

## CHAPTER 2 OVERVIEW OF THE APPROACH

### 2.1 Introduction

The health systems assessment approach presented in this manual is an indicator-based approach for rapid assessment of the health system, using secondary data, document review, and stakeholder interviews. It is designed to allow you to diagnose health system performance by identifying system strengths and weaknesses and then developing strategies and recommendations based on an understanding of priorities and programming gaps in the country. The approach attempts to fill a gap in assessment approaches by providing a structured tool that examines a wide range of health system components, synthesizes information, and transforms findings into recommendations and strategies for action. Whereas other tools examine in detail specific components of the health system<sup>1</sup> or describe the health system,<sup>2</sup> no tools, this tool provides for a rapid or comprehensive assessment of the overall health system of a developing country.

The primary client and audience for this assessment and its ensuing recommendations is the U.S. Agency for International Development (USAID) Mission in the assessment country. Recommendation development is outlined with the Mission's interests and objectives in mind. With minor modifications in emphasis and presentation, however, this approach can also be used for other primary audiences, such as the Ministry of Health. Note too that the assessment does not have a disease-specific focus, but you may have to address disease-specific issues in developing recommendations for the Mission, based on its priorities.

This manual provides guidelines for planning and conducting the assessment, synthesizing findings, generating recommendations, and preparing an assessment report. It is broken down into a general description of the health system environment (Chapter 5 “Core Module”) and six technical areas that include indicators and guiding questions. (See Box 2.1) In addition, the manual itself may serve as an educational and reference tool.

You may decide to work through all or only a subset of the technical modules, depending on the assessment objectives. The core module (Chapter 5) is mandatory and should be completed in all cases. It allows you to understand the country-specific contextual background before working through one of the remaining six technical modules (Chapters 6–11). Each module is estimated to take one to two person-weeks to complete, depending on the information available for the assessment country. Depending on how you organize the assessment, it can be accomplished in a

#### Box 2.1

The approach includes seven modules—

- Core module
- Stewardship
- Health financing
- Service delivery
- Human resources
- Pharmaceutical management
- Health information systems

<sup>1</sup> Examples include assessment tools developed by RPMPlus for pharmaceuticals and those developed by the Health Metrics Network for health information systems.

<sup>2</sup> Examples include guidelines for health systems profiles developed by the Pan American Health Organization and the European Observatory on Health Systems and Policies.

concentrated period or spread out over a longer period, and multiple modules can be completed simultaneously. In addition, a stakeholder workshop is recommended to validate findings, receive feedback, prioritize results, and discuss recommendations. (See Box 2.2. Chapter 3 provides detailed guidelines for planning and conducting the assessment.

Reading through all the chapters of the manual before embarking on the assessment is recommended. This step will facilitate your understanding of the requirements and expectations necessary for appropriate assessment planning. In particular, read Chapter 4 along with the technical module chapters before starting the analysis. Chapter 4 outlines the process of synthesizing findings; assessing strengths, weaknesses, and root causes; and then prioritizing areas for action.

**Box 2.2**

**Assessment Steps**

1. Plan assessment, including stakeholder workshop (Chapter 3).
2. Conduct assessment (Chapters 5–11).
3. Synthesize findings and develop recommendations (Chapter 4).
4. Discuss and validate findings and recommendations and develop priorities through stakeholder workshop (Chapter 4).
5. Prepare an assessment report (Chapter 3).

**Tip!**

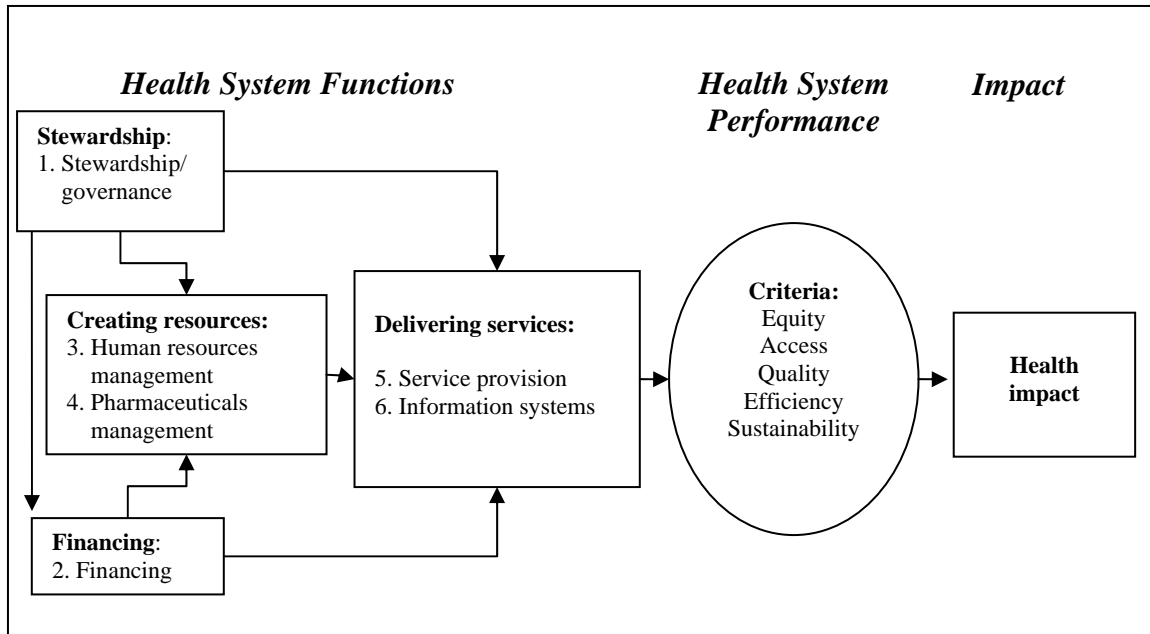
This approach does not call for any primary data collection beyond stakeholder interviews. Thus, you should apply sound judgment in quoting information and using evidence from secondary sources for deriving conclusions. For example, it may be best not to quote or use information that cannot be verified from multiple sources. In addition, anonymity of interviewees may have to be preserved.

## 2.2 Conceptual Framework for the Health Systems Assessment Approach

The conceptual framework for the assessment approach was developed based on extensive discussions among partners and USAID staff. It builds on the World Health Organization (WHO) definition of health systems (see Chapter 1) and its delineation of four major health system functions: stewardship (also called *governance*), financing, creating resources, and delivering services. The six technical areas (each represented by a module) fall within these functions.

Figure 2.1 provides a visual presentation of the six technical modules integrated into WHO's health systems functions, presented earlier in Figure 1.1. Figure 2.1 builds on Figure 1.1 in the same way that the conceptual framework for this assessment approach builds on the health systems functions defined by WHO. Note that not all aspects of each of WHO's health systems functions have been addressed in the six technical modules in detail. These areas were chosen based on their primary relevance to USAID investment strategies.<sup>3</sup>

<sup>3</sup> Other factors that affect the health system, but involve other sectors, such as education, environment, water, and sanitation, are also not included.



**Figure 2.1 Conceptual Framework for Health Systems Performance**

The approach suggests using the data collected to synthesize contributions of each technical area to health systems performance in terms of the following performance criteria: equity, access, quality, efficiency, and sustainability (which are defined in Annex 1A).

### 2.3 Overview of the Technical Modules

The approach has been developed in modular form, where each module relates to a specific health system function, with the exception of the core module, which is designed to provide background information relevant to all the modules. As mentioned, you can choose to do all or a selection of the technical modules, depending on the needs of your assessment. A brief description of each module is provided here. Annex 2A provides a full list of the indicators and qualitative questions by topic area in each module.

- **Core module** covers basic sociodemographic and economic information for the assessment country and an overview of the health system and the general health situation of the country. It covers the topic areas of political and macroeconomic environment, business environment and investment climate, top causes of mortality and morbidity, structure of the main government and private organizations involved in the health care system, decentralization, service delivery organization, donor mapping, and donor coordination.
- **Governance module** addresses the information assessment capacity of the health system, policy formulation and planning, social participation and health system responsiveness, accountability, and regulation.

- **Health financing module** covers sources of financial resources; the pooling and allocation of health funds, including government budget allocation and health insurance; and the process of purchasing and proving payments.
- **Health service delivery module** examines service delivery outputs and outcomes; the availability, access, utilization, and organization of service delivery; quality assurance of healthcare; and community participation in service delivery.
- **Human resources (HR) module** covers systematic workforce planning, HR policies and regulation, performance management, training/education, and incentives.
- **Pharmaceuticals management module** evaluates the health system's pharmaceutical policy, laws, regulations; selection of pharmaceuticals; procurement, storage and distribution; appropriate use and availability of pharmaceuticals; access to quality pharmaceutical products and services; and financing mechanisms for pharmaceuticals.
- **Health information systems (HIS) module** 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 policy making.

### **2.3.1 Module Components**

Each module is set up in two components, both indicator-based.<sup>4</sup>

Component 1 is based on internationally comparable data. This assessment component includes indicators for which data are available from international data sets. This provides quick background information for each technical module with readily available data. These data (with a listing of sources) are included in the CD that accompanies this manual (filename: Component 1 data). Instructions on how to use the data are provided in Chapter 5 (Section 5.2), and these instructions are valid for all technical modules.

Component 2 is based on country-level document review and stakeholder interviews. This assessment component uses multiple indicators, both quantitative and qualitative. The assessment combines a desk-based assessment of documents with stakeholder interviews to identify strengths and weakness in the technical area and relate them to health system performance. The stakeholder interviews are meant to complement the desk-based assessment, provide information on the health system performance indicators that cannot be obtained from document review, and explore possible recommendations. A list of suggested materials to review and stakeholders to interview is provided for each indicator, along with suggested probing questions to be used for obtaining more detailed information.

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<sup>4</sup> Certain modules (such as, the governance module) rely more on developing a qualitative profile of that health system function and does not rely solely on indicators.

### 2.3.2 Indicators

To the extent possible, indicators are presented in a consistent format across modules using the standardized template below (Table 2.1). The governance module (Chapter 6) is an exception; in that module, assessment involves analysis of different issues and does not follow the indicator-based approach.

**Table 2.1 Format for the Indicators**

Element	Description of Information Covered for Each Element
<b>Indicator title</b>	
<b>Definition, rationale, and interpretation</b>	<p>Provides a definition or description of the indicator and the reason why the indicator is important for the assessment (the rationale for including it)</p> <p>Also provides brief guidance on how to measure the indicator and how to interpret the findings</p>
<b>Suggested data source</b>	<p>Provides suggestions on the types of documents from which data on the indicator can be obtained</p> <p>Also provides cross-references to related indicators in other modules using the clearly labeled phrase “Module link”</p>
<b>Stakeholders to interview</b>	<p>Provides suggestions on types of stakeholders to interview for further information related to this indicator</p> <p>This element will be included with Component 2 indicators only</p>
<b>Issues to explore</b>	<p>Provides suggestions on issues and topics for further probing, including the reasons why</p> <p>This element will be included with Component 2 indicators only</p>
<b>Notes and caveats</b>	<p>Includes any caveats that the user should be aware of (such as, challenges in data collection due to inconsistent definitions) and could include suggestions on how to change or customize the indicator depending on what data is available in the country</p>

Figure 2.2 provides a schematic presentation of the assessment approach.

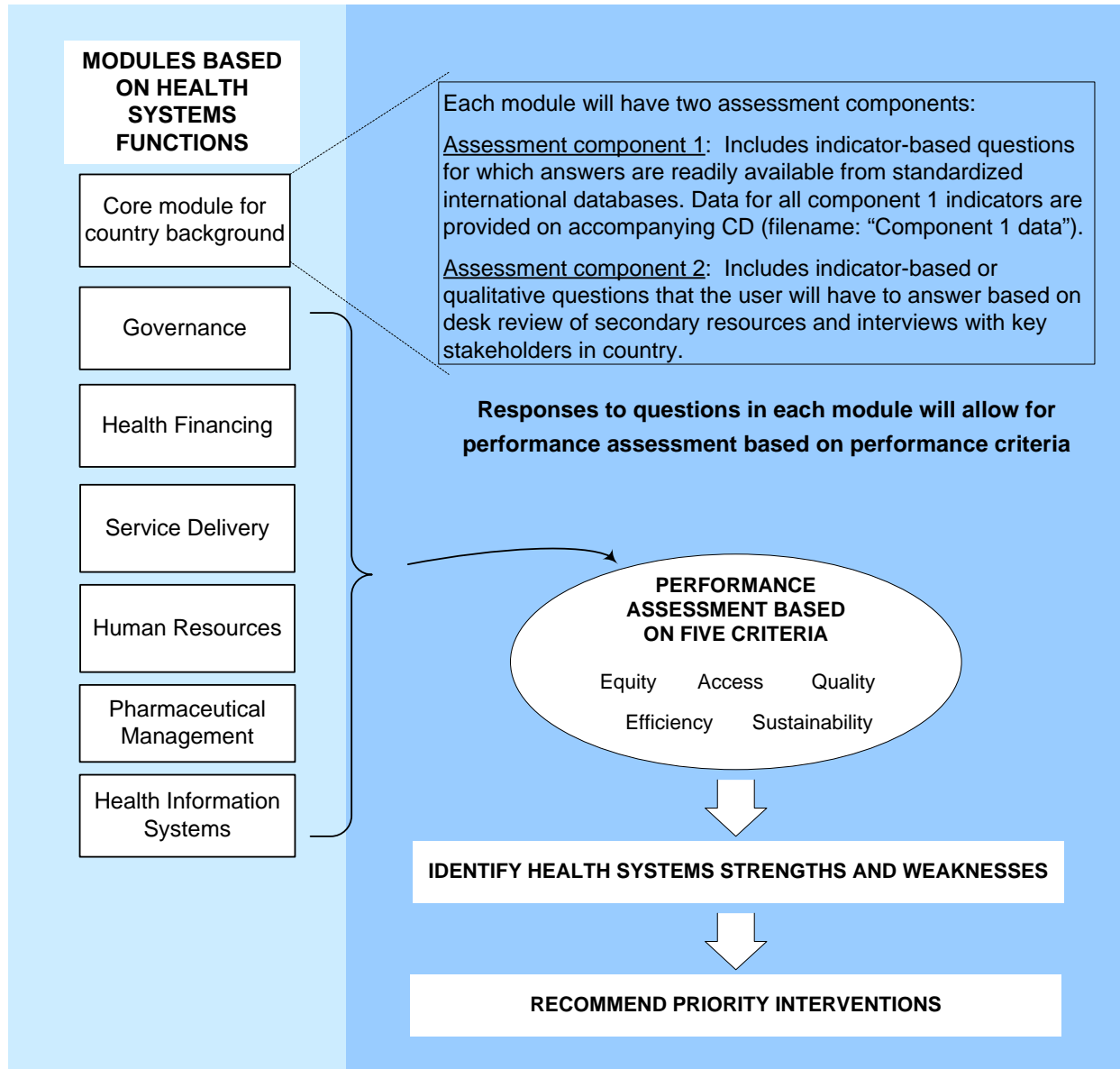


Figure 2.2 Schematic Presentation of the Approach

Note from Figure 2.2 that the modules are designed to provide a series of findings related to Component 1 and Component 2 indicators that allow you to gauge the functioning of that technical area and its contribution to overall health system performance (against the five performance criteria), and to develop a list of the area’s specific strengths and weaknesses and an appraisal of opportunities and threats. These findings then permit you to develop possible options for interventions to address these strengths and weaknesses, taking advantage of opportunities and minimizing threats. After completing the individual modules, you will synthesize the results across modules and develop overall priorities for systems strengthening (see Chapter 4). A stakeholder workshop is strongly recommended for validating findings, identifying priorities, and discussing recommendations (see Chapter 3 for planning the workshop).

Implementing the assessment approach will permit you to measure the performance of the health system being assessed, to identify health system weaknesses and strengths, and to develop priority interventions to promote desired performance enhancements based on the criteria defined above.

## **2.4 Output of the Assessment**

One of the key outputs of the assessment process will be an assessment report addressed to the assessment's primary audience: the USAID Mission. Both the stakeholder workshop and the health system assessment report should highlight key findings, identify health system strengths and weaknesses, and provide recommendations for priority interventions. Recommendations should reflect priorities and objectives of the USAID Mission, although key findings and potential interventions could be put forth for other donors or organizations, including local stakeholders, to address or implement. Chapter 3 discusses planning and conducting the assessment including report preparation and provides a suggested outline for the report. Chapter 4 provides guidance for synthesizing findings across the modules and presenting results.

## Annex 2A. List of Indicators by Topic Area in Each Module

### Indicator Map—Core Module (Chapter 5)

Component	Topical Area	Indicator Number and Content
Component 1	Population Dynamics	1. Population, total
		2. Population growth (annual %)
		3. Rural population (% of total) Urban population (% of total)
	Reproductive Health	4. Contraceptive prevalence (% of women aged 15–49)
		5. Fertility rate, total (births per woman)
		6. Pregnant women who received 1+ antenatal care visits (%) Pregnant women who received 4+ antenatal care visits (%)
		7. Prevalence of HIV, total (% of population aged 15–49)
	Mortality	8. Life expectancy at birth, total (years)
		9. Mortality rate, infant (per 1,000 live births)
		10. Mortality rate, under age 5 (per 1,000)
		11. Maternal mortality ratio (per 100,000 live births)
	Income and Inequity	12. GDP per capita (constant 2,000 USD)
		13. GDP growth (annual %)
		14. Per capita total expenditure on health at international dollar rate
		15. Private expenditure on health as % of total expenditure on health
		16. Out-of-pocket expenditure as % of private expenditure on health
		17. GINI Index
Component 2	Political and Macroeconomic Environment	Not applicable
	Business Environment and Investment Climate	
	Top Causes of Mortality and Morbidity	
	Structure of the Main Government and Private Organizations Involved in the Health Care System	
	Decentralization	
	Service Delivery Organization	
	Donor Mapping	
	Donor Coordination	

**Indicator Map—Governance Module (Chapter 6)**

Component	Topical Area	Indicator Number and Content
Component 1	Not applicable	1. Voice and Accountability
		2. Political Stability
		3. Government Effectiveness
		4. Rule of Law
		5. Regulatory Quality
		6. Control of Corruption
Component 2	Information/Assessment Capacity	7. Describe the general state of routine systems for collection, reporting, and analyzing data (in terms of efficiency, frequency, and quality) on vital registration statistics, health status, health services, health financing, and human resources.
		8. Based on the level of decentralization, is the information available at subnational and local levels adequate to inform health officials at those respective levels?
		9. Is information collected, analyzed, and used at the point of generation or merely reported up to a higher level?
		10. Describe the technical capacity of the Health Planning Unit (or other appropriate group) to absorb, analyze, and translate findings from the information collected into viable, appropriate health plans and policies.
		11. How and with what frequency are data from health information systems presented to policy makers?
		Policy Formulation and Planning
	13. Does the MOH identify policy changes needed to achieve the objectives in the strategic health plan based on sound technical review of performance?	
	14. To what extent do health policy makers work effectively with the legislative and executive branches of government to gain approval of sound public health and health care policies?	
	15. How does the government coordinate or harmonize donor inputs (funding and policy priorities)?	
	16. What proportion of major external sources of funding are coordinated with and complement an agreed upon government health plan?	
	17. Does the MOH fulfill its public health function by engaging in health policy development and actions (including communication with national, local, and special interest advocacy groups) to raise awareness of policies that affect public health such as legislation on tobacco use, road safety, family planning, and HIV/AIDS prevention?	

<b>Component</b>	<b>Topical Area</b>	<b>Indicator Number and Content</b>
Component 2 (continued)	Policy Formulation and Planning (continued)	18. Does the MOH engage national, local, and special interest advocacy groups to develop health policies?
	Social Participation and System Responsiveness	19. Who participates (i.e., persons or representatives of stakeholder groups) in setting the health policy agenda or in defining and prioritizing health needs and services at the national level?
		20. Who participates (i.e., persons or representatives of stakeholder groups) in setting the health policy agenda or the definition and prioritization of health needs and services at the local level?
		21. Does the MOH reach out to the general public with information, education, and communication to raise awareness and change behavior for priority health issues such as tobacco use, road safety, family planning, and HIV/AIDS prevention?
		22. What mechanisms are in place to track the responsiveness of health officials to stakeholder input (such as requests for representation on advisory bodies, requests for a share of funding, and incorporation of public input into health policy)?
		Accountability
	24. Do health authorities regularly communicate with constituencies and partners at the national, subnational, and local levels on priority health issues?	
	25. Does a national health policy or legislation exist to define the role and responsibilities of the public health sector?	
	26. Has the government provided and published guidance for prioritizing health expenditures based on available resources and assessed need?	
	27. Is an adequate system in place to monitor and evaluate progress toward stated health objectives as well as changes in performance resulting from changes in policies and priorities?	
	28. Are reports on government health sector performance produced and made available to the general public and civil society?	
	29. Inquire about financial accountability of public authorities.	
	30. Is information from research, media, opinion polls, advocacy, and watchdog groups available to public and private stakeholders?	

Component	Topical Area	Indicator Number and Content
Component 2 (continued)	Accountability (continued)	31. To what extent does the press cover health policy debates?
		32. Does any legislation or regulation address medical malpractice?
		33. Is there a functioning consumer defense movement or league, and to what extent does it focus on health related issues?
	Regulation	34. What do the health laws mandate? Do they clearly define roles and responsibilities in the health sector?
		35. Describe the government system for licensure of health professionals; regulation of the safety, minimum physical infrastructure, and equipment availability for different types of health facilities; adequate regulation to ensure the safety, efficacy, and quality of medicines, as well as the appropriateness and accuracy of product information; and protection of consumer rights.
		36. Do governmental regulatory agencies have the necessary resources (human, technical, financial) to enforce existing legislation and regulations?
		37. Does a functioning system (public or private) exist for accreditation or certification (or both) for health professionals and for hospitals and health facilities?
		38. Does the MOH or other government agency review, evaluate, and propose revisions of laws and regulations to assure that they reflect current scientific knowledge and best practices for achieving compliance?
		39. To what extent does the government enforce regulations in areas of public health concern including (but not limited to) protection of drinking water and clean air standards, enforcement of laws governing the sale of alcohol and tobacco to minors, and childhood immunizations
		40. Has the government attempted to form partnerships with those in the regulated environment to support compliance?

**Indicator Map—Health Financing Module (Chapter 7)**

Component	Topical Area	Indicator Number and Content
Component 1	Revenue Collection: Amount and Sources of Financial Resources	1. Total expenditure on health as % of GDP
		2. Per capita total health expenditure, at average exchange rate (USD)
		3. Government expenditure on health as % of total government expenditure
		4. Public (government) spending on health as % of total health expenditure
		5. Donor spending on health as % of total health spending
		6. Out-of-pocket spending as % of private health spending
Component 2	Pooling and Allocation of Financial Resources— <i>Government budget formulation and allocation</i>	7. Ministry of Health budget trends
		8. Process of MOH budget formulation
		9. MOH budget allocation structure
		10. Central and local government budget allocations for health in decentralized systems
		11. Percent of government health budget spent on outpatient/inpatient care
		12. Percent of government health budget allocation in rural/urban areas
		13. Percentage of government health budget spent on salaries of health workers, medicines and supplies, and other recurrent costs
		14. Local level spending authority
	Pooling and Allocation of Financial Resources— <i>Health insurance</i>	Not applicable
	Purchasing and Provider Payments	15. Policies for user fee payments in the public sector
		16. Allocation of user fee revenues
		17. Informal user fees in the public sector
		18. Contracting mechanisms between MOH and public or private service providers
	Indicators for health insurance schemes	Health Insurance: Coverage, Funding, and Policy Issues
A2. Services covered by health insurance		
A3. Funding mechanisms and sustainability of health insurance		
A4. Provider payment mechanisms under health insurance		

**Indicator Map—Health Service Delivery Module (Chapter 8)**

Component	Topical Area	Indicator Number and Content
Component 1	Availability of Service Delivery	1. Number of hospital beds (per 10,000 population)
	Service Delivery Access, Coverage, and Utilization	2. Percentage of births attended by skilled health personnel per year
		3. DPT3 immunization coverage: one-year-olds immunized with three doses of diphtheria, tetanus toxoid, and pertussis (DPT3) (%)
		4. Contraceptive prevalence (% of women aged 15–49)
		5. Pregnant women who received 1+ antenatal care visits (%)
	Service Delivery Outcomes	6. Life expectancy at birth, total (years)
		7. Mortality rate, infant (per 1,000 live births)
		8. Maternal mortality ratio (per 100,000 live births)
		9. Prevalence of HIV, total (% of population aged 15–49)
Component 2	Availability of Service Delivery	10. Number of primary care facilities in health system per 10,000 population
		11. Percentage of primary care facilities that are adequately equipped
		12. Availability of updated clinical standards for MOH priority areas, high burden diseases areas, and/or areas responsible for high morbidity and mortality
		13. The ratio of health care professionals to the population
	Service Delivery Access, Coverage, and Utilization	14. Percentage of people living within X kms of a health facility
		15. Financial access (select an indicator based on available data)
		16. User fee exemptions and waivers
		17. Number of primary care or outpatient visits per person to health facilities per year
		18. Private sector service delivery
	Organization of Service Delivery	19. Existence of corporate social responsibility (CSR) programs that offer health services among the country's largest employers
		20. Daily availability of full range of key primary health care services
		21. Number of vertical programs
		22. Level of informational continuity of care
Quality Assurance of Care	23. Level of vertical continuity of care	
	24. Existence of national policies for promoting quality of care	

<b>Component</b>	<b>Topical Area</b>	<b>Indicator Number and Content</b>
Component 2 (continued)	Quality Assurance of Care (continued)	25. Existence of adaptation of clinical standards into a practical form that can be used at local level
		26. Existence of clinical supervision by district level supervisor
		27. Percentage of supervision visits to health centers planned that were actually conducted
		28. Existence of other processes assuring quality of care besides supervision
	Community Participation in Service Delivery	29. Presence of official mechanisms to ensure the active engagement of civil society and the community in management of the health system
		30. Presence of official mechanisms to ensure the active engagement of civil society and the community in service delivery
		31. Existence of official mechanism for eliciting population priorities, perceptions of quality, and barriers to seeking care

**Indicator Map—Human Resources Module (Chapter 9)**

Component	Topical Area	Indicator Number and Content
Component 1	Human Resources (HR) Data	1. The ratio of five cadres of health care professionals to the population
Component 2	Planning	2. The distribution of health care professionals in urban and rural areas
		3. HR data—presence of human resources data system
		4. The existence of a functioning HR planning system
		5. HR dedicated budget
		6. Presence of job classification system
	Policies	7. Compensation and benefits system that is used in a consistent manner to determine salary upgrades and merit awards
		8. Formal process for recruitment, hiring, transfer, promotion
		9. Employee conditions of service documentation (e.g., policy manual)
		10. Presence of a formal relationship with unions (if applicable)
		11. Registration, certification, or licensing is required for categories of staff in order to practice
		12. Salary
		13. Job descriptions are present
	Performance Management	14. Supervision (especially clinical supervision)
		15. Percentage of supervision visits to health centers planned that were actually conducted
		16. There is a formal mechanism for individual performance planning and review
		17. Incentives, monetary and non-monetary
		18. There is a formal in-service training component for all levels of staff
	Training and Education	19. There is a management and leadership development program
		20. There are links and “feedback loops” between the organization and pre-service training institutions

**Indicator Map—Pharmaceutical Management Module (Chapter 10)**

<b>Component</b>	<b>Topical Area</b>	<b>Indicator Number and Content</b>	
Component 1	Not applicable	1. Total expenditure on pharmaceuticals (% total expenditure on health)	
		2. Total expenditure on pharmaceuticals (per capita average exchange rate)	
		3. Government expenditure on pharmaceuticals (per capita average exchange rate)	
		4. Private expenditure on pharmaceuticals (per capita average exchange rate)	
Component 2	Pharmaceutical Policy, Laws, and Regulations	5. Is there a National Essential Medicines Policy (NMP) or other government document that sets objectives and strategies for the pharmaceutical sector based on priority health problems?	
		6. Is there a comprehensive pharmaceutical law?	
		7. Is there a National Drug Regulatory Authority (NDRA) responsible for the promulgation of regulations and for enforcement?	
		8. Is there a system for pharmaceutical registration?	
		9. Does the pharmaceutical registration system generate revenue for the MOH?	
		10. Is there a system for the collection of data regarding the efficacy, quality, and safety of marketed products (postmarketing surveillance)?	
		11. Do mechanisms exist for the licensing, inspection and control of (1) pharmaceutical personnel, (2) manufacturers, (3) distributors/importers, and (4) pharmacies/drug retail stores?	
		Selection of Pharmaceuticals	12. Is there a national essential medicines list (NEML)?
			13. Is there an active national committee responsible for managing the process of maintaining a national medicines list?
			14. What is the total number of pharmaceuticals (in dosage forms and strengths) on the NEML?
			15. Are international nonproprietary names (INN) or generic names used for products on the list?
	Procurement	16. Are there standard operational procedures (SOPs) for conducting procurement of pharmaceuticals in the public sector?	
		17. Are generic or INN used for MOH procurement of pharmaceuticals? (Generic names are to be differentiated from generic branded products.)	
		18. On average, how many procurements are conducted per year?	
		19. On average, what percentage (by value) of MOH pharmaceuticals is procured through competitive bid?	

Component	Topical Area	Indicator Number and Content
Component 2 (continued)	Procurement (continued)	20. Is there a procurement pre- or post-qualification process for suppliers and products based on review of objective information about product safety, efficacy, and quality?
		21. Are samples requested and tested as part of the procurement process?
		22. Are quantities of pharmaceuticals to be procured based on reliable estimates?
	Storage and Distribution	23. Is distribution of (some or all) pharmaceuticals managed through a push or pull system?
		24. Are there independent supply systems for vertical programs (such as tuberculosis, malaria, HIV/AIDS)? For what programs?
		25. Value of inventory loss (as % of average inventory value) over 12 months
		26. At each level of the distribution system (central, regional, district, facility), are there refrigeration units (such as refrigerators or coolers) with functional temperature control?
	Appropriate Use	27. Are there any functioning mechanisms/tools in place to improve the use of medicines in hospitals and health facilities?
		28. Are there national therapeutic guides with standardized treatments for common health problems?
		29. Are the treatment guidelines used for basic and in-service training of health personnel?
	Availability	30. What percentage of a set of unexpired tracer items is available (at time of study and over a period of time) in a sample of facilities?
	Access to Quality Products and Services	31. What percent of the population has access to a public or private health facility/pharmacy that dispenses pharmaceuticals?
		32. Are there any licensing provisions or incentives in place to increase geographic access by consumers/patients to quality products and services through private wholesalers and retailers?
		33. Population per licensed pharmacist or pharmacy technician
		34. Population per authorized prescriber
		35. Population per drug retail outlet in the private sector
		36. Percent of households more than 5/10/20 km from a health facility/pharmacy that is expected to dispense a set of tracer items in stock
	Financing Pharmaceuticals	37. What proportion of the annual national expenditure on medicines is by the government budget, donors, charities, and private patients?
		38. Is there a system to recover the cost of pharmaceuticals dispensed in MOH facilities?
		39. Is there a price control mechanism for pharmaceuticals in the private sector?

**Indicator Map—Health Information System Module (Chapter 11)**

Component	Topical Area	Indicator Number and Content
Component 1	Health Status Indicators— <i>Mortality</i>	1. Maternal mortality ratio reported by national authorities
		2. Mortality rate, under age 5 (per 1,000)
	Health Status Indicators— <i>Morbidity</i>	3. HIV prevalence among pregnant women aged 15–24
		4. Proportion of children under 5 years who are underweight for age
	Health System Indicators	5. Number of hospital beds (per 10,000 population)
		6. Contraceptive prevalence rate (% of women aged 15–49)
		7. Percentage of disease surveillance reports received at the national level from districts compared to the number of reports expected
Component 2	Resources, Policies, and Regulation	8. Availability of financial and/or physical resources to support designated items within MOH/central budget (or other central sources), regional, and/or district budgets
		9. Presence of international donors providing specific assistance to support strengthening the entire HIS or its individual and/or vertical components in more than one region
		10. Existence of policies, laws, and regulations mandating public and private health facilities/providers to report indicators determined by the national HIS
		11. Presence of a clear procedure for allocating resources and planning in the health system based on the information products of HIS (e.g., use of mortality and morbidity indicators to assess health status and allocate resources accordingly)
		12. Presence of mechanisms to review the utility of current HIS indicators for the planning, management, and evaluation process, and to adapt and modify accordingly
		Data Collection and Quality
	14. Percentage of private health facility data included in reported data	
	15. Availability of clear standards and guidelines for data collection and reporting procedures	
	16. Number of reports a typical health facility submits monthly, quarterly, or annually	
	17. Presence of procedures to verify the quality of data (accuracy, completeness, timeliness) reported, such as data accuracy checklists prior to report acceptance, internal data quality audit visits	
	18. Availability of a national summary report which contains HIS information, analysis, and interpretation (most recent year)	

Component	Topical Area	Indicator Number and Content
Component 2 (continued)	Data Analysis	19. Availability at each level of a sufficient number of qualified personnel and infrastructure to compile and analyze information
		20. Evidence of ongoing training activities related to HIS data collection and analysis
		21. Presence of written guidelines specifying the methods and products of data analysis to be performed
		22. The data derived from different health programs/subsectors are grouped together for reporting purposes (or even integrated in a single document), and these documents are widely available
		23. Availability of appropriate and accurate denominators (such as population by age groups, by facility catchment area, by sex, number of pregnant women) for analysis
		24. Availability of timely data analysis, as defined by stakeholders and users
	Use of Information for Management, Policy Making, Governance, and Accountability	25. Use of data for planning, budgeting, or fundraising activities in the past year (e.g., a change in budget levels in response to a new major health issue, fund allocation/budgeting proposals utilizing HIS data for advocacy)
		26. Data or results of analyses are fed back to data providers to inform them of program performance

