

A tool for assessing management capacity at the decentralized level in a fragile state

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SUMMARY

Fragile states need assessment of decentralized management capabilities, not just of the central level, to design capacity-building efforts focused on improving management. Improving the management capacity of health departments at the provincial or district level is just as critical as strengthening the central ministry in fragile states if a health system that effectively addresses the real health needs of the population is to be formed. This paper describes a management capacity assessment tool developed for use in fragile states. It uses a framework that describes six critical management areas: oversight and coordination; human resources; resource management; health financing; community involvement; and health information management. These core areas of health system management are assessed with regard to capacity in three core management functions: the capacity to plan, to implement, and to monitor and evaluate. The tool was applied to assess the management capacity of six counties in Liberia. The results helped differentiate the level of capacity of the different counties and clarify the actions required to strengthen the health system in the periphery. The assessment also allowed the prioritizing of county health offices with regard to the level of capacity building required to improve management. The tool also identified successes that can inform the design of future health programs in other county health offices. The tool can be applied to other challenging country situations to assess management capacity, which will help focus technical assistance to the health sector in fragile states. Copyright © 2011 John Wiley & Sons, Ltd.

KEY WORDS: health system strengthening; fragile states; management assessment; decentralization; capacity building

INTRODUCTION

Improving health in fragile states and post-conflict settings has become an important priority because such countries are often far from achieving the health-related Millennium Development Goals (High-Level Forum on the Health MDGs, 2005). Aid to fragile states has increased overall (OECD, 2007), but donor support is needed

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in post-conflict countries like Liberia for extended periods after conflict ends to meet the urgent health needs (Chand and Coffman, 2008). Also, the ability to use funds effectively is often absent because of political and economic constraints, compounded by lack of human capacity and weak support systems (Taylor, 2005).

We define a fragile state as follows:

Although there are many descriptions of fragile states, the two components they have in common are lack of legitimacy—government will and capacity to provide core services and basic security—and effectiveness in providing services and security. Legitimacy is the determination and ability of the government to work in the interest of the public and demonstrate fairness to all groups. Effectiveness means the ability of government to (1) maintain security and order and (2) provide public goods and services to citizens. These elements are interrelated in that the lack of capacity or willingness of governments to respond to the basic needs of people—food, water, shelter, sanitation, health, and security—means that people feel betrayed by the government’s ineffectiveness and inability to maintain order and provide for their needs. In their eyes, the government lacks legitimacy. Many post-conflict countries demonstrate these conditions of fragility. Fragility can also occur, however, when there is stagnation or chronic underperformance, or it may signify a country’s downward spiral from declining performance to collapse of government and civil society to conflict. (Newbrander, 2007, p. 2).

High maternal and infant mortality rates in post-conflict countries, such as Liberia, Sierra Leone, and Southern Sudan, and lack of management capacity impede the delivery of health services. International nongovernmental organizations (NGOs) often fill this gap (Brinkerhoff, 2008), but this “relief approach” must be accompanied by timely health system strengthening (Newbrander, 2007; Waters *et al.*, 2007; Brinkerhoff, 2008; Vergeer *et al.*, 2009; Newbrander *et al.*, 2011) for the benefit of the population’s health and the legitimacy of the state (Kruk *et al.*, 2010).

The need to assess the performance of health systems in developing countries has been endorsed by international organizations, such as the World Health Organization (WHO, 2007), and donors, including the US Agency for International Development (USAID; Islam, 2007), and AusAID (Commonwealth of Australia, 2006). Various frameworks and tools have been developed (e.g., ADB, 2008; UNDP, 2008), but they have not been contextualized to post-conflict or fragile settings. Moreover, assessment and capacity building frequently focus on the central ministry rather than the peripheral levels, such as provinces and districts. Recent trends toward decentralization and performance-based contracting in countries such as Afghanistan and Liberia highlight the need for evaluating management capacity at the decentralized level to ascertain gaps for strengthening the health system at all levels. It is important to not only plan services at the peripheral level but also be able to organize and manage outreach services to extend essential public health and curative services to improve health impact for people living in rural areas, who usually make up the majority of the population. Rapidly developing the capacity of health care workers and managers at decentralized levels is crucial for providing appropriate, good-quality services and making sure services are adequately monitored and activities are coordinated with partners and communities so that urgent health needs in post-conflict

settings are met. The means for meeting this need will vary by fragile state. Often, when a country has few or no health workers and managers, a two-track solution is called for: using external support to meet the immediate health needs of the population while new health workers are trained and their capacity in health management is developed for the longer term.

To meet these needs at the peripheral level, an assessment of management capacity at the decentralized level is needed to identify the gap. Such a management assessment tool for post-conflict settings was developed and then tested in Liberia. This paper presents the findings from that research and demonstrates the potential of the tool for use in assessing the health system's management capacity at the decentralized level in other fragile states.

THE NEED FOR A MANAGEMENT CAPACITY ASSESSMENT TOOL

Post-conflict and other fragile states often lack the capacity to manage and deliver quality health services, particularly at the district level, because there are not enough skilled medical and management professionals. Some professionals will have been killed, have migrated due to fear or intimidation, or have sought better opportunities elsewhere, while the skills of those who remain are insufficient because they have had few opportunities for training and education. Furthermore, staff are usually concentrated in urban areas, exacerbating the paucity of services in peripheral areas. Determining the numbers and qualifications of health workers and managers available to deliver and manage health services at the district level is a critical initial step in these situations in order to identify and plan capacity development needs.

Capacity development should focus not only on the availability of resources or technical capacities, such as clinical skills, but also on management capabilities such as planning and being able to analyze situations, use available data, and solve problems (MSH, 2005, p. 12; UNDP, 2008). In addition to the functional dimensions of management, managers must attend to political issues such as power relations and incentives and disincentives for actors to support or undermine change (ADB, 2008). Nontechnical, political issues often play an even more important role in fragile settings, with the involvement of international actors and the relationship between the population and the state often constrained by issues such as lack of trust (Brinkerhoff, 2007).

In post-conflict settings, the focus is often not on merely rebuilding the health system but on "building back better." Thus, capacity development involves more than training or building skills; rather, it is a change process to build new, more effective systems as well as a cadre of health workers and managers who are better equipped to develop and manage the reformed health system in a fragile state. The focus should be on developing not only the capacity of individuals but also the capacity of health institutions, with the aim of decreasing morbidity and mortality rates, which are often very high in post-conflict states. Brinkerhoff describes this capacity-building process as developing in the existing health workers and system "the aptitudes, resources, relationships, and facilitating conditions necessary to act effectively to achieve some intended purpose" (2007). A management capacity

assessment tool must measure more than strictly technical or clinical skills by being adaptable to local circumstances of that fragile state while incorporating a health system strengthening perspective. Investigating the features of the existing system and staff that affect capacity at the district level—including the technical, political, and functional factors that will facilitate or constrain change in that particular context—helps highlight the realities faced in a fragile setting.

The transition from relief to development challenges the health sectors of fragile and post-conflict countries with tensions between an exclusive focus on short-term service delivery needs and seeking to develop capacity for the long term. The tensions arise from having to show quick and immediate results in the face of urgent health needs while laying the foundation for a reformed and functional health system, a task that is not amenable to “quick fixes.” The development of a solid foundation for the health system, such as a functioning and user-friendly health management information system, may not show demonstrable positive results immediately from the interventions and reforms introduced. Tensions may also exist among the key players and stakeholders involved in this transition, including the health ministry, international relief agencies, donors, and international technical experts, because they assume different roles and responsibilities. Limited capacity may hamper the transfer of responsibilities to government health service managers (Brinkerhoff, 2008; Vergeer, *et al.*, 2009). Recent studies argue that capacity development is not a linear but an emergent process influenced by a multitude of actors and their actions, which create both intended and unintended changes (Baser and Morgan, 2008; Land *et al.*, 2009). Hence, inclusion of all those involved in health services at the peripheral level is important for assessing capacity because that is where services are actually delivered. The capacity assessment then becomes the first step in a change management process, which begins to develop capacity as the actors—especially district or provincial managers—discuss and agree on what capacity is needed, what is present, and the factors that may enable or impede closing that capacity gap. Using an assessment at a decentralized level can enhance the sustainability of subsequent capacity development (Brinkerhoff, 2007).

A MODEL: MANAGEMENT FUNCTIONS REQUIRED FOR DELIVERING HEALTH SERVICES

The management functions required for delivering district health services in a fragile state presented here are taken from the review of the literature, as well as the varied experiences of the authors in different fragile states. In summary, the management skills required of health workers in fragile settings are the same skills managers must possess in non-fragile settings, but the importance and balance of those management capacities shifts as the situation evolves from the emergency and relief phase to the accelerated development stage.

Newbrander *et al.* (2011) outline three transition stages in fragile states. The first stage is the initial 6 months, when the priority is meeting urgent health needs, such as delivering immunizations, while focusing on prevention of communicable diseases that cause high morbidity and mortality. The second phase, from 6 to 18 months,

requires quick-impact and medium-term responses, such as expanding access to services, renovating infrastructure, and improving pharmaceutical management so that essential medicines are available at peripheral levels. The third phase, usually 18 months to 5 years, is the longer-term health system development and strengthening, which includes the policy framework for identifying national health objectives; developing sentinel surveillance systems; engaging civil society in the formulation of health policies; and developing a comprehensive health management information system to start to address the issue of sustainability. During the first two phases, decentralized health officials need management skills to carry out basic technical duties, such as supervising health workers, tracking pharmaceutical supplies, and collecting routine health information. As a fragile state enters the third transition phase, however, these officials require higher-level management skills, such as coordinating a wide range of actors, managing funds, and supervising more health personnel.

Using an adaptation of the World Health Organization’s (WHO, 2007) health system building blocks and Newbrander’s components of fragility in health systems (Newbrander, 2007), the delivery of health services is defined in this management assessment tool as dealing with the six health system components: oversight and coordination; human resource management; resource management; health financing; community involvement; and information management. These components are explained below. Three core management functions, (i) planning, (ii) organizing and implementing, and (iii) monitoring and evaluating, cut across the six health system components, as shown in Figure 1. Figure 1 illustrates the conceptual framework that was the basis for creating the instruments of the assessment tool to measure the management capacity of decentralized management units in a fragile state.

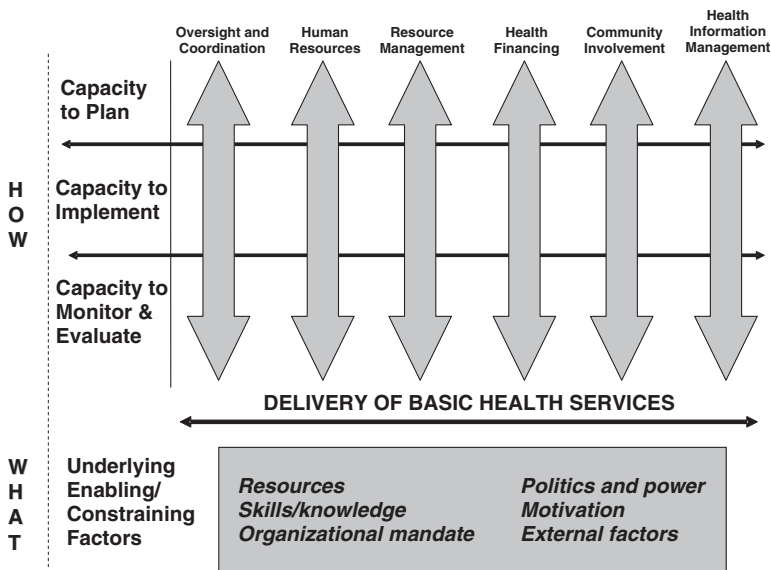


Figure 1. Decentralized management framework for provision of basic health services in fragile states

The first of the six health system components, *oversight and coordination* of the health sector, refers to the ability to coordinate, manage, monitor, and provide feedback to all levels to ensure that activities meet health needs and are in line with national policies and guidelines. Activities include identifying health service delivery gaps; planning; supervising health facilities; monitoring health partners' activities; conducting coordination meetings; and providing feedback to partners, facilities, district health officers, and communities. The next component, *human resource management*, is the ability to identify human resource needs (management and clinical), participate in recruitment and hiring based on national policies, and monitor personnel performance.

The third component, *resource management*, refers to the management of medicines and medical and nonmedical supplies and facilities, including equipment. Fourth is *health financing*, which includes the ability to develop a budget, manage funds in accordance with district health priorities, adhere to general accounting principles, and comply with financial reporting requirements. The fifth health system component is *community involvement* in decisions about health activities through joint planning, as well as the implementation and monitoring of health services with community structures such as health committees. The sixth component, *information management*, concerns the capacity to gather, interpret, report, and use information from health facilities, communities, and NGOs and other partners to improve health services.

Each of these six elements defines *what* parts of the health system must be dealt with by health workers and managers but does not describe *how* they are dealt with. Hence, the assessment tool also focuses on the three core management functions. These functions relate to the capacities—planning, organizing and implementing, and monitoring and evaluating—that must be developed in relation to each of the six health system components. These six key elements of a health system and the three core management functions thus yield a six-by-three matrix that serves as the basis for developing a systematic assessment tool. This was used to identify the core management capacity elements that need to be measured by the assessment tool.

In addition to this matrix, the six factors Brinkerhoff (2007) identified as influencing the technical, political, and functional abilities of decentralized health officials were deemed critical underlying factors. These influences are a series of interconnected elements that support or challenge capacity improvement. Brinkerhoff's six factors include resources, skills/knowledge, organizational mandate, politics and power, motivation, and external factors (for instance, conflict). Using these elements to analyze health service delivery capacity across the health system components is critical to employing a systems perspective. Further, these factors yield rich information about the incentives and constraints that decentralized health officials experience as they transition to take on a management role.

Figure 1 shows the matrix developed for this assessment: the six health system components that are the core of what health managers must deal with along the top in relation to the three core management functions of planning, implementation, and monitoring along the vertical element of the figure. These system components and the management capacities each impact how basic health services are delivered. The factors Brinkerhoff (2007) identified as enabling or constraining management at the decentralized level appear at the bottom of the figure.

METHODOLOGY

Development of the assessment tool

In developing the management capacity assessment tool, the authors had three primary objectives: First, the tool should ensure that data are gathered from all levels of the health system. Second, the tool should incorporate both qualitative and quantitative data from diverse sources, if available, about the status of decentralized management functions, in order to capture slight variations in management capacity. Third, the capacity assessment tool needed to be adaptable so that it could be used in different fragile states as well as being able to assess capacity at any phase of the post-conflict period so one could refine, rather than have to re-invent, an assessment tool for each fragile state setting. To fulfill these objectives, the decentralized management capacity assessment tool consists of four instruments: a semi-structured interview, a questionnaire to determine the district's stage in the relief-to-development transition, a guided group discussion, and a document review.

The four separate instruments of the tool are to be administered to a range of health system actors—from central ministry level to provincial or peripheral level, including NGOs, and to health workers serving under the existing management system. The choice of sources is intended to yield a broad understanding of management capacity and allow triangulation of the information gathered from different sources about management capacity in a particular setting. In addition, the tool incorporates the enabling or constraining factors that influence capacity development (Brinkerhoff, 2007). These factors are used to understand the district health team's capacity to adapt to underlying enabling and constraining factors. Finally, the tool is adaptable to different post-conflict situations because it aims to assess the transition from relief to development. For example, it explores the division of roles and responsibilities among the actors involved in the transition, such as NGOs and district health teams, tensions that exist between the various groups, and the factors that support district health teams to assume management responsibilities.

The four data-gathering instruments of the decentralized management assessment tool are designed to gather and verify information across the six components about management capabilities at the decentralized level and to identify strengths and weaknesses in the health system. Each of these four instruments is described below.

The *semi-structured interview* is used with the most senior manager at the decentralized level as well as managers at the central Ministry of Health. The interview uses the six health system components to gather baseline information that will inform subsequent data collection as well as the overall assessment. Individuals answer questions about the relationship among actors at the district level and provide details about the guidelines and information that support coordinated service delivery. An additional set of questions for district managers provides information on the general health context in their area.

The *relief-to-development transition stage questionnaire* is designed to determine the current responsibilities of decentralized management in a given district. The questionnaire is divided into sections on each health system component and subsections on the ability to plan, implement, and monitor each component. Each subsection

includes the four stages in the relief-to-development continuum, which focus on the roles played by different actors, such as the central ministry, NGOs, and subregional health workers. The questionnaire is used with district managers as well as their health partners, such as NGOs. Its purpose is twofold: (i) to collect important information about the state of the health system from various sources and (ii) to prepare the respondents for the group discussion by introducing the stages of development. Figure 2 provides an example of the range of possible scenarios of the roles the district health team and other health partners play, in this example in mobilizing and distributing resources to health facilities. The increasing engagement of district health teams reflects the continuum of the transition stages from relief to development.

The third instrument in the assessment tool, the *guided group discussion*, provides guidance for conducting a small-group discussion with management teams, NGOs and other partners, and community members to explore findings from the questionnaire and semi-structured interviews. The purpose of this discussion is to review the outcomes of the self-assessment, examine the challenges that district managers face, and determine factors that influence the health team's ability to manage. The instrument offers an extensive list of possible questions designed to provoke thoughtful discussion of challenges and accomplishments in health service management.

The *document and record review* contains a checklist of important documents, such as policies, guidelines, tools, and other information that management teams at the decentralized level use to plan, implement, and monitor health activities. It includes a record review, which helps the assessment team collect information about the maintenance of health records and statistics. This instrument can be adapted to include documents relevant to any country being assessed.

The assessment is designed to take approximately 2 to 3 days per district. The assessment team should administer and review the first two instruments before the group discussion. The team will use these results to identify areas that require further

3.2 Ability to mobilise and distribute resources for health

<i>Stages of transition from relief to development:</i>	
1.	Health Partners purchase and distribute supplies, drugs and equipment to the health facilities. Health partners renovate/construct health facilities if needed.
2.	Health partners purchase and distribute supplies, drugs and equipment based on MOHSW policies and carry out renovations with MOHSW input.
3.	MOHSW/CHT and health partners jointly identify needs, place orders, and distribute drugs, supplies and equipment to health facilities and determine facility renovation needs.
4.	CHT orders and distribute drugs, supplies, and equipment utilising MOHSW logistics systems and county-level storage facilities. CHT coordinates health facility infrastructure renovation and equipment provision. Health partners support its implementation.
	Other:

Figure 2. Example of stages of transition from relief to development tool applied to management issue of mobilizing and distributing resources

examination during the discussion and to select relevant discussion questions. The group discussion provides an opportunity to explore these issues and any discrepancies in the perspectives of the district health teams and partners. Finally, the team reviews documents and records to confirm what has been found and provide supplemental information.

Application of the tool in Liberia

The capacity assessment of decentralized health service management was piloted in Liberia in July 2009. In 2003, Liberia emerged from a destructive civil war. During this time, widespread civil unrest and mass emigration decimated the state-run health system, and international donors and NGOs established basic services to address critical health needs. In 2006, the Liberian Ministry of Health and Social Welfare (MOHSW), in an effort to build a state-managed health system, had issued a National Health Policy and Implementation Plan based on the principle of decentralization. The policy aimed to increase the effectiveness of health care by deconcentrating health service delivery to the county level. Since then, the MOHSW has worked with donors and NGOs at the county level to transfer the management of basic health services to the County Health Teams (CHTs).¹

Because of the Liberian MOHSW's commitment to decentralization and its sustained efforts to strengthen the CHTs, Liberia seemed to be an appropriate place in which to pilot the methodology. The assessment tool was not to derive information for external purposes but was designed to give the Ministry information to understand the extent to which health service management capacity had been effectively decentralized. Did the practice of decentralization match the reality of the Ministry's decentralization policy? Finally, the leaders of Liberia's National Malaria Control Programme (NMCP) were interested in learning how they might strengthen their efforts to decentralize malaria activities, and so the assessment focused in part on that program.

The assessment tool was piloted in six Liberian counties: Nimba, Bong, Grand Cape Mount, Bomi, Lofa, and River Gee. These counties were selected because they received funding from USAID's bilateral health program, which facilitated the coordination of the assessment, and represented a reasonable cross-section of Liberia's 15 counties and as such was considered representative of the country as a whole. In the end, due to difficulties with travel, only four of the counties were accessible at the time of the assessment. Hence, four, rather than six, counties had the complete assessment tool applied.

A team from USAID/BASICS (Basic Support for Institutionalizing Child Survival) initially met with stakeholders from the central MOHSW, the NMCP, and USAID bilateral to review the objectives of the assessment and refine the tool. This was the first part of the validation process as the tool was shared with MOHSW and

¹County Health Teams (CHTs) is the name given to district health management teams in Liberia because the county, of which there are 15, is the primary political subdivision. At the time of the assessment, the management of health services was decentralized to the county level in Liberia. The CHTs are headed by County Health Officers.

revised based on the local context. A representative from NMCP accompanied the assessment team to the field.

During the first phase of data collection, the assessment team met with a representative from each of the six CHTs to administer the semi-structured interview, which addressed specific aspects of management, such as planning and reporting. The team also explained and distributed the transition stage questionnaires to the CHTs and their NGO counterparts. This tool provided an overview of perceptions about progress in decentralization or handing over management functions from NGOs to the county. Five of the six CHTs completed the questionnaires.

The assessment team analyzed the interviews and questionnaires and used the information to tailor questions for each group discussion. The BASICS team and NMCP counterpart traveled to four of the six counties, Bomi, Nimba, Bong, and Grand Cape Mount, to conduct small-group discussions with representatives from the CHTs, NGOs, and communities. The discussions explored the enabling and constraining factors that affect the CHTs' ability to manage the six health system components.

Finally, the team conducted a document review in each of the four counties visited. The purpose of the review was to verify the existence of policy and planning documents, routine health information, procedural guidelines, and treatment guidelines that guided the CHTs in planning and managing the health system.

The information collected using the four instruments were compiled, organized by component, coded, and analyzed by the assessment team. Preliminary findings were shared with the MOHSW, NMCP, and USAID. The results, action steps, and a proposed timeline were summarized in a final report, which was disseminated to all stakeholders 1 month later.

The team assessed the strengths and weaknesses, as well as enabling and constraining factors, of the county health system and CHT. This included analyzing the CHT's abilities to plan and make decisions, implement interventions, and monitor and evaluate activities based on the information gathered using the four assessment instruments. Due to the need for detailed information, much of which could only be gained through interviews, this assessment was heavily qualitative but did highlight priority areas for capacity development for each county assessed. Scales for responses were used to attempt to calibrate and categorize the findings from the different counties. The result was a simple scale to enable the comparison of the qualitative information.

FINDINGS

The assessment produced multiple findings on the county-level capacity of the CHTs and the current state of decentralization. Table 1 summarizes the assessment findings for the four counties with complete assessments. There was, in general, minimal or only some basic management capacity present for most of the six health system components. When looking at each county separately, the overall capacity along the six health system elements was less than 2, meaning that their capacity was less than "some basic capacity." These findings do not necessarily reflect a lack of technical

Table 1. Summary of management capacity, by county and health system component

Health system component	Bomi County	Bong County	Grand Cape Mount County	Nimba County	Average
(1) Oversight and coordination	2	2	2	2	2.0
(2) Human resources	2	2	2	2	2.0
(3) Resource management	1	1	1	1	1.0
(4) Health financing	1	3	1	1	1.5
(5) Community participation	1	1	3	1	1.5
(6) Information management	2	2	2	2	2.0
Average county capacity score	1.5	1.8	1.8	1.5	

Key: 1, minimal or no management capacity evident; 2, some basic management capacity present, but quite marginal; 3, strong management capacity present.

skills and capacity of the decentralized management teams; other factors may constrain the ability of the CHT to carry out a particular responsibility effectively. The assessment tool was applied in two additional counties, Lofa and River Gee, but because only some of the four assessment instruments could be completed, they are not part of the summary findings in Table 1. However, for health system components that could be assessed in these two counties, the findings are included below.

Oversight and coordination

In the semi-structured interview, all six CHTs reported that they had developed an annual plan with other partners in their counties, including NGOs. All four counties surveyed presented the assessment team with a copy of the health plan during the document review. The assessment team also received four out of six relief-to-development transition questionnaires from the CHTs, all of whom rated themselves highly (3 out of 3) in their ability to plan and coordinate partners.

In addition, in each guided discussion group, the partners demonstrated support for the CHTs' expanded planning role under decentralization. One partner stated, "The CHT should be setting the agenda for the counties (including that of the partners) in regards to priorities (gaps, services to emphasize) . . . they need to determine how the partners fulfill this agenda . . . the CHT should be in charge of the services in the county and when partners come to participate, they need to follow the plans that the CHT has."

However, during the guided discussion groups, participants reported that central MOHSW departments and vertical programs often carried out activities in the counties that were not part of the county health plans and without giving sufficient notice to the CHTs. For example, one partner staff member stated that "the [central] MOHSW has plans for everything, but sometimes the county already has plans and

the MOHSW gives 1 to 2 days' notice for another activity so that the CHT activities are trumped . . . the ITN [insecticide-treated net] and polio campaigns were rushed and the CHT had to do these activities despite other tasks." A CHT member from another county also reported that the central MOHSW was responsible for county-level capacity building, which was not always well coordinated with the CHTs' plans. According to him, the central MOHSW determined the schedule and provided minimal warning to the CHTs to have their staff available to participate in these training activities.

The CHTs had the organizational mandate from the central MOHSW, the skills and knowledge, and the motivation to coordinate planning activities with county level stakeholders. These factors enabled their transition from solely government representatives for health to the oversight and coordinating body for the county health sector under decentralization. However, their ability to implement these plans was constrained by the lack of harmonization between central and county plans. In general, only some ability for oversight and coordination was found in all four of the counties with a complete survey, despite this being a responsibility clearly delegated to the CHTs.

Human resource management

Human resource management was the most decentralized health system component. Each county assessed had a human resource unit and an officer responsible for maintaining personnel files, identifying staffing needs, and initiating recruitment. Yet none of the counties displayed strong management capacity for carrying out this health system responsibility.

An issue in human resource management was that the MOHSW, particularly its vertical programs, planned and facilitated virtually all training. The CHTs were not involved in determining training needs or scheduling training activities. This issue arose partly because of donors' requirements and the training targets set for vertical programs.

A lack of sufficient qualified personnel to deliver the necessary health services was found. This was compounded by the fact that CHT members were overburdened by multiple roles and responsibilities; for example, most County Health Officers had a second full-time responsibility to act as county hospital directors. These heavy additional duties clearly impaired their ability to properly manage and supervise the CHT and all the health workers in the county.

Resource management

The capacity of CHTs to properly manage resources—supplies, materials, medicines, and facilities—was the weakest of the six health system components. All four counties demonstrated no or, at best, minimal capacity to manage the array of resources with which they were entrusted. While five of the counties had a basic system for monitoring drug inventories and stock levels, the central MOHSW continued to manage medicines and medical supplies, including selection, determination of need, and delivery, from the central level with minimal input from the CHTs. With

minimal control over the resources they were responsible for, CHTs also demonstrated little or no capacity to do so.

All the counties reported multiple stock-outs in the previous 6 months, which they attributed to stock-outs at the central level, delays caused by the National Drug System's logistical processes, and minimal involvement of CHTs in identifying and quantifying the drug needs of health facilities in the county. CHTs reported that the procurement and distribution of nonmedical supplies was complicated and overly centralized, which caused significant delays in the receipt of needed supplies, ranging from light bulbs to computers. Where fuller responsibility was given to the CHT, there had been no attempt to develop the CHT's capacity to manage resources. Several CHTs cited this as a major obstacle to their ability to deliver health services.

Health financing

Financial management was found to be almost entirely centralized, resulting in low capacity at the county level. In fact, there was even less capacity than in resource management, as three of the CHTs and all NGO implementing partners rated health financing as the least developed of the six health system categories. The exception to this was Bong County, where there was a reasonable amount of capacity for managing finances. Upon further investigation, it was determined that the aberration in Bong County was due to one of the CHT members who had a strong background and experience in financial management. Only one of the counties visited presented a financial management manual during the document review. The remaining three counties did not have any financial management guidelines. Five of the six CHTs reported in the semi-structured interview that they had their own bank accounts, but only one CHT, Bong County, had signatory power and could withdraw funds from that account. As a result, the four other CHTs reported that they had to request funds, even for planned activities, from the central MOHSW in advance and reconcile their accounts immediately so they could receive additional funds.

Financial management was a complicated issue, and the guided group discussions provided a forum to grapple with the issue and its implications. One CHT member stated that the central MOHSW was concerned about county-level accountability and the lack of skills to manage funds. A partner organization staff member concurred that the CHTs had had trouble liquidating funds given to them, but mentioned that the MOHSW had hired a consulting firm to develop a financial management system and train county officials. However, another CHT member in the same county said that "the [central] MOHSW has a problem with relinquishing power and this is the bottom line; it is not about capacity. If decentralization is going to be a reality, the CHTs should be able to go to Monrovia to make the purchases themselves."

Despite the various opinions about why financial management was centralized, CHT members and partner organization staff reported that the current funds request system challenged the CHTs' ability to manage the health system because they usually lacked the resources to buy small, but significant, items, such as medicines and fuel. For example, participants in three of the discussion groups reported that the balance in the CHT petty cash account was often zero. Partners also supported the need for the CHTs to manage funds. A partner organization staff member in one guided

discussion stated, “The CHT should have the ability to identify needs at the county level and build a project. They need adequate resources to effectively deliver services and address county needs.”

Bong County, unlike the other counties, was permitted to manage its finances, including bank accounts and purchases. Giving credence to the potential of decentralizing health financing to counties and ensuring that it was handled properly, Bong County regularly passed annual audits by a chartered accounting firm.

It was not only capacity issues that caused health financing to be the largest stumbling block to a truly decentralized health system in Liberia. Other factors that created problems in decentralizing financial management included structural system elements and political factors: centralization of financial management throughout the Liberian government, delays in the development of a uniform financial management system, and concerns about corruption and the lack of skills of county officials to manage funds. Evidence showed that the CHTs’ capacity in financial management was not developed by the central ministry, and that gap was cited as a reason why financial management could not be decentralized. This circular reasoning was frustrating to the CHTs because they know that true power in decentralization evolves from controlling the finances of the county health department. CHTs and their partners reported that the current situation greatly inhibited their ability to carry out their functions in the decentralized system.

Community involvement

Community involvement was found to be strong in Grand Cape Mount County. Mechanisms to facilitate community participation, including Community Health Committees and General Community Health Volunteers, existed in all the counties. However, they were not being fully utilized, nor were their roles and responsibilities to one another completely understood. The recently developed MOHSW Policy and Strategy on Community Services clarified how community services should be managed. Implementation is different from developing a policy, however. Thus, active community participation was minimal in all but one county. The consequence of this lack of capacity meant that no formal mechanisms existed for the exchange of information and views among the CHTs, their health facilities, and the communities they served. Hence, CHTs planned health services for the county with no consideration or voice given to community needs. The CHTs did not have guidance or training on how to make community engagement a reality.

Health information management

Capacity in health information management was uniform across the four counties—they all had some degree of capacity. It was found through the semi-structured interviews and review of documents that all six counties were involved in regular health information exchange between the central and county level, such as the Epidemiology Bulletin and the Quarterly Review Meetings. The health facilities in each of the counties collected and submitted routine health information on a monthly basis to the CHT to compile and forward to central MOHSW. However, analysis and feedback of the health information did not regularly flow in the other direction—from the central

level to the CHT and from the CHT to the health facilities. One CHT member stated, "We need data and information. The CHT collects the data and sends it to the MOHSW, and the results of the data and country performance report should come from the MOHSW. We received a copy of the facilitation accreditation report, but it took some time." Although complete routine health information systems were maintained, there was not much use of the information for planning and managing health services.

This lack of information flow involved not only the flow of health data and statistics but also that of information and results of supervisory visits and central MOHSW meetings. One CHT member said that "when the MOHSW comes to do supervision, they do not send information about the county-level supervision that they undertake, and we don't know where we are lacking or what can be improved upon." Likewise, however, the CHTs provided no feedback to their health facilities or communities.

The organizational mandate was in place for the CHTs to manage the collection of routine health information. However, capacity was lacking because the required personnel had not been recruited, and so the necessary skills and knowledge were lacking to ensure the timely and complete collection of data from all the health facilities.

DISCUSSION

The findings of the study highlight the importance of exploring the health system components, transition phases, and other contextual factors in fragile settings that influence decentralized management capacity. Reviewing all six areas together, recommendations for the Liberian MOHSW to improve the CHTs' management are as follows:

- Define the CHTs' role in overseeing and monitoring partners' activities, and harmonize central and county operational planning.
- Address the lack of qualified personnel and the overburdening of personnel by expanding preservice education and on-the-job training.
- Develop resource management capacity in counties.
- Develop health financing capacity in counties.
- Define roles and tasks in the facilitation of community engagement for CHTs, health partners, and community structures.
- Establish health management information systems to strengthen the downward flow and use of health management information.

Usefulness of the tool in identifying priorities for capacity building

The management capacity assessment tool provided critical information that can be acted upon by the Liberian MOHSW. On the basis of the findings from the management capacity assessment tool summarized in Table 1, the results of the tool provides, first, a snapshot of where Liberia is in developing the capacity of county health institutions and CHTs to accept their decentralized role. Second, it identifies

for the central MOHSW information on which counties require the most urgent attention for enhancing their capacity. Third, the tool provides information for developing a road map for moving forward in addressing the priorities among the six areas of health system development: the highest-priority areas are resource management, health financing, and community involvement. The findings illustrate the ability of the tool to identify not only priorities but also factors that may help or hinder capacity development at the decentralized level. The application of the tool to all counties would provide the MOHSW a more comprehensive view of the needs of all 15 counties, and would identify those in greatest need of management capacity development.

The demonstration of the potential for this tool in the Liberian context comes from the current efforts to use and extend performance-based financing in Liberia by contracting with NGOs for provision of health services to support the transition from relief to development. NGOs can assist in the capacity development of CHTs so as to transfer responsibilities. In addition, contracting of CHTs will require a certain minimum capacity so that CHTs can adequately plan, manage, and monitor the health services provided, whether by NGOs or government. This tool can be used to (i) prioritize which management areas require the most intensive capacity development effort and (ii) target the counties with the greatest deficit in capacity. The aim of this effort is to truly decentralize management of the health system to counties and their health facilities and communities.

The application of the tool

The pilot also provided useful information on the design and use of the assessment tool. The four instruments proved effective for gathering information on decentralized management capacity in Liberia. The combination of data and documentation collection, combined with use of the instruments for interviews of stakeholders, allowed the assessment team and MOHSW to better understand the current situation, particularly the factors that enable and constrain management at the county level. More important, the assessment identified the gaps to be addressed as well as individual county successes that could be used in the design of future programs. The stronger counties could also be used for mentoring and training other counties to strengthen their capacity.

This tool proved to be less labor-intensive than expected because the use of focus groups brought together the necessary information from all the stakeholders quickly, while prior use of the transition questionnaire and semi-structured interviews provided significant guidance for the group discussions. The use of the time of the surveyors and the central and county Ministry staff who participated was more efficient due to this methodology. Hence, the use of this tool to canvass all 15 counties is feasible and a worthy investment of time and effort for the MOHSW, for three reasons. First, this research would provide a complete inventory of each CHT's management capacities and gaps. Second, the Ministry would have a comparison of the range of capacity of all counties in relation to each other so it could prioritize which counties required the most urgent attention. Finally, the MOHSW would have an understanding of which of the six health system areas require the greatest focus for building capacity.

On the basis of the experience in Liberia, the research team conducted a second internal validation of the tool. Some modifications were identified and incorporated to improve the tool's effectiveness. First, some questions from the structured interviews had to be modified to elicit more precise answers. These changes have been incorporated into the assessment tool for future use. We also found that the number and range of participants interviewed in each county is critical to having robust results that can be triangulated. The field process must be extended in terms of days required rather than reducing the number or range of stakeholders participants interviewed. Finally, the semi-structured interview should be administered to a few critical informants at the central level in addition to the health teams at the county level. Finally, we produced a generic tool that can be modified for application to other countries.

A limitation of this pilot is that the tool has not been applied in other fragile states to see what other adaptations are required. It has proven its usefulness and strength in identifying key management capacity issues at the decentralized level in Liberia. The tool will require initial validation in each new country setting through meetings with a select group of stakeholders prior to the data collection. The results hold promise for using the tool elsewhere, since it can be tailored to different fragile state contexts.

In order to ensure external validity, the tool should be piloted in other fragile states undergoing a decentralization process. Some possible case countries include Sudan, Haiti, and Democratic Republic of Congo. To use this tool in other settings, preliminary research about the country and its health system is critical for the surveyors to be most effective. For each information source, a parallel means of verification is required to determine if a policy exists "in word or deed"—Is there evidence that this policy has been implemented and is functioning?

The potential of the tool

The Liberian MOHSW can use the results of the assessment for planning and prioritizing management training and mentoring for decentralized health management teams. The insights and findings based on the data collected using the tool have permitted us to pinpoint differences among counties and tailor the management capacity interventions that are planned. For example, the difference in financial management abilities among the six counties assessed was great. One county had a fully developed financial management system, while another county did not even have a bank account. The identification of these differences can help the MOHSW and partners to build on existing strengths and address weaknesses on a county-by-county basis. For example, staff with financial management expertise could be sent to the county with minimal experience to assist them to implement systems to manage funds.

The tool proved useful because it relied heavily on local surveyors and interviewers, with minimal support from international consultants. This makes it feasible to apply in difficult situations. Further, the tool's participatory approach involving Ministry of Health and NGO staff and surveyors in assessing capacity promotes adoption of a comprehensive approach to capacity development. Capacity building in the health sector in fragile states and post-conflict settings is often characterized by limited national ownership and fragmented technical assistance provided by different donors (Vergeer *et al.*, 2009). Carrying out a capacity assessment with the

active participation of the Ministry can serve as a common starting point to help coordinate technical assistance to the health sector in fragile states better and ensure that local needs are identified and met.

CONCLUSIONS

Fragile states often receive funding from donors to help rebuild their health systems. Management capacity is identified as one of the key factors necessary for health system strengthening. Assessments of the needs for capacity building, however, often focus exclusively on the central ministry, rather than the provincial or district level where health services are delivered. This paper has outlined a decentralized management capacity assessment tool that is designed to address this gap. Evidence from application of the tool in Liberia showed that the management capacity of CHTs varies by county as well as by health system component that requires the greatest effort to develop. The complete assessment of four counties found that two counties had marginally greater capacity. It also identified resource management, health financing, and community involvement as the three health system areas in which the counties had the greatest need to develop management capacity. Furthermore, the qualitative information that was collected showed that constraints in decentralization of responsibilities—rather than lack of technical management skills—may have hampered the decentralized management teams in carrying out their roles.

This tool generates evidence of what is needed based on the current capacity in a fragile state according to central- and district-level health officials, community members, and health partners. Because of its participatory nature, it does not require a “best estimate” from experts who have worked elsewhere but is grounded in the realities of the country undertaking the assessment.

As it was applied in Liberia, this tool is sufficiently flexible to be adapted for use in other fragile states. The tool can be used to review the framework of core management functions, so that a ministry and its donor partners can focus on the critical management elements needed for the phase in which a particular health system finds itself at the time of the assessment to a phase of greater development. The tool should be piloted in other fragile settings in order to test for external validity. In Haiti, for example, the tool can be used for assessing and evaluating the management capacity at peripheral levels of the ministry and for developing an action plan as decentralization is again introduced in the rebuilding of that fragile state.

As the body of research on fragile states grows and more information on capacity development issues becomes available, the results from the application of this tool will contribute to the body of knowledge about the means of meeting the management capacity needs at the peripheral level, where essential health services are delivered. In the past, too many assessments and subsequent planning and actions have focused only on national ministries. Looking at the district level and taking action to build districts’ management skills will help ensure that health services are planned and managed for the people in greatest need. A positive impact on health is more likely where strategic interventions are identified and the means for properly managing the health system are taken into account at the district level.

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