

# IMPROVEMENT STRATEGIES MODEL: FACILITY ORGANIZATION AND MANAGEMENT: FACILITY MANAGEMENT CAPABILITY AND LEADERSHIP

## CORE PRINCIPLES OF FACILITY ORGANIZATION AND MANAGEMENT

Facility organization and management includes: the effective organization of facility operations; deployment of human resources in multidisciplinary teams; routine collection and use of information systems to establish targets, monitor progress, and implement ongoing quality improvement initiatives; and the capability of managers to oversee, support, and enforce these processes.

### TEAM-BASED CARE ORGANIZATION

Team-based care organization refers to groups of providers with diverse training, education, and capabilities.(1) Working together and leveraging their distinct expertise, these teams are designed to provide comprehensive, coordinated, and efficient primary health care to patients.(2) Effective team-based care involves two central components: comprehensive team composition to meet population health needs and strong team culture focused on communication, respect, and trust between team members.

### FACILITY MANAGEMENT CAPABILITY AND LEADERSHIP

Facility management capability and leadership refers to the capabilities of managers and leaders within a facility. Leaders should have relevant skills related to coordination of operations, external/consumer relations, target setting, and human resources.(3) Strong leaders must have or develop particular competencies and personality traits to engage the workforce and manage effectively. Competencies can be defined as the combination of motive, trait, skill, self-image, social role, and body of relevant knowledge.(4) Managers should be properly equipped with the tools, systems, and skills to productively assess the health workforce within a facility and provide supportive supervision.

### INFORMATION SYSTEMS USE

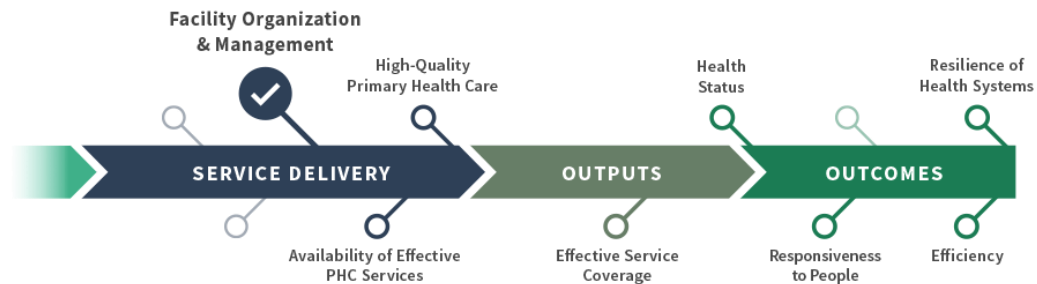
Information systems use is the effective utilization of existing information systems (the infrastructure related to Information Systems is addressed in the Information Systems module within Systems - forthcoming) and the data they produce at the facility level to coordinate care, monitor performance, and drive management. Effective information systems use can support a variety of purposes ranging from priority setting to clinical tasks and education. Information systems should be easy to use with clear expectations of use and systems for monitoring and evaluation and should provide easily accessible information to those who use them.

### PERFORMANCE MEASUREMENT AND MANAGEMENT

Performance measurement and management includes both supportive and continuous supervision of staff as well as the routine establishment of performance targets, monitoring of progress towards these targets, and implementation of quality improvement (QI) initiatives to address identified gaps. These measurement systems should be designed with feedback loops to target results to the end users of the data and should be ensconced in larger continuous QI systems.

## WHAT COULD YOUR COUNTRY ACHIEVE BY FOCUSING ON FACILITY ORGANIZATION AND MANAGEMENT?

Facility organization and management, when done effectively, can contribute to an array of downstream effects. These may include:



## FACILITY ORGANIZATION AND MANAGEMENT: WHAT ARE THE FIRST STEPS?

The four sub-components within Facility Organization and Management (team-based care organization, facility management capabilities and leadership, information systems use, and performance measurement and management) are diverse, addressing elements of workforce, infrastructure, and individual competencies. Consequently, strategies to improve service delivery within facility organization and management are far-reaching, and the best fit for any given context may be highly contingent upon pre-existing structures, systems, and capacities. For instance, improvements in team-based care organization may require the education and integration of a new cadre of providers in one context, while in a second context training for existing team members in respectful teamwork may be needed. Thus, the order in which health systems address sub-components of facility organization and management is dependent upon initial assessments, the magnitude of change needed, and contextual feasibility. The following sequencing of domains is intended to show the interconnectedness of these elements rather than imply a specific pathway that must be followed.

[Information systems use](#) underlies many aspects of facility organization and management. Planning services, allocating resources, accessing patient information, and evaluating performance or management of a health facility and its staff all require robust facility data originating from information systems that are well integrated into the facility and are easy to use. Building on the inputs to establish these information systems, more efficient use of information systems can be championed by facility leaders and managers. Making use of information systems and relevant data, facility leaders - whose skill sets and responsibilities are encompassed by [facility management capability and leadership](#) - can enact necessary reforms or changes in service delivery, monitor change, and foster a facility culture and learning system which values data use for continual improvement. Data on the size and needs of the population should inform the composition and size of [care teams](#) while the culture, goals, and responsibilities within the teams should be guided and facilitated by leadership. Finally, well-designed [performance measurement and management](#) systems should be used to monitor the functioning of all aspects of a facility, including

## FACILITY ORGANIZATION AND MANAGEMENT

team-based care, information systems, and facility leadership, highlighting gaps and subsequently opportunities for continued improvement. Facility managers should have the necessary training and capability to use data to guide improvement.

**What it is****FACILITY MANAGEMENT CAPABILITY AND LEADERSHIP**

What others have done

How to get started

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Facility management capability and leadership refers to the capabilities of managers and leaders within a facility. Leaders should also have relevant skills related to coordination of operations, external/consumer relations, target setting, and human resources.(3) Strong leaders must have or develop particular competencies and personality traits to engage the workforce and manage effectively. Competencies can be defined as the combination of motive, trait, skill, self-image, social role, and body of relevant knowledge.(4) Managers should be properly equipped with the tools, systems, and skills to productively assess the health workforce within a facility and provide supportive supervision. Managers and leaders may represent different individuals or groups of individuals within a facility depending on the size and structure.

**WHAT SHOULD I KNOW BEFORE BEGINNING IMPLEMENTATION?**

Competent management capacity is often acknowledged as an important element to improve equitable health service delivery (5); however, there is a relative paucity of information on management and leadership improvement strategies in LMIC PHC systems. This section instead presents a number of frameworks describing the capabilities and responsibilities of strong health system leaders and managers. While these capabilities cannot necessarily be “implemented” without additional guidance, they can guide identification of gaps in management for consideration in continuing education, hiring, and building supportive managerial environments.

Overall, evidence suggests that multiple, diverse leadership competencies need to be accounted for when implementing management reforms, including:

- ▶ Individual leadership competencies, such as strategic and creative problem-solving capacities
- ▶ Operations management, including the management of supply chains, equipment, patient flow through the facility, service delivery planning, and financial planning, including the tracking of revenue and expenditures and comprehensive budgeting and forecasting
- ▶ Management of community engagement to ensure responsiveness to patient/consumer needs and functioning systems for incorporation of community feedback.
- ▶ Target setting and monitoring (this is addressed in the [performance measurement and management](#) module)
- ▶ Human Resource management (supervision is discussed in the [performance measurement and management](#) module.)(3)

Additionally, leaders should be responsible for fostering a learning culture within their facilities. However, the availability of evidence is heterogeneous across these competencies and their impact on improving high-quality and accessible PHC, and there is a paucity of literature from LMIC.

**INDIVIDUAL LEADERSHIP COMPETENCIES**

Two studies in Thailand identified the necessary leadership competencies of PHC managers. These studies were pursued with the recognition that health organizations must understand the competencies of their managers in order to leverage personnel and achieve stronger services.(6) The first study was conducted in Southern rural areas of Thailand and targeted any front line managerial staff including Public Health Administrative Officers, Public Health Technical Officers, Registered Nurses, and Community Health Officers. Six competencies were identified from an original list of 120 items. A second study in Thailand developed a competency scale with nine dimensions similar to the first study.

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Synthesizing across this work, these two studies together identified 11 competencies for strong management: (6,7)

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▶ Visionary leadership

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▶ Assessment, planning, and evaluation

▶ Promotion of health and prevention of disease

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succeed

▶ Information management

▶ Partnership and collaboration

▶ Communication

▶ System thinking and strategic decision making

▶ Organizational development and professionalism

▶ Emotional intelligence

▶ Proactive approach

▶ Financial planning

These competencies together describe a leader who is technically knowledgeable about healthcare, operations, and finance and also possesses personality traits such that she or he can engage staff and work towards a mission.

## OPERATIONS MANAGEMENT

Operations management encompasses the responsibilities of managers in day-to-day facility functions and flow. Facility managers should be aware of task assignment within the facility and set systems, expectations, and accountability regarding facility functions. Some of the tasks in operations management include: provider responsibilities, workload, and workflow; hours and days of facility operation (discussed in greater detail in the [timeliness](#) module); infrastructure maintenance and functioning; and availability of drugs and supplies.

There are a number of processes and tools that can help managers better understand how services are provided in a facility in order to identify opportunities to improve efficiency. Of these, process flow mapping can help facility managers plan for the facility and patient's needs and aid in continuous quality improvement activities. Mapping may occur through a combination of direct observation of patient flow, analysis of service interruption, and staff interviews, and it is particularly beneficial when conducted at the same time as changes in service delivery such as implementation of new information systems or the introduction of a new cadre within the facility. The following resources may be useful for managers conducting process flow mapping:

- ▶ [Flowchart template and toolkit](#) - The Institute for Healthcare Improvement has developed a toolkit for gathering the necessary stakeholders and developing a flowchart.
- ▶ [Mapping curriculum](#) - The Agency for Healthcare Research and Quality has developed a curriculum for mapping and redesigning workflow to help practices align with a patient-centered medical home model.

Appropriate and efficient resource allocation is crucial in LMIC where there is a high burden of disease but low per capita spending on health care. However, many of the tools frequently used to allocate resource in high income settings cannot easily translate due to lack of technology or data. Time-driven activity-based costing (TDABC) is a resource allocation methodology that has been used in many high-income countries and has been shown to also be effective in LMIC.(8) TDABC estimates costs at the individual patient level through consideration of four elements:

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- ▶ Activities - managers follow patients to understand the flow of activities for a given condition and how much time is spent on each throughout the pathways of care.
- ▶ People - managers calculate the cost per unit time for each person or equipment - i.e. yearly salary / the amount of time a provider works each year.
- ▶ Materials - managers consider the additional materials needed and the cost of these materials.
- ▶ Remainders - Finally, any additional indirect costs not related to the patient pathway of care are included such as administrative or janitorial costs.(8)

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Through this exercise, managers are able to map the amount of an employee's salary that is allocated towards various tasks and estimate costs of care based on treatment, age, gender, or any other array of factors that may influence how a patient receives care. TDABC may be facilitated by process flow activities. While this process may be time consuming, managers can easily repeat and re-evaluate if care processes within the facility change. Additional information on TDABC can be found [here](#), and an example of its application to Haiti is described in How others have done it.

## MANAGEMENT OF COMMUNITY ENGAGEMENT

Specific implementation considerations for community engagement are discussed in greater detail in the [community engagement](#) module; however, it is important to briefly note here the specific roles that facility leaders have in ensuring the community is actively engaged in all aspects of service delivery and facility functioning. Leaders must make time to communicate changes with the community and institute systems for community and individual feedback and responses to these inputs. Some questions facility leaders may ask to understand how they are engaging with communities include:

- ▶ Have facility leaders developed systems to collect client opinions on their experiences, including satisfaction with services, experiential quality, and frequency of outreach?
- ▶ Does the facility have a community advisory board, community management committee, or community representatives on an existing committee?
- ▶ If there are systems to collect client opinions and/or advisory boards or committees, has the facility taken steps to act on any of the suggestions or observations? How is accountability and performance made visible to communities?

## LEARNING ORGANIZATIONS

An additional responsibility for facility leaders is to foster an organizational culture that promotes learning from mistakes or errors within the facility. This is often referred to as a "learning organization". One study in the United States found that care teams with strong leadership often reported more errors in practice. The authors further investigated these counterintuitive findings and determined that well-led teams foster an environment in which reporting and learning from mistakes is welcomed and encouraged. This prompted the authors to identify qualities of teams and leaders that facilitate organization learning.(9) These are:

- ▶ A safe learning environment where voices are valued - even in instances where it may seem inherent, facility leaders should be sure to communicate that all voices are welcomed and valued and all providers - regardless of cadre - are invited and encouraged to share concerns
- ▶ A compelling vision for what needs to be improved - including clear systems for recording and sharing visions between stakeholders, including providers and community members
- ▶ Team based learning infrastructure where small groups can contribute lessons and expertise - for instance, if a facility experiences an adverse event, there should be systems in place where providers can come together and discuss implications, lessons, and improvement strategies.

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A conceptual model for learning organizations has identified three “building blocks” for such organizations. These include: 1) a supportive learning environment; 2) concrete learning processes and practices; and 3) leadership behavior that provides reinforcement. The researchers found that these three elements were dictated by different mechanisms, and high performance in one does not predict high performance in others.(10) A corresponding “[Learning Organization Survey](#)” intended to assess an organization’s learning capability maps competencies across these three dimensions. The survey is intended to be used at the organizational unit level. This may correspond to a facility department or a whole facility depending on the size and number of facilities. It characterizes a supportive learning environment as one that prioritizes psychological safety, appreciation of differences, openness to new ideas, and time for reflection. Concrete learning processes and practices include experimentation, information collection and analysis, education and training, and information transfer to other networks. Finally, the model emphasizes the importance of having leaders who prioritize dialogue around problem identification and adaptation. One important lesson that the survey developers identified from their research and implementation process was that modeling positive leadership competencies alone was insufficient to change organizational culture and cultivate a learning organization. While visionary leadership is a critical component, it is important to ensure that there are parallel efforts to organize learning processes.(10)

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## WHAT HAS BEEN DONE ELSEWHERE TO IMPROVE FACILITY MANAGEMENT CAPABILITY AND LEADERSHIP?

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### LEADERSHIP COMMITTEES - MULTIPLE COUNTRIES

Leadership and management qualities for PHC leaders in LMIC are not often studied, suggesting that facility leadership competencies are often overlooked as a point of leverage in reforms. However, one component of leadership that is readily studied in LMIC is leadership committees.

Throughout LMIC, leadership committees are a common approach to integrating community members in facility management decisions and ensuring that services are tailored to the communities they serve. A systematic review of leadership committees in LMIC found that a set of common roles and functions, including: governance, co-management of facilities, resource generation, assistance in community outreach, advocacy, and social leveling: (11)

In addition to identifying these functions, the review also explored leadership committees in four countries: Peru, Zimbabwe, Kenya, and Uganda. Although these examples do not provide enough evidence to make conclusions about the utility of leadership committees generally, they anecdotally illustrate the range of roles that leadership committees can play in facility management.

Of the four countries studied, the Dispensary Health Committees (DHCs) in Kenya had the most robust managerial role and autonomy. Members of the DHCs were elected democratically with particular attention to the inclusion of women. The ten members of the DHCs served 3-year terms. The DHCs were formally integrated and considered legal entities with defined roles and responsibilities. These differed by location; each DHC underwent a process to determine their specific responsibilities and working arrangements. DHCs' powers ranged from the ability to pressure the District Health Management Teams regarding hiring and firing, management of revenue from user fees, establishment of fee levels, facilitating outreach and health education, and improving supply chains for drugs.(11) The study found that implementation of DHCs made the health system more accountable to poor populations through the removal of barriers for the poorest members of the community. Additionally, areas with DHCs experienced increased access and more efficient use of funds.

While leadership committees in Peru and Zimbabwe did not have the same autonomy and range of responsibilities as the DHCs in Kenya, they also had a positive impact on health facilities and the health system more widely. In Peru, Local Committees for Health Administration (CLAS) - consisting of a physician, 3 community members selected by the physician, and three community members selected by the community - assisted in local needs assessments, operational decisions, and financial management. This involvement contributed to greater user satisfaction and access for the poor. Health Center Committees in Zimbabwe included a mix of health service professionals, local government officials, local politicians, traditional leaders, and other community members. Their responsibilities included identification of community needs and mobilization of community action, contributing to a higher likelihood of health service use for the last illness as well as utilization of antenatal care. However, the committees did not successfully exert influence on facility management or budgets, and this was attributed to resistance from health professionals as well as lack of knowledge about facility management.(11)

### TIME-DRIVEN ACTIVITY BASED COSTING - HAITI

The organization Partners in Health recently implemented time-driven activity based costing (TDABC) exercises in five health centers in Haiti to help identify where and how services could be made more efficient.(8) This process enabled three overarching observations. First, the implementers identified variation in care for specific conditions both within and between health centers, facilitating better

What it is

performance measurement. Second, the health centers were more readily able to recognize bottlenecks in the services they provided. For instance, they found that the health centers often under-prescribed due to medicine stock-outs, catalyzing increased attention to the supply chains. Finally, by tracing patient flow through facilities, managers were able to identify opportunities for task shifting to less specialized providers in order to decrease costs and optimize resources.(8) Equipping facility managers with the skills to conduct TDABC may improve facility costing and planning and improve efficiency of services in many LMIC health facilities.

What others have done

How to get started

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## HOSPITAL MANAGEMENT REFORM - ETHIOPIA

Although not exclusively PHC focused, in 2006, the Ethiopian Ministry of Health collaborated with the Clinton Health Access Initiative and Yale University, both in the United States, to implement a facility management reform in 14 hospitals across six regions of Ethiopia. The Ethiopia Hospital Management Initiative addressed management capacity through a mentoring program with American and Ethiopian administrators, short courses on hospital management competencies taught by Yale faculty in Ethiopia, and the establishment of a hospital management education program within a Masters of Public Health program at a local university.(12) This latter component was particularly important because it in addressed concerns over long-term sustainability. Program evaluations found that 60% of hospital management indicators improved in the ten months following initiation of the program.(13)

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## WHAT QUESTIONS SHOULD BE CONSIDERED TO BEGIN IMPROVEMENTS?

The questions below may be a useful starting place for determining whether facility management capability and leadership is an appropriate area of focus for a given context and how one might begin to plan and enact reforms:

### WHO ARE THE CURRENT FACILITY LEADERS AND FACILITY MANAGERS? WHAT ARE THEIR RESPONSIBILITIES AND HAVE THEY RECEIVED RELEVANT TRAINING?

As discussed in “What it is”, leadership and management competencies can be taught and fostered. It is important to assess the trainings that leaders and managers receive to identify relevant gaps and how to address them.

### IS THERE A CLEAR POINT OF CONTACT WITHIN THE FACILITY FOR COMMUNITY MEMBERS?

One of the core responsibilities of facility leaders is establishing systems for community engagement and feedback. There are a number of models for community engagement that are discussed in greater detail in the [community engagement](#) module. These range from intensive engagement with community members through community leadership committees to more passive forms of feedback such as suggestion boxes or lines. Regardless of the form of community engagement, leaders should strive to create a culture that welcomes and readily responds to community input.

### ARE THERE SYSTEMS FOR FACILITY LEADERS TO RECEIVE FEEDBACK FROM OTHER EMPLOYEES WITHIN THE FACILITY?

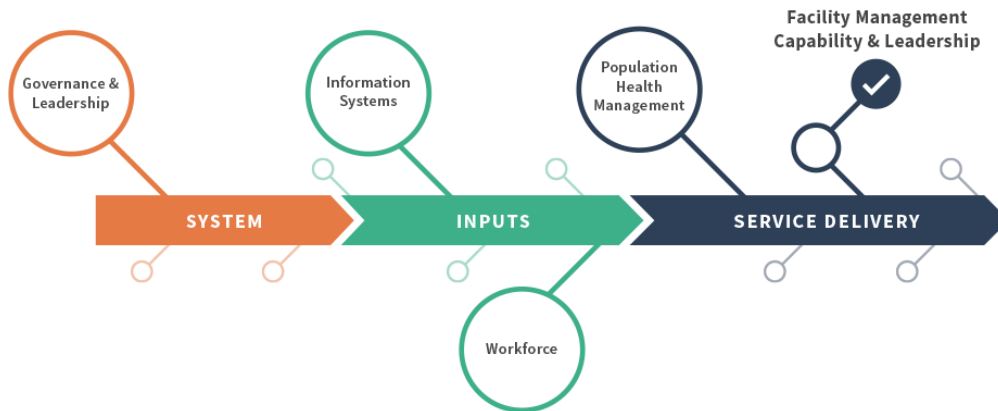
It is also important for facility leaders to foster a culture where employees feel that their own feedback is valued. This can be pursued through formal feedback systems as well as through a collaborative work culture. Leaders should ensure that there are appropriate spaces and meetings for all employees, regardless of their cadre or status within the facility, to raise concerns or suggest ways to improve service delivery for employees and patients.

### WHAT ARE THE WEAKNESSES IN THE FACILITY (AS IDENTIFIED THROUGH PERFORMANCE MEASUREMENT AND MANAGEMENT), AND ARE FACILITY LEADERS WELL SITUATED TO ADDRESS THEM?

Facility managers should be able to identify gaps in performance through well integrated performance measurement systems and have systems in place to implement relevant changes. This means that leaders should have significant insight and involvement into quality improvement systems and flexible enough to encompass emergent needs.

## WHAT ELEMENTS SHOULD BE IN PLACE TO SUPPORT EFFECTIVE IMPROVEMENTS?

In order for interventions aimed at improving facility management capability and leadership to be most successful, the following elements of the PHCPI Conceptual Framework should be in place or pursued simultaneously:



### B4. WORKFORCE

In order to effectively manage a facility, leaders and managers must have access to an adequate workforce of both providers and managers. These staff must not only be well-trained and equitably distributed, but they must also be present in facilities when expected and not overburdened by administrative tasks that take away from their management duties. Additionally, management competencies, such as effective supportive supervision, should be promoted through in-service trainings.

### B3. INFORMATION SYSTEMS

Efficient management practices are often supported by robust information systems for recording, transferring, and analyzing individual provider performance data. Information systems are certainly neither necessary nor sufficient for strong management capabilities, but they may help enable these practices. Additionally, facility leaders will likely benefit from information systems that help them understand collective facility performance and track changes within the facility over time.

### A1.C & C1.B SOCIAL ACCOUNTABILITY AND COMMUNITY ENGAGEMENT

An important competency for effective facility leaders is the ability to interface with communities and be responsive to their needs. As such, providers should leverage existing methods of community engagement and social accountability or create new systems if strong ones are not already in place. In order to be effective in this role, facility leaders must foster trust with communities.

What it is  
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**Suggested citation:** “Facility Organization and Management: Facility Management Capability and Leadership.” *Improvement Strategies*. Primary Health Care Performance Initiative, 2018, <https://improvingphc.org/facility-management-capability-and-leadership>. Accessed [insert date].

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