaluation Methods and Key Questions Used

M&L evaluations use a mix of qualitative and quantitative methods, depending on the key questions to be examined, the specific content of the challenge being addressed by the teams, and the action plan under review. This mixed methods approach is in response to the absence of standardized metrics from the literature to measure organizational leadership outcomes. Quantitative methods include the use of specific questionnaires (such as the WCA) completed by program participants that measure changes at the team level and the use of indicators to measure organizational performance related to the expected results stated in the action plan. In cases where it is possible and logical to measure changes in services, service delivery data (usually service statistics) are analyzed.

The corresponding qualitative evaluation aims to understand and document behavioral and process-level changes that occurred in the workgroups as a result of the program. Methods used include document reviews as well as focus groups and semi-structured interviews with samples of program participants and nonparticipants. For virtual programs, e-mail questionnaires are sent to a point person from each team, followed by telephone interviews with carefully selected key informants from these teams.

For evaluating both face-to-face and virtual leadership programs, due to time and funding constraints, a purposive sample is most often used. *Purposive sampling* is a form of nonprobability sampling in which respondents are selected according to a specific plan or purpose. This sampling method differs from *probability sampling*, in which each member of the population has an equal chance of being selected for the sample and the results can be generalized to the sampled population. Purposive sampling is useful for reaching a targeted sample quickly and when sampling for proportionality is not the main concern. The disadvantage of a purposive sample is that it is hard to know how well the sample represents the population. As a result, it is important to qualify the findings from a purposive sample appropriately and note whether people left out of the sample might behave differently than those who were selected.

In the case of M&L evaluations, teams are selected for the purposive sample according to predefined criteria that are intended to ensure, as much as possible, maximum variability in terms of team performance. Teams are usually selected based on the quality of their action plan and their adherence to the criteria for SMART objectives (Specific: to avoid differing interpretations;

Measurable: to allow monitoring and evaluation; *Appropriate*: to the problem, goals, and strategies of the organization; *Realistic*: achievable, challenging, and meaningful; and *Time bound*: with a specific time period for achieving them). Other criteria have been used, such as the quality of homework submissions and participation levels; however, these tend to lack context and must be interpreted with care as indicators of team performance.

Data Sources and Lessons Learned. As a result of using mixed methods to assess leadership outcomes, the evaluations are based on information from a variety of sources. The following is a review of the different information sources used by M&L, as well as a discussion of the challenges of implementing the evaluation and lessons learned.

- Evaluations start with a review of the project design and content of the learning modules. This is a necessary exercise in order to understand and make explicit the logic among inputs, outputs, and outcomes.
- Comparison of organizational results before and after the leadership program is usually based on indicators in the teams' action plans and other quantitative and qualitative data supplied by participating teams. Along with climate data, these organizational data provide the evidential base for measuring outcomes. A prerequisite for using a participant action plan as the basis for an evaluation is ensuring that the plan meets the SMART criteria. To aid teams in improving their action plans during the program, M&L reviews them and provides guidance according to the following criteria or questions:
 - Are goals and objectives clear?
 - Are activities logically related to goals?
 - Are measurable indicators defined?
 - Is a timeline or time frame for implementation indicated?
 - Are resources indicated?
- Comparison of climate data before and after the leadership intervention is a measure of change within the team that tracks its growth and progress as a result of the program. An important challenge when using workgroup climate as a leadership outcome is helping participants understand how positive climate is created and that improved workgroup climate is an expected

outcome linked to participation in the program. Some participants have tended to perceive climate as an external measure that serves the purposes of M&L reporting to its donor but that is not essential to action plan development or to improving team performance. As a result, some participants have not been motivated to complete the survey, and those evaluations have therefore suffered from poor response rates.

Part of the problem may be the role that workgroup climate plays in the program and how the WCA is introduced by the facilitators. The WCA should be presented as a way to measure workgroup climate and the results of its application by the teams must be tied to or used in the content of the program. When teams analyze their climate scores, the program should provide assistance with interpreting the data and guidance for strategizing ways to improve climate.

Finally, and especially in light of funding constraints, the program should ensure follow-up to systematically reapply the WCA with teams from face-to-face and virtual leadership development programs in the postcourse period to measure the maintenance of climate levels. Once the program ends, it is often difficult to gain access to the teams to request a reapplication of the tool. Therefore, follow-up should be incorporated into the initial project design.

- Semi-structured interviews and focus groups with participants can supply the necessary evocative data to explain outcomes achieved and to understand what changes have occurred within the team both during and after the program. Gathering quality evocative data depends on who is selected to provide the data and how they are selected. It is therefore important to select key informants carefully and ensure they represent the larger team. Likewise it is important that focus group participants are not selected by the program facilitators or the program team manager in order to help ensure more objectivity in the participants' views. Conducting focus groups with nonparticipants, as well as participants, is useful to gauge the degree of trickle over and trickle down that occurs between the two groups.
- For virtual evaluations, the use of e-mail questionnaires to gather process and outcome information from participants in the VLDP has had varied success. Due to frequent low response rates, different approaches have been tried. Sending the questionnaire to the team leader alone risks that this person either does not respond or does not have the detailed information required to report indicator data. Responses are usually richer when the

whole team is asked to fill out the questionnaire, and in this case, the e-mail questionnaire is sent to a representative of the team who will seek and compile responses from all team members. While this has improved the response rate, there is no guarantee that the questionnaire is actually completed by the team.

Interestingly, requesting teams to complete the questionnaire can serve as an intervention itself because it motivates team members to reunite with a shared purpose. What also works well is following e-mail questionnaires with semi-structured telephone interviews with selected course participants to verify and further probe questionnaire responses.

Review of Key Questions. M&L outcome evaluations are all based on a similar set of key questions in order to allow a synthesis of lessons learned across programs. The methods described provide the data sources for all of these key questions. It is useful to triangulate several data sources for the same key question in order to verify the information collected. Examples of the types of key questions addressed in the evaluations include

- What technical assistance approaches and tools were used in delivering the leadership development program?
- What are the organizational challenges that the teams have addressed through this program?
- What processes have participants established to address their challenges?
- Did teams develop action plans to address their challenges? If so, have all activities been implemented? Were other activities implemented that were not included in the action plan?
- What means do the teams and the overall organization use for monitoring their progress in addressing their challenges?
- To what extent have the individual teams and the overall organization achieved their expected results?
- What other results may have been achieved that are unrelated to addressing their challenges?
- What motivated participants to achieve their results? What prevented them from achieving their goals?
- Did the teams continue to work together to address another challenge after the formal leadership program ended? If so, what processes were used? Was this similar to or different from how they worked together during the for-

mal program? What motivated their participation and commitment after the formal program ended?

- To what extent was content from the formal program shared with other staff members who did not directly participate in the leadership program?
- In what ways has the formal leadership development program impacted staff as individuals, their teams, and the organization as a whole?

Lessons Learned from Field Applications

Choosing Where to Evaluate Workgroup Climate: Manager, Team, or Organization

Before designing an evaluation of leadership outcomes, it is necessary to determine the sample group that is most appropriate for measuring workgroup climate. Different options for the unit of measure include the manager; the manager's direct reports; all team members participating in the program; or staff from the whole unit, organization, or municipality, including those who did not directly participate in the program. Ideally, the decision about where to evaluate should be based on a working model that outlines the logical pathways among inputs, outputs, and outcomes for the particular program. According to the M&L approach to leadership development, the managers and members of a workgroup follow a participatory process to identify and address a workplace challenge. The act of going through this process together and adopting the leadership and management practices to address a given challenge tends to improve the climate in that particular workgroup.

For example, in Nicaragua, the municipal leadership program intervened in sixty-three municipalities over a period of three years. During the first two years, only the municipal management teams were directly involved in the program. The management team received the training, selected the challenge, designed the improvement plan, and deliberately worked on the challenge in the plan. The rest of the health workers in the municipality did not receive the training and were not involved in implementing the action plan. Many did not even know what purpose the plan served or what actions it contained. During the third year, however, the management team and all municipal health workers were trained, although the health workers still were not involved in implementing the action plans.

For the purposes of implementing the leadership programs, the *intervention group* was defined as the municipal management team. However, the unit of measure for assessing climate was defined as the management team plus all municipal health staff. According to the logic of the M&L approach, changes in climate likely would be seen at the level of the management team because only it was directly involved in the program. And yet results showed that climate generally improved among all municipal health staff, even in the absence of broad participation of all health staff in defining and addressing the challenge. It is possible that improvements in climate would have been even stronger had they been measured solely within the management team that had directly participated in the intervention. How can these documented results be explained? If a health worker does not go through the leadership process itself, can she still experience a change in climate? If the results in climate were not due to direct participation in the program, did the management team's improved practices have a trickle down or trickle over effect to the rest of the municipal staff? Were improvements in supervision and better working conditions brought about by the management team? Had a logic model been developed at the beginning of the program, it would have helped to explain the changes that were measured and their relationship to the program inputs. Because a logic model did not exist, there was no way to know for sure whether these outcomes were intended or *unintended consequences* of the program.

While much of MSH's leadership evaluation work, consistent with the literature, suggests that certain inputs will likely lead to certain outputs and outcomes (Goleman, 2000; Laschinger, Finegan, and Shamian, 2001; Litwin and Stringer, 1968; Stringer, 2002), further tests and models are needed to determine how strongly the inputs are linked to the actual outcomes.

Measuring Health Service Delivery Outcomes

If quantitative data are used to measure outcomes, it is important to select appropriate indicators that are correctly defined and calculated. In addition, the indicator definitions should be verified at the start of the program. For example, in Egypt the leadership program was delivered to teams of doctors and nurses at the district and health facility levels. Outcomes were defined as improved climate and improved family planning, antenatal, and postpartum care services. The action plans formed the link between program inputs and service outcomes because participants chose to improve service delivery as their challenge and they identified the necessary actions to achieve the service results.

The evaluation of the Egypt program relied almost entirely on service statistics to measure service outcomes. The program encouraged teams to select their own performance indicators from among the existing national indicators used by the Egyptian Ministry of Health and Population (MOHP). This was in line with MSH's philosophy to use data that teams are already collecting rather than creating additional requirements for data collection. The advantage of this approach was that it empowered the teams to own their challenge. The disadvantage was that it created a problem with measurement validity. Several teams chose to use couple years of protection (CYP) to measure family planning service performance. CYP is commonly used as an outcome indicator for family planning programs. Although participants followed the guidelines of the MOHP, the way in which the ministry instructed health facilities to compute CYPs was *not conventional* (did not follow international guidelines) and the unusual computation led to misleading results. By recalculating the CYP indicator and using additional data from the participating clinics' family planning service statistics, M&L was able to assess the teams' program outcomes vis-à-vis their expected targets for family planning services, and the teams themselves were able to accurately monitor their own progress.

In contrast, in Nicaragua it was not possible or appropriate to use service data to analyze potential relationships between climate and service outcomes, for two reasons. First, the Nicaragua program was designed to improve municipal climate as the outcome measure and did not intend to affect health services in any direct way. Each municipal team developed a plan to address the principal weaknesses in climate they had identified through the application of an organizational climate survey. Their plans did not address any deficiencies in services. In addition, the accompanying training units were directed at strengthening the leadership skills needed to overcome the identified limitations in climate. Therefore, in accordance with this program design, the evaluation framework of the Nicaragua program did not link changes in climate to service results.

Second, even if a logical link between program inputs and expected service results had been made, the available data (service statistics) on health services were insufficient to perform an analysis of these relationships. Data from service statistics should be defined ahead of time in order to ensure they are appropriate for the analysis. The service delivery indicators should be chosen and tracked from the beginning of the program in coordination with participating municipalities. This would serve two purposes: (1) to analyze the root causes of poor services and then design the program interventions to address

these; and (2) to respond to municipal priorities for improving health services rather than measuring a standard set of indicators.

Using Mixed Methods to Evaluate Outcomes

Because leadership is as much about the process as it is about the results, evaluators should consider using a balanced mix of evocative (qualitative) and evidential (quantitative) data. Evaluations that rely solely on quantitative data such as service delivery results may conceal important changes in team practices and their interactions with the larger system around them. For example, in Egypt the monitoring and evaluation framework for the program relied exclusively on service statistics. During the evaluation, although significant improvements were measured in many of the outcome (services) indicators, the evaluator was not able to explain in any detail what had led to these changes.

A year after the conclusion of the program in Egypt, M&L evaluated the replication of the program carried out with another set of district teams. This time a mix of qualitative and quantitative methods were used to capture changes in outcomes. Quantitative methods were again based on an analysis of services statistics, using a control district for comparison to help rule out ecological effects of general improvements over time. Qualitative methods included postprogram interviews and focus groups with participants and facilitators. This second evaluation provided a much richer account of program results, with quantitative data on concrete changes in services coupled with evocative data to help explain how transformation in service delivery had occurred as a direct result of the leadership development program.

In Nicaragua, an evaluation of the leadership program was also conducted using both quantitative and qualitative methods. Data on pre- and postintervention climate levels were collected using an organizational climate tool developed by the Pan-American Health Organization (PAHO, 1989). This tool was chosen because the WCA was still under development by MSH and was not available when the Nicaragua program began. The PAHO tool contains eighty items that measure four broad areas of organizational climate: leadership, motivation, reciprocity, and participation. It was completed by all municipal health staff, both participants and nonparticipants (that is, managers and health workers). Analysis of the climate data included descriptive statistics and significance testing on the differences between pre- and post-program climate levels.

Qualitative methods included focus groups with program participants (management teams) and nonparticipants (health workers supervised by the management teams) and in-depth interviews with municipal directors, selected participants, and program facilitators. In addition, action plans were reviewed with municipal directors and evidence of their implementation was solicited (for example, meeting agendas or other specific documents and observable modifications in health center organization or administration). These evocative data tended to substantiate the changes in climate captured with the PAHO tool and to strengthen the conclusions reached through evaluation.

Evaluating Results of Virtual Leadership Development Programs

M&L has conducted follow-up evaluations after six VLDP programs with the intention of documenting the outputs and outcomes produced by the participating teams. The intent of the evaluations is to capture medium-term outcomes of the program based on (1) results achieved through the implementation of the action plans developed during the course; and (2) changes in workgroup climate among participating teams. Without these data, it is difficult to document the concrete value of the program and relate the organizational outcomes to participation in the course.

Methods in these evaluations included review of action plans and WCA results, e-mail questionnaires sent to a representative of each team, and telephone interviews with a member of selected teams in order to document the progress they made in implementing their plans and to probe on specific actions they took as well as any behavioral outcomes produced. Selection of teams for the telephone interview has been based on stratifying teams into high- and low-performing categories based on such criteria as participation levels during the course and the quality of the action plan produced. Teams are then selected according to geographic representation within these strata. The goal is to acquire a sufficient spread of teams in terms of performance and geographic location to capture the variation in the cohort. In general about half of participating teams are selected.

The follow-up evaluations have on average taken place between six to eight months after program completion to allow sufficient time for teams to implement their plans. Nevertheless, only limited concrete data on outcomes have been documented. While teams have worked on some activities in their action plans, most have not measured their progress, despite the presence of

indicators in their plans. Some teams do not implement their plan at all during or after the course. The ability to measure team results is dependent on their ability to supply the necessary data.

The lack of concrete performance data raises several questions: If a team does not fully implement its action plan, or does not measure its progress, does that mean the VLDP did not produce the desired outcome (increasing the ability of teams to address challenges and achieve results)? Or could it simply reflect the team's inability to implement their plan due to their level or role within the organization? Could it also mean that monitoring action plan progress is overlooked when teams are faced with other competing work priorities? Either way, if a team does not implement or monitor its plan, data for the evaluation are not available and alternative measures must be sought to document outcome-level results.

At the same time, basing the assessment of VLDP outcomes primarily on action plan implementation is a limiting and potentially misleading approach that may miss other important changes that occur as a result of the program. As a blended learning program, the VLDP engages participants in a unique way that builds effective teams that can affect the organization beyond the results of a single action plan. Accomplishments such as strengthened teams now serve as an intermediate outcome that can be produced during the life of the program and that is a necessary precursor to producing organizational results. Therefore the primary data source for assessing strengthened teams is the in-depth phone interview.

Assessing the structure and unity of a team complements the measure of the third outcome covered in M&L evaluations: positive work climate. The VLDP includes an online version of the WCA that teams complete during the first and last modules of the course. However, having tried repeatedly to gather climate data from VLDP teams, low response rates have prevented using climate as a robust outcome measure for the VLDP. More recently, the course diploma has been tied to completion of both pre- and postcourse WCA surveys, which has improved the response rates.

Experience in evaluating virtual leadership development programs shows that the most effective methods for soliciting information on intermediate outcomes from virtual teams are the following:

1. E-mail questionnaire sent to a point person identified prior to the close of the VLDP representing the team who will ensure that the team members

all contribute to responding to the questionnaire. Otherwise, if only the point person responds, he may have incomplete information on indicators and outcomes. Questions revolve around measurable progress on the action plan (including indicator data) and processes the team used to implement their plan.

2. The next step is to follow up with targeted, in-depth telephone interviews with a different team member to (1) verify information supplied in the questionnaire; and (2) probe key questions on results linked to the action plan as well as on progress in developing a cohesive team with a positive climate. A useful strategy for selecting teams for individual phone interviews is to first categorize them into high, medium, and low performers according to simple criteria such as the quality of their action plan and participation levels during the course (for example, posting to the Forum and Café, and completion of group exercises). Afterward, two to three teams are selected from each category for the phone interviews. This helps ensure an adequate spread of teams for interviews and enables a comparison of responses according to their performance levels. Participants complete a postcourse survey that provides their initial reactions to the course that are useful for developing the individual interview guide.
3. To round out the evaluation, participation data from the VLDP Web site is used to track participation during the course modules and on different site features such as the Café and Forum. However, these data have to be interpreted with care because they do not reflect participation that occurs offsite during team meetings.
4. The After Action Review (AAR) is an additional source of process data for the evaluation. The AAR is a very useful rapid assessment process for reflecting on and discussing what went well in implementing a project or set of activities and what did not go well. The exercise helps program designers and implementers think in a different way about mistakes, failures, and breakdowns without blaming. It also provides an opportunity to recognize successes. The lessons are then fed back into the group (or the larger organization) and combined with other lessons to create organizational knowledge and improved solutions. The AAR is a source of immediate feedback that can then be woven into an evaluation.

The use of the preceding methods to evaluate virtual leadership programs has yielded the following six lessons:

1. The timing of the follow-up evaluation is essential to capturing high-quality information from participants. The more time that passes after course completion, the lower the response rate to e-mail questionnaires and interview requests and the greater the risk of recall bias. Yet at the same time, delayed follow-up is necessary to allow teams enough time to practice new skills and implement their action plans. It is therefore necessary to strike a balance between recall and results: the evaluator must allow enough time to pass to be able to document organizational results and yet not too much time to compromise recall among respondents. Realistic and measurable outcomes should be identified at the outset of the program for the chosen time frame.
2. Without adequate preparation, e-mail questionnaires are a poor mechanism for gathering postcourse data from VLDP teams. Teams need to be informed ahead of time that e-mail questionnaires will be sent after the completion of the program. A point person should be selected to facilitate the dissemination and collection of questionnaires from all team members.
3. Similarly, participant interviews with respondents selected at random are an ineffective way to capture results on action plans or organizational results. Quality interviews depend on the knowledge of the interviewee who may or may not have accurate information regarding indicators from the VLDP action plan or data on organizational performance in general, depending on her role in the organization. Instead, each team should select a spokesperson or representative who will be prepared to respond to interviews or requests for information throughout the monitoring and follow-up period.
4. Strengthened teams, in addition to workgroup climate and action plan implementation, is a viable outcome measure for the VLDP. While quality action plans are needed to provide the basis for documented results, the richness of the process is in producing the plans. It is necessary to document the internal cohesion of the team that develops during the process of developing the plan.
5. WCA online response rates are generally poor. This may be because participants complete the survey on paper and do not upload their data to the Web site. Or it could be because the tool has not been presented as a useful way for teams to monitor their progress in working together. Linking the course diploma to WCA completion can improve response rates.
6. The AAR and tracking of back-end participation data are very useful for providing rapid process data on program implementation. Collecting this data provides a foundation for subsequent evaluations.

Challenges of Evaluating Leadership Development at the Team and Organizational Levels

Experience in numerous developing countries with managers and their teams from central and peripheral levels of the health sector has led M&L to identify key challenges and conclusions that may help to strengthen the evaluation of leadership outcomes.

- *The quality and availability of data is uneven.* Evaluations are highly dependent on the way in which the program facilitator introduces and uses measurement tools that supply data for the evaluation. Likewise, evaluations are dependent on the monitoring and evaluation systems and practices of the client organization. Evaluation data is only as good as the client organization's data. Participants from organizations with weak M&E systems are often unable to provide a suitable baseline measure, which only complicates the setting of appropriate targets to accomplish within the timeframe of a program. Often participants do not use the indicators in their action plans to monitor performance, and as a result postprogram data are unavailable to measure change in relation to a baseline. This is particularly the case when the team has identified an organizational process or system as its priority challenge; it is less often the case when the team has identified a service delivery-related challenge. The collection and analysis of qualitative data is usually carried out by the MSH evaluators. The value of this data is leading us to strengthen our qualitative approaches and consider offering M&E technical assistance to the client organization and participating teams to enhance their ability to collect qualitative data.
- *The design of the leadership development program affects the ability to measure outcomes.* Because of difficulties in attributing results to program inputs, evaluators and program designers need to define where and how they expect to see change as a result of the program. Logic models should be used to make explicit relationships between leadership inputs and expected outputs and outcomes and to define how the expected outputs and outcomes relate to the program content. Further, programs should develop performance benchmarks that can be used along the way during the program, especially if outcomes are likely to change slowly and if it will be difficult to gather process data from participants at a point after the program has ended. For example, programs can include and routinely use output indicators, such

as those presented in this chapter, that measure leadership competencies and practices and complement the measurement of outcomes such as climate. Finally, measuring change needs to become a program strategy so that participants learn to value the collection and use of data to measure their own progress. Programs should use simple measurement instruments that participants will also find useful in their own work. This is especially important if the program relies on participant data to measure its success or failure.

- *Ensuring adequate response rates to the WCA and the appropriate timing of data collection is essential.* Program facilitators that incorporate the WCA into the program in a way that is meaningful to participants increase their motivation to respond to the survey. Appropriate timing of follow-up data collection such as interviews and e-mail questionnaires maximizes the quality of the data collected (not too soon after the program to allow teams sufficient time to make progress and not too long after the program to affect participant recall). Also facilitators should enlist the key informants early in the program so they are aware of their responsibilities to represent the team in the interview.
- *Yearly funding pressures influence the scope, timing, and methods for collecting data.* Limited time frames for project implementation often inhibit the measurement of broad organizational change. Nevertheless, there is pressure from the donor to report results during these short time frames. Further, donors seek tangible, quantifiable evidence of outcomes in a largely qualitative environment in which qualitative methods are often more appropriate ways to capture change. Programs can respond to this pressure several ways. Participants should be oriented to select significant motivating targets that will contribute to organizational performance and at the same time can be measured at some point after the program ends. In addition, immediate program outputs can be defined and measured in order to satisfy the need to report results in the short term (immediately after program completion). Finally, more systematic reporting of results using mixed methods, such as climate outcomes combined with evocative data, may meet donors' need for hard data.

Resources

For a detailed explanation of climate, please see "Creating a Work Climate That Motivates Staff and Improves Performance" in *The Manager*, produced by Management Sciences for Health. This publication is available on the MSH Manager's Electronic Resource Center Web site (<http://erc.msh.org/>)

at <http://erc.msh.org/newpages/english/leadership/workclimate.pdf>. A hard copy can be ordered through MSH's e-bookstore located on the MSH Web site at www.msh.org.

We also recommend the seminal works by Litwin and Stringer, who pioneered the study of climate in corporate settings: *Motivation and Organizational Climate* (Litwin and Stringer, 1968), and *Leadership and Organizational Climate* (Stringer, 2002). The full references are available at the end of this chapter.

For information on the design and content of M&L leadership development programs, we recommend the publication by MSH, *Managers Who Lead: A Handbook for Improving Health Services*. The handbook is available for order through MSH's e-bookstore located on the MSH Web site at www.msh.org.

Another new manual recently developed by MSH provides guidance on applying the WCA as well as tabulating and interpreting the results: *Work Climate Assessment: Guide for Facilitators*. Copies are available for download from the MSH Manager's Electronic Resource Center Web site (<http://erc.msh.org/>).

For information on measuring leadership competencies, see the Leadership Assessment Instrument (LAI), a self-assessment tool developed by Linkages, Inc., with information at www.linkageinc.com/research_products/assessment_instruments.aspx. This tool is also available on the MSH Manager's Electronic Resource Center Web site (<http://erc.msh.org/>).

For information on the performance improvement process that provides the foundation for our leadership programs, please see the International Society for Performance Improvement Web site, www.ispi.org.

Finally, the full evaluation reports for the leadership programs in Egypt, Nicaragua, and the VLDP are available from MSH on request. Brief evaluation notes summarizing the results of these evaluations are available at www.msh.org/projects/mandl/3.4.1.html.

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