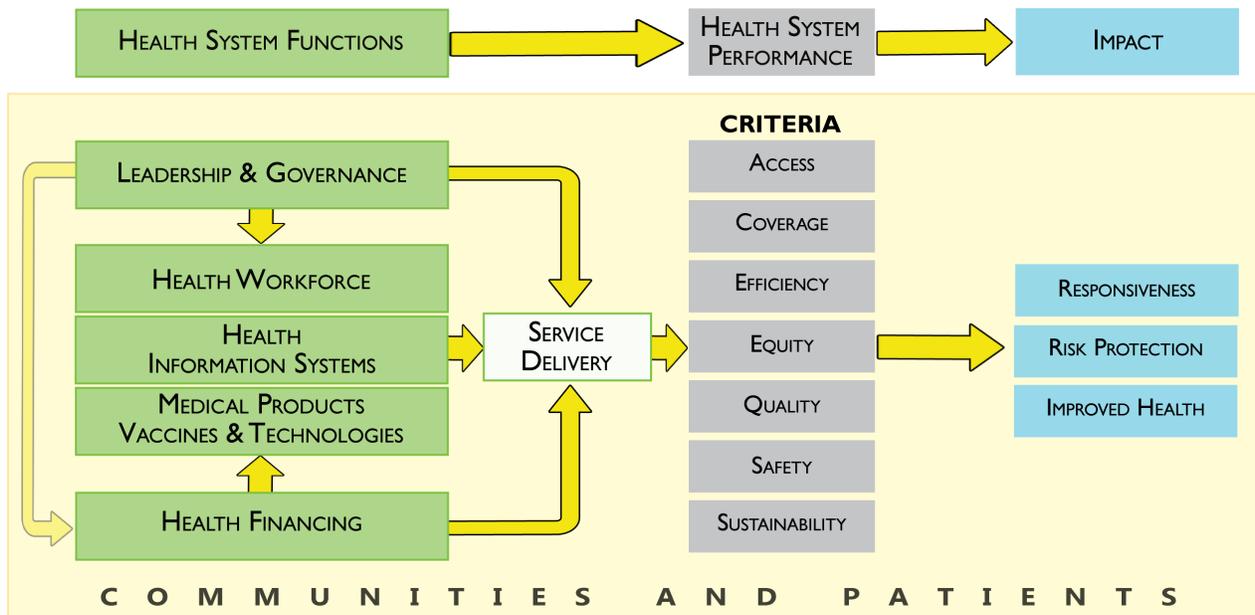# MODULE 4
SERVICE DELIVERY

This module describes health service delivery and the issues involved in assessing this aspect of a health system, including measurable indicators of the strengths and weaknesses of a country's delivery of health care services.

FIGURE 3.4.1 BUILDING BLOCK INTERACTIONS

| HEALTH SYSTEM FUNCTIONS | → | HEALTH SYSTEM PERFORMANCE | → | IMPACT |

CRITERIA

- LEADERSHIP & GOVERNANCE
- HEALTH WORKFORCE
- HEALTH INFORMATION SYSTEMS
- MEDICAL PRODUCTS VACCINES & TECHNOLOGIES
- HEALTH FINANCING

- SERVICE DELIVERY

Criteria:
- ACCESS
- COVERAGE
- EFFICIENCY
- EQUITY
- QUALITY
- SAFETY
- SUSTAINABILITY

- RESPONSIVENESS
- RISK PROTECTION
- IMPROVED HEALTH

COMMUNITIES AND PATIENTS

INTRODUCTION

Health service delivery is the backbone of a health system. In most developing countries, governments historically have provided the majority of health services through a vast public infrastructure. This public-only delivery system has changed dramatically in the past 15 years and health care now is provided through a wide array of public and private (including commercial and not-for-profit) clinical settings. Because the HSA approach provides a rapid yet comprehensive assessment of the health system, the approach focuses on the demand for and supply of key health services from each sector – as just noted, public, commercial, and not-for-profit – and at national and subnational levels (district, hospital, health center, health post, and dispensary). It also examines the referrals of patients both within the public sector and between the public and private sectors to determine quality and continuity of care. A challenge to assessing health service delivery is to capture the range of services and provision methods among all the major health actors in a health sector.

This module presents the health delivery module of the assessment.

- Subsection 4.1 defines health service delivery and its key components.

- Subsection 4.2 provides guidelines on preparing a profile of health service delivery for the country of interest, including instructions on how to customize the profile for country-specific aspects of the health delivery process.

- Subsection 4.3 presents the indicator-based assessment, including detailed descriptions of the indicators.

- Subsection 4.4 discusses how to summarize the findings and develop recommendations.

- Subsection 4.5 contains a checklist of topics that the team leader or other writers can use to make sure they have included all recommended content in the chapter.
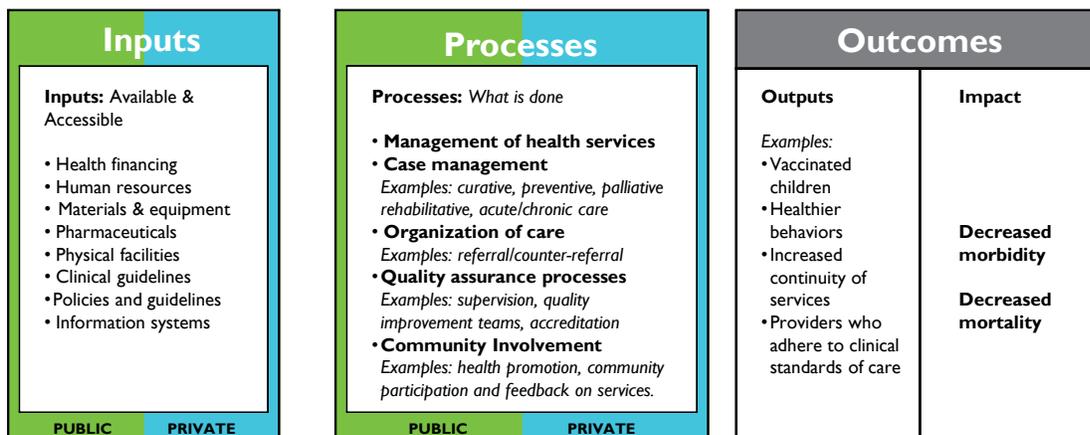
4.1 WHAT IS HEALTH SERVICE DELIVERY?

WHO defines service delivery as the way inputs are combined to allow the delivery of a series of interventions or health actions (WHO 2001c) through multiple actors in the public and private sectors. As noted in WHO's *Systems Thinking for Health Systems Strengthening* (De Savigny and Adam 2009), service delivery includes "effective, safe and quality personal and non-personal health interventions that are provided to those in need, when and where needed (including infrastructure), with a minimal waste of resources." The report *Everybody's Business: Strengthening health systems to improve health outcomes*, WHO's framework for action (WHO 2007) states that "the service delivery building block is concerned with how inputs and services [in both public and private sector] are organized and managed, to ensure access, quality, safety and continuity of care across health conditions, across different locations and over time."

4.2 DEVELOPING A PROFILE OF THE HEALTH DELIVERY SYSTEM

Health service delivery can be represented from the systems perspective, with inputs, processes, outputs, and impacts (see Figure 3.4.1). Among the core inputs and processes that are necessary for health care delivery, regardless of the sector, are financial resources, competent health care staff, adequate physical facilities and equipment, essential medicines and supplies, up-to-date clinical guidelines, operational policies, and record keeping. However, these inputs often are not available and processes are unused or outdated.

FIGURE 3.4.2 SYSTEM VIEW OF SERVICE DELIVERY

Inputs

Inputs: Available & Accessible

- Health financing
- Human resources
- Materials & equipment
- Pharmaceuticals
- Physical facilities
- Clinical guidelines
- Policies and guidelines
- Information systems

PUBLIC   PRIVATE

Processes

Processes: *What is done*

- **Management of health services**
- **Case management**
  Examples: curative, preventive, palliative rehabilitative, acute/chronic care
- **Organization of care**
  Examples: referral/counter-referral
- **Quality assurance processes**
  Examples: supervision, quality improvement teams, accreditation
- **Community Involvement**
  Examples: health promotion, community participation and feedback on services.

PUBLIC   PRIVATE

Outcomes

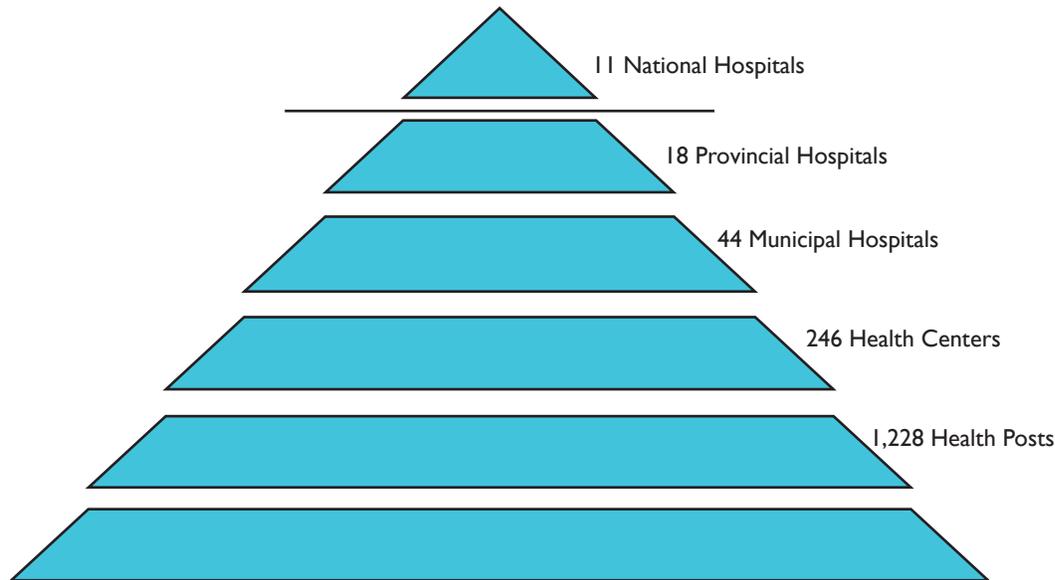| Outputs	Impact
Examples:	
• Vaccinated children	
• Healthier behaviors	**Decreased morbidity**
• Increased continuity of services	
• Providers who adhere to clinical standards of care	**Decreased mortality**

The profile of a mixed health care system can be presented in both narrative and graphic form, depending on the information that is available, including preexisting graphics. Table 3.4.1 presents questions organized around the topical areas of service delivery; answers will produce a profile in "narrative" form. See also Annex 3.4.A for an alternate summary of issues to explore in stakeholder interviews.

TABLE 3.4.1 SUMMARY OF ISSUES TO ADDRESS IN STAKEHOLDER INTERVIEWS

Topics	Examples
Inputs	
Health infrastructure	How many health facilities are there in total (public and private)? How many health facilities by level are there in the public, commercial, and NGO/FBO sectors? How do they compare? Where are the public, commercial, and NGO/FBO health facilities located? Concentrated in urban areas? Some in rural areas? Do health facilities – public and private – cover all areas of the country? Do existing facilities have the equipment and medical supplies needed to function? What and where are the major infrastructure gaps?
Human resources in health	How many health personnel, by cadre, are there in total? How many health staff, by cadre, are there in the public, private, and NGO/FBO sectors? Are there sufficient human resources? How do human resources vary by cadre? By sector? By region? What are the major human resource constraints? Limited pre-service training slots? Low salaries? Poor deployment to underserved areas? Loss of staff to overseas? Insufficient in-service training to enhance skills? Unclear scopes of practices between cadres (e.g. doctors/nurses), limited scopes (e.g., nurses prevented from doing simple treatment)? Difference in scopes of practice between public and private sectors?
Processes	
MOH structure, composition, and roles and responsibilities	Describe the central- and mid-level health authorities responsible for planning of health services delivered in both the public and private sectors. Does the government include private sector representatives in planning? Describe the central- and mid-level government department responsible for management and administration of public health services. Does the government include the private sector coordination of health services at the central and middle levels? Describe the government authorities' responsible for regulation and oversight of health professionals, facilities, and pharmaceuticals. Describe government body responsible for supervision.
Policy and regulatory framework	What are key policy barriers that affect quality? Access? Efficiency? What are the policy barriers constraining the commercial and NGO/FBO services? Are there policies supporting collaboration and partnerships between the different types of providers? Are the regulatory bodies (councils) in place? Is there sufficient funding for these bodies to enforce quality and other regulations affecting service delivery?
Services delivered by sectors	What services do the public, commercial, NGO and FBO sectors deliver? Where? To what population groups? What are the barriers to access of health services in general? By sector? What is the level of quality in health services delivered by the public, commercial, NGO and FBO sectors?
Role of local administrative government	Describe the role, if any, for local government authorities with respect to health services delivery.
Particularities of the system	Describe any unusual aspects of the health delivery system. For example, the Angola HSA found that service delivery data were collected by the local government authority, separate from the health supervision function. In Kenya, the private health sector is well organized into one umbrella organization representing all components of the private health sector.

In contrast to the narrative presentation, Figure 3.4.3 is a sample of graphical presentation; it shows in pyramid form the central, intermediate, and peripheral levels of care in a health system and the number of public and private facilities at each level.

FIGURE 3.4.3 SAMPLE: HEALTH SECTOR PYRAMID (PUBLIC AND PRIVATE SECTOR)

11 National Hospitals

18 Provincial Hospitals

44 Municipal Hospitals

246 Health Centers

1,228 Health Posts

Another way to present a country's service delivery system is to map functions and interactions. This approach is an effective way to illustrate the relationship between the system's major actors. Figure 3.4.4 is a sample map of the Ukrainian health service delivery system. It depicts the following: (1) MOH governance structure of the health sector, (2) the relationship between public and private sector services, and (3) the relationship between health services at the national, regional, and community level. Important aspects or details of the system not captured by the map should be described in narrative form. For example, the narrative should compare how the service delivery system is supposed to work with how it actually works (if there is a difference) and explain the reasons for any gaps. The narrative can also make distinctions between the public and private sectors at different levels of service delivery.
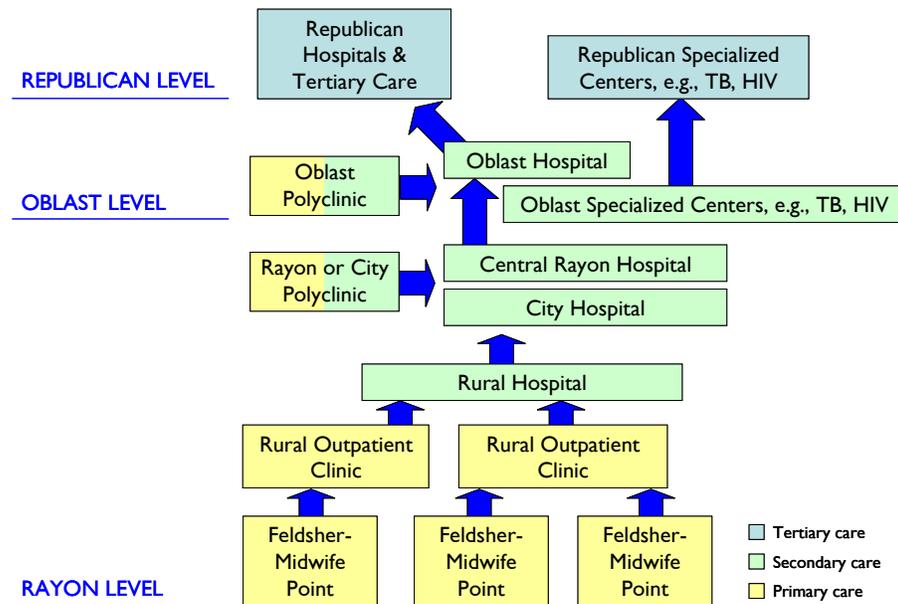

TIP

MAPPING THE MOH AND BEYOND

To identify MOH divisions relevant to service delivery, organizational charts of MOH subdivisions that are not represented in the overall MOH organization chart may be helpful.

If the assessment focuses on aspects of the system that cannot be represented in one map (e.g., if the client is particularly interested in TB, a focus on the laboratory services would be warranted), including a second map may provide more clarity than trying to enlarge the comprehensive map.

FIGURE 3.4.4 EXAMPLE: UKRAINE HEALTH SERVICE DELIVERY LEVELS, ACCESS POINTS, AND REFERRAL SYSTEM

REPUBLICAN LEVEL

Republican Hospitals & Tertiary Care

Republican Specialized Centers, e.g., TB, HIV

OBLAST LEVEL

Oblast Polyclinic

Oblast Hospital

Oblast Specialized Centers, e.g., TB, HIV

Rayon or City Polyclinic

Central Rayon Hospital

City Hospital

Rural Hospital

Rural Outpatient Clinic

Rural Outpatient Clinic

RAYON LEVEL

Feldsher-Midwife Point

Feldsher-Midwife Point

Feldsher-Midwife Point

Tertiary care
Secondary care
Primary care

Source: Tarantino et al. (2011)

When assessing health service inputs and processes, it is important to identify which sector might have a comparative advantage in terms of the key inputs/processes that could benefit the other.

For example, the private sector often has state-of-the-art but costly diagnostic equipment (MRI, CAT scans, etc.) and sophisticated IT systems. Use of this equipment and technology by the public sector could help that sector to reduce its costs by obviating the need for the sector to procure expensive equipment already in the country and to create efficiencies in public sector monitoring and evaluation.

Developing a holistic and comprehensive profile of health systems will help you understand how the entire system works, including the relationships between public and private sectors: do the two sectors coordinate, compete, or operate in completely separate spheres?

4.3. Assessment Indicator Overview

This section focuses on service delivery indicators – it shows the topical areas into which the indicators are grouped, lists data sources to inform the indicators, discusses how to deal with indicators that overlap with other building block modules, defines the indicators, and, in the "Interpretation" and "Issues to Explore" subsections, shows how to work with them. Finally, the section identifies key indicators to which the HSA technical team member can limit their work, if time precludes their measuring all indicators.

Topical Areas

The indicators for this module are grouped into the six topical areas listed in Table 3.4.2. The topical areas are based on the organization and objectives of the service delivery function.

Table 3.4.2 Indicator Map–Health Service Delivery

Topical Area	Indicator Numbers
Organization of health services	1–6
Access to health services	7–10
Coverage, utilization, and demand for health services	11–20
Equity in the delivery of health services	21–22
Quality of health services	23–27
Health service outcomes	28–33

TIP

Prioritizing Indicators

Team members constrained by limited time or resources should prioritize as follows:

1. First, assess indicators 1–2 (organization), 12–18 (coverage), and 28–33 (health outcomes), because data for them are readily available from the Health Systems Database (http://healthsystems2020.healthsystemsdatabase.org)

2. Second assess indicators 8, and 19–22. This can also be done prior to visiting the field and will further the analysis of the topical areas of access, demand, and equity.

3. If possible, assess all remaining indicators to get a more comprehensive picture of service delivery in the country.

DATA SOURCES

There are many sources to help the team assess and analyze the health service delivery system. They are organized into three main categories:

1. **Standard health indicators**

- Most of the health indicators are available in the Health Systems Database at http://healthsystems2020.healthsystemsdatabase.org/.

- The World Bank also has a database on development indicators at <http://data.worldbank.org/data-catalog/world-development-indicators>

- Other surveys contain a wealth of information that, with additional analysis, can provide more nuanced analysis of access, equity, efficiency, and quality of health services in a specific country.

    - Demographic Health Surveys (DHS)

    - AIDS Indicator Survey (AIS)

    - Household health expenditure survey

    - National Health Accounts (NHA)

    - Living Standards Measurement Survey (LSMS)

2. **Secondary sources**

The health indicators need to be supplemented with other research and documents such policies, regulations, and health statistics. Here is a suggested list of secondary sources that are readily available:

- Organization chart of MOH

- MOH service delivery statistics

- MOH registry of facilities (public, commercial, NGO/FBOs)

- MOH health laws, policies, and regulations governing standards of care and health personnel

- Recent (past five years) MOH policy statements, strategies, strategic plans, and annual plans

- Baseline studies in areas for health projects, especially reproductive and obstetric care projects

- Situational analyses and operations research

- Country studies on access and referral systems

- Brochures, websites of private, NGO/FBO health providers

3. **Stakeholders to interview**

- MOH planning division that compiles and analyzes service delivery data

- MOH professional councils

- MOH division responsible for quality compliance

- MOH division that inspects and licenses facilities

- MOH program managers of vertical programs (e.g., family planning, AIDS, TB)

- MOH district supervisors

- MOH hospital and health center managers

- Provider association directors (physicians, nurses and midwives, clinical officers, lab technicians, pharmacists)

- Directors of private provider associations

- Leaders in the private health sector

- Private physicians and pharmacists

- Directors of NGO/FBO health care organizations

Detailed Indicator Descriptions

The following section provides a detailed description that includes a definition, description and interpretation for each indicator. The comprehensive list of indicators is meant to guide the technical expert in the type of data to collect and issues to discuss in the stakeholder interviews. Data sources for many of these indicators may not be readily available; therefore, the assessment team member in charge of service delivery will need to judge which indicators are needed to adequately describe the health delivery system and those that would be nicely supplement the basic information but cannot be included because the data are not available.

Topical Area A: Organization of Health Services

Overview

Organization of service delivery has been defined by WHO (2001c) as "choosing the appropriate level for delivering interventions and the degree of integration." Analysis of the organization of the services focuses on:

- An overview of the range of health infrastructure in both the public and private sectors

- Continuity of care

- Integration of health services between the public and private sectors

The higher the degree of integration between the sectors and the greater the continuity of care, the more efficient and organized is the system's attendance to patient needs.

The questions in the following indicators can be asked at the primary care level, at the regional health authority, and at national MOH programs. The answers may differ regionally, so as much as possible, attempt to find the national pattern.

ORGANIZATION OF HEALTH SERVICES

Indicator	Definition and Interpretation
1. Number of hospital beds (per 10,000 population)	[(Total number of beds in hospitals of all levels) / (Population of country)] × 10,000 Hospital beds include inpatient beds available in public and private, general and specialized hospitals and rehabilitation centers. In most cases, beds for both acute and chronic care are included. Inpatient bed density serves as proxy to assess the adequacy of the availability of health service delivery, and particularly hospital service delivery. Sometimes these data are also disaggregated by sector.
2. Ratio of health care professionals to the population	The ratio of doctors, nurses, midwives, pharmacists, and laboratory technicians per 10,000 population = [(Total number of health workers) / (Population of country)] × 10,000 Explore the distribution of clinical providers at the primary care level compared to the hospital level, across regions, and by cadre. • Is appropriate or minimum staffing by facility level defined by a policy or legal standards? If so, how does actual staffing compare to these standards? • How does the ratio of health care professionals differ between the public and private sectors? • Has a human resource capacity analysis been done, aimed at determining the ability of the country to fill its human resource needs in the future? Too low a number of providers can mean educational institutions are not graduating a sufficient number of providers, that providers are dying off (e.g., due to high prevalence of HIV/AIDS), or providers are leaving the country (the "brain drain"). "Internal emigration" or a loss of government staff to the private sector can be a problem for the public sector, although it does not necessarily reduce human resources available in country. To compare by regional norms from other countries or WHO standards, consult the Country and Health System Overview module. The distribution of human resources personnel is important for the availability of health services; when in country, explore the distribution more deeply if possible. Look at numbers in hospitals versus other facilities – often doctors are clustered in hospitals. With high numbers of providers in urban areas, rural areas may be underserved.

ORGANIZATION OF HEALTH SERVICES CONT...

Indicator	Definition and Interpretation
3. Number of health facilities by type and ownerships	The total number of health facilities disaggregated by (hospitals, clinics, health posts, nursing homes, labs, etc.) and ownership or management (public, private, NGO, FBOs).
	The exact numbers, particularly for the private sector (commercial and NGO/FBO) may be difficult to obtain. However, an increasing number of MOHs are collecting this data so they have a complete inventory of health infrastructure. The MOH planning division or division that inspects and licenses facilities usually keep these statistics. If the MOH does not have these numbers, professional associations sometimes keep a registry of licensed practitioners and type of facility in which they practice. The comparison of facility types by sector provides a comprehensive picture of health service availability and helps rationalize existing and future infrastructure projects.
4. Number of primary care, facilities in health system per 10,000 population	Although few benchmarks are available, a comparison with key neighboring countries may be instructive. Consider the percentage of facilities that are functional. In some cases (e.g., post-conflict areas), facilities may exist but not be functional.
	Urban-rural distribution. If available, the distribution of public primary care facilities among rural and urban health districts is a measure of equity in access. Try to obtain population estimates for rural and urban areas to compare the ratio of resources to the total population. If this information is unavailable, inquire whether regional differences are available and whether each region can be classified as overall urban or rural. If the urban-rural distribution is extremely skewed, you can examine recent budget expenditures and work plans to see if they contain line items or plans for capital investments, particularly for the building of new facilities. If enough detail is available, compare new facilities planned in rural areas with those in urban zones. Beyond urban-rural disparities, you may find other regional disparities that are worth noting.
5. Commercial entities offering health services for their employees and/or communities where they operate	Establish whether any or many international and medium-size businesses, particularly in the extractive, manufacturing, and agricultural industries, provide health services through a company facility or by contracting out. This indicator does not include employers that provide health insurance for their employees.
	Existence of work-based health care programs, usually by large employers like multinational firms, national firms, and state-owned enterprise, establishes a precedent in a country. This might be leveraged to encourage other large employers to provide health services, or – for firms that already offer health services to employees – to expand coverage to employees' families and other community members. The absence of such work-based programs might indicate an opportunity to encourage their establishment.
	Direct health service provision by large employers should be pursued as a health systems intervention in areas that have numerous large employers with substantial numbers of employees and where health services are not available or are adequate. Furthermore, work-based health programs can be a strategy to delivery health care in remote areas where some large employers such as mining and timber companies are often located.
	Try to determine the scope of health service provision to estimate the number of people with access to health services through the largest companies. If businesses are interested and active in corporate social responsibility, determine if other opportunities – such as health promotion or health product distribution – can capitalize on the interest in the business community.
	Other questions to explore: What health services are delivered by onsite company clinics? Are these services offered to employees' dependents or other community members? Is there government interest in expanding workplace provision of health services?
	In many countries, work-based programs will not offer a mechanism for significantly increasing access to health services or otherwise improving health systems. If opportunities for corporate social responsibility appear limited, you should not invest your time on this indicator.

ORGANIZATION OF HEALTH SERVICES CONT...

Indicator	Definition and Interpretation
6. Referral system	The existence, description, and utility of a comprehensive referral and counter-referral system The existence and use of a comprehensive referral and counter-referral system is one indicator of how well the health delivery system is integrated. Determine if referral and counter-referral protocols or guidelines exist, how well the protocols or guidelines are implemented, and what barriers there are to the effective functioning of this system. Key items to look for include referrals between the different levels of care within the public health sector as well as referrals and counter-referrals between public and private health sectors. This indicator can also be used in the discussion of quality of care as a proxy for continuity of care for patients in the health system.

TOPICAL AREA B: ACCESS TO HEALTH SERVICES

Overview

Service delivery access refers to the ability of a population to reach appropriate health services. Various factors limit access, including distance to point of service, lack of transportation, economic barriers, and cultural appropriateness.

Describing Access to Health Services

Following are suggestions on how to analyze and describe barriers to access care. One can assess the range of barriers by doing a secondary analysis of DHS data, such as:

- Compare access to services in rural vs. urban areas (distance)

- Compare access to health services in the public and private sectors (convenience, opportunity cost in transport and wages lost to travel to distant MOH provider compared to local private providers)

- Examine percentages of women with specific barriers in accessing health care (cultural)

In addition, community, household, or patient studies explore more fully the range of access barriers from a client perspective. Interviews with health care providers should also provide information and confirmation of such barriers.

Also use the stakeholder interviews to determine if policies and strategies to improve access to care are in place and how effective they are in improving access.

ACCESS TO HEALTH SERVICES

Indicator	Definition and Interpretation
7. Hours of operation for public and private health service providers	The proportion of the following services (immunization, TB, HIV, prenatal care, family planning, malaria, malnutrition) available at a sample of facilities and the facilities' days/hours of operation. Compare with the days/hours of operation at public, private, and NGO/FBO facilities. This indicator is measured as positive if all health facilities are supposed to offer a given service (e.g., immunizations) whenever the facility is open, which contributes to continuity of care. If the indicator measures "None," then note exactly how frequently (hours/days) the service is available, including any regional differences. Do this also for other priority services, such as prenatal care or HIV testing in high burden countries. This measure is a proxy for integration of services. Ideally, a client should be able to access all primary care services from any primary care provider at all times. Where services are not fully integrated, clients may have access to certain services only on certain days of the week. Also, compare and contrast hours of service for essential services (immunization, TB, HIV, prenatal care, family planning, malaria, malnutrition) at private and NGO/FBO facilities.
8. Percentage of people living within X kms of a health facility	[Number of people living within X km radius of health facilities]/[Population estimate] The distance to the facility is not specified so that you can make use of whatever data are available. For the proportion of the population that is not within 10 kilometers of any facility, how far are they? Inquire at the regional, facility, or program level whether outreach services are available for remote communities. If available, try to determine the frequency of outreach visits and which services are offered. A large percentage for this indicator suggests increased geographical access to services. Note the date of source information and whether known events have occurred since the survey. Other options include searching for household surveys that assess access to services. For instance, DHS (Measure DHS 2011) measure the percentage of women with specific problems in accessing health care for themselves; *distance to health facility* is an option (<http://www.measuredhs.com/>). Module Link: Module 3.6 medical products, vaccines, and technologies indicator 26 (distance from a pharmacy)
9. Financial access (select an indicator based on available data)	The following indicators were selected to provide insight into the degree to which financial access may be a barrier in the health services. Many of these indicators are in Module 3.3, Health Financing. • Out-of-pocket expenditure as percentage of THE. • Out-of-pocket spending as a percentage of private health spending (Country and Health System Overview module, Indicator 16) These outlays include household payments to public services, nonprofit institutions, or NGOs, and non-reimbursable cost sharing, deductibles, co-payments, and fees for service. Individuals' and households' out-of-pocket spending (on user fees for facility consults and purchase of related tests and medicines) that exceeds 60 percent of THE suggests limited government funding of health care and a potentially prohibitive financial barrier to accessing care. This is especially the case in lower-income countries, as well as with low-income groups, and thus is an issue of (vertical) equity. If total private spending is largely (more than 80 percent) out-of-pocket spending, it means relatively little other private spending (e.g., on private heath insurance) exists and individuals and households bear the full burden of private spending that fills the gap in government spending.

ACCESS TO HEALTH SERVICES CONT...

Indicator	Definition and Interpretation
10. User fee exemptions and waivers	State whether or not exemptions and/or waivers exist and if so, describe them. *Note:* Although fee exemption and waiver policies may exist for inpatient hospital care, this issue is raised primarily with respect to PHC services, especially priority services. For purposes of the rapid assessment, concentrate on PHC. User fee protection for vulnerable groups is usually in the form of (1) fee exemptions for all people in a specified socio-demographic category regardless of income (e.g., children under age five, students, elderly, military personnel, health care workers) or for specified services (e.g., immunizations, TB-DOTS, other chronic care); (2) fee waivers for those deemed unable to pay because of low income, regardless of the services they need; or (3) both. If no appropriate user fee protection mechanisms are in place for vulnerable groups, user fees may be a financial barrier to health care access. Fee waivers and exemptions can promote equity of financial access for these groups. They also can be used to promote use of services by priority population groups or people with conditions requiring follow-up or continual care. Waivers and exemptions must be administered well and accurately, however, and they must not erode the purpose of user fees in the first place (helping to pay for the quality and availability of health services in the public sector, especially when MOH budgets are constrained). For example, many countries establish official user fees and then provide exemptions and waivers that cover 80–90 percent of primary health care visits. Investigate whether formal criteria exist and have been promulgated for identifying patients who are eligible for fee exemptions or waiver – especially whether clear eligibility criteria exist for waivers for the poor (such criteria are often controversial and difficult to establish). Explore who actually benefits from exemptions and waivers, and for what services.

TOPICAL AREA C: COVERAGE, UTILIZATION, AND DEMAND FOR HEALTH SERVICES

Overview

Effective coverage refers to the proportion of the population in need of health services that actually received them. The utilization rate refers to the number of times per year the population uses health services. The utilization of health services represents effective access to health care, assumed to be the result of the interaction between supply and demand factors (Acuña, Gattini, Pinto, et al. 2001).

COVERAGE AND UTILIZATION OF HEALTH SERVICES

Indicator	Definition and Interpretation
11. Number of primary care or outpatient visits per person to health facilities per year	[Number of primary care or outpatient visits in a year]/[Total population] This indicator is a measure of PHC or outpatient utilization of health services. The Pan American Health Organization (PAHO) defines outpatient health care as any professional encounter or contact, as an act of health service, between a non-hospitalized individual and a health worker responsible for the evaluation, diagnosis, treatment, or referral of that person in that encounter (PAHO 2004). Make clear which health services are included in the indicator data you report – do the data include traditional medicine and the private for-profit, not-for-profit, or NGO sectors? Pharmacists? If data are available, please include these groups as well. Does the numerator include health post and health center visits as well as hospital outpatient visits? If overall utilization has been measured for different groups, report on this too, though PHC utilization is the most useful indicator in many developing countries. In most developing countries, a higher utilization rate of public sector health services (compared to the private sector) may be desirable, because it suggests access and a degree of trust in the public system, but to interpret this indicator, you will need to obtain a regional average. Obtain the data for previous years – what has been the trend (direction and duration)? If data are available for public and private health facilities separately, what can you infer about demand? If utilization of inpatient care is more relevant to the client's needs, the relevant indicator would be the number of hospital discharges per 1,000 inhabitants.
12. Antenatal care coverage, at least one visit (%)	The percentage of women aged 15–49 with a live birth in a given time period who received ANC provided by skilled health personnel (doctors, nurses, or midwives) at least once during pregnancy (WHO 2008). The proportion of women who had one or more ANC contact during their last pregnancy in the five years before the most recent survey conducted in that country, as well as the proportion of women who had four or more visits. This indicator shows utilization of reproductive health services for women, of which availability and accessibility are key components. If these rates are low, then access might be constrained because such services are not available, are not promoted, or are associated with high out-of-pocket expenditures (limiting the access to low-income households). Low utilization may also reflect weak demand for ANC. The DHS data permit secondary analysis including ANC by source (public, commercial, NGO/FBO).

COVERAGE AND UTILIZATION OF HEALTH SERVICES CONT...

Indicator	Definition and Interpretation
13. Births attended by skilled health staff (% of total)	Births attended by skilled health staff are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period; to conduct deliveries on their own; and to care for newborns (World Bank 2010). = [Number of women aged 15–49 attended during childbirth by skilled health personnel]/[Total number of women aged 15–49 surveyed with a birth in previous year] This indicator measures coverage as well as utilization. A skilled birth attendant is a licensed or certified health professional, such as a midwife, doctor, or nurse, who has been educated and trained to proficiency in (1) the skills needed to manage normal (uncomplicated) pregnancies, childbirth, and the immediate postnatal period, and (2) the identification, management, and referral of complications in women and newborns. Traditional birth attendants, trained or not, are excluded from the category. The indicator may be defined slightly differently, depending on the source. If data are not available, alternative indicators might be (1) the estimated proportion of pregnant women who had at least one prenatal visit, and (2) the proportion of deliveries taking place in health facilities, also available through Measure DHS (2011). The DHS can permit additional analyses including deliveries by source (public, commercial, NGO/FBO) and by income groups. As the point of contact with the women, health services statistics are the main and most obvious routine source of information for the numerator. Nevertheless, health service information used on its own constitutes a poor source of statistics on coverage of care because it is often incomplete due to inadequate reporting or exclusion of private sector information. Data from household surveys are also used. Census projections or, in some cases, vital registration data are used to provide the denominator (numbers of live births). Assess the trend and compare with the regional average. Explore with key informants and through document review whether supply or demand needs to be improved to increase utilization of skilled attendants. Consider validating these data in country at the MOH statistical or planning division that analyzes service delivery data.
14. Contraceptive prevalence (% of women aged 15–49)	Contraceptive prevalence rate is the percentage of women who are practicing, or whose sexual partners are practicing, any form of contraception. It is usually measured for married women ages 15–49 only (World Bank 2010). The measure indicates the extent of people's conscious efforts to control their fertility. Increased contraceptive prevalence is, in general, the single most important proximate determinant of inter-country differences in fertility and of ongoing fertility declines in developing countries. Contraceptive prevalence can also be regarded as an indirect indicator of progress in providing access to reproductive health services including family planning (one of the eight elements of PHC) (UNICEF 2001). DHS data also enable analysis of where women receive their family planning method – from public, private, or NGO/FBO provider.

COVERAGE AND UTILIZATION OF HEALTH SERVICES CONT...

Indicator	Definition and Interpretation
15. Unmet need for family planning	This includes unmet need for spacing and unmet need for limiting. It describes the proportion of women who are fecund, sexually active, but do not want a child for at least two years or ever, and who are not using any contraceptives methods. The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior. The indicator is useful for tracking progress toward the target of achieving universal access to reproductive health. Information on unmet need for family planning complements the indicator of contraceptive prevalence. The sum of contraceptive prevalence and unmet need provides the total demand for family planning. "This indicator measures the extent of unmet need for family planning at a particular time. When unmet need is measured in a comparable way at different dates, the trend indicates whether there has been progress toward meeting the need. It should be noted that, even when contraceptive prevalence is rising, unmet need for family planning may sometimes fail to decline, or may even increase. This can happen because the demand for family planning increases due to declines in the desired number of children. Changes in the desired spacing of births or changes in the percentage of women who are at risk of pregnancy can also influence the trend in demand for family planning, independently of trends in contraceptive prevalence." (UN Economic and Social Affairs Population Division Website: http://www.un.org/esa/population/publications/wcu2010/Metadata/UMN.html)
16. Percent of children under five with acute respiratory infection taken to a health facility	The number of children under five who were ill with cough and rapid breathing or a fever in the two weeks preceding the survey who were take to a health facility divided by the total number of children under five who were ill with cough and rapid breathing or a fever in the two weeks preceding the survey. This is an indicator of utilization of services by children. Using DHS data, also analyze where (e.g., public or private sector) the mother takes her child to receive treatment.
17. Diphtheria, tetanus toxoid and pertussis (DTP3) immunization coverage (percent) among one year-olds	The percentage of one-year-olds who have received three doses of the combined diphtheria, tetanus toxoid, and pertussis vaccine in a given year (WHO 2008). = [Number of 12–23-month-old children receiving DPT3 vaccine before first birthday] / [Total number of children aged 12–23 months surveyed] DPT coverage is often used as a proxy for health system performance, justified on the grounds that DPT3 requires three visits to a health care facility, thus allowing one to distinguish between contact and effective coverage. Vaccine coverage can also be considered a measure of health care utilization. Using DHS data, also analyze where the mother takes her child to be immunized. Assess the trend and compare it with the regional average. Are trends and levels similar to the percentage of births attended by skilled birth attendant? If these two indicators suggest very different utilization rates, consider other indicators of utilization, such as the average number of hospital discharges for 1,000 inhabitants, which focuses on inpatient health care services.
18. Percent of population tested for HIV, percent treated for STI, percent of population on ARVs [antiretroviral drugs]	The percentage of population tested for HIV, percentage treated for sexually transmitted infections (STIs,) on Antiretroviral (ARV) drugs. HIV/AIDS is a major challenge in many the countries. Whenever possible, use the AIS to present a snapshot of the availability and coverage of HIV/AIDS s prevention (testing), treatment (opportunistic infections and ARVs), care and support (orphans and vulnerable population, home-based care) The DHS and AIS permit further analysis of these population-based indicators. Suggested secondary analysis includes source of services (e.g., public, commercial, and NGO/FBO) and by gender.

CONSUMER KNOWLEDGE AND DEMAND

There are various indicators of utilization; among the most common are the number of outpatient visits per person per year and the number of hospital admissions per 100 persons per year, coverage of prenatal care, coverage of professional childbirth delivery, and coverage of immunizations (Acuña, Gattini, Pinto, et al. 2001). The DHS also provides data on the percentage of the population that is covered by specific health services (e.g., family planning, deliveries, immunizations). These indicators can be used as a proxy for demand.

The DHS and AIS include indicators on knowledge, attitudes and practices (KAP) for key health indicators. Secondary analysis of these data sets can complement these indicators by analyzing consumer provider preference (e.g., source – public, private, NGO/FBO) and developing consumer profiles for specific health services. It also can provide more nuanced analysis on consumers. Also, the team members can supplement the secondary analysis with stakeholder interviews that ask health providers about the type of consumer to whom they deliver services.

COVERAGE AND UTILIZATION OF HEALTH SERVICES CONT...

Indicator	Definition and Interpretation
19. Knowledge, attitudes and practices (KAP) regarding key health issues and services	KAP data are collected using a survey instrument. KAP survey data on key health issues (e.g., TB) can identify: knowledge gaps, cultural beliefs, or behavioral patterns that may facilitate understanding and action, information that is commonly known and attitudes that are commonly held. (WHO 2008;c) Useful KAP indicators can often be found in DHS survey reports. KAP indicators commonly found in DHS surveys include: • Treatment of symptoms for a child illness (i.e., acute respiratory infection, diarrhea, fever) • Knowledge of oral rehydration solution • Exposure to messages on malaria • Exclusive breastfeeding • Knowledge of HIV prevention methods If these data are available, select one or two indicators from list above that are relevant to your assessment. Where DHS survey information is not available or outdated, similar indicators can sometimes be found in UNICEF surveys or even more limited surveys conducted by donor-funded projects at provincial, district, or even community levels. Finally, if no quantitative data are available, interviews with key informants (health facility staff, CHWs, or community members) can provide qualitative information on KAP regarding key health issues and services. Low levels of KAP regarding key health issues and services indicate an important gap in the health system's ability to reach communities with essential health messages and to create demand for health services.
20. Consumer profiles	First analysis determines consumer preference for source of health care, for example, percentage of women of reproductive age accepting a modern family planning method at public, private, NGO/FBO services. Second analysis develops consumer profile by source of services. For example, the percentage of women who accept a modern family planning method in the public sector by age, income, education, and residence. The same analysis can be done for women who use the private sector for this service. Consumer preference surveys are used to test consumer preferences on aspects of care such as cost, distance, and privacy, to create a consumer profile. If consumer profiles or consumer preference survey data are available, they can be a used as a proxy for focus group data on the demand side (patients and communities) of service delivery. Consumer profiles will provide information on what types of care patients are seeking from the public vs. private sector and what factors influence patients' preferences.

TOPICAL AREA D: EQUITY IN THE DELIVERY OF HEALTH SERVICES

Overview

As described in Module 1.1, equity is a normative issue that refers to fairness in the allocation of resources or the treatment of outcomes among different individuals or groups. This assessment explores two aspects of equity: income and gender. In an ideal health system, poorer populations groups receive care in the public sector while wealthier ones access care in the private sector. However, World Bank research demonstrates that in fact, government services disproportionately benefit the middle and wealthier groups while large percentages of lower-income groups use their own resources to pay for services the private sector. Secondary analysis can show a percentage of who accesses specific health areas, such as delivery services, by source and by income quintile.

Gender is also an important equity issue, particularly in access to family planning methods and HIV/AIDS prevention and treatment. Research on family planning use demonstrates that household decisions makers – often male – influence whether a women accepts a family planning method. Moreover, because HIV/AIDS has become an increasingly young women's disease, it is important to examine whether women have equal if not greater access to HIV/AIDS prevention and care. DHS data disaggregated by gender can provide further insight if gender inequities exist in accessing health services.

COUNTRY STORY: KENYA

The Kenyan DHS showed that a larger percentage of wealthier women delivered in the public sector than poorer women who delivered in the private sector. The team of the Kenya Private Health Sector Assessment considered the factors that could lead poorer women to use the private sector when analyzing findings and developing recommendations for the government to leverage the private sector to meet its health objectives.

(Kenya National Bureau of Statistics and ICF Macro 2010)

Indicator	Definition and Interpretation
21. Percent of women vs percent of men who access HIV/AIDS test, STI treatment, etc.	[Disaggregate coverage rate of services by gender]/[Total population] In the interest of time, one can limit the gender analysis to key health areas where gender is a known constraint. Most common is family planning and HIV/AIDS prevention.
22. Percent of women who seek care for specific health intervention by source and income group	[Disaggregate coverage rate by source and by income group]/[Total population] This analysis is commonly done for attended deliveries, acceptance of modern family planning methods and treatment for diarrhea or cough. The results illustrate which income groups seek care in the public, private, or NGO/FBO, sectors. In one simple bar chart, the team can illustrate if the public sector is serving the upper groups more than the poorer group, raising questions of equity of care.

TOPICAL AREA E: QUALITY OF HEALTH SERVICES

Overview

To ensure the clinical quality of health services, health systems must define, communicate, and monitor the level of quality of care. This information is used by policymakers and providers to improve quality. Defining quality of care is often achieved by establishing national evidence-based standards, which represent an ideal of how clinical care should be implemented. Unfortunately, in many developing countries, the gap is wide between such standards and what is possible to implement at the facility level due to limited resources (e.g., lack of supplies and equipment). Even when resources are available, many providers may not have the time or motivation to implement new standards of care.

To help providers perform according to standards, policy documents need to be adapted into a practical form that providers can use, such as clinical guides or manuals, job aids, charts, forms, checklists, or posters. In addition, adherence to standards must be monitored to close the quality gap. Supervisors are instrumental in assuring quality of care by giving feedback on performance according to clinical standards. They usually assess the quality of care during site visits or from facility-level service delivery data and documentation. Consult the assessment team member responsible for Module 3.3, Health Financing, to see if he or she has found any example of provider payment mechanisms that reward quality.

TIP

DATA STRATEGIES TO ASSESS QUALITY

The data needed to analyze quality would ideally be nationwide data which, in most cases, are not available. The team member can use other approaches to collect data on quality:

- Contact client and/ or major donor to identify organizations that have focused on quality of care.
- Read and analyze key reports that focus on service delivery and quality assurance including background sections or situation analyses.
- Interview stakeholders involved in quality assurance (donors and their health project teams, WHO and other United Nations entities, professional organizations, medical or nursing schools, MOH staff responsible for quality assurance or licensing).

EQUITY IN THE DELIVERY OF HEALTH SERVICES

Indicators	Definition and Interpretation
23. Existence of national policies for promoting quality of care	This indicator states whether the country has national-level policy (e.g., written guidelines for course of action or other government documents) defining the government's role in promoting quality. Quality of care guidelines indicate, at a basic level, the degree to which quality of care is formally recognized as a government priority. Probing questions include: • What national structures (i.e., MOH divisions or departments) are defined to implement such policy? • How does those structures act – do they have a budget and an action plan (to define who will do what when)? • Who funds the quality assurance work? • What is the policy regarding the government role in ensuring quality in the private sector? How does the private sector assure quality within its own facilities? *Module link:* Human Resources for Health Module, Indicators 17–20 (training of human resources) and Medical Products, Vaccines, and Technologies Module Indicator 31 (pre- and in-service treatment guidelines)
24. Clinical standards adapted into a practical form that can be used at local level	Select two priority national clinical areas (e.g., of high morbidity or mortality) stated in policy documents or elicited in interviews with high-level health officials. For these two areas, investigate the existence of adaptations of clinical guides or manuals (e.g., pocket guides, memory or job aids, algorithms, flowcharts, forms, posters, checklists) that are developed for use on-the-job by the provider or supervisor. These tools facilitate adoption of clinical standards by providers and thus lower the barriers to change. In clinical areas in which updated national standards exist but poor quality of care persists, such tools are a first step toward improving quality of care. Site visits might also be an opportunity to ask **public and private providers** whether they have published guidelines and how useful or practical they find job aids.
25. Percent of primary care facilities that are adequately equipped	[Number of adequately equipped facilities]/[Total number of facilities] This indicator presumes that country standards dictate the minimum equipment that facilities at each level of care should have available and that an MOH division is responsible for monitoring the inventory of physical facilities. The standard should be obtained directly from the MOH division and may include specified infrastructure other than equipment (e.g., materials, electricity, running water, and laboratory services). Apply this standard **to both public and private** clinics visited during the assessment. *Module link:* Medical Products, Vaccines, and Technologies Module, Indicator 30 (national therapeutic and standard treatment guides) Adequately equipped facilities ensure that the full range of services is available to clients. The absence of such standards or a responsible MOH division indicates lack of management capacity of the system. • How does the condition of the facilities affect the availability of service delivery? • Consult with the pharmaceutics assessor: what proportion of facilities has adequate supplies of pharmaceuticals? • What proportion of facilities is adequately staffed (see Module 3.5, Human Resources for Health)? • What is the availability of telephones and other means of communication between levels of care? (This information will help to assess continuity of care later in this section.) • What is the availability of ambulances or other forms of transport between levels of care? (Again, this information will help to assess continuity of care later in this section.) • Explore why facilities are not adequately equipped. • How does the condition of facilities differ between public and private facilities?

EQUITY IN THE DELIVERY OF HEALTH SERVICES CONT...

Indicators	Definition and Interpretation
26. Existence of clinical supervision by district-level supervisor	Finding nationwide data on this indicator (such as the percentage of clinics that receive regular supervision and frequency and type) may be difficult, but the basic point is that, regardless of quality of supervision, it is a basic level of quality control. To ensure quality of care, the system must have the capacity to measure the current level of care against a defined level and to implement improvement when a quality gap is found. Supervision is often the most basic method a health delivery system has to monitor and regulate quality of care; the response to supervisor feedback would be a change leading to improvement. For most developing countries, the capacity of the district, provincial, or regional health authority in conducting supervision is key to sustaining quality care. How does the central level monitor whether this district-level oversight is being conducted? If the MOH has no method to do this, this signifies that a quality assurance system is lacking. Other questions to ask, include: • Who is responsible for clinical supervision of primary care facilities – central MOH? If so, which departments? If not, provincial authority? • Who is responsible for supervision and/or regulation of quality of care at private facilities? • Does each facility have a recognized *clinical* supervisor? • The quality and style of supervision can greatly influence the effectiveness of a supervision visit. Supervision visits that seem like an audit check or merely an opportunity for collecting service delivery data do not encourage the type of dialogue and feedback that help providers improve the quality of care. • How many trainings did supervisors receive on how to supervise in the last year? • To what degree is supervision integrated? Do supervisory teams conduct supervisions using a single supervision tool? • What is the frequency of supervision visits? Are they conducted each month or quarter? • Does a document formally define the content of supervision or method of supervision? If so, describe. Get a copy to be able to describe how supervision works. • How do supervisors stay up-to-date with new standards of care? • Does the supervise also visit private services in his/her region? *Module link:* Human Resources for Health Module, Indicator 9 (supervision)
27. Existence of other processes assuring quality of care besides supervision	Additional quality assurance processes exist, and can include formal or informal accreditation, continuous quality improvement teams, periodic health audits followed by improvement efforts, periodic client satisfaction surveys or suggestion boxes, or other processes in which quality of care is formally assessed and improved. It is useful to determine to what extent the private sector is included in quality assurance processes. Supervision is only one method of improving the quality of care. The previous two indicators have focused on the district level. This indicator is qualitative and designed to identify previous quality assurance efforts. Since the MOH in many developing countries does not have the manpower to oversee and visit private providers, an increasing number of professional associations are stepping in to fill this gap and are self-regulating. Also, provider networks and national health insurance schemes have become alternative methods for assuring quality, particularly in the private sector. If such processes exist, at what levels is quality assurance occurring (i.e., central, provincial, district, local)? Where (how broadly) are these processes implemented? What have been the results of such efforts from the point of view of different stakeholders? Probe for strategies that involve the community so that services offered meet community needs. Are assessments of client or community needs done regularly – for instance, a study that might assess where people choose to access health services first (e.g., traditional doctors or midwives, pharmacies, private providers, public providers)? If yes, what do the findings indicate? How is supervision of private sector actors handled? Are there regular facility inspections or other requirements to ensure quality of care in private facilities? *Module link:* Human Resources for Health Module, Indicator 7 (enabling environment for health workers); Leadership and Governance Module, Indicator 14 (financial incentives for quality care)

TOPICAL AREA F: HEALTH SERVICES OUTCOMES

Overview

Up to this point, the analysis has focused on performance criteria – access, equity, efficiency, quality, and sustainability. Now the team focuses on the system outcomes as measured by population-based health impact indicators.

HEALTH SERVICES OUTCOMES

Indicator	Definition and Interpretation
28. Life expectancy at birth, total (years)	Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life (World Bank 2010). Life expectancy at birth is also a measure of overall health status of the population and the quality of life in a country.
29. Mortality rate, infant (per 1,000 live births)	Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year (World Bank 2010). Infant mortality rate is a measure of overall quality of life in a country. It can also show the accessibility and availability of prenatal and postnatal care.
30. Maternal mortality rate (per 100,000 live births)	The number of maternal deaths that occur during pregnancy and childbirth per 100,000 live births. It is a measure of the likelihood that a pregnant woman will die from maternal causes. This indicator is a measure of the availability and accessibility of reproductive health services, particularly of the extent of use of modern delivery care.
31. HIV prevalence among people aged 15–49	Percentage of people aged 15-49 who are HIV infected (Measure DHS 2011). A high prevalence of HIV/AIDS indicates a high burden on the health care system (for example, in terms of infrastructure, staff, and financing needs).
32. Diarrhea prevalence	Percentage of children under five with diarrhea in the two weeks preceding the survey. The incidence of diarrheal infections demonstrates the likelihood of poor nutrition status among children in the country (due to decreased absorption of nutrients during illness and recovery period). It is more likely to be fatal in children under three years old and the frequency of occurrences decreases with age.
33. Diarrhea treatment	Percentage of children under five with diarrhea in the two weeks preceding the survey who received oral rehydration solution Treatment with oral rehydration solution shows both the awareness of parents and health care workers of simple but effective treatment methods. It also increases the likelihood of the child's survival.

4.4 SUMMARIZING FINDINGS AND DEVELOPING RECOMMENDATIONS

Section 2, Module 4, describes the process that the HSA team will use to synthesize and integrate findings and prioritize recommendations across modules. To prepare for this team effort, each team member must analyze the data collected for his or her module(s) to distill findings and propose potential interventions. Each module assessor should be able to present findings and conclusions for his or her module(s), first to other members of the team and eventually in the assessment report (see Annex 2.1.C for a suggested outline for the report). This process is iterative; findings and conclusions from other modules will contribute to sharpening and prioritizing overall findings and recommendations. Below are some generic methods for summarizing findings and developing potential interventions for this module.

ANALYZING DATA AND SUMMARIZING FINDINGS

Table 3.4.3 provides an easy way to summarize and group findings. (This process is part of Step 4 for summarizing findings as described in Module 2.4.) It organizes each building block module by topical area. Rows can be added to the table if additional areas are needed to accommodate the HSA country context. In anticipation of working with other team members to put findings in the SWOT framework, each finding should be labeled as an S, W, O, or T (See Section 2 Module 4, for explanation of the SWOT framework). The "Comments" column is used to highlight links to other modules and possible impact on health system performance in terms of equity, efficiency, access, quality, and sustainability. Examples of system impacts on performance criteria are summarized in Annex 2.4.A. Additional guidance on which indicators address each of the WHO performance criteria is included in Table 3.4.5. In countries with a sizeable private sector, a separate SWOT framework examining the private sector could be prepared.

TABLE 3.4.3 TEMPLATE: INDICATOR FINDINGS—HEALTH SERVICE DELIVERY

Indicator or Topical Area	Findings (Designate as S=strength, W=weakness, O=opportunity, T=threat.)	Source(s) (List specific documents, interviews, and other materials.)	Comments[a]

[a] List impact with respect to the five health systems performance criteria (equity, efficiency, access, quality, and sustainability) and list any links to other modules.

In some cases, it may be helpful to create your own subheadings – in addition to or in place of the topical areas – to organize the Service Delivery chapter write-up. Subheadings that have been used in past assessments include:

- Mapping of entire health sector's health services – public and private

- Organization of MOH

- Health facilities – public and private

- Services provided – public and private

- Coverage – overall and by source

- Utilization by public and private sectors, use by source and income groups

- Quality by public and private providers

- Referral systems within public system and between public and private sectors

To summarize the findings, an alternative to Table 3.4.3 is shown as Table 3.4.4, where the performance criteria are used to develop the SWOT analysis. The SWOT rows may also be combined into two rows: strengths/opportunities and weaknesses/threats.

TABLE 3.4.4: ILLUSTRATIVE PRESENTATION OF SUMMARY OF FINDINGS

	Equity	Access	Efficiency	Quality	Sustainability
Strengths and opportunities	Renewed commitment to primary care and integrated services in national strategy	Improvement in infrastructure (new health facilities and roads)	Information from allows for informed planning and decision making	Clinical guidelines developed Promising pilot experiences for quality improvement	Improvement in infrastructure (new health facilities and roads)
		Partnerships with private pharmacies and clinics can help improve access to medicines and services in an efficient way			
Weaknesses and threats	Lack of clarity on how integration should work at provincial and central levels			Clinical guidelines not disseminated or used Lack of institutionalized quality assurance mechanisms	
	Lack of basic equipment to provide essential health services				

TABLE 3.4.5 LIST OF SUGGESTED SERVICE DELIVERY INDICTORS ADDRESSING THE KEY HEALTH SYSTEM PERFORMANCE CRITERIA

Performance Criteria	Suggested Indicators for Service Delivery
Equity	Percentage of births attended by skilled health personnel per year (If possible, disaggregated by wealth quintile)
Access	Hours of services Km to nearest facility
Quality	Existence of adaptation of clinical standards into a practical form that can be used at local level.

DEVELOPING RECOMMENDATIONS

After summarizing findings, it is time to synthesize findings across chapters and develop recommendations for health systems interventions. In developing recommendations, team members should consider best practices used in other countries in the region to address problems similar to those identified in this assessment. It is useful to group recommendations into short-term and long-term solutions, or interventions that are relatively easy versus more challenging to implement in the context of this country.

Section 2, Module 4, suggests a generic approach that the HSA team can use for synthesizing findings across building block topics and for crafting recommendations. This subsection focuses on common service delivery interventions to consider in developing recommendations; Table 3.4.6 lists the interventions.

As much as possible, make conclusions about service delivery findings within the first week of the assessment so that findings can be validated with interviewees. Organize this section by topical area unless another organizational structure is clearly preferable. One approach may be to start from the end, in other words, to identify service delivery outputs and outcomes that point to weakest areas in the service delivery system. Are the weaknesses due to key system inputs that tend to be in short supply? In the context of the given country, what key areas of improvement would be feasible?

TABLE 3.4.6 ILLUSTRATIVE RECOMMENDATIONS FOR SERVICE DELIVERY ISSUES

Health System Gap	Possible Interventions
	System performance criteria: Increase access to critical health services
Limited access to public or private health facilities in rural/remote areas	• Organize community transportation; rotating community clinics. • Coordinate and share clinical responsibilities with community midwives, traditional healers, and community health workers. • Seek collaborative partnerships with private sector (for-profit, NGOs, church, pharmacies) to serve more people. • Explore partnerships with commercial entities operating in remote areas.
Financial barriers to access	Develop vouchers to specific health interventions (e.g., deliveries, family planning, HIV testing) to allow a consumer to seek care at either a public and/or private provider; supplement voucher with reimbursement of transportation costs for both patient and family member. Create some form of risk pooling mechanism (see Module 3.3, Health Finance).

Table 3.4.6 Illustrative Recommendations for Service Delivery Issues cont...

Health System Gap	Possible Interventions
System performance criteria: Improve equity of health services	
Scarce public resources subsidizing middle- and upper-income groups	Create market incentives (e.g., vouchers, sliding scale fees, charging full cost for those who can pay) to "pull" in lower-income groups and "push" out upper-income groups.
System performance criteria: Improve quality of health services	
Missing key laws and/or health acts to create institutional framework supporting quality	Many countries have not updated their health acts recently. Revise and update health law and acts to reflect changes in health system, including presence of new health actors delivering health care, new technologies, and new financing mechanisms. The vast majority of countries have health regarding human resources. However, many do not have health acts governing the auxiliary health cadres such as clinical officers, nurse assistants, pharmacist aides, and lab assistants. Encourage drafting health acts and harmonizing them with existing ones.
Non-existence and/or out-of-date clinical standards of care	Update and revise clinical standards according to evidence-based practices involving all types of health care providers (public, private, NGO/FBOs). Widely disseminate and train providers – public and private – in new clinical standards.
Limited capacity to enforce quality standards Weak institutional framework Private providers unregulated and supervised	Strengthen health councils'/boards' capacity to allocate more funds so they can monitor the health profession, inspect facilities, and sanction providers as needed. Review scopes of practice for each health profession to clarify areas of overlap between cadres (e.g., doctors and nurses) and eliminate inconsistencies between sectors (e.g., public nurses have expanded scopes of practice but private nurses with similar skills are not allowed to perform same tasks). Streamline professional and facility licensing processes.
System performance criteria: Improve quality of health services cont.	
Poor clinical skills among both public and private providers	Improve quality (i.e., adherence to clinical standards) in a selected clinical domain using facility-level quality improvement teams working as a collaborative. Expand model to select number of private facilities in underserved geographic areas. Introduce/strengthen supportive supervision at the intermediate (district) level. Funding permitting, include supervision of private sector entities. Involve private provider association in public sector initiatives to improve clinical skills so that the associations can transfer same knowledge and training to private providers.
Lack of incentives motivating providers to deliver quality services	Institute a "pay for performance" incentive system that rewards public and private facilities for improved quality of services. Institute annual continuing medical education requirements and periodic re-licensure for all health professionals, private and public. Institute a (formal or informal) accreditation system that recognizes other incentives for a minimum level of quality of services.
System performance criteria: Improve efficiency of critical health services	
Duplication of services and equipment	Institute certificate of need policy requiring the MOH to first determine if there are any qualified health care providers and/or needed equipment (e.g., MRI, CAT scan, dialysis machines, laboratory facilities) in a geographic area before authorizing building a new facility and/or procuring new equipment. Explore mechanisms, such as contracting, subsidies, tax breaks, or nonfinancial incentives, to encourage private sector providers to deliver specific health services at affordable prices to target population groups. Establish alliances with private providers or employers to encourage private support/provision of specific health services (such as immunization).
Limited scopes of practice for key health personnel	To address scare human resource in health, particularly limited numbers of physicians, many countries are "liberalizing" the scope of practice for certain health cadres such as nurse, midwives, clinical officers, pharmacy assistants, to perform basic tasks that do not require a physician. Recommend liberalizing scopes of practice for both public and private sector health cadre to perform certain functions needed in critical health services.

4.5 ASSESSMENT REPORT CHECKLIST: SERVICE DELIVERY CHAPTER

❑ **Profile of Country Health Service Delivery**

A. Overview of Service Delivery

B. Create service delivery profile, including descriptions of:

    a.   Inputs

    b.   Processes

    c.   Outputs

❑ **Service Delivery Assessment Indicators**

A.   Organization of health services

B.   Access to health services

C.   Coverage and utilization of health services

D.   Equity in delivery of health services

E.   Quality of health services

F.   Health services outcomes

❑ **Summary of Findings and Recommendations**

A.   Presentation of findings

B.   Recommendations