Health Systems Assessment Approach

A rapid assessment tool covering key health systems functions—

- Service Delivery
- Human Resources for Health
- Medical Products, Vaccines, and Technologies
- Health Information System
- Health Financing
- Governance

A How-To Manual

Health Systems Assessment Approach

VERSION 3.0
September 2017
Acknowledgements

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Version 3.0 was published in 2017 by the Health Finance and Governance (HFG) project, working with USAID’s Office of Health Systems. This latest version of the manual includes updates in three major areas:

1. Technical updates from subject experts from the USAID health systems projects (see below) and the World Health Organization (WHO);
2. Guidance on assessing the health system’s ability to effectively undertake core functions to achieve universal health coverage; and
3. Guidance and techniques to reinforce ‘Systems Thinking’

The following core health system functions modules were revised by experts working as part of several USAID health systems projects:

- Country and Health System Overview, Health Financing, Governance modules: HFG Project
- Service Delivery module: Applying Science to Strengthen and Improve Systems (ASSIST) Project
- Human Resources for Health module: Human Resources for Health 2030 (HRH 2030) Project
- Medical Products module – Systems for Improved Access to Pharmaceuticals and Services (SIAPS) and Promoting the Quality of Medicines (PQM) Project

The team is grateful to the WHO for providing technical review and feedback on the six health system function modules.

The HFG project (2012-2018) is funded by USAID and is led by Abt Associates under USAID cooperative agreement AID-OAA-A-12-00080. To learn more, go to www.HFGproject.org.

The goal of the HSAA Manual is to add value by assessing the interactions among the system functions—and the policies and regulations underpinning the functions—to identify interventions that change the way the system works.
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>HIS</td>
<td>Health Information System</td>
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<tr>
<td>HSA</td>
<td>Health Systems Assessment</td>
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<tr>
<td>HSS</td>
<td>Health Systems Strengthening</td>
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<tr>
<td>LMICs</td>
<td>Low and Middle Income Countries</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>SWOT</td>
<td>Strengths, Weaknesses, Opportunities, and Threats</td>
</tr>
<tr>
<td>UHC</td>
<td>Universal Health Coverage</td>
</tr>
</tbody>
</table>
I. USING THE MANUAL

1.1. Background

Since its release in 2005, the HSA approach has been used to assess health systems and guide policymakers and program planners in more than 30 countries. Health system assessment (HSA) results have contributed to national strategic plans, partnership frameworks, grant applications, and numerous other health system strengthening (HSS) and programmatic activities. Examples of country applications, HSAA reports, and results can be found on the HSAA website.

Version 1.0 of the HSA approach targeted USAID country missions and their partners seeking to develop programs that strengthened the health system. Version 2.0 added methods and guidance to build the capacity of country teams to conduct an HSA. This new Version 3.0 is the result of a collaborative effort by development partners—including WHO, USAID, DIFd, and nongovernmental organizations—to broaden the audience and the use of the HSAA. This version accomplishes three objectives:

- Technical updates from subject experts including WHO;
- Assessing a country health system’s ability to effectively undertake core functions to achieve universal health coverage (UHC); and
- Adding more “systems thinking” guidance and techniques.

The HSA approach is a structured, indicator-based methodology for comprehensive assessment of a country’s health system. The HSA approach synthesizes information—from document reviews, in-country stakeholder interviews, and site visits—to identify the strengths, weaknesses, opportunities, and threats (SWOT) of a wide range of health system components and transform the findings into specific recommendations and strategies across the health system functions: Service Delivery; Human Resources for Health; Medical Products, Vaccines, and Technologies; Health Information Systems (HIS); Health Finance; and Governance. In addition, the manual itself may serve as an educational and reference tool for health systems issues and HSS.

1.2. Purpose of the HSA Manual

The HSAA Manual can be used to:

- Enable users to assess a country’s health system, possibly during development of a health sector plan or a program. This assessment will diagnose the relative strengths and weaknesses of the health system, prioritize key areas for strengthening, and identify potential solutions or recommendations.
- Inform all stakeholders—both public and private—about the basic elements and functions of health systems for all health systems stakeholders.
- Assist users to conceptualize key health systems challenges and to engage in a process for systematically gathering key information and engaging key stakeholders in order to identify solutions to priority problems.

The output of the assessment should be:

The HSAA Manual can be utilized to support ministries and other country partners in health systems strategy and planning. It is “a useful tool to identify gaps and potential interventions either for governments or partners.”

—WHO
1. An assessment report presenting key findings across the health system functions, highlighting strengths and weaknesses that limit performance, and recommendations for priority HSS interventions.

2. A set of actionable and specific HSS recommendations.

3. Engagement with stakeholders in a variety of ways (interviews, focus groups, workshops, other events) to validate findings, identify priorities, and discuss recommendations. Recommendations should reflect priorities and objectives of the client and key stakeholders and should serve as the basis for actions.

The HSAA Manual is used as a diagnostic tool to assess country health systems at a point in time. The manual can be adapted for use depending on the focus area and goals of an individual country assessment (Section 2). The HSAA is not an annual monitoring tool. Neither does it typically include large-scale primary data collection, such as a statistically representative survey.

1.3. Users of the HSA Manual

The HSA approach is flexible. Depending on how the client intends to use the findings of the assessment and what information is already available, an assessment may encompass all core function modules for a comprehensive view of the health care system or focus on selected modules. Table 1.1 lists the 32 countries and primary clients for an HSA as of April 2016. Typical users of the HSA Manual include:

**Government organizations/ministries of health:** Ministry of Health (MOH) staff can use this manual as a reference for designing a health system assessment that meets their needs and produces the information and recommendations they are seeking. Section 2, Module 2, explains the HSAA process and how it can be adapted to unique country circumstances. The HSAA has been useful in countries where:

- *The MOH (and other stakeholders such as private and/or civil society actors) are beginning a strategic planning process.* The assessment findings could contribute to or inform the country’s strategic plan.
- *The country is applying for grants or other funding or is in discussions with development partners about future assistance.* The assessment findings could contribute to or inform the government input into a partner’s project design, work plan, or both.

**International development partners:** International development partners have often funded HSAs to inform their investments in a country and for program planning.

**HSA team leaders:** HSA team leaders should thoroughly read Sections 1 and 2 of the manual. Section 1 describes how to use the manual, and Section 2 details the steps in the HSA process so team leaders can direct their team members to analyze crosscutting health system issues. In addition, team leaders should make use of templates and guides for planning and implementing the assessment (Section 2 and annexes).

**HSA team members:** Team members should review all sections of the manual broadly to understand the HSAA process and how the core health system functions are related to one another. Team members should focus on the core function modules in Section 3 in particular and understand how to use them for data collection, analysis, crosscutting analysis, and report writing. If team members are inexperienced with the analysis approach, then Section 2, Modules 4 and 5, are critical.
**Others interested in HSS:** Other potential users of the manual include private sector actors such as nongovernmental organizations or commercial sector actors—for example, those wishing to increase their presence in a country. Anyone interested in HSS will find several helpful resources, including the HSAA Manual bibliographies at the end of each module, the indicator lists, references to other HSA tools, and HSS links found on the manual website.

### Table 1.1. Use of the Health System Assessment Approach 2007–2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Primary Client</th>
<th>Objective/Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Angola</td>
<td>2005</td>
<td>USAID</td>
<td>Inform the design of an integrated health project</td>
</tr>
<tr>
<td>2. Azerbaijan</td>
<td>2005</td>
<td>USAID</td>
<td>Input into pharmaceutical management</td>
</tr>
<tr>
<td>3. Benin</td>
<td>2006</td>
<td>MOH</td>
<td>Input for 5-year health strategy</td>
</tr>
<tr>
<td>4. Pakistan</td>
<td>2006</td>
<td>USAID</td>
<td>Inform health system activities</td>
</tr>
<tr>
<td>5. Yemen</td>
<td>2006</td>
<td>MOH</td>
<td>Framework for health system review</td>
</tr>
<tr>
<td>6. Malawi</td>
<td>2006</td>
<td>USAID</td>
<td>Input into bilateral design</td>
</tr>
<tr>
<td>7. Ghana</td>
<td>2006</td>
<td>USAID</td>
<td>Input into assessment of insurance</td>
</tr>
<tr>
<td>8. South Sudan</td>
<td>2007</td>
<td>MOH</td>
<td>Input into GAVI HSS proposal</td>
</tr>
<tr>
<td>9. Vietnam</td>
<td>2008</td>
<td>PEPFAR, MOH</td>
<td>Assess two provinces and build local capacity for future province assessments</td>
</tr>
<tr>
<td>11. Nigeria</td>
<td>2008</td>
<td>Sec PHC, PEPFAR</td>
<td>State performance assessment</td>
</tr>
<tr>
<td>12. Senegal</td>
<td>2008</td>
<td>MOH, USAID</td>
<td>Input for health strategy</td>
</tr>
<tr>
<td>13. West Bank</td>
<td>2008</td>
<td>MOH, USAID</td>
<td>Input for 5-year health strategy</td>
</tr>
<tr>
<td>15. Cote d’Ivoire</td>
<td>2009</td>
<td>PEPFAR</td>
<td>Input for country action plan</td>
</tr>
<tr>
<td>16. Lesotho</td>
<td>2010</td>
<td>PEPFAR, MOHSW</td>
<td>Input for USAID and PEPFAR planning and the MOHSW HSS plan</td>
</tr>
<tr>
<td>17. Zimbabwe</td>
<td>2010</td>
<td>PEPFAR, MOH</td>
<td>Input for National Investment Plan, USAID/PEPFAR COP planning</td>
</tr>
<tr>
<td>18. Angola</td>
<td>2010</td>
<td>MOH, USAID</td>
<td>Follow up on progress since 2005 HSA; input for health sector planning</td>
</tr>
<tr>
<td>19. Kenya</td>
<td>2010</td>
<td>MOMS, MOPHS, USAID</td>
<td>Input for health planning and health policy reviews</td>
</tr>
<tr>
<td>20. Guyana</td>
<td>2010</td>
<td>MOH, USAID</td>
<td>Input for MOH and Global Fund HSS intervention planning</td>
</tr>
<tr>
<td>21. Tanzania</td>
<td>2010</td>
<td>MOH, development partners</td>
<td>Input for health partner planning and health finance review</td>
</tr>
<tr>
<td>22. Uganda</td>
<td>2011</td>
<td>MOH, USAID</td>
<td>Develop a set of SMART indicators for measuring health system progress</td>
</tr>
<tr>
<td>23. Ukraine</td>
<td>2011</td>
<td>MOH, USAID</td>
<td>Inform MOH health reform agenda, HIV and TB planning, and Partnership Framework development</td>
</tr>
<tr>
<td>24. Ethiopia</td>
<td>2011–12</td>
<td>MOH</td>
<td>Inform implementation of current MOH 5-year strategic plan</td>
</tr>
<tr>
<td>31. Benin</td>
<td>2011</td>
<td>MOH, USAID</td>
<td>Inform MOH’s universal coverage initiative</td>
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</tbody>
</table>
### 1.4. Steps of the HSA Approach

The HSA approach includes a general description of the health system environment as a foundation, along with assessment of six health system core functions and general description of the private health sector using defined indicators and guiding questions. Section 2 describes the five steps for implementing the HSAA:

1. Shape the assessment
2. Mobilize and operationalize the team
3. Collect data
4. Summarize findings and develop recommendations
5. Draft, validate, and finalize the report

### 1.5. Overview of HSA Manual

The manual is organized according to the HSA approach process into three main sections plus annexes:

- **Section 1:** Introduction to The Health System Assessment Approach and Manual: describes the HSA approach and how the manual is organized.
- **Section 2:** Conducting the Assessment: provides detailed description of each of the five steps in the assessment process. It offers guidance on working with the client to identify priorities, pulling together the assessment team, data collection, organization of findings and how to do a SWOT root cause analysis for each function, and exercises cutting across functions using a holistic, systems approach. Templates, country examples, lessons learned, and references to relevant tools, all of which can be adapted for use in future assessments, are included in each module and as annexes.
- **Section 3:** Seven technical modules on carrying out a country overview and an assessment of the six core health system functions and selected indicators for each.
- **Annexes:** Give bibliography and supplementary material organized according to manual sections and modules.

### Technical Modules

The technical modules are sequenced to encourage root cause analysis. The assessment team begins with the country overview: What are the major causes of morbidity and mortality? The next most proximal function is service delivery: What are the deficiencies in service delivery? What are the underlying issues in terms of human resources and medical products? What are the underlying problems in terms of information systems, financing, and governance? A brief description of each module in Section 3 is provided here.

1. The **Country and Health System Overview** chapter analyzes the country-specific context; it should be completed before work begins on the remaining six technical chapters. The Overview
covers basic sociodemographic and economic information, and an overview of the health system and the general health situation, especially the top causes of mortality and morbidity. It also includes external stakeholder mapping and coordination.

2. **Service Delivery** examines the factors that affect service delivery outputs and outcomes, including demand for services; development of service packages; organization of the provider network including public, private, and community-based providers; management of health services including safety and quality; and the physical infrastructure and logistics of the system.

3. **Human Resources for Health** covers systematic workforce planning, human resources policies and regulation, performance management, training/education, and incentives. This chapter also looks at the distribution of health personnel between the public and private sectors and various subsectors.

4. **Medical Products, Vaccines, and Technologies** reviews the interconnectedness between supply chain functions and explains each function. It assesses the health system’s pharmaceutical policy, laws, and regulations; selection of pharmaceuticals; quantification and procurement of medical products; storage and distribution; appropriate use of pharmaceuticals across sectors; access to quality pharmaceutical products and services; financing mechanisms for pharmaceuticals; and logistics information systems and management support.

5. **Health Information Systems** reviews the current operational HIS components; the resources, policies, and regulations supporting the HIS; data availability, collection, and quality; and analysis and use of health information for health systems management and policymaking.

6. **Health Financing** covers the collection of financial resources; the pooling and allocation of health funds, including government budget allocation and health insurance; and the process of purchasing and providing payments for health care.

7. **Governance** addresses the capacity of the government and other actors to formulate policies and provide oversight for the overall health system; stakeholder participation; and health system responsiveness, accountability, and regulation.

Each technical module begins with a brief tutorial of that health system function that includes defining the functional responsibilities and key terminology describing the relative role of public and private stakeholders and implications of this core function for advancing toward UHC; and highlighting key issues and recent global developments. Each module concludes with guidance for analyzing the data in a systematic way to formulate HSS recommendations that reflect the synergies and links across functions.

**Indicators**

Each technical module presents selected quantitative and qualitative indicators grouped into topic areas. The topic areas begin with a brief discussion of the topic, followed by details for each indicator, suggested data sources, and stakeholders to interview. Quantitative indicators are selected based on readily available, internationally comparable data. Qualitative indicators guide information collected through country-level document review and stakeholder interviews. Indicator tables are organized by topical area and include a detailed description of each indicator as well as key issues and questions related to that indicator.
2. KEY CONCEPTS USED IN THE HEALTH SYSTEM ASSESSMENT APPROACH

2.1. Defining a Health System and Health System Strengthening

The conceptual framework for the HSA approach draws from the efforts of the past two decades to define and understand health system functions and performance. Decades of international and domestic investments have measurably improved health outcomes in low and middle income countries (LMICs). However, the persistent gap in many countries to achieve sustained universal coverage of proven essential services drew attention to weak health systems. In 2000, WHO defined a health system as consisting of “all organizations, people and actions whose primary intent is to promote, restore or maintain health” (WHO 2000). It is much broader than the public health service delivery system that is often the focus of public health officials. It includes the full range of stakeholders in a health sector, for example, private for-profit and not-for-profit service providers; health insurance organizations; community outreach workers; educators; researchers; patients; and consumers, communities, and households.

The HSAA strives to support investments in HSS. WHO (2007) defined health system strengthening as “…improving [the] six health system building blocks [core health system functions] and managing their interactions in ways that achieve more equitable and sustained improvements across health services and health outcomes.” In 2013, a useful distinction was proposed between health system support and strengthening: “Supporting the health system can include any activity that improves services, from distributing mosquito nets to procuring medicines. These activities improve outcomes primarily by increasing inputs. Strengthening the health system is accomplished by more comprehensive changes to performance drivers such as policies and regulations, organizational structures, and relationships across the health system to motivate changes in behavior and/or allow more effective use of resources to improve multiple health services” (Chee et al. 2013).

The holistic, “systems” approach in this HSAA Manual responds to several aspects of the above definitions:

- **Equitable** improvement
- **Across health services** and public and private sectors by
- Managing **interactions**
- Leveraging all resources available—both public and private—to sustain improvements.

With growing support from the international community, WHO is leading a campaign to promote UHC in all its members states (WHO 2013a). In 2012, several high-level multinational events reinforced the growing movement for UHC (WHO 2013c). This support led to the inclusion of UHC into the post-2015 development agenda, where it features prominently in the United Nation’s Sustainable Development Goals. In 2015, achievement of UHC by 2030 was adopted as United Nations Sustainable Development Goal 3. The objectives of UHC are typically defined by three dimensions: the population that is covered by pooled funds (equity); the proportion of direct health costs covered by pooled funds (financial risk protection); and the health services covered by those funds (access). These have long been key indicators of health system performance and are illustrated in the UHC cube (Figure 1.1).
Figure 1.1. The Universal Health Coverage Cube

UHC is a key concept for the HSAA, and the manual includes several indicators for equity, access, and financial protection. The HSAA process should generate system strengthening recommendations and actions that support country progress toward UHC. WHO (2016) notes that,

“Conceptual clarity is essential for a systematic approach to policy-making. Confusion and inefficiency arise when health system strengthening is defined as an objective and also when universal health coverage, health security or resilience are described as separate programmes to be implemented. So here is a simple guide: health system strengthening is what we do; universal health coverage, health security and resilience are what we want.”

2.2. The Health System Functions

As part of the HSS framework described above, WHO (2000) simplified the health system into six core health system functions. Other health system frameworks exist. The “control knob” framework presented by Roberts et al. (2008), describes five “control knobs” for influencing health sector performance: financing, payment, organization, regulation, and behavior.

The HSAA Manual version 3.0 draws from both of these frameworks and has reordered these functions in the HSAA Manual as:

1. Service Delivery
2. Human Resources for Health
3. Medical Products, Vaccines, and Technologies
4. Health Information System
5. Health Financing
6. Governance
Introduced by WHO in 2007, but emphasized in more recent WHO publications, is the importance of “systems thinking” to understand the dynamic relationships among these six core health functions to solve systemic problems and improve health system performance and, ultimately, health outcomes (de Savigny and Taghreed 2009). A systems-thinking lens is particularly important for solving multilayered problems, which do not have a clear solution and unfold in complex and adaptive systems: cause and effect are poorly understood; stakeholders’ interactions are poorly understood; and stakeholders cannot reach consensus due to diverse perspectives. Applying a systems-thinking lens facilitates “seeing how things are connected to each other within some notion of a whole entity” (Peters 2014). The framework depicted in Figure 1.2 illustrates the relationships between the six core health system functions.

Figure 1.2. Health System Framework of Functions, Performance, and Impact

2.3. Performance Criteria

While a basic understanding of the health system can be gained by examining the health system core functions individually, a holistic view of the health system requires looking across the entire system, examining interrelationships and effects. One way of measuring overall system performance is by using the five performance criteria suggested by WHO, defined below.

Understanding the health policies of the national government—and its international partners—allows for informed development of advocacy for improved health care access, equity, and quality. The policies also affect the health workers’ ability to deliver efficiently, thereby affecting the overall sustainability of the health system and its ability to function into the foreseeable future from a financial and organizational perspective. The overall outcomes of enhanced performance are improved health, responsiveness, and risk protection. The five performance criteria for assessing a health system are:
1. **Equity** refers to fairness in the allocation of resources or the treatment of outcomes among different individuals or groups. The health sector distinguishes between horizontal and vertical equity.

- **Horizontal equity** is commonly referred to as “equal treatment of equal need.” For example, horizontal equity in access to health care means equal access to all services irrespective of provider for all individuals irrespective of factors such as location, ethnicity, or age.
- **Vertical equity** is concerned with the extent to which individuals with different characteristics should be treated differently. For example, the financing of health care through social health insurance may require that individuals with higher income pay a higher insurance contribution than individuals with lower income (similar to progressive taxation).

2. **Efficiency** refers to obtaining the best possible value for the resources used (or using the least resources to obtain a certain outcome). The two commonly used notions of efficiency are allocative and technical efficiency.

- **Technical efficiency** means producing the maximum possible output from a given set of inputs. It can be thought of as minimizing waste within a given approach—wasted time, money, or other inputs—or using new methods or technologies to combine the set of inputs in a more productive way.
- **Allocative efficiency** means allocating resources to the most cost-effective approaches and interventions—looking within and across programs—in a way that achieves the maximum possible overall benefit.

3. **Access** is a measure of the extent to which a population can reach the health services it needs delivered by either the public or private sector. It relates to the presence (or absence) of economic, physical, cultural, or other barriers that people might face in using health services. Several types of access are considered in the field of health care, but the two types that are primarily investigated in this assessment are financial access and physical access.

- **Financial access** (also referred to as economic access) measures the extent to which people are able to pay for health services. Financial barriers that reduce access are related to the cost of seeking and receiving health care relative to the user’s income.
- **Physical access** (also referred to as geographic access) measures the extent to which health services are available and reachable. For example, not having a public or private health facility within a reasonable distance to a village is a physical access barrier to health care for those living in the village.

4. **Quality** is the characteristic of a product or service that bears on its ability to satisfy stated or implied needs. Quality is defined as "that kind of care which is expected to maximize an inclusive measure of patients’ welfare after one has taken account of the balance of expected gains and losses that attend the process of care in all of its parts" (Eisele et al. 2003, citing Donabedian 1980).

5. **Sustainability** is the capacity of the system to continue its normal activities well into the future. The two commonly used notions of sustainability are financial and institutional sustainability.

- **Financial sustainability** is the capacity of the health system to maintain an adequate level of funding to continue its activities.
- **Institutional sustainability** refers to the capacity of the system, if suitably financed, to assemble and manage the necessary resources to successfully carry on its normal activities in the future.
2.4. Health System Complexity

Country health systems are complex. Consequently, systems thinking methods can contribute to assessing health system performance and develop viable and worthwhile recommendations. Your ability to perceive and understand the health system as complex, highly interconnected, and adaptive will greatly improve the quality of the assessment, its conclusions, and recommendations. If recommended interventions are expected to solve complex problems and have system wide effects, they require systems thinking (Figure 1.3).

“Many of the challenges in global health are now recognized as complex problems where simple blueprint approaches have limited success.” — Peters 2014.

Figure 1.3. A Spectrum of Interventions and Their Potential for Systemwide Effects

Source: de Savigny and Tagheed 2009.

What are complex systems and systems thinking?

Complex systems are nonlinear, interactive, dynamic, and adaptive. Their subcomponents are interconnected with fluid, permeable boundaries. The health system framework (Sections 1 and 3) depicts the interconnections of the core health system functions (building blocks). The modules in Section 3 highlight the links among the six health system functions (subcomponents).

Systems thinking is an approach to problem solving that views problems as part of a wider, dynamic system (de Savigni and Tagheed 2009). Systems thinking is multidisciplinary in nature—it has evolved from a variety of fields such as biology, anthropology, economics, physics, management, and computer science. Table 1.2 contrasts conventional with systems thinking.
Table 1.2. Conventional vs. Systems Thinking

<table>
<thead>
<tr>
<th>Perception of:</th>
<th>Conventional Thinking</th>
<th>Systems Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems</td>
<td>Closed, static, linear. Subcomponents are linked in predictable patterns; boundaries are relatively fixed.</td>
<td>Open, interactive, nonlinear. Subcomponents are interconnected and boundaries are permeable.</td>
</tr>
<tr>
<td>Human behavior</td>
<td>Actors’ decisions and behaviors are rational and predictable. Categories of actors are homogeneous (e.g., all providers resist regulation). Actors practice single-loop learning; limited adaptive behaviors. Actors can be influenced to achieve externally predetermined outcomes.</td>
<td>Actors’ decisions and behaviors are not rational or predictable. Categories of actors defy simple generalizations. Actors exhibit double-loop learning. Actors adapt to and co-evolve with external influences (e.g., regulations, performance incentives).</td>
</tr>
<tr>
<td>Social structures and institutions</td>
<td>Formal institutional structures, functions, and processes are paramount and ahistorical.</td>
<td>Informal and social structures are important and interconnected. Institutional structures, functions, and processes are grounded in history and culture.</td>
</tr>
<tr>
<td>Nature of change</td>
<td>Predictable, results directly from planned action. Identifiable, linear cause-effect chains.</td>
<td>Results are nonlinear and sensitive to initial conditions (path-dependency). Range of scenarios. Evolving effects, unintended outcomes.</td>
</tr>
</tbody>
</table>

Source: Brinkerhoff and Jacobstein, 2015

**Systems thinking approaches**

There are numerous theories, approaches, and tools for systems thinking, all designed to address complex problems (Table 1.3). The methods below are most relevant to the HSAA. A few are discussed further in Section 2: Analyze Findings and Develop Recommendations.
**Table 1.3. Systems Thinking Methods**

<table>
<thead>
<tr>
<th>Name</th>
<th>Purpose and Description</th>
<th>HSAA Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path dependency theories</td>
<td>Explains why processes can have similar starting points yet lead to different outcomes, even if they follow the same rules. Outcomes are sensitive to initial conditions and also to choices made along the way.</td>
<td>To analyze a health sector reform that the country is implementing by comparing to lessons from other countries, and/or trends over time in the same country. To critically assess recommendations.</td>
</tr>
<tr>
<td>Root cause analysis</td>
<td>Generate hypotheses about the underlying causes of observed health system problems. Many techniques including fishbone diagrams. See Section 2.4.4</td>
<td>To identify the systemic causes, often related to financing and governance, of deficiencies in health service delivery.</td>
</tr>
<tr>
<td>Stakeholder mapping</td>
<td>Identify system actors and their roles and influence as stakeholders on various issues. Stakeholder mapping is a process by which a network map depicting key stakeholders is drawn. During the mapping process, the assessment team identifies the actors in any given system, how they are linked, how influential they are, and what their goals are. This process is “low-tech,” often conducted using large sheets of paper, sticky notes, markers, and some small items to mark influence. Actor types, as well as relationship types, can be color coded. Arrows can be single or bidirectional.</td>
<td>To identify key informants, agendas, and sensitivities. To assess local priorities, such as the degree of concern for identified problems and degree of support for potential recommendations.</td>
</tr>
<tr>
<td>Scenario planning</td>
<td>This is a strategic planning method that uses a series of tools to identify and analyze possible future events and alternative possible outcomes. These can involve quantitative projections and/or qualitative judgments about alternatives. The value lies more in learning from the planning process than the actual plans or scenarios.</td>
<td>To analyze and critique possible solutions by anticipating possible risks and outcomes.</td>
</tr>
<tr>
<td>Causal loop diagrams</td>
<td>Causal loop diagrams are a system dynamics tool that produces qualitative illustrations of mental models, focused on highlighting causality and feedback loops. Feedback loops can be either reinforcing or balancing, and causal loop diagrams can help to explain the role of such loops within a given system. They are often developed in a participatory approach. The drawings can be further</td>
<td>To analyze how different parts of the health system are affecting each other currently; to identify loops that are causing problems, or positive loops to build on. To analyze possible recommendations by anticipating how an intervention will affect other</td>
</tr>
<tr>
<td>Name</td>
<td>Purpose and Description</td>
<td>HSAA Application</td>
</tr>
<tr>
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</tr>
<tr>
<td>Innovation (or change management) history</td>
<td>Innovation, or change management history, aims to generate knowledge about a system by compiling a systematic history of key events, intended and unintended outcomes, and measures taken to address emergent issues. It involves in-depth interviews with as many key stakeholders as possible to build an understanding of the performance of the system from a number of different points of view.</td>
<td>To analyze and learn from previous or continuing HSS interventions to inform recommendations.</td>
</tr>
<tr>
<td>Participatory impact pathways analysis</td>
<td>Participatory impact pathways analysis is a workshop-based approach that combines impact pathway logic models and network mapping through a process involving stakeholder engagement. The workshops aim to help participants make their assumptions and underlying mental models about how projects run explicit and to reach consensus on how to achieve impact.</td>
<td>Could be used as a group exercise at the stakeholder workshop to develop recommendations collaboratively.</td>
</tr>
<tr>
<td>Process mapping</td>
<td>A set of tools, such as flow charts, to provide a pictorial representation of a sequence of actions and responses. Their use can be quite flexible, such as to make clear current processes, as a basis for identifying bottlenecks or inefficient steps, or to produce an ideal map of how they would like them to be.</td>
<td>To illustrate and analyze how a process currently works (e.g., health sector planning, budgeting, reporting cycles). To illustrate a proposed improved process.</td>
</tr>
</tbody>
</table>

Source: Peters 2014

### 2.5. Mixed Health Systems and Key Actors

The HSA approach recognizes that all health systems are mixed public-private systems. The HSAA also recognizes that health promotion and disease prevention are as important as the service delivery system for health outcomes, and therefore communities, households, and patients are critical health system actors. WHO acknowledged the growing trend in pluralistic financing and delivery of health services and products as governments seek to respond to “major modifications in the pattern of disease, in demographic profiles, in exposure to major risks and in the socioeconomic environment” (WHO 2003). Therefore, each core function module contains indicators needed to assess the roles of relevant stakeholders in improving system performance: the public sector, the private sector, and communities and patients.

**Public Sector**

As will be addressed in detail in the Governance Module, the public sector, also called the government sector, is a complex group of actors that is ultimately responsible for carrying out essential public health functions that embody health system stewardship.
**Private Sector**

The private sector plays a number of roles in the health system:

- **Private service delivery sector**, including:
  - Private health providers comprising “all providers who exist outside of the public sector, whether the aim is philanthropic or commercial, and whose aim is to treat illness or prevent disease” (Mills et al. 2002). Dual employment is common in some countries where a health worker is employed in the public sector but also works privately.
  - Informal providers such as traditional healers, birth attendants, indigenous medical providers, and market drug sellers. The informal sector is a significant, albeit not well documented, source of health care, particularly for rural and poor populations.
- Private companies, particularly those in mining, textiles, and agriculture, that provide health benefits to their employees, such as health insurance, on-site clinics, and health promotion/disease prevention programs. Benefits may extend to dependents.
- Private pharmacists and drug sellers who are often the first-line providers in the formal health sector that serves people in poor and remote communities (IFC 2007).
- The pharmaceutical market encompassing distributors, producers, and retailers is the largest subsector in the private health sector (O’Hanlon 2009).
- Private financial intermediaries, such as health insurers, medical schemes, micro-insurance schemes, and banks that target private health providers.
- Private organizations that accredit health care facilities, licensed health professionals, and perform other functions to ensure that quality standards are met.
- Contractor for supply chain management functions, such as transportation, distribution, or warehousing.
- Private advocacy groups for specific diseases, populations, or causes (e.g., good governance).
- Private foundations, large companies, and other sources of financial support.
- Fiduciary agent, a broker, or a legal entity acting in the interest of a health care organization.

In many developing countries, there is high utilization of private providers, even by those individuals in the lowest wealth quintiles (IFC, 2007). The Service Delivery, Human Resources for Health, and Health Information System modules address these aspects of the private health sector in-depth. The Medical Products, Vaccines, and Technologies module addresses private pharmacy supplier and contracting out-of-supply chain management functions such as transportation. The Governance module looks at regulation of the private sector and its role in different policy reforms. The Health Financing module includes private financing (insurance and out-of-pocket spending) and provider payment mechanisms.

If the purpose of the HSA has a particular emphasis on the private health sector, the assessment team can use the Private Health Sector Assessment Tool to supplement or replace the HSAA.
Communities and Individuals

The Health Systems Framework (Figure 1.2) includes the demand side (communities and patients) and recognizes community and household production of health. Community and patient inputs to the health system, their engagement with the service delivery system, and their role in promoting health are examined in each of this manual’s six core function modules. Indicators are included to assess whether the role of communities and patients is effectively contributing to the performance of that core function.

Communities and individuals can have roles as service providers (community health workers, peer educators) and as groups organized and empowered to hold providers accountable (community health committees, patient advisory groups, health facility board members, and so forth). For example, promoting engagement of health care workers with patient advisory and civil society groups can contribute to higher quality care, increased productivity, and lower attrition rates (Wellins et al. 2005).

For in-depth look at community health issues, there are many publications and resources, including:

- USAID’S Community Health Framework and Toolkit
- Work Force Alliance’s joint framework to guide efforts to scale-up the role of community health workers within health and development programs
- The Community Health Worker Assessment and Improvement Matrix

“The addition of ‘community and household production of health’ in the conceptual framework is a step in the right direction for capturing effects of health systems strengthening”
—Save the Children
3. **BIBLIOGRAPHY**


USAID. 2015. mPowering Frontline Health Workers and Lesley-Anne Long, *The Community Health Framework*


