Health system capacity building: review of the literature

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HEALTH SYSTEM CAPACITY BUILDING :

REVIEW OF THE LITERATURE

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Introduction

This literature review addresses capacity building, especially for stewardship of health systems in developing countries.

In absence of the relative new concept of stewardship, governance and public sector capacity are
The project has a special interest in implications of capacity building strategies in terms of human resources. The impulse to the project is the capacity of the health system to response to AIDS.

Background

The main impulses to the debate on capacity building were failures of development cooperation to produce sustainable results and the need to strengthen the state after the negative experiences of structural adjustment policies (1).

Technical and financial inputs are critical for improving project performance, but this assistance is not sufficient to help groups manage and monitor their growth, define their vision and design effective strategies to adapt to a dynamic environment (10).
Policy makers and public managers responsible for implementation of institutional reforms face changes in their roles, severe institutional constraints and demands for new interaction patterns with other public agencies and civil society. New skills are required from public managers to deal with consensus building, participation of stakeholders, compromise, planning, flexibility, etc. Capacity building is seen as providing means of addressing the need to develop these skills.

Methods and materials

Core literature on capacity building was identified by searching in Medline, Sociological Abstracts and in websites of organisations involved in capacity building (see appendix) and by snowballing, starting from reference lists of relevant documents. New work from key authors was searched for in Medline and the web.

Included were conceptual documents on capacity building in the health sector in developing countries. Most of the relevant literature retrieved is grey.

Excluded were:

- Documents on capacity building in (disadvantaged) communities in Western countries
- Documents with a narrow, specific focus with is not addressed by our study as population ageing, occupational health and environmental health
- Documents in which capacity building is not the subject, often capacity building is only mentioned in the final section of the abstract.

The oldest citation on ‘capacity building’ dates from 1975. Theme issues on research capacity were published in Soc Sci Med (dec 1992) and Acta Trop (aug 1994).
LaFond and Milen confirm the impression that many citations in Medline on capacity building concern community health in the US. Capacity building on the community level is almost absent in literature on health in developing countries.

Core literature on capacity building

This review is based on eight “core document groups”. Several authors published the results of their study work in different publications, which were considered as one “document group”.
In none of the documents the concept of stewardship is discussed but Milen and LaFond mention it.
The review by Milen is the most complete and tailored to this project.
Three documents are related to the WHO. Two reviews were prepared as background papers for the Forum of Senior Policy Makers And Managers Of Health Systems of the WHO, 16–18 July 2001 (1;2).
The third publication is a discussion paper to the Forum on Health Sector Reform (3).

Two technical advisory papers of the UNDP were reviewed(4;5). The case studies by Hilderbrand and Grindle were prepared for the UNDP (6).

The work of LaFond AK and Brown L was prepared for MEASURE Evaluation Project (7;8).

The work of Kotellos KA et al is done on behalf of AIDSCAP, AIDS control and prevention project (9;10).

Finally, a discussion paper of the European Centre for Development Policy Management was included(11).

Core literature	**Research design**	**Affiliation**	**Peer reviewed journals?**
Milen A	Review	WHO	
Leppo K	Preliminary review of the issues at hand	WHO	
Paul S	Overview on capacity building covering the recent thinking on the issue	WHO	
Hilderbrand & Grindle	Original data: case studies	– United Nations Development Programme – Harvard Institute for International Development	
LaFond &Brown	Review current knowledge and experiences from ongoing efforts to monitor and evaluate capacity building interventions in the health sector in developing countries.	MEASURE Evaluation Project	Int J Health Plann Manage
Kotellos KA	Review based on experiences in measuring capacity building	AIDSCAP, USAID	AIDS
UNDP		UNDP	
Land A	Original data: case studies (no literature)	ECDPM European Centre for Development Policy Management	

Core literature	Objectives
Milen A	To offer the “Forum for Senior Policy Makers and Managers of Health Systems” organised by the WHO the most recent information on the concepts and practice in capacity development in order to facilitate planning and implementation of capacity building in policy making.
Leppo K	To offer the “Forum for Senior Policy Makers and Managers of Health Systems” organised by the WHO a preliminary review of the issues at hand, particularly with regard to lessons from the past and the need to look into the future. Different perspectives on policy-making are illustrated, and special emphasis is given to the key role of government in health systems. The main roles and functions of government in health systems are reviewed, and capacities in countries to fulfil them are briefly addressed.
Paul S	To analyse the many reasons why the strengthening of human and institutional capabilities is critical to the success of policy reforms and aid projects in developing countries.
Hilderbrand & Grindle	To present an analytic framework for assessing capacity and use the framework to develop a methodology to assess capacity in specific contexts and apply it in six country (Bolivia, Central African Republic, Ghana, Morocco, Sri Lanka and Tanzania) case studies on budget formulation or provision of either maternal-child health care or agricultural extension. Interviewing key informants was the primary means of collecting data. The interviews were supplemented with documentary research. The technique of organisational mapping was based on data collected from the interviews and documentary research.
LaFond &Brown	To review current knowledge and experiences from ongoing efforts to monitor and evaluate capacity building interventions in the health sector in developing countries.
Kotellos KA	To present a theoretical and practical means for the evaluation of organisational and institutional development (capacity building) in HIV/AIDS prevention programmes in developing countries.
UNDP	To present guidelines developed to help managers and other professionals better manage capacity assessment and development initiatives.
Land A	To give an "overview" of conceptual and operational issues, drawing on the 10 case studies prepared for the Workshop on "Operational Approaches to Institutional and Capacity Development."

Core literature	What capacity?
Milen A	Capacities in policy development and strategic management in health systems also in the stewardship role of the governments
Leppo K	Capacities in policy development and strategic management in health systems
Paul S	Capacity building for health sector reform
Hilderbrand & Grindle	Public sector capacity, good governance
LaFond &Brown	Capacity building interventions in health sector in developing countries
Kotellos KA	Capacity building in HIV/AIDS prevention programmes in developing countries.
UNDP	Capacity assessment and development by managers and other development professionals
Land A	Capacity for policy research (institutes) in Africa

Cited literature	Milen	Leppo	LaFond &Brown	Kotellos	UNDP	Land
Milen A	NA	+	-	-	NA	-
Leppo K	-	NA	-	-	NA	-
Paul S	+	+	+	+	-	-
Hilderbrand & Grindle	+	+	-	-	+	-
LaFond &Brown	+	-	NA	-	NA	-
Kotellos KA	+	-	+	NA	NA	-
UNDP	+	+	+	+	NA	-
Land A	+	-	-	-	NA	NA

Results

1. Definitions

Core literature	Definitions
Milen A	UNDP *Capacity as an ability of individuals, organisations or systems to perform appropriate functions effectively, efficiently and sustainable*
Leppo K	-
Paul S	-
Hilderbrand & Grindle	Their use of capacity building is intended to encompass a variety of strategies that have to do with increasing the efficiency, effectiveness, and responsiveness of government performance. Efficiency relates to time and resources to produce a given outcome, effectiveness to the appropriateness of efforts undertaken to the production of given outcomes and responsiveness relates to the link between the communication of needs and the capacity to address them.
LaFond &Brown	Goodman (1998) Capacity is the ability to carry out stated objectives. Capacity building is a process or activity that improves the ability of a person or entity to carry out stated objectives.
Kotellos KA	-
UNDP	UNDP (1998) *Capacity is the ability of individuals and organisations or organisational units to perform functions effectively, efficiently and sustainably.* OECD Development Assistance Committee (and UNDP) *Capacity Development is the process by which individuals, groups, organisations, institutions and societies increase their abilities to:* *(1) perform corefunctions, solve problems, define and achieve objectives;* (2) *understand and deal with their development needs in a broad context and in a sustainable manner.*
Land A	*An "instrumental*" notion of capacity as the ability of individuals, organisations or societies to set and implement development objectives on a sustainable basis.
Schacter	-

The addition of *appropriateness* in the definition used by Milen emphasises that capacity should be related to defined core tasks and functions of a job, team, organisation or system. The link with strategic management is essential: functions should contribute to the achievement of mission and strategic objectives of the entities (1).

According to Milen the UNDP definitions of capacity and capacity building are now most widely used. UNDP states that the definition of capacity implies it is not a passive state but part of a continuing process and that human resources are central to capacity development.
The overall context within which organizations undertake their functions are key considerations in capacity development. This means that capacity building needs to build on what exists, to utilize and strengthen existing capacities and that all factors which impact upon implementation and sustainability of results need to be considered.

The current concepts of capacity and capacity building are based on two major shifts in paradigms since the mid 1990s.(1)
Emphasis on local ownership of programmes and genuine partnerships between donors and recipients emerged from the analysis of failures in development co-operation..
The other paradigm emphasises that the performance and the capacity of an individual, team, organisation or a system is influenced by factors both within the entity of the primary focus and by external factors in the broader environment.
These two aspects will be reviewed in a more extensive way in this report.

Sustainability : ultimate goal

According to the UNDP definition, capacity contributes to sustainability.
This is confirmed in a literature review on the sustainability of community-based health programs (12). An overview is given of terms used to refer to the phenomenon of program continuation, among which terms occur as sustainability, capacity building, ownership, institutionalization. The authors retain the term sustainability because the term incorporates essential notions in continuation without limiting its manifestations to any particular form and it does not imply a static program, in contrast to terms as routinization and institutionalization.
They identify three different perspectives on sustainability:

1. A public health perspective of maintaining health benefits achieved through the initial program.
2. A perspective of organizational change and innovation of continuation of the program activities within an organisational structure
3. A perspective of community change and development of building the capacity of the recipient community.

According to the principal of participation, central to community-based approaches to health, change is more likely to occur when affected people are involved in the change process. Participation, involvement and empowerment all refer to the process of enabling individuals and communities, in partnerships with health professionals, in defining their health problems and shaping solutions to these problems. The literature suggests that community participation enhances community ownership which in turn leads to increased capacity, for the authors equal to competence, and promotes program maintenance or sustainability.

PARTICIPATION→ OWNERSHIP→ CAPACITY→ (performance) →SUSTAINABILITY

Lafond equally signals an overlap in the literature on capacity and sustainability. Considering the health system, she defines sustainability as the capacity to function effectively over time with a minimum of external input. Thus, sustainability can represent the result of capacity building that remains affective over time. Clearly other factors than capacity building also influence sustainability, e.g. the national economy.

Kotellos et al state that for many donors, organizational sustainability is a key outcome of capacity building efforts. In the early 1980s, sustainability was defined in terms of the continuity of project activities and benefits in the absence of external funding.
In the AIDSCAP model four distinct aspects of organizational sustainability are proposed:

1. *Technical sustainability,* the ability of an organization to provide technically appropriate, state-of-the-art, high-quality services*;*
2. *Management sustainability*, the ability to plan and manage all aspects of the operations;
3. *Financial sustainability*, the ability to generate sufficient working capital to continue to produce goods or provide services; and
4. *Political sustainability*, the ability to maintain the support and involvement of the community members, gatekeepers, opinion leaders, policy influencers and key decision makers which can affect the viability of the organization.

These four aspects of organizational sustainability are seen as complementary to one another. An organization without any one of the four components will either be ineffective (lacking technical/management sustainability), unproductive (lacking financial sustainability) or irrelevant (lacking political sustainability). The model defines the sustainability of benefits or *impact sustainability*, as the ultimate goal of capacity building efforts. Regardless of the long-term survival of specific organizations, capacity building efforts that strengthen institutions can result in the sustained impact of program benefits (through the creation of new organizations, the consolidation of diverse groups or a shift in social norms).

Capacity and performance

As LaFond et al are concerned, common to all definitions of capacity building is the assumption that capacity is linked to performance. Capacity building is only perceived as effective if it contributes to better performance. However, this link between capacity and performance presents three challenges. First, the relation between capacity and performance is not clear. For example, little is known about what elements or combinations of elements of capacity are critical to performance.

Second, what constitutes adequate performance will depend on the nature and focus of performance goals, as well as the stage of development of the entity being assessed.
Third, the measurement of capacity becomes even more problematic in the context of a resource poor health system,. Not only capacity is dynamic, ongoing and multidimensional , capacity is also influenced by contextual factors, suggesting that the maximum level of capacity (and performance) that can be attained may vary in different contexts.
Because of of the limited evidence on the link between capacity and performance in the health system, the authors suggest *mapping* capacity in the health sector. They also present *illustrations* of concepts and indicators, since the appropriate level of performance (and indicators to measure performance) depends on the context.

Overlaps with other concepts

Milen signals overlaps of capacity building with human resources development and various management approaches and trends. She remarks that capacity building seems to appear only in relation to development cooperation and not as actions by developing countries themselves. Furthermore, in the Western countries the less holistic terminology of strategic management, human resource management, institutional development, change management, etc. are used in this connection. Current definitions and actions of capacity building are based on the fundamental concepts of strategic management. The core competencies of an organisation or a system consist of analysing the environment, identifying needs and key issues, formulating strategies, implementing actions, monitoring performance, ensuring performance, adjusting courses of action to meet objectives and acquiring new knowledge and skills to meet evolving challenges.

2. Levels of capacity building

<table>
<tr><th colspan="7">Levels or dimensions of capacity</th></tr>
<tr><td>LaFond (2001)</td><td colspan="2">Community/clients</td><td colspan="2">System</td><td>Organisation</td><td>Human resources or health program personnel</td></tr>
<tr><td>UNDP (98)</td><td>Individual level (beneficiaries)</td><td colspan="3">System or enabling environment</td><td>Entity or organisation</td><td>Individual level</td></tr>
<tr><td>Kotellos (98)</td><td colspan="4">Institutions</td><td>Organisation</td><td>Individual</td></tr>
<tr><td rowspan="2">Paul S (95)</td><td colspan="2" rowspan="2"></td><td colspan="2" rowspan="2">Macro (sector)</td><td colspan="2">Micro</td></tr>
<tr><td>Organisation</td><td>Human</td></tr>
<tr><td>Hilderbrandt and Grindle (94)</td><td colspan="2">Action environment</td><td>Public sector institutional context</td><td>Task network</td><td>Organisation</td><td>Human resources</td></tr>
</table>

Hilderbrandt and Grindle present an analytic framework for assessing (public sector) capacity and discuss how this framework can be used as both a diagnostic and a strategic tool. The relation between the levels is not discussed, only the interwoveness of the fourth and fifth level is stressed.

For every dimension factors affecting performance are described.

1. The Action Environment

At the most general level of analysis is the broad action environment. This refers to the economic, social and political milieux in which organizations attempt to carry out their activities and the extent to which conditions in the action environment facilitate or constrain performance.
Economic factors include the level and growth rate of GNP, conditions in international markets for commodities and capital, conditions in the labor market, the level of development of the private sector and the nature and extent of development assistance which impinge on virtually all activities carried out by government.
Political factors include factors such as the degree of leadership support it has, the extent to which civic society is mobilized politically, the degree to which the government more generally enjoys widespread legitimacy or faces significant threats to its stability and the nature and development of political institutions such as political parties, elections, representative institutions and interest groups.

Social factors such as the overall level of human resource development in the country, the degree of tolerance or tension among social groups, the extent of social mobilization and needs, the development of non-governmental organizations and the degree of participation in economic, social and political life at national, regional and local levels are also important.

2. The Public Sector Institutional Context

A second dimension of capacity is the institutional environment within the public sector that facilitates or constrains organizational activities and affects their performance.

This dimension of capacity includes the laws and regulations affecting the civil service and the operation of government, such as hiring, promotion and remuneration policies, general operating procedures and standards of performance. It includes the financial and budgetary support that allows organizations to carry out particular tasks. It also includes the policies in effect that constrain or hinder the achievement of particular development tasks. The public sector institutional context also includes laws and regulations defining responsibilities and power relationships among organizations as well as the informal power relationships that often mean that some ministries or agencies are more able to acquire resources than others or to influence policy more effectively than others.

3. The Task Network

The task network relates to the coordinated activities of several organizations that are required to accomplish particular tasks. The interactions of organizations within this network can facilitate or constrain organizational performance.

Primary organizations are more central to the accomplishment of a given task or more effective in carrying it out than others. Secondary organizations may have a less central role in accomplishing the task but are nevertheless essential to it. For example, the budget office of the ministry of finance or the national statistical institute are not central to the delivery of maternal-child health care, but clearly make important contributions to the capacity of maternal-child health organizations to accomplish their tasks. In addition, there are often supporting organizations that provide important services or support that enables a task to be performed, such as institutes that provide specialized educational or training services or those that provide information and data analysis, communications or computer services. How these networks of organizations function and the nature of formal and informal interactions among them are important aspects of organizational performance for particular tasks. Organizations within a single task network can be public or private and can represent diverse levels of government, from central to provincial to local. In addition, any particular organization can belong to several task networks.

4. Organizations

A fourth dimension of capacity focuses on organizational structures, processes, resources and management styles that affect how individual talents and skills are used to accomplish particular tasks. It is important to know how organizations define their goals, how they are structured, what routine processes define the flow of work, how incentive systems operate, what management styles are adopted, what physical resources are available to them and how communication flows operate within the organization. In considering this dimension of capacity, informal structures, processes and management cultures are often as important or even more important, as formal ones.

5. Human Resources

A fifth dimension of capacity relates to the training, recruitment, utilization and retention of managerial, professional and technical talent that contribute to task performance at the organizational level.

This dimension of capacity thus directs attention to how people are educated and attracted to public sector careers and the skills that enable them to carry out technical, professional and managerial roles effectively. In addition, this dimension of capacity focuses attention on how talents are used within organizations, how well positions and responsibilities are matched with skills, for example and the ways in which professionals are encouraged to develop meaningful careers in the organization.

UNDP formulates guidelines to address issues of capacity at both the individual and entity levels, as well as at the systems level.

1. The System

The system boundaries depend on the context of the development initiatives. In a national context the system would cover the entire country or society and all the involved sub-components. For initiatives at

a sectoral level, the system would include only relevant components. This level includes both formal and informal organizations within the defined system.
Dimensions of capacity at the systems level

- Policy Dimension: systems have a purpose, they exist to meet certain needs of society or a group of entities. Also included are value systems which govern the entities within the system.
- Legal/Regulatory Dimension: includes the rules, laws, norms, standards which govern the system and within which a capacity initiative is to function.
- Management or Accountability Dimension: defines who manages the system and which entities or stakeholders function the system. From a capacity development perspective, this would identify who is responsible for potential design, management and implementation, coordination, monitoring and evaluation and all other related capacities at the systems level.
- Resources Dimension: human, financial, information resources available within the system to develop and implement the programme or capacities.
- Process Dimension: the inter-relationships, inter-dependencies and inter-actions amongst the entities, including the fact that these may comprise sub-systems within the overall system. This includes the inter-relationships amongst entities in terms of the flow of resources and information, formal and informal networks of people and even supporting communications infrastructures.

2. The Entity or Organization

Whether an entity is a formal organization (such as a government or one of its departments, ministries or agencies), a private sector operation or an informal organization (e.g. a community based or volunteer organization), there are typically several dimensions of capacity which need to be assessed and developed. Traditional capacity development and organisational strengthening focus their development resources almost entirely on human resources, processes and organisational structuring matters. The more successful methodologies examine all dimensions of capacity at the entity level, including its interactions within the system, usually with other entities, stakeholders or clients. This applies to organisational sub-units within the entity (e.g. divisions, sections, units, work-groups and teams, etc.).
Dimensions of capacity at the entity level

- Mission and strategy: include role; mandate; definition of services; clients/customers served; interactions within the broader system and stakeholders; the measures of performance and success; and the presence of core strategic management capacities.
- Culture/structure and competencies: include organisational and management values, management style and standards, organisational structures and designs, core competencies.
- Processes: (internal and external to the entity) supporting such functions as planning, client management, relationships with other entities, research/policy development, monitoring and evaluation, performance/quality management, financial and human resources management, etc… Processes are central to improved capacities.
- Human resources: the most valuable of the entity's resources and upon which change, capacity and development primarily depend.
- Financial resources: both operating and capital.
- Information resources: of increasing importance and how these resources (all media, electronic & paper) are managed to support the mission and strategies of the entity.
- Infrastructure: physical assets (property, buildings and movable assets), computer systems and telecommunications infrastructures, productive work environments.

3. The Individual

Most capacity initiatives ultimately concentrate on the individual or small inter-personal networks of individuals. This covers individuals both within entities involved in the management and delivery of a capacity initiative, as well as those who are beneficiaries or are otherwise impacted by the initiative (could be specific client groups, segments of society or the civil population at large, depending on the initiative). Capacity assessments at this level are considered to be the most critical. This level addresses the individual's capacity to function efficiently and effectively within the entity and within the broader system. The success or viability of a capacity initiative is invariably linked to the capacity of leadership and management. Often, capacity assessments of individuals are based on an established job description. Combined with a skills assessment of the individual, the assessment will demonstrate any capacity gaps. Subsequent training and development plans can then be prepared to address these gaps. Increasingly, the dimensions of accountability, performance, values and ethics, incentives and security

are becoming ever more important in individual level capacity assessments and technical assistance development programmes. Strategies that stress continuous learning are also important.

In the UNDP framework the community level is neglected. Beneficiary groups or societies of capacity building initiatives may have different capacity needs and certainly need different approaches than individuals.

Paul elaborates the concept of capacity building in the context of the health sector along four different dimensions:

1. human vs. institutional dimension
2. planning vs. implementation dimension
3. micro vs. macro dimension
4. cognitive vs. practice dimension

Paul uses the term institutional but it is clear that organisational or an entity is meant. Skilled and trained personnel will be effectively utilised only in organisational settings with certain capabilities. At the micro level (a specific programme, a district agency or a hospital), the relevance of capacity building is likely to be much more implementation or management. It is because broad policies and programme design tend to be given or influenced by a higher level. Implementation capabilities, on the other hand assume special importance at the micro level. The macro level role in implementation is one of planning and supervision rather than of direct action.

Kotellos et al present a framework in which capacity building strategies are related to outputs, outcomes and impacts on three levels. The core of the framework examines how capacities are strengthened at each level as well as the synergistic relationship among the levels:

1. At the level of individuals, emphasis is on human resource development through technical and management skill building.
2. For organisations, the focus is on organisational development, including systems and structure strengthening, leadership and governance, resource diversification and network building.
3. For institutions, organisational cross-fertilization and multi-sectoral collaboration are targeted.

Organisations are the physical entities with whom many donors work. Institutions transcend specific organisations to define the customs, practices, relationships or behavioral patterns of importance in the life of a community or society. Institutions usually represent coalitions of organisations and sectors of society, for example, the media, the system of education, religion and coalitions of community groups.

Table : Relationship of capacity building strategy to outputs, outcomes and impacts (Kotellos)

Focus	Individual	Organisation	Institution
Strategy	– Technical skill building – Management skill building	– Organisational/systems development – Resource diversification – Network building	– Organisational cross-fertilization – Multisectoral collaboration
Outputs	Individuals trained	Management systems established	Multisectoral meetings/conferences held
Outcome	Improved technical and management skills	– Improved effectiveness of financial, human resource, monitoring and evaluation systems; – multiple funding sources; – improved stakeholder involvement; – policy engagement	– Improved formal and informal coalitions – Exchange of lessons learned and dissemination of information
Impact	Improved technical and management effectiviness	Technical, management, financial and political sustainability	Sustainability of benefits (impact sustainability)

LaFond et al define five capacity components. The effectiveness of capacity building interventions could be monitored using input, process, output and outcome indicators.

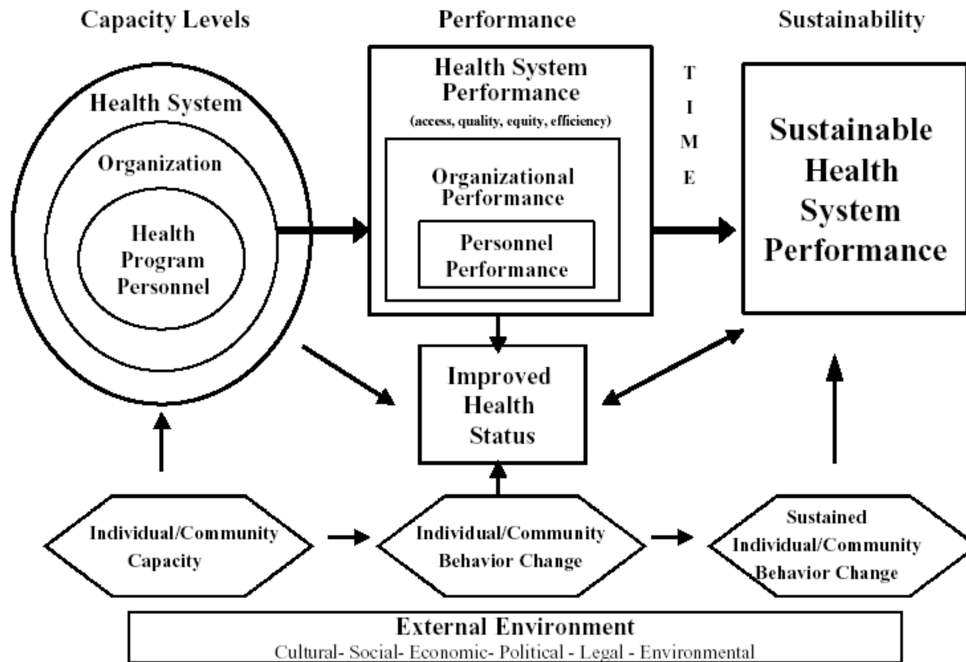
Input
Set of resources, including service personnel, financial resources, space, policy orientation, program service recipients that are the raw materials required to perform functions at each capacity level (system, organisation, health personnel and client/community)
Process
Set of activities or functions by which the resources are utilized in pursuit of the expected results
Output
Set of products anticipated through the execution of the functions or activities using the inputs
Intermediate Outcomes (or performance at the organisational, health personnel and client/community levels)
Set of short-term results expected to occur as a direct result of the capacity built at all four levels (system, organisation, health personnel and client). The four levels together contribute to overall performance at system level.
Ultimate Outcomes (Impacts)
Long-term results achieved through the improved performance of the health system: sustainable health system and improved health status

According to *LaFond et al* there is wide agreement on three important and linked levels of capacity in the health and population sector: system, organisational and human resource or health program personnel. They introduce a fourth level, the client/community, the demand side. It is reflected in the literature on community mobilization and development, rather than the literature on capacity building. The individual/community contributes to health system capacity by interacting with the providers and organisations (receiving care, determining priorities or providing resources) while simultaneously contributing to health system performance by using health services. In addition, individuals and communities can improve their health status independently of the health system by promoting and adopting preventive measures. Improvements in individual and community capacity should result in sustained behavior change over time, representing this level's contribution to overall health system sustainability.

Most capacity building interventions focus on the human resources/personnel or organisational level. The health system is a relatively new dimension. Because the health system performs certain functions independent of those performed by the institutions, organisations and personnel within it, its own capacity can be assessed over time and targeted for intervention. But health system capacity is clearly a complex notion. It is influenced by the component parts of the health system (organisations, personnel, individuals and communities) and also contributes to the capacity and performance of these same entities. Moreover, there is, as yet, no agreement on a standard set of functions that every health system should perform. The health system framework developed by Murray and Frenk (WHO) is referred to.

The presented framework is used for mapping capacity and measuring the effects of capacity building interventions.
The four levels of capacity are detailed in four frameworks breaking down capacity into inputs, processes, outputs and outcomes, i.e. the inputs (resources) and process (functions) required to produce capacity-related outputs and outcomes. Each diagram is said to contain *illustrative* components of capacity that are believed to contribute to performance at that level.

A narrow box along the base of the diaggram illustrates the influence of enviironmental or contextual factors, including cultural, social, economic, political, legal and environmental variables influencing capacity at all four levels. Potential important contextual factors influencing the capacity of the health system include burden of disease, climate, topography, political systems, economic stability, relative freedom of press, colonial history and ethnic composition. The authors state "to focus only on those variables open to influence through health sector interventions by donors, governments, private agencies and individuals through an explicit and dynamic approach to capacity building" without specifying the nature of the contextual factors which should be considered as not open to influence.



3. Strategies of capacity building

Only Kotellos presents a framework (for measuring capacity building efforts in HIV/AIDS prevention programmes) in which seven types of strategies for capacity building are linked with levels and results of capacity.

1. Technical skill building
The improvement in the skills necessary to carry out specific technical aspects of programs or initiatives.
2. Management skill building
The improvement in the skills necessary to effectively manage programs and efficiently utilize organisational resources.
3. Management systems development
The improvement of internal systems, operational procedures or tools that facilitate more effective management.
4. Resource diversification
The diversification of sources of financial and physical resources.
5. Network building
The improvement of organisational ties to constituents, peers and policy makers to increase support for project activities.
6. Organisational cross-fertilization
The improvement in the exchange of information and experience between program managers involved in HIV/AIDS programs.
7. Multi-sectoral collaboration
The expansion of program activities and ties to other public and private sectors not actively engaged in addressing the HIV/AIDS epidemic.

These seven strategies are based on theories of organisational development, institutional development and organisational transformation and informed by the practices of community mobilization, participation and empowerment.
The core of the framework examines how capacities are strengthened at each level as well as the synergistic relationship among the levels.
1) At the level of individuals, emphasis is on human resource development through technical and management skill building.
2) For organisations, the focus is on organisational development, including systems and structure strengthening, leadership and governance, resource diversification and network building.
3) For institutions, organisational cross-fertilization and multi-sectoral collaboration are targeted.

Milen found a clear consensus in the recent literature that it is not possible nor desirable to develop model programmes that would fit into every situation, be it in a developed or a developing country. The systems thinking in capacity issues implies that each situation is unique by definition. Capacity is task specific and capacity constraints are specific to factors in a particular organisation, system or action environment in a particular time. Consequently, capacity building programmes have to be tailored to the situation.
Some may be more conventional such as workshops, courses, technical assistance, but they need to be planned in a broader context than before.
In some situations working towards economic, social and political stability may be the first priority, while in others overall public sector employment mechanisms may need changes. Strong organisational cultures, good management practices and effective communication networks seem to have a large impact on performance (Grindle 1997).
The use of external technical experts is poorly justified if it is an isolated activity. Rather than performing the work of national experts and filling gaps, external experts are needed to facilitate work as part of a wider programme addressing capacity issues in a broader environment. For example in policy development, rather than actually developing national policies or imposing their content, external experts could facilitate the development of local capacities in the policy formulation process with stakeholder involvement, negotiations, policy analysis etc.
The sector-wide approach and twinnings between institutions are examples of promising modalities to promote genuine partnerships.

4. Process of capacity building

Most of the authors focus on process characteristics of capacity building.

Phases in capacity building process (1)

Capacity development programmes consist essentially of three phases. The phases are interlinked and overlap to form a continuous cycle.

1. needs assessment
2. strategies and actions
3. monitoring and evaluation

Needs assessment for capacity building is a basis for designing a strategic plan. Capacity gaps are identified by first defining the essential capacities at different levels for achievement of policy or organisational or programme goals and objectives. A number of **assessment tools** have been applied at systems, organisational and individual levels. The challenge in capacity assessment is to link the assessment with planning of strategies and tasks, to examine enabling and hindering factors for good performance at all levels, to choose appropriate methods and to keep in mind that the purpose of the assessment is to lead to improvement of performance.

In the second phase, strategies and actions in capacity building are tailor-made for each situation on the basis of identification of capacity gaps. As root causes for capacity gaps occur usually at different levels, several types of activities are required.

The last part of a capacity building cycle, monitoring and evaluation, has been largely neglected and is now only emerging. It is important to focus on the motivation for the evaluation: the capacity development process itself, the programme management process or donor agency reporting needs. General **evaluation methodologies** can be applied. Difficulties include selecting appropriate time scales, choosing suitable indicators and dealing with issues of attribution.

Characteristics of capacity building process

Increasingly, it is accepted that capacity programmes are more successful and are more likely to be sustainable when they respond to an internal initiative and when they are supported through a process approach and not through single one time events. Issues of ownership, commitment and leadership are central to this notion of capacity as process. (11) The case studies point to the centrality of ownership, commitment, leadership and local execution in the realisation of capacity development objectives. This

is particularly so where capacity development is associated with significant change (transformational) processes and where external organisations also play a significant role. Participatory approaches have been used in many of the cases, focusing on the internal dimensions of organisational development and on wider inter-organisational and societal changes. The emphasis given to ownership and commitment also carries implications for the way in which "internal" and external" organisations work together in supporting capacity processes. The concept of "partnership" also arises in this context.

Several process characteristics feature in a UNDP list of critical success factors :

- Visible leadership: meaningful commitment and ownership (and "political will") at the political and senior bureaucratic levels, sustained throughout the process.
- Organisation-wide and participatory: highly consultative, with meaningful involvement of all impacted parties or stakeholders.
- Open and transparent: the process itself is open, with no hidden agendas and decision-making is transparent. In some situations, external consultants may help facilitate this process and assure independence and objectivity.
- Awareness and understanding: all impacted parties/stakeholders are aware of and understand the development or capacity initiative, the implied changes and capacity needs; requires strong internal and external communications; public relations. (5)

Partnership is associated with long-term commitment, shared responsibility, reciprocal obligation, equality, mutuality and balance of power. Partnership between the North and the South helps to build local ownership and thus increase sustainability of development as well as to improve donor co-ordination . According to OECD/DAC key principles are that: 1) developing country priorities should be at the centre, 2) donor funded activities should fall within the framework of a locally owned strategy and approach, 3) planning and implementation processes should include both state and non-state actors to ensure a high level of local ownership and 4) strengthening local capacity to undertake development initiatives is essential.
Some criticisms relate to structural inequalities, which make building any genuine partnerships between the donors and the recipients difficult as the North retains financial, technological and institutional advantage over the South. The other critique relates to features of the aid system that work against the attainment of long-term capacity development objectives by undermining the managerial autonomy and performance of the Southern partner . This reflects a broader contradiction between the pressure placed on donors to demonstrate quick results and the requirement for long-term commitments in capacity building.
The partnership approach has expanded to promote cooperation within a country. For example, the African Capacity Building Foundation undertakes programmes and projects to strengthen public-private sector interface in Sub-Saharan Africa. (1)

Ownership and responsibility
Milen describes key issues as follows:
- Governments, organisations and communities build on their own capacity and competence to formulate their own development plans and agenda and to coordinate donors commitments to those plans.
- A country, system or organisation says no to projects and programmes that overtax people, institutions and resources and which are not assimilated into the country's strategic agenda for capacity development.
- External funding, advisors etc. are used only as complementary to local inputs.
- Leadership is visible and there is commitment and ownership at the political and senior bureaucratic levels, sustained throughout the process. National authorities sit behind the steering wheel.
- The ultimate responsibility is borne by the leaders in charge of the system or organisation.

5. Tools

Most of the methodologies, instruments and techniques used to assess capacity gaps and outcomes of capacity building processes are conventional and well-known. Some specific tools are proposed.

UNDP developed CAPBUILD, a new method for capacity assessment and a software design for improved capacity-development-related projects (CAPBUILD, a project design assistant) is being field-tested (4).
UNDP has designed an instrument to assess capacity needs for the programme approach. The assessment should be carried out in partnership with stakeholders and beneficiaries. A continuous and flexible approach throughout the planning and implementation phases will respond to local realities, the management of expectations and the risks associated with change. The role of the external partner is to facilitate the process of analysis and to develop capacities to manage and implement change.
Before initiating an assessment, it is important to define the parameters of the programme, based on the ability to manage and absorb change and the political will and resources. The size, scope and duration of programmes must be scaled to reflect the country situation and capabilities.

In summary, this capacity assessment approach involves four steps:
Step 1. Mapping the starting point
Step 2. Determining where to be-and establishing objectives
Step 3. Determining a change strategy to get there-the How
Step 4. Determining what capacities are needed to get there-the What.

The net result of the first three steps should be a hierarchy of interrelated objectives that address the overall policy context, entities and individuals as well as strategies to reach these objectives. Once the interrelated hierarchies of objectives are identified, the fourth step is to identify capacity requirements for each level of objectives.

UNDP presents guidelines developed to help managers and other professionals better manage capacity assessment and development initiatives.(5) A simple guide for a systems or entity level capacity assessment is given in which rows represent the dimensions of capacity and columns represent existing and needed capacities in the future. To involve stakeholders in the capacity assessment process a stakeholder analysis could be carried out. Techniques, tools and methods supportting the stakeholder analysis are referred to.

6. <u>Output, outcome and impact of capacity building</u>

Evaluation methods in Kotellos framework rely upon traditional methods of process evaluation, such as process monitoring through periodic reporting, key informant interviews and document analysis. The case studies of Land and Hilderbrand & Grindle are based on key informant interviews and document analysis.

The importance of evaluation of capacity building is not questioned but there are conceptual and methodological difficulties.
Problems in measuring effective capacity building efforts:

- different priorities and program objectives;
- selecting appropriate time scales
- choosing suitable indicators: depth and breadth of capacity building activities is not sufficiently captured by the quantitative monitoring and evaluation systems to measure outcomes of behavior change interventions;
- dealing with issues of attribution: the influence of political and economic externalities is complicating evaluating capacity building in terms of sustainability. (11)

Evaluation should be used for external accounting purposes and as a basis for organisational learning and performance improvement (1;11).

As LaFond et all are concerned, the effectiveness of system-level capacity building interventions could be monitored using input, process, output and outcome indicators.
They warn that the system level is a complex area in which to define or address capacity development or to assess changes in capacity. Relationships between input, process, output and outcome variables are not perfectly linear. In addition, a single capacity outcome at the system level frequently depends on a variety of inputs and processes. Finally, contextual factors such as political stability and national economic capacity play a dominant yet poorly understood role. Preliminary research by WHO on

defining the system functions relating to performance outcomes, indicates the difficulty of deconstructing the role of the health system into separate and distinct tasks or purposes.

Illustrative variables, factors in health system capacity (LaFond)

Inputs
- Public/private composition and infrastructure
- Organisational structure of the public sector
- Existing health-related laws, regulations and policies
- Information/communication systems
- Human resources
- Financial resources (public/private, internal/ external)
- History and culture

Process
- Health policy making
- Enforcement of health related laws and regulations
- Health sector strategic planning
- Resource allocation
- Resource generation
- Financial and human resource management
- Donor coordination
- Multi-sectoral collaboration
- Information coordination & dissemination

Outputs
- Published health policies and regulations
- Formal and informal coalitions
- Sector-wide strategy
- Increased local financing of recurrent costs
- Improved human resource availability in rural areas
- Coordinated donor interventions
- Timely analysis and dissemination of national health information

Intermediate Outcomes
- Effective health policies
- Accountability (financial and program transparency)
- Capacity to assess and cope with external environmental
- Financial self-reliance
- Effective quality control
- Responsiveness to client
- Efficient/appropriate resource allocation
- Exchange of lessons learned

The process factors listed at the system level include functions such as policy making; enforcement of health related laws and regulations; strategic planning; financial oversight; donor coordination; multi-sectoral collaboration; and information coordination and dissemination. In practice they are often functions carried out by the Ministry of Health (MOH) with support from donors and in collaboration with other actors in the health sector (e.g., NGOs, private companies, etc.) Here there is a clear overlap with organisational capacity since the capacity of the system to carry out certain functions may depend directly on the capacity of the MOH to play its organisational role effectively.

The intermediate outcomes are often the result of a combination of the inputs, processes and outputs listed in the previous boxes.
Effective health policies may reflect how well the laws and regulations are funded, designed and implemented.
Accountability refers to both the financial and programmatic transparency of the health system to donors as well as internal units of the health system. For example, the submission of timely financial

and programmatic reports to donors and senior managers is one potential indicator of accountability. Another outcome of importance at the system level - the ability of the health system to cope with external changes or pressures - relates to ability to withstand or address crises ranging from short-term resource shortfalls to complex emergencies (e.g., natural disasters or civil conflict). Capacity in this area depends on financial, human and information resources, as well as the flexibility of planning and strategic functions. Responsiveness to its client base is an equally critical system level outcome to ensure demand for services. Capacity building interventions at this level might aim to improve resource availability (inputs) or resource management (planning and budgeting).

Chapter 4 of the MEASURE report reviews: (1) existing and potential capacity indicators (mapped to the conceptual framework), (2) efforts to develop capacity indices, (3) existing tools to measure capacity indicators and (4) methodological challenges in measuring capacity (7).
Some illustrative indicators by level of capacity and measurement stage (input, process, output and outcome) are presented. These are the indicators at the system level:

Indicators at the system level (Brown)

Inputs
- Population per doctor
- Ratio of health care spending on primary health care versus tertiary care
- % of health budget funded by external sources

Process
- Donor coordination committee meets every 6 months
- Collaborative "arrangements" exist between social sectors – e.g. meetings between health and agriculture or health and education

Outputs
- No. of multi-sectoral meetings held
- No. of collaborative projects initiated sectors outside health
- Existence of national standards for professional qualifications
- Existence of sector wide strategy developed

Intermediate Outcomes
- Widely distributed sector-wide strategy
- Regular auditing of system-wide accounts by independent company

Health system level indicators were drawn from a Handbook prepared by the Partnerships for Health Reform Project (Partnerships for Health Reform, 1997).
No indicators to measure the linkages between the different levels were identified. In addition, many of these indicators were developed for specific projects or programs and thus may not be applicable across different settings.

Complex concepts such as "sustainability" and "capacity building" have not been measured well using indices, with a few exceptions at the health system level and the organisational level.
Given that sustainability could be defined as effective capacity building over time, the FPE (Family Planning Effort Score), PSI (Program Sustainability Index) and OSI (Outcome Sustainability Index) are among the available quantitative means for assessing capacity building cross-nationally in population programs. According to the authors, similar indices are currently being developed for HIV/AIDS and maternal health programs. The authors were only able to identify one tool for measuring the capacity of health systems (although several agencies are in the process of developing measures to assess changes at the system level resulting from health sector reform): *Measuring Results of Health Sector Reform for System Performance: A Handbook of Indicators. Partnership for Health Reform, 1997.*
The AIDS Program Effort Index (API) is a composite index designed to monitor political commitment and program effort in the areas of HIV prevention and AIDS care. The API is composed of 100 individual items grouped into 11 categories, which are rated by 15-25 knowledgeable people in a country. The API was used in 38 countries in 2000 and is likely to be used increasingly in the near future to monitor global and national efforts to expand the response against AIDS.
The authors state that very few of these capacity assessment tools were developed or have been used strictly for monitoring and evaluation purposes. Most commonly the tools are used to assess the capacity of a system, organisation or personnel at a particular point in time.

Literature

(1) Milen A. What do we know about capacity building? An overview of existing knowledge and good practice. 2001.

(2) Leppo K. Strengthening Capacities in Policy Development and Strategic Management in Health Systems. A background paper prepared for the Forum of senior policy makers and managers of health systems. 2001. World Health Organisation.

(3) Paul S. Capacity building for health sector reform. 1995. World Health Organisation. Forum on Health Sector Reform Discussion Paper No. 5.

(4) Capacity development. 1997. New York, United Nations Development Programme. Technical advisory paper 2.

(5) Capacity assessment and development in a systems and strategic management context. 1998. New York, United Nations Development Programme. Technical advisory paper 3.

(6) Hilderbrand ME, Grindle MS. Building sustainable capacity: challenges for the public sector. 1994. Harvard Institute for International Development.

(7) Brown L, LaFond A, Macintyre K. Measuring capacity building. 2001. Chapel Hill, MEASURE.

(8) LaFond AK, Brown L, Macintyre K. Mapping capacity in the health sector: a conceptual framework. Int J Health Plann Manage 2002; 17(1):3-22.

(9) Amon JJ, Kotellos KA. Capacity building. 1997. AIDSCAP.

(10) Kotellos KA, Amon JJ, Benazerga WM. Field experiences: measuring capacity building efforts in HIV/AIDS prevention programmes. AIDS 1998; 12(Suppl 2):S109-17.

(11) Land A. Implementing Institutional and Capacity Development: Conceptual and Operational Issues. 2000. Maastricht, ECDPM. ECDPM Discussion Paper 14.

(12) Shediac-Rizkallah MC, Bone LR. Planning for the sustainability of community-based health programs: conceptual frameworks and future directions for research, practice and policy. Health Educ Res 1998; 13(1):87-108.