HEALTH SYSTEMS ASSESSMENT: SUMMARY OF MODULES AND INDICATORS

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Contents:

COUNTRY AND HEALTH SYSTEM OVERVIEW MODULE

The country and health system overview module is the background or foundational section, used to understand the basic background information about the country and its health system. Ideally, this module is completed before the in-country assessment and is finalized with additional information in-country.

The country and health system overview is divided into two groups. The first 39 indicators are available on the Health Systems Database http://healthsystems2020.healthsystemsdatabase.org/. The second group, shown table 2, requires the use of the assessment tool to conduct analyses of different topics (such as background information on a country's political and economic environment, its health sector, donor involvement in health activities, and the general business environment) that are essential to understand before analyzing the other 6 technical modules.

Table 1: Component I indicators

A. Population Dynamics	1. Population, Total
	2. Population Growth (annual %)
	3. Rural population (% of total) Urban populations (% of total)
	4. Population ages 0-14 (% of total)
	5. Population ages 65 and above (% of total)
B. Income and Inequity	6. GDP per capita (constant 2,000 USD)
	7. GDP growth (annual %)
	8. Per capita total expenditure on health at international dollar rate
	9. Private expenditure on health as % of total expenditure on health
	10. Out of pocket expenditure as % of private expenditure on health
	11. GINI index
C. Education	12. Adult literacy rate (%)
D. Reproductive Health	13. Contraceptive Prevalence (% of women aged 15-49)
	14. Unmet need for family planning
	15. Fertility rate, total (births per woman)
	16. Pregnant women who received 1+ antenatal care visits (%)
	17. Pregnant women who received 4+ antenatal care visits (%)
E. Mortality	18. Life expectancy at birth, total (years)
	19. Mortality rate, infant (per 1,000 live births)
	20. Mortality rate, under age five (per 1,000)
	21. Maternal mortality ratio (per 100,000 live births)
F. Water and Sanitation	22. Population with sustainable access to improved drinking water sources (% of total)
	23. Diarrhea prevalence of children under five years old (%)
	24. Diarrhea treatment (%)
	25. Improved water sources (%)
	26. Proportion of population with access to improved sanitation

G. Nutrition	27. Percentage of children under age five with low height for age (stunting)
	28. Percentage of children under age five with low weight for age (underweight)
H. HIV,TB and Malaria	29. Prevalence of HIV, total (% of population age 15-49)
	30. HIV prevalence among pregnant women age 15-24
	31. Pregnant women tested for HIV during ANC visit (%)
	32. Antiretroviral therapy coverage among people with advanced HIV infection
	33. TB Prevalence, all forms (per 100.000 population)
	34. Proportion of tuberculosis cases detected and cured under DOTS
	35. Prevalence and death rates associated with malaria
	36. Proportion of children in malaria-risk areas using effective malaria prevention treatment measures/ Children under five sleeping under insecticide-treated bed nets
H. Immunizations	37. Measles coverage (Proportion of one-year-old children immunized against measles)
	38. DTP3 immunization coverage: one year olds immunized with three doses of diphtheria, tetanus toxoid (DTP3) and pertussis (%)

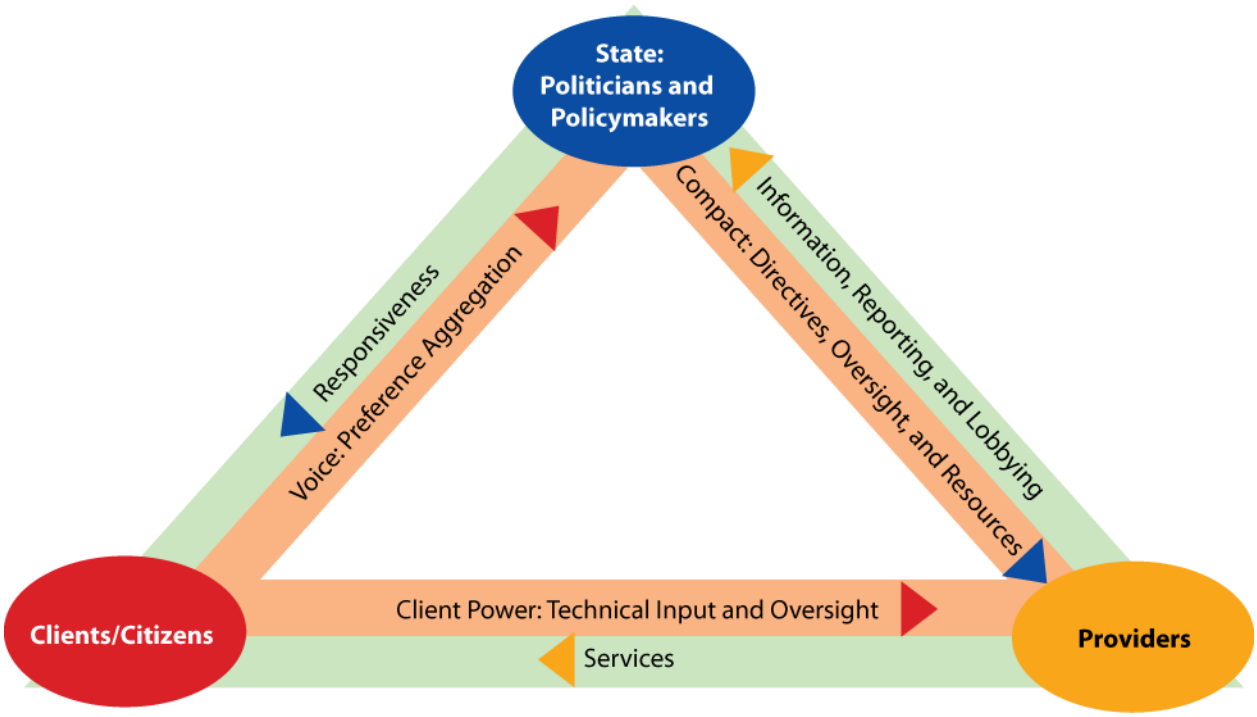
Table 2: Health System Profile

Health system profile and background characteristics	Top Causes of Mortality and Morbidity
	Political and Macroeconomic environment
	Business Environment and Investment Climate
	Structure of Main Government and Private Organizations Involved in the Health Care System
	Decentralization
	Service Delivery Organization
	Health Systems Strengthening Capacity
	Donor Mapping
	Donor Coordination

LEADERSHIP AND GOVERNANCE MODULE

Governance in health systems is about developing and putting in place effective rules for policies, programs, and activities related to achieving health sector objectives. These rules determine which societal actors play which roles, with what set of responsibilities, related to reaching these objectives. Health governance involves three sets of actors. The first is state actors, which includes politicians, policy-makers, and other government officials. Actors in the public sector health bureaucracy are central, such as the health ministry, health and social insurance agencies, and public pharmaceutical procurement and distribution entities. However, other public sector actors beyond the health sector can have roles as well. These can include, for example, parliamentary health committees, regulatory bodies, the ministry of finance, various oversight and accountability entities, and the judicial system. The second set of actors constitutes health service providers. Depending upon the particulars of a given country's health system, this set mixes public, private, and voluntary sector providers. The provider category also includes organizations that support service provision: insurance agencies, the pharmaceutical industry, and equipment manufacturers and suppliers. The third set of actors contains beneficiaries, service users, and the general public. This set can be categorized in a variety of ways: for example, by income (poor vs. non-poor), by location (rural vs. urban), by service (maternal and child health, reproductive health, geriatric care), by disease or condition (HIV/AIDS, TB, malaria, etc.) or by cultural beliefs (allegiance to particular values and customs). A general consensus exists that health systems should achieve: 1) improvements in health status through more equitable access and availability to quality health services, preventive and promotion programs, 2) patient and public satisfaction with the health system, and 3) fair financing that protects against financial risks for those needing health care.

The protocol for assessing leadership and governance is based on the new Health Systems 20/20 Project model, which focuses on health governance functions rather than roles and outcomes as in the earlier model in the HSAA approach, which was based on the WHO stewardship model. The governance function in health systems is divided into six types of linkages (or components in the terminology of the assessment methodology) connecting the three major actors, as shown in the following figure. For more details see Derick W. Brinkerhoff and Thomas J. Bossert (2008) "Health Governance: Concepts, Experience, and Programming Options." Health Systems 20/20 Policy Brief, available at www.hs2020.org.



For each linkage category, a set of performance indicators has been identified. The performance indicators are derived from the Governance Survey that was conducted over the Health Action Network. These indicators are formulated as statements of good practice.

Questions are formulated to collect data for each indicator. In some cases similar data comes from other governance functions. This allows us to cross check and verify answers, as well as to avoid redundancy. Some information will be collected from a review of documents, and some from interviews. Data will be collected from the national and district levels, as appropriate. Table 1 below summarizes the indicators by topical area.

Table 3:

A. Overall Governance	1. Voice and accountability
	2. Political stability
	3. Government effectiveness
	4. Rule of law
	5. Regulatory quality
	6. Control of corruption
B. Government Responsiveness to Stakeholders	7. Government and health provider organizations regularly solicit input from the public and concerned stakeholders (vulnerable groups, groups with a particular health issue, etc.) about priorities, services, and resources. The government is responsive to external stakeholder input..
	8. The national government is transparent with regards to health sector goals, planning, budgeting, expenditures, and data. It regularly communicates with stakeholders in the health sector.

C. Voice: Preference Aggregation	9. The public and concerned stakeholders have the capacity and opportunity to advocate for health issues important to them and to participate effectively with public officials in the establishment of policies, plans, and budgets for health services.
	10. Willingness of the public and concerned stakeholders to participate in governance and advocate for health issues
D. Client Power: Technical Input and Oversight	11. Civil society organizations (including professional organizations, specialized health related NGOs, and the media) oversee health providers and provider organizations in the way they deliver and finance health services, follow protocols, standards, and codes of conduct in regard to medical malpractice, unfair pricing patterns, discrimination against clients, etc.
	12. The public or concerned stakeholders (ex. Community members) have regular opportunities to meet with managers (directors) of health service organizations (hospitals, health centers, clinics) to raise issues about service efficiency or quality
	13. There are procedures and institutions that clients, civil society, and other concerned stakeholders can use to fight bias and inequity in accessing health services
E. Service Delivery	14. Health services are organized and financed in ways that offer incentives to public, NGO, and private providers to improve performance in the delivery of health services
	15. Information on allocation and use of resources and results is available for review by the public and concerned stakeholders
	16. Information about the quality and cost of health services is publicly available to help clients select their health providers or health facilities
	17. Service providers use evidence on program results, patient satisfaction, and other health related information to improve the services they deliver
F. Information, reporting, and lobbying	18. Public and private sector providers report information, to government
	19. Service providers use evidence to influence and lobby government officials for policy, program, and/or procedural changes
G. Compact : Directives, oversight and resources	20. The government provides overall direction to the health system through clear legislation, policies and regulations
	21. Government officials rely on evidence in policy making and planning
	22. Health sector regulations are known and enforced in training institutions and health facilities
	23. Procedures exist for reporting, investigating, and adjudicating misallocation or misuse of resources

HEALTH FINANCING MODULE

Health financing is the backbone of the health system, and is a critical component to ensuring that health services are provided in an equitable, efficient, and sustainable manner. Health financing serves as the anchor for implementing and sustaining health programmes, and fostering service delivery. The World Health Organization (WHO) defines health financing as the "function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system" (WHO 2000).

Health financing consists of four topical areas: amount and sources of financial resources, MOH budget and Expenditures, health insurance, and out-of-pocket payments. The following table provides the suggested indicators, data collection questions, and level of data source for each of these components.

Table 4:

A. Amount and sources of financial resources	1. Total expenditure on health as % of GDP
	2. Per capita total health expenditure, at international dollar rate (USD)
	3. Government expenditure on health as % of total government expenditure
	4. General government expenditure on health as % of total health expenditure
	5. External resources for health as % of total health spending
	6. Out-of-pocket expenditure as % of total expenditure on health
B. MOH budget and Expenditures	7. Trends in MOH planned and realized expenditures
	8. Process of MOH budget formulation
	9. MOH budget allocation structure
	10. Central and local government budget allocations for health in decentralized systems
	11. Percentage of government health budget spent on outpatient/inpatient care
	12. Recurrent government health budget allocation
	13. Local level spending authority and institutional capacity
	14. Contracting mechanisms between MOH and public or private service providers
C.: Health Insurance	15. Population coverage of health insurance
	16. Services covered by health insurance
	17. Funding mechanisms and sustainability of health insurance
	18. Provider payment mechanisms under health insurance
	19. Institutional capacity of health insurance organizations

D. Out-of –pocket payments (User fees and fee-for-service/product)	20. Policies for user fee payments in the public sector
	21. Allocation of user fee revenues
	22. Informal user fees in the public sector

HEALTH SERVICE DELIVERY MODULE

Health Service Delivery involves the provision of required amenities to the general public by designated providers. The World Health Organization (WHO) defines service delivery as the way inputs are combined to allow the delivery of a series of interventions or health actions (WHO 2001b). This module presents dynamics of the organization of service delivery, quality assurance and level of care, the public and private facilities for service provision, as well as the HIV/AIDS specifics. The Components, Indicators, and Questions were modeled from the Health Systems Approach Tool: A How-To Manual. Health Service Delivery indicators are organized by the following topical areas: organization of health services, access to health services, coverage and utilization of health services, equity in delivery of health services, quality of health services, and health service outcomes.

Table 5:

A. Organization of Health Services	1. Number of Hospital beds (per 10,000 population)
	2. Ratio of health care professionals to the population
	3. Number of health facilities by type and ownerships
	4. Number of primary care facilities in health system per 10,000 population
	5. Commercial entities offering health services for their employees and/or communities where they operate
	6. Referral System
B. Access to health services	7. Hours of operation for public and private health service providers
	8. Percentage of people living within X KMs of a health facility
	9. Financial access (select an indicator based on available data)
	10. User fee exemptions and waivers
C. Coverage and Utilization, and Demand for Health Services	11. Number of primary care or outpatient visits per person to health facilities per year
	12. Antenatal care coverage, at least one visit (%)
	13. Births attended by skilled health staff (% of total)
	14, Contraceptive prevalence (% of women aged 15-49)
	15. Unmet need for family planning
	16. Percent of children under 5 with acute respiratory infection taken to a health facility
	17. Diphtheria, tetanus toxoid and pertussis (DPT3) immunization coverage (percent) among one year-olds
	18. Percent of population tested for HIV, percent treated for STI, percent of population on ARVs

	19. Knowledge, attitudes and practices (KAP) regarding key health issues and services
	20. Consumer profiles
D. Equity in the Delivery of Health Services	21. Percent of women vs. percent of men who access HIV/AIDS test, STI treatment, etc.
	22. Percent of women who seek care for specific health intervention by source and income group
E. Quality of Health Services	23. Existence of national policies for promoting quality of health care
	24. Clinical standards adapted into a practical form that can be used at local level
	25. Percent of primary care facilities that are adequately equipped
	26. Existence of clinical supervision by district-level supervisor
	27. Existence of other processes assuring quality of care besides supervision
F. Health Service Outcomes	28. Life expectancy at birth, total (years)
	29. Mortality rate, infant (per 1,000 live births)
	30. Maternal mortality rate (per 100,000 live births)
	31. HIV prevalence among people aged 15-49
	32. Diarrhea prevalence
	33. Diarrhea treatment

HUMAN RESOURCES FOR HEALTH MODULE

Human resources for health refers to the workforce or human capital of the national health system. According to the World Health Organization (WHO), the phrase "human resources for health" includes public and private sector nurses, doctors, midwives, and pharmacists, as well as technicians and other paraprofessional personnel. Furthermore, the definition includes all people engaged in actions whose primary intent is to enhance health. This module covers a broader look at the HRH situation in the country (statistics), the enabling environment for HRH, and the central processes of planning, developing, and supporting the workforce. For more in-depth information about these topics, see the WHO Global Health Workforce Alliance website, and especially the site for the WHO HRH Action Framework (HAF).

Table 6:

A. Current HRH Situation	1. Ratio of different health personnel per 1000
	2. Total Numbers by Cadre and Sector
	3. Ratio of health care workers by geographic distribution
	4. Trends for the past 5 years.
B. HRH Management Systems	5. Existence of a comprehensive HRH plan with a budget
	6. Availability of strategic and operational HRM functions and structures at national and local levels
	7. Enabling environment exists for health workers to achieve goals and targets,
	8. Availability of and use of HRH information systems
	9. Availability of mechanisms used to monitor and improve health worker performance, productivity, and expectations
C. Policy and planning of HRH	10. Existence of and use up-to-date HRH policies
	11. Existence of clear and up-to-date scopes of practice
	12. Employment policies documented and used
D. Financing HRH	13. Data indicating public salaries are competitive in the local and regional labor market
	14. Evidence indicating that National Health Accounts regularly collect and report data about HRH expenditures
	15. Evidence indicates budgeting and projections done for HRH intervention resource requirements
	16. Evidence indicates MOH makes good use of finances already available
E. Educating and training HRH	17. Number of pre-service and in-service training institutions
	18. Production of new health care workers is responsive to the needs of the health care system

	19. Evidence that pre-service education curriculum is updated regularly
	20 Frequency, quality and alignment of in-service training to health priorities and workforce needs
	21. Ratio of rural vs. urban admissions and graduates
F. Partnerships in HRH	22. Active stakeholder participation in HRH policy and processes
	23 Formal agreements in place between Government and other entities involved in HRH
	24. Mechanisms in place to involve community in service planning and provision and to provide feedback
G. Leadership of entire HRH system	25. Government capacity to govern HRH across the sectors
	26. Evidence of awareness among high-level government officials of HRH issues

MEDICAL PRODUCTS, VACCINES AND TECHNOLOGIES MODULE

Medical products, vaccine, and technologies refers to the set of practices aimed at ensuring the timely availability and appropriate use of safe, effective quality medicines and related products and services in any health care setting. The set of practices that make up pharmaceutical management are organized according to functional components of a cycle or system that may take place at various levels of the health system depending on its structure. The careful management of pharmaceuticals is directly related to two factors: 1) a country's ability to address public health concerns and 2) the difficulty health systems and programs face to achieving their goals because they have not addressed how the medicines essential to saving lives and improving health will be managed, supplied, and used. This module focuses on the following issues related to pharmaceutical management: 1) total expenditure and financing; 2) policies, laws and regulations; 3) procurement, storage, use, and access to pharmaceuticals.

The Pharmaceutical Management module is divided into 22 indicators. The questions in this module are reflective of the information mapped out in the table below.

Table 7:

A. Standard Indicators	1. Total expenditure on pharmaceuticals (% of total expenditure on health)
	2. Total expenditure on pharmaceuticals (per capita at average exchange rate) in USD
	3. Government expenditure on pharmaceuticals (per capita at average exchange rate) in USD
	4. Private expenditure on pharmaceuticals (per capita at average exchange rate) in USD
B. Pharmaceutical Policy, Laws, and Regulations	5. Existence of 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. Existence of comprehensive pharmaceutical law
	7. Existence of a National Drug Regulatory Authority (NDRA) responsible for the promulgation and enforcement of regulations
	8. Existence of a system for pharmaceutical registration
	9. Existence of a post-marketing surveillance system
	`10. Existence of a pharmacovigilance system
	11 Mechanisms exist for the licensing, inspection, and control
C. Selection of Pharmaceuticals	12. Existence of a national essential medicines list (NEML)
	13. Evidence of an active national committee responsible for managing the process of maintaining a NEML

	14. Total number of pharmaceuticals (in dosage forms and strengths) on the NEML
D. Procurement	15. Existence of formal standard operational procedures (SOPs) for conducting procurement of pharmaceuticals
	16. Use of generic or international nonpropriety names (INN) for MoH procurements
	17. Percentage of procurements or purchases according to plan
	18. Percentage (by value) of MoH pharmaceuticals procured through competitive bids
	19. Existence of a procurement pre-or post-qualification process for suppliers and products
	20. Pharmaceuticals procured based on reliable estimates
	21. Private Sector procurement processes
E. Storage and Distribution	22. Value of inventory loss over 12 months
	23. Percentage of deliveries or pick-ups according to plan
	24. Existence of refrigeration units with functional temperature control at each level (central, regional, district, facility) of the distribution system
F. Availability	25. Percentage of a set of unexpired tracer items available
	26. Percentage of households more than 5/10/20 km from a public and private health facility/pharmacy that is expected to dispense essential medicines
	27. Existence of licensing provisions or incentives for private wholesalers and retailers
G. Appropriate Use	28. SOPs for dispensing and counseling available
	29. Existence of functioning mechanisms to improve the prescribing and dispensing practices
	30. Existence of national therapeutic guides with standardized treatments for common health problems
	31. Existence of treatment guidelines used for pre- and in-service training of health personnel in both public and private sector
H. Financing of pharmaceuticals	32. Proportion of the annual national expenditure on medicines is by the government budget, donors, charities, and private patients
	33. Existence of a system to recover the cost of pharmaceuticals dispensed in MOH facilities
	34. Out-of pocket expenditure for health on medicines

HEALTH INFORMATION SYSTEM MODULE

A *Health Information System* (HIS) is defined as "a set of components and procedures organized with the objective of generating information which will improve health care management decisions at all levels of the health system" (Lippeveld, Sauervborn, and Bodart 2000). The goal of a HIS is to 1) allow decisions to be made in a way that is both evidence-based and transparent and 2) produce relevant and quality information to support decision making (Health Metrics Network 2006). For this reason, this module is an assessment of the HIS' ability to produce valid, reliable, timely, and reasonably accurate information for use by planners and decision-makers. The results of this assessment will therefore provide insight into how HIS strengthening might be included in plans to support overall health system strengthening. This module focuses on the following issues related to HIS: 1) health status and systems indicators; 2) resources, policies, laws regulation; 3) data collection and quality; 4) data analysis; and 5) use of information for management, policymaking, governance, and accountability.

Table 8:

A. Inputs	1. Availability of financial and/or physical resources to support HIS-related items within MoHSW/central budget and/or district budgets
	2 Availability at each level of a sufficient number of qualified personnel and infrastructure to operate, compile and analyze health information.
	3. Evidence of ongoing training activities related to HIS data collection and analysis
	4. National HIS strategic plan consistent with resources available developed in broad consultation with key stakeholders, and widely accepted.
	5. Functioning interagency body with the mandate and capacity to guide the implementation of the national strategy
	6. 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
	7. Existence of policies, laws and regulations mandating public and private health facilities/providers to report indicators determined by the national HIS
	8. Presence of mechanisms to review the utility of current HIS indicators for the planning, management, and evaluation process, and to adapt and modify accordingly
B. Processes	9 Availability of minimum core indicators at national and sub national level
	10 Availability and accessibility of data sources

	11. Timeliness of updates to the national database of facilities
	12. Percentage of districts represented in reported information
	13. Percentage of private health facility data included in reported data
	14.Availability of clear standards and guidelines for data collection and reporting procedures
	15. Number of reports a typical health facility submits monthly, quarterly, or annually
	16. Presence of procedures to verify the quality of reported data
	17. Availability of a national summary report which contains HIS information, analysis, and interpretation (most recent year)
	18. Data derived from different health programs/subsectors are grouped together for reporting purposes, and these documents are widely available
	19. Availability of appropriate and accurate denominators (such as population by age groups, by facility catchment area, by sex, number of pregnant women) for analysis
	20. Availability of timely data analysis to meet the needs of stakeholders and users
C. Outputs	21. Timeliness of reporting specified indicators
	22. Completeness of reporting, percent
	23. Use of data for planning, budgeting, or fundraising activities in the past year
	24. Data or results of analyses are fed back to data providers to inform them of program performance