

SECTION 3: GUIDANCE ON ASSESSMENT OF THE HEALTH SYSTEM AND ITS CORE FUNCTIONS

MODULE 3: HUMAN RESOURCES FOR HEALTH

This module presents a framework for human resources for health and outlines specific indicators to measure to understand the strengths and weaknesses of a country's workforce capacity and the enabling environment.

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ACRONYMS

CHW	Community Health Workers
FBO	Faith-Based Organization
HRH	Human Resources for Health
HRIS	Human Resource Information System
HRM	Human Resources Management
ILO	International Labour Organization
MOE	Ministry of Education
MOF	Ministry of Finance
MOH	Ministry of Health
NHA	National Health Account
NHWA	National Health Workforce Account
PMI	Private Medical Institutions
PSE	Preservice Education
SWOT	Strengths, Weaknesses, Opportunities, and Threats

I. INTRODUCTION

Health systems can only function with health workers; improving health service coverage and health outcomes is dependent on the availability, accessibility, and capacity to deliver quality services of those health workers. Mere availability of health workers is not sufficient: Only when they are equitably distributed and accessible to the population, when they possess the required competency and are enabled to deliver quality care in line with community expectations, can raw numbers of providers translate into effective service delivery. Health priorities of the post-2015 agenda for sustainable development—to achieve universal health care by 2030, including Ending Preventable Maternal and Child Deaths (EPCMD), ending HIV and AIDS, and guaranteeing universal health care—will not be achieved without transformative changes in health workforce capability. This requires a skilled, trained, and supported health workforce (WHO January 2016).

This module reviews the fundamentals of Human Resources for Health (HRH), presents indicators to measure health system performance, and describes what to include in the HSA report's chapter for this topic. When assessing a country's HRH, one must consider both the government and nongovernment sectors, including not-for-profit and for-profit training institutions, health care facilities, and health care providers. Often, government does not collect and/or include private sector data in its HRH planning. This means that its estimates of future HRH requirements or plans to scale up service provision through increased employment or service expansion do not take into account private HRH. In most countries, the private sector has become a prominent producer, distributor, and employer of the health care workforce and, thus, an important element to describe in the HRH assessment.

This module presents the HRH core health system function of the HSAA Manual.

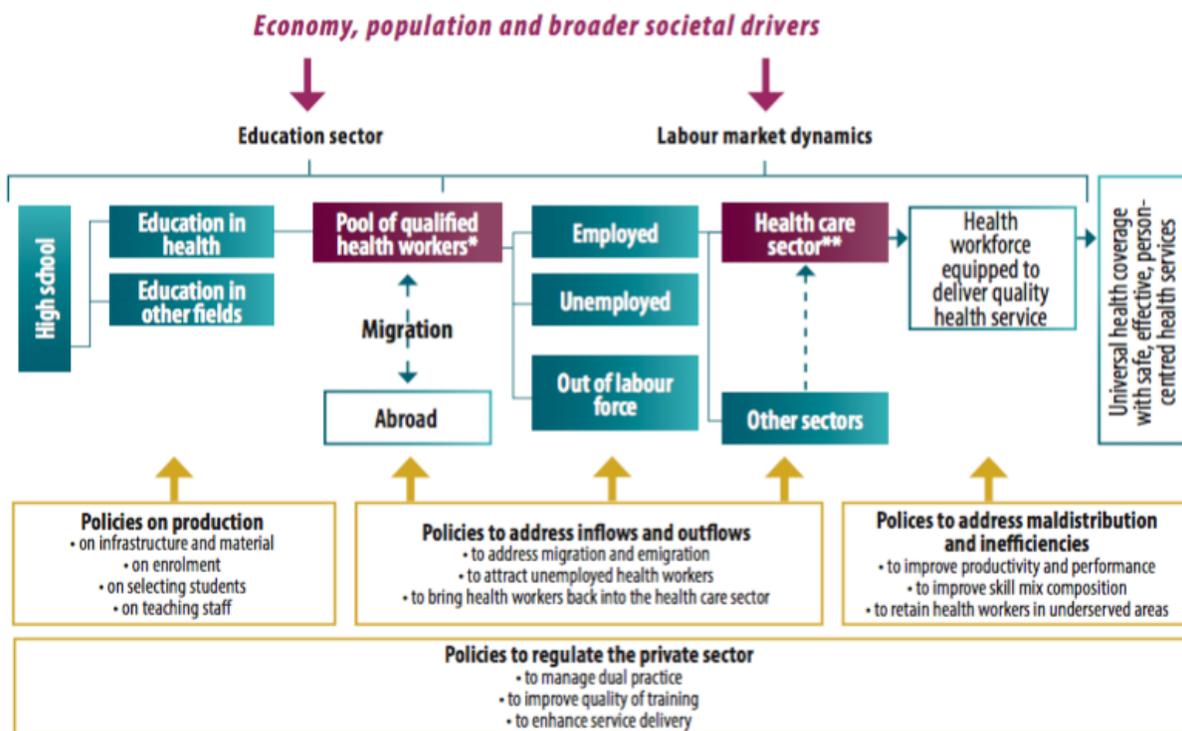
- Subsection 3.1 defines the HRH core function and its key components.
- Subsection 3.2 provides guidelines on preparing a profile of HRH in the HSA country.
- Subsection 3.3 presents the indicators to assess the system and country capabilities.
- Subsection 3.4 details the process for summarizing findings and developing recommendations.
- Subsection 3.5 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.

2. WHAT IS HUMAN RESOURCES FOR HEALTH?

The *World Health Report 2006* defines HRH, or the health workforce, as “all people engaged in actions whose primary intent is to enhance health.” According to WHO, this includes “those who promote and preserve health as well as those who diagnose and treat disease. Also included are health management and support workers—those who help make the health system function but who do not provide health services directly.” For example, health educators, such as nurse tutors, are part of HRH. WHO’s 2016 *Global Strategy for Human Resources for Health* further refines the definition as “...not only the better known cadres of midwives, nurses and physicians, but all health workers, from community to specialist levels, including but not limited to: community-based and mid-level practitioners, dentists and oral health professionals, hearing care and eye care workers, laboratory technicians, pharmacists, physical therapists and chiropractors, public health professionals and health managers, supply chain managers, and other allied health professions and support workers.” In some countries, community health workers (CHWs) have become a significant proportion of the overall health care workforce. It is important to include these CHWs in the HRH assessment in order to fully describe the HRH capacity.

WHO recommends that country governments engage in a multisectoral and participatory process to create an enabling environment for effective human resources management (HRM). *Global Strategy for Human Resources for Health* describes a useful health labor market framework of the health workforce inputs, outputs, outcomes, and policy levers that can be used to shape the health workforce (see Figure 3.3.1).

Figure 3.3.1. Health Labor Market Framework



*Supply of health workers= pool of qualified health workers willing to work in the health-care sector.

**Demand of health workers= public and private institutions that constitute the health-care sector.

Source: Sousa A, Scheffler M R, Nyoni J, Boerma T "A comprehensive health labour market framework for universal health coverage" Bull World Health Organ 2013;91:892– 894.

* Supply of health workers = pool of qualified health workers willing to work in the health care sector.

**Demand of health workers = public and private institutions that constitute health care sector.

Source: Sousa et al. 2013.

3. DEVELOPING A PROFILE OF HUMAN RESOURCES FOR HEALTH

To give the overall HSA team and country stakeholders an overview of the institutions and functions of HRH in the health system, the technical team member responsible for HRH will develop a profile of the human resources component across public and private sectors. HRH analysis and planning should not be conducted in isolation. Instead, it needs to be placed in the context of and linked with broader health sector planning.

A comprehensive profile includes the following components:

Policy and Health System Environment

- Factors that determine workforce requirements, including epidemiologic and population characteristics, national health policies, health system structure, and health service requirements.
- Legislative, policy, institutional, and regulatory environment for HRH governance and management, including factors that affect the need for or use of HRH (e.g., HIV, noncommunicable disease policies, policies on task shifting, prescribing).
- The available resource envelope (from domestic—both public and private—and international resources) for HRH, including resources available for scale-up of HRH production or initiatives (Note: analysis should be done in conjunction with Health Financing module).
- Current staffing norms—are cadres allowed to practice within the potential full scope of their profession? For example, are midwives authorized and trained to deliver basic emergency obstetric and newborn care? Are there opportunities for a more sustainable and cost-effective skills mix?
- Professional associations—how strong are the associations? For which professions are associations available? What percentage of the workforce is registered with an association?

Current Labor Force and Pipeline

- The skills mix, by cadre, and different specialists as appropriate. Consider the community-based workforce as well.
- The current labor force of qualified health workers that are 1) employed in the health sector, 2) employed in another sector, and 3) unemployed. The labor force should be disaggregated by cadre, geographic location, and sector (public, private, and NGO) and compared to the population.
- The number and type of funded vacancies that have not been filled in the last six months or more. Compare the employment rate in the health sector to other sectors.
- Health education, including the numbers and kinds of students in training, the output of professional education and vocational training institutions; the capacity and geographical distribution of educational institutions and education regulation; and financing for education, including the cost of education per graduate and funding sources.
- In-service training for capacity development, including professional council requirements, providers and cost of training, types of trainings offered, and numbers of health workers undergoing training.

- Health labor market dynamics, including locations from which health workers are entering the labor force, exits via any means (retirement, death, emigration, other voluntary exits), and the age demographics of the health workers.
- Employment characteristics and working conditions in the public and private sectors, including the median wages by cadre. Compare median wages to other sectors using International Labour Organization (ILO) data if possible.

Human Resource Management

- HRH information systems and health workforce planning. Does the country have a national workforce registry, a health workforce observatory, and/or a National Health Workforce Account (NHWA) or related mechanism? What types of information systems do they use, and how accurate is the information? How is planning conducted?
- Health workforce spending and remuneration, including remuneration levels in public and private sectors (identified through national pay scales and salary surveys); and if available, evidence on income opportunities for health workers in urban and rural areas (including through dual practice). Developing a map of HRH spending by cadre, location, and public versus private sector can be helpful. If a recent National Health Account (NHA) is available, such financial data will be invaluable.
- HRH management systems, including the criteria and mechanisms for recruitment, assignment, transfer, promotion of health workers, payroll management, and quality control.
- Performance and productivity. How many units of service delivery per provider are provided, and to what extent do services meet clinical standards and are acceptable to clients?

The following approach can guide the HRH assessment:

- Review existing documents (Annex 2.3.A provides a country example of background documents that can be reviewed) for information, including:
 - The existing government HRH strategic plan and/or HRH elements in the national health strategy/plan. Determine when it was produced and last updated and whether it includes plans for HRH in all sectors.
 - Examine the broader policy environment as reflected by national poverty reduction strategy, midterm expenditure framework, and broader national development strategies.
 - Obtain organizational charts of the Ministry of Health (MOH) at central, regional, and district levels to ascertain where human resources fit into the larger system.
 - Review NHWA, if available.
 - Review a recent NHA, if available.
 - Review HRH assessments that have been completed recently (within five years).

TIP BOX

CONDUCTING THE ASSESSMENT

- Select ONLY indicators that apply to the specific country situation.
- Conduct a thorough desk review of all available secondary data sources before arriving in-country.
- Stakeholder interviews should focus on filling information gaps and clarifying issues.
- Coordinate stakeholder interviews with team members so all six modules are covered and avoid interviewing the same stakeholder twice.
- Look at all health actors—public, for-profit and not-for-profit—involved in delivering health services.
- Tailor the interview questions to each level of decentralization so they are relevant to the interviewee.
- Schedule team discussions in-country to discuss crosscutting issues and interactions.
- Finalize an outline for the assessment report early on so sections can be written in-country.

- Verify whether the HRH plan or HRH element in national health policy/strategy is linked to the national budgeting process and has legal standing.
- Review the MOH's human resources establishment register or Human Resource Information System (HRIS), to find information on the number of health workers, degrees, diplomas, graduation, deployment, and licensure. These documents may be at either the national or regional level and may be managed by the health professional regulatory bodies or internal offices within the MOH.
 - Where they exist, national registries of commercial for-profit and/or nonprofit service providers can provide useful estimates of HRH available across the sectors.
- Seek data from professional provider associations or other private sector entities for augmenting or cross-referencing.
- Prepare lists or tables that capture and synthesize key elements of the HRH system, for example, categories, numbers, and distribution of health workers and levels of authority for key human resources functions at various levels within the system.

3.1. Decentralization and Human Resources for Health

In many countries, policymaking is at the central level; however, in others the states or provinces may make some of their own policy decisions. In countries where policy is made at the national level, most other functions are managed at a lower level; district/subnational/provincial health managers, autonomous hospitals, and large municipalities often have their own HRM structures. Although most HRM functions for health may be housed in the MOH, others may be run out of the Ministry of Education (MOE), the Ministry of Labor or Civil Service, local government, the military, or others. Annex 3.1.A provides a template that can be filled in to reflect the level of decentralization of a health system and indicate at what level in the health system key functions of HRH are performed.

In creating the HRH profile, describe:

- The relationships among various HRH functions and how integrated or fragmented they are across the entire health system.
- The level of authority and financial autonomy at all levels of the health system over personnel decisions, including hiring, firing, disciplining, promoting, and deploying workers (e.g., which level can execute rewards and incentives or initiate disciplinary action to influence performance).

4. ASSESSMENT INDICATOR OVERVIEW

This section focuses on HRH indicators—it shows the topics into which the indicators are grouped, lists data sources to inform the indicators, discusses how to deal with indicators that overlap with other core health system modules, defines the indicators, and, in the “Interpretation” and “Issues to Explore” subsections, shows how to work with them.

4.1. Topics

The indicators in this module are grouped into five topics listed in Table 3.3.1 and present a minimum data set that you should gather when assessing HRH. It lists the NHWA topics and the numbers of the indicators associated with each area. The framework is based upon a selection of indicators from the 90 presented in the NHWA. If conducting the HSA in a country where the NHWA process is complete or underway, it will provide the basis for the HRH module, with only confirmatory interviews needed.

Table 3.3.1. Indicator Map: Human Resources for Health

Topics	Indicator Numbers
Active health workforce stock	1–3
HRH education	4–7
Labor market	8–12
Serving population health needs	13–17
HRH policy	18–20

4.2. Data sources

There are three important sources to help team members assess and analyze HRH systems. They are organized into three main categories:

1. Databases: Data are drawn mainly from existing and publically available databases.

The most important data source, if available, is HRIS.

The most useful analysis, if available, is NHWA.

Other useful databases in-country:

- Payroll database—usually with Ministry of Finance (MOF)—access is usually tightly controlled.
- Public service database information, including establishment, payroll, personnel regulations, schemes of service, and job descriptions (typically housed in the Ministry of Civil Service or Public Service or similar).
- MOE databases for health education inductees, graduates (gender, skill mix, location, posting).
- Professional councils and association databases, such as those from nursing councils and medical boards. Each profession typically has a governing council that sets criteria for licensure, continuing education (if any), and emigration documentation.

2. Secondary sources: desk review of policies, studies, reports, forms, and other documents.

- NHAs, especially those done in the last five years.
- WHO country website, especially HRH observatory, if available.
- World Bank country profile and fact sheets.
- Previous HRH assessments.

- HRH section of latest demographic and health survey.
- National health strategic plans (should be the prime source for documenting national statistics, policies, and strategies, and required), current and previous editions.
- National HRH strategic plans (should be the prime source for documenting national statistics, policies, and strategies, and required), current and previous editions.
- HRH section of national health budgets.
- PEPFAR and SPA data.
- Existing wage and salary studies.
- ILO database.

3. Stakeholder interviews: The document review should be complemented—and any information gaps completed—during discussions and interviews with key informants and local stakeholders. In addition, which stakeholders are selected to interview depends on many factors, such as:

- Is there a centralized HRH function?
- Does this function reside in the MOH or in another ministry?
- Is this a centralized or decentralized system?
- Who are the additional stakeholders and sources? Private sector? Professional associations? Donors? Academic institutions?

Crosschecking gathered information is an important step for determining appropriate and consistent answers. For example, if the managerial-level respondents say that employees are aware of HRH policies, speak with those employees to confirm this information. Annex 2.3.D presents a country example of discussion guides for the subnational level.

In a centralized system, much of the information for this chapter can be obtained by interviewing a human resources manager. In a decentralized system, these data may be found at district levels or in some cases at local levels.

TIP: INTERVIEWING HEALTH WORKERS

Although the list of stakeholders to interview is long, it is critical to interview health workers themselves, where possible. Allow sufficient time during the assessment trip to include health worker interviews. An efficient way to capture health workers' perspective is to organize focus groups.

- MOH HRIS database administrator.
- MOH staff responsible for the training, deployment, practice standards, and monitoring of health care workers—staff may be in departments of medical services, public health services, human resources and human development, and planning and financing.
- MOE staff responsible for health worker preservice education (PSE), including establishing or monitoring health professional degree programs.
- Staff responsible for developing or overseeing professional curriculum and training in universities or other colleges and institutions.
- Chief medical or nursing officers.
- Senior administrators (deans, department chairs) at national or local universities with medical, nursing, or other health professional training programs under the jurisdiction of the MOE.
- Senior administrators of nonuniversity-based public and private training institutions not managed by the MOE, including colleges and training institutions that graduate degree and diploma nurses, clinical officers, and laboratory and health management staff. Most of these institutions will be under the jurisdiction of the MOH.
- MOF payroll clerks.
- Private health facility staff, including faith-based facilities.

- Health professional councils or regulatory bodies (physician, allied health, nursing, pharmacy, and others) and professional associations representing health care workers. Include interviews with the executive director, other senior staff, and staff responsible for information and databases.
- In-country U.S. government stakeholders engaged in HRH.
- WHO health systems, health planning, or HRH focal points.
- Global Fund HRH or HSS technical advisors (likely not represented in-country) or in-country staff.
- Other development partners that have a substantive role in funding HRH activities in the country, such as the World Bank, regional development banks, and bilateral or multilateral development partners.
- Depending on time available, you can also choose to do key informant interviews, focus group discussions, and observations with a representative range of stakeholders from among the following:
 - Faculty from training institutions
 - Students enrolled in training programs
 - Health workers representing a range of providers: physician, clinical officer, nurse, midwives, and CHWs
 - Other government agencies with human resources roles and mandates, e.g., ministries of public service, education, finance, and local government
 - Youth empowerment/employment programs to assess interest in the health sector and barriers to entry

The following sections provide an overview of each topic, sources for data collection, descriptions about each indicator, and ways to interpret the information.

4.3. Topic A: Active health workforce stock

Overview

Topic A takes stock of how many health workers there are in a country (both public and private), what type of worker (e.g., physicians, nurses and midwifery personnel, dentistry personnel, pharmaceutical personnel, laboratory health workers, environmental and public health workers, community and traditional health workers, other health service providers, health management and support workers), and where they are allocated to work geographically.

Health workforce stock is often measured as a proxy for how well the health system is working, as it shows the outcome of all policies, strategies, interventions, and other efforts. For example, the number of health care workers, as well as ratios per population, will help judge whether the country has an adequate number of HRH and, if not, the severity of the HRH situation. It will also allow quick comparisons to other countries. Disaggregating these statistics supports the description of the allocation of specific providers across the various levels within the delivery system and the distribution of providers between geographic boundaries (rural/urban). The distribution figures are perhaps more important than overall numbers because they show geographic areas, HRH cadres, and service delivery levels where HRH is inadequate. For example, Bangladesh has a large surplus of doctors and a drastic shortage of nurses (World Bank 2009). In Sierra Leone, physician density near Freetown, the capital city, is more than double the density in rural areas, where two-thirds of the population live (Haja et al. 2016).

Table 3.3.2. Active Health Workforce Stock

Indicator	Definition and Interpretation
<p>1. Density: Health worker density per 1000 population per cadre, by gender</p>	<p>This indicator considers:</p> <ul style="list-style-type: none"> • Ratio of health cadres per 1,000 people • Total number of physicians • Total number of nurses • Total number of midwives • Total number of pharmacists • Total number of laboratory technicians <p>The number of health care providers, by cadre, is the raw material upon which all other statistics will be based. WHO gathers and presents statistics on the number of health care workers per 1,000 population, which allows easy comparisons between countries in a region and between areas within a country. The country comparison data can be presented in a table; the table can include a column for the WHO-recommended workforce number for the HSA country (e.g., 2.28 total health care workers per 1,000 population and disaggregated threshold of 0.55 doctors and 1.73 nurses and midwives), so that overall adequacy of the workforce is easy to judge. Note: While population ratios provide a handy comparator, additional factors such as population density and trends over time may help or exacerbate HRH access issues. Probe for these factors in the interviews and present them in the text that accompanies the tables.</p> <p>It is easy to collect by cadre the number of HRH who work in the public sector, and in many countries MOH statistics include HRH in the NGO/faith-based organization (FBO) sectors. But finding the number of HRH who work in the private sector usually requires some investigation. The place to start is with professional council licensure registries; private providers are normally licensed, although the registries do not indicate public or private status. A second source is professional association member registries, which often do indicate public or private status. You can “guessestimate” the number of private providers by extrapolating from the above numbers. Finally, telephone books list almost all legitimate private providers; these listings can be cross-referenced with council and association registries. Taking the time to collect the total number of health professionals by sector is critical to helping the MOH understand how many providers work in the overall health sector, where are they located, and how they can be mobilized to help address some of the HRH gaps. These gaps can be shown in a table or pie chart.</p> <p>Module Link: Module 2—Service Delivery Indicator (health worker density and distribution per 1000)</p>
<p>2. Geographical distribution: health worker density per 1000 population per cadre, subnational districts (NHWA 01_02)</p>	<p>This indicator considers:</p> <ul style="list-style-type: none"> • Ratio of health care workers by cadre and by geographic area. • If possible, break out geographic distribution by cadre and sector. • Percent staff deficit, disaggregated by geography (ILO will have data). <p>Use MOH and other HRH data sources to examine HRH distribution by: (1) geopolitical boundaries, (2) urban/rural split, and (3) service delivery level, including the number of CHWs (probably not attached to any level of facility). This will reveal any inequities in service coverage. It may be helpful to present these data in four adjoining tables.</p>

Indicator	Definition and Interpretation
3. Trends for the past five years	<p>This indicator considers:</p> <ul style="list-style-type: none"> • Ratio of health professionals by population over time. • Total numbers by cadre and sector over time. • Ratio of health care worker by geographic area over time. <p>Present the client and other country stakeholders with evidence about whether the HRH situation is getting better or worse for as many years as there are data available. Where possible, disaggregate the historical data by cadre. Again, this information should be presented in graphical form; for example, historical data by cadre can typically be presented on one graph, using different shapes to present the data points for each cadre. If the resulting graph is too busy and therefore unclear, present individual graphs.</p>

4.4. Topic B: Human resources for health education

Overview

Education refers to the process of producing qualified health professionals and paraprofessionals to address service delivery needs. PSE is the formative training of a health professional through a recognized, and often accredited, training institution: nursing school for nurses and medical school for physicians. In-service training is important for staff to acquire new skills, especially when they need to gain new skills or competencies due to changes in practice standards or new roles and responsibilities. Both are key to a strong human resource workforce.

Upon graduation from a training institution, health professionals may be able to pursue ongoing training through specialty programs or continuing medical or nursing training through in-service programs. PSE usually represents the largest method of increasing the workforce. A key question to answer is the extent to which PSE institutions are connected with the MOH. Often, MOE institutions create their own targets for numbers of graduates of each cadre without considering the needs of the system (MOH) using those graduates.

In-service training to build capacity in new areas and skills is also linked to ensuring quality service delivery and the resiliency of the workforce. However, an excessive focus by global health initiatives and disease-specific programs on short-term in-service training can have distortionary effects, increasing absences from duty and biasing the incentive structures for health workers.

The public sector has historically been responsible for educating HRH. However, in recent years, there has been increased participation by the private sector. In many countries, FBOs are the primary private sector actor, though not-for-profit and for-profit institutions are increasingly playing a larger role. Like the public sector, private medical institutions (PMIs) train the full gamut of health care workers: doctors, clinical officers, nurses, midwives, pharmacists, laboratory technicians, etc.

Whether in the public or private sector, a key question to answer is how health provider education is financed and planned for and the extent to which educational institutions are sustainable. The bulk of health education is typically funded by the government. This overreliance on public funding, however, leaves educational institutions at the mercy of the government purse, and as a result, schools often cannot afford enough tutors, classrooms, or equipment to produce enough new practitioners. Private schools depend on students' ability to pay tuition, often resulting in dropouts when students and their families experience unexpected financial demands and can no longer pay tuition; moreover, privately

funded health education tends to focus more on the professions with the highest potential for profitability (i.e., medical specialists), which are not necessarily the cadres that represent the priority in terms of improving population health outcomes. In most developing countries, student loans for medical education are simply unavailable, as they pose an unsecured risk for financial institutions.

Consult regulatory councils and the MOE to determine educational requirements for each cadre. Curriculum development, while primarily the prerogative of universities, must meet standards set by external bodies. Globally, there has been a call for transformative education—most recently distilled by WHO into policy briefs—that calls for transformation in 1) training institutions and their education focus and style and 2) regulatory bodies. In each country, a regulatory council typically oversees the education process for doctors, nurses, midwives, and dentists and licenses public and private education institutions, although these mechanisms are often more limited for allied health professionals and often nonexistent for CHWs. These councils keep records of the number of applicants, the number accepted, and the number graduated by cadre. The MOE also plays a key role in PSE within university and other academic settings, and should be consulted to address some of the same questions.

In-service training information is much harder to track, as the training is usually done in an ad hoc manner, based on whatever training opportunities are available, which vertical programs (and external development partners) are offering training, and what employees are due for training. Frequently, these trainings place a strain on availability of staff to deliver services due to difficulty in planning absences from work. Professional councils and associations may have some requirements for continuing education for licensure, and if so, they may have records of training by their members. Often, it is easiest to get the information through field interviews, asking workers and their supervisors about in-service training experiences over the past few years. Also, because external development partners often drive the in-service training agenda, they should be consulted for information.

Issues to Explore

- Is there a training planning function in place at the national or subnational level?
- Are PSE needs identified in conjunction with health system requirements?
- Are the production capacity and the quality of training institutions sufficient to cater to domestic needs?
- What are the attrition and completion rates in PSE?
- Are there quantitative or qualitative gaps in faculty?
- Are accreditation and certification systems in place and implemented to ensure quality of preservice training?
- Is there a strategy for ensuring a rural pipeline of trainees?
- Are there proactive policies to ensure a gender-balanced and ethnically/linguistically diverse pool of trainees across cadres, as required to address population needs in a way that is responsive to sociocultural norms?
- May continuing professional education activities, whether off site or in-service, be sponsored by the organization or by external development partners?
- How are training needs identified?
- How are potential participants identified?
- Who develops the training materials and programs?
- Are there annual training plans and associated budgets within the MOH?
- Are private providers ever invited to updates or training programs?
- How are community-based providers trained?

- Do any policies govern leaving one's post to go for donor-funded training?
- Are training requirements enforced? If so, how?
- Is training the right solution? Does it seem to improve performance?

This is all relevant to the pursuit of high quality of care in line with clinical standards, norms, and practices. The quality of care provided by health professionals will have a direct impact upon service delivery outcomes (see Module 2—Service Delivery, Topic D, for indicators related to the quality of health services).

Table 3.3.3. Human Resources for Health Education

Indicator	Definition and Interpretation
4. Production of new health care workers as compared to staff vacancies	<p>This indicator documents the ratio of health care worker production to the need for health care workers.</p> <p>Specific questions to pose include the following:</p> <ul style="list-style-type: none"> • What is the number of vacancies for each cadre for which the MOH has been granted permission to hire? Note that vacant establishments and permission to hire are usually different; for example, a given district may have 100 nurse vacancies but only enough budget to hire 10. • What is the number of vacancies in the private sector? This data will be harder to collect and will depend on some estimation and sampling. Look for the largest private sector employers of health care providers and use their figures for extrapolation. For example, in Malawi the Christian Health Association of Malawi employs more than 90 percent of private sector health care workers. • What is the production of all PSE facilities, by cadre? • What are the 5-year historical trends for need and production? • Do health strategic plan and/or the HRH strategic plan match do approved hiring? Often, strategic plans include lofty goals that are reduced when they meet budget realities.
5. Ratios of PSE applicants, admissions, and graduations	<p>This indicator shows the interest in obtaining a health care education and credential, the availability of seats in PSE programs, and the how many actually graduate as compared to start the program.</p> <p>In almost all countries where HSAs will be completed, the system is not producing enough health care workers in absolute numbers. This indicator will help determine whether the issue is low interest in a health career, low availability of seats in a program, or high dropout rates. For public sector institutions, the MOE and MOH will have these statistics. For private sector institutions, professional associates may have the data, or you may need to talk with a representative sample of private schools.</p>
6. Ratio of rural versus urban admissions and graduates	<p>This is the percentage of students recruited from rural areas/total population of admissions and/or total number graduated to preservice training programs.</p> <p>Rural recruitment of medical trainees is a key intervention to improve rural retention of health care workers. Evidence suggests that providers who are recruited from and then posted to rural areas tend to stay in-post as opposed to transferring to urban areas. To document the rural/urban ratio, it is likely that assistance will be necessary to list all districts/counties and to classify them as rural versus urban. Admission records will typically include the home district of the applicants. Likewise, graduates can be followed up with and classified as urban/rural.</p>

Indicator	Definition and Interpretation
7. Funding sources for PSE	For both public and private institutions, document the source of funding for tuition. In most public sector schools, tuition is free or heavily subsidized by the government. In other countries, the most qualified applicants with the highest test scores gain free tuition, while others pay from their own pockets. In most private schools, students pay their own tuition. Where students and their families pay the tuition, if possible, find out where students get the funding: self-pay, family pay, student loans, or donor funding?

4.5. Topic C: Health labor market

Overview

Health care workers make up part of a dynamic local, national, and international labor market. Thus, supply of and demand for health workers is governed by labor market variables that need to be understood in order to gauge the relative health of the HRH system. In order to properly describe the HRH system and its functions, there needs to be information on the number and kind of professionals entering the job market and the number leaving for any reason. Thus, entries to and exits from the labor market are measured in this area, with emphasis on attrition and loss of qualified health workers. A better understanding of the magnitude and the drivers of emigration can provide a basis for projecting future HRH adequacy.

An important facet of the health labor market is working conditions and employment characteristics, including remuneration levels. The description of working conditions, such as working time, contractual status, or sector of employment, is essential to understanding health workforce dynamics. Inclusion of data on the private sector is necessary in order to implement regulations affecting the private sector, while data on jobs, vacancies and unemployment, and under-employment and dual practice can serve as evidence for an employment-creation agenda. In line with Sustainable Development Goal 5 on gender equality and empowerment of all women and girls, indicators on the share of women in the HRH workforce—disaggregated by cadres—should be included.

Any analysis of the health labor market should also include wage and nonwage remunerations in the health sector. Policies and strategies aiming to improve performance and increase input can be planned and financed only when adequate information (or estimation) on current HRH spending is available. HRH spending should be disaggregated by cadre and by geographic location. In many countries where we conduct HSAs, we find that the majority of HRH spending takes place in the capital city.

Issues to explore:

- What are the sources of inputs to the health labor market? These usually include PSE, immigration, and former employees returning to the labor market (e.g., returning from retirement).
- What are the major sources of exits from the labor market? These include retirement, illness or death, emigration for any reason, taking work in other (higher paying) sectors, involuntary layoffs due to budget shortages, or other voluntary quits for any other reason. How do attrition and migration rate compare with typical rates from countries in a similar socioeconomic condition?
- What percentage of workers are employed in the public, NGO, FBO, or for-profit sectors?

- What are the conditions of employment in each sector, including working hours, leave policies, geographic rotations, opportunities for professional development, and promotion policies? Comparing these issues across sectors and across countries will help you understand employment flows.
- What is the wage and nonwage (allowances) remuneration for employees in all cadres and all sectors? Allowances can often exceed base salaries, so pay special attention to understanding the allowance structure. Also note whether there are incentives of any kind for rural and remote postings.
- What is the rate (if known) of unemployment, unfilled public sector vacancies, and dual practice?
- Is the national payroll subject to a mechanism for prevention and control of fraud? Is there an opportunity to free up resources by excising ghost workers?
- How are health workers recruited, assigned, transferred, and promoted? Are there transparent and meritocratic systems in place? Is there an unofficial market or spoils system for assigning jobs in attractive duty stations (typically urban areas and teaching hospitals)?

Table 3.3.4. Health Labor Market

Indicator	Definition and Interpretation
8. Number and sources of inputs to the HRH labor market	<p>This indicator documents how many health providers are entering the labor market from any source. Include entrants from:</p> <ul style="list-style-type: none"> • PSE institutions (public and private) • Immigration from other countries • Re-entrants into the labor market (from retirement or career pause to raise children, for example) <p>Records from preservice training institutions can help reach estimates of entrants from PSE, but note that not all graduates seek or gain employment. Professional associations are usually responsible for licensure and will be able to provide information on the number of new licenses issued each month. In some cases, licensure is tied to employment and will be a good estimate of new entrants. In other cases, licensure and employment are not tied to one another, so be sure to understand the policies in the country you are working in.</p> <p>In many countries, the Ministry of Civil Service keeps records on the number of government employees by sector (e.g., health versus education), and your MOH counterparts can help you obtain the data. Alternatively, payroll record changes from one month to the next will show new employees and are a good way to triangulate estimates of inputs. Large private sector health employers in each country will provide a good barometer of private sector entrants.</p> <p>When possible, create a five-year description of entrants to identify trends and make predictions.</p>

Indicator	Definition and Interpretation
<p>9. Number and sources of exits from the HRH labor market</p>	<p>This indicator documents how many health care providers are leaving the labor market for any reason, including:</p> <ul style="list-style-type: none"> • Retirement • Illness and death (self or family) • Emigration (usually for better wages) • Work in a sector other than health • Involuntary layoffs • Voluntary quits for any other reason <p>The data sources from which you obtained information about labor market inputs can also give information about exits:</p> <ul style="list-style-type: none"> • Civil service records/databases • Payroll databases • Professional associations: usually have to certify licenses for employment in another country so are good sources of information on emigration • Large private sector employers <p>When possible, create a five-year description of exits to identify trends and make predictions.</p>
<p>10. Unemployment by cadre</p>	<p>Surprisingly, in many countries where we conduct HSAs, there is a significant number of qualified health care providers who are unemployed. Unemployment can be caused by lack of budget for hiring, unwillingness to work where jobs are available (e.g., rural and remote posts), bottlenecks in the hiring system, or an overabundance of some cadres. For example, in some Eastern European countries, there is an oversupply of specialists and an undersupply of primary care physicians.</p> <p>Understanding the unemployment picture will allow you to understand the reasons for HRH shortages. Unemployed health workers in the labor market suggest reasons beyond lack of production, as is usually assumed first.</p>
<p>11. Working conditions by public and private sectors</p>	<p>Fair working conditions are usually spelled out in a national civil service code. In many countries, private sector employees are bound by the same codes. Working conditions should include:</p> <ul style="list-style-type: none"> • Working hours • Working locations, including rotation rules and schedules • Leave policies, including annual leave, sick leave, parental leave, and career-break schemes • Occupational safety plan or policy • Policy for performance appraisal, promotion, raises, professional development • Role of unions (if any) in public and private health care work • Policy for oversight of the private sector (if any) • Policy on dual practice

Indicator	Definition and Interpretation
12. Spending and remuneration	<p>This indicator measures the flow of financing related to the health workforce on macro and individual levels. You need to understand how HRH spending compares to health spending in general and to other civil service jobs in the country. What is the available resource envelope (from domestic—both public and private—and international resources) for HRH, including resources available for scale-up of HRH production or initiatives (analysis should be done in conjunction with Health Financing module)? You also need to understand where the HRH budget is being spent geographically (e.g., if the majority is spent in the capital city, high rural vacancies are less hard to understand). What are the levels of individual remuneration to make comparisons between private and public sectors—and to other, nonhealth sectors—in order to understand the reasons for exits from the health labor market and difficulties in filling vacancies?</p> <p>Information on remuneration should include:</p> <ul style="list-style-type: none"> • Percent of HRH spending compared to health spending and overall civil service spending • Average total remuneration by cadre in the public and private sectors <p>Module link: Module 6—Health Financing*</p>

***The intersection of health finance and HRH**

How health workers are compensated links HRH with the purchasing function of health financing. Compensation impacts the behavior of health workers across four broad issues:

1. **Recruitment**
Jobs in health care compete in the labor market. The competitiveness of the labor market depends on the mobility of the workers in question and how well funded other organizations in the same market are. Compensation packages, including salary, benefits, bonuses, other allowances, and job security, must be high enough to attract workers to an advertised position as opposed to all other work opportunities or choosing to not work at all (see Who 2011). (For a general discussion of the health labor market dynamics, also see the ILO Health Workforce section (WHO n.d.).
2. **Deployment**
Compensation packages must be high enough to offset added expenses and other perceived negative effects of working in remote areas. For example, some countries pay for housing.
3. **Job Satisfaction and Retention**
The effects of compensation on job satisfaction and retention are not as clear cut. Workers' beliefs about the *fairness* of their wages is one factor of many, including working hours and relationship with the direct supervisor, which affect their intention to remain at a job or seek other opportunities (Steinmetz et al. 2014).
4. **Performance and Productivity**
There is evidence of low performance and productivity among health workers in low- and middle-income countries, including absenteeism, few patients per day, low diagnostic accuracy, and compliance with treatment guidelines (World Bank and SDI, 2013). The evidence of the effects of

monetary incentives on performance is not harmonious across all cadres or all tasks. A recent survey concluded “the use of performance pay has outpaced growth in corresponding empirical evidence” (Miller and Singer Babiarz, 2013). Complicating issues include “(1) What to reward, (2) Who to reward, (3) How to reward, and (4) What unintended consequences might performance incentives create.” Many studies have found that health workers in developing countries are motivated as much by intrinsic factors, such as commitment to their community, as by incentives for reaching performance targets (Mpembeni et al. 2015). There are long-standing concerns that applying extrinsic rewards reduces internal motivation (Deci et al. 1999). A recent study from the Democratic Republic of Congo confirms these concerns, concluding that while pay for performance increased effort, “the increase in overall motivation happened at the expense of its intrinsic component” (Huillery and Seban, 2014).

4.6. Topic D: Serving the populations’ health needs

Overview

This topic examines the workforce planning and management function, which includes distribution plans as well as the HRH information system on which plans are based.

The purpose of the health workforce is to deliver relevant, high-quality services to help the population reach its health goals. These health goals are spelled out in Sustainable Development Goal 3, the goal of universal health care by 2030, USAID’s program of Ending Preventable Mother and Child Deaths (EPCMD), achieving an AIDS-free generation, and the goals of Family Planning 2020. The Global Strategy on Human Resources for Health further discusses the goal as “To improve health and socioeconomic development outcomes by ensuring universal availability, accessibility, acceptability, and quality of the health workforce.” Country health goals will be found in the national health sector strategic plan and the associated HRH strategic plan.

To achieve these goals, countries need the right providers, with the right skills, and in the right places to meet the health needs and counteract shifting patterns of disease burden. An important facet of HRH responsiveness to health needs is the performance and productivity of the existing workforce. Especially where budgets are constrained and countries cannot realistically be expected to expand the health workforce, helping existing providers to plan and reallocate resources will be crucial. Underpinning a country’s ability to put the right people in the right place—and to motivate them to optimum performance—is the ability to plan the workforce based on reliable data.

Issues to explore:

- Is there an HRH plan that is based on health needs? Is the plan based on realistic data?
- To what extent is provider distribution based on health needs, including disease burden trends and geographic differences?
- Is there a system of task sharing or job expansion to allow existing cadres to address greater areas of need?
- What is the accessibility to a health care provider, especially in rural and remote areas?
- What is the state of the HRIS? How does it compare to the NHWA? How are HRIS data used in planning and other decisionmaking?
- What is the productivity of the health workforce—are the quantity and quality of services provided commensurate to the available health workforce? Is there room for efficiency gains?

- Are there supervisory or appraisal systems in place to measure the performance of the health workforce—do providers meet clinical standards, and what is the level of client satisfaction with services?

Table 3.3.5. Serving the Populations’ Health Needs

Indicator	Definition and Interpretation
13. Existence of a comprehensive HRH plan with a budget	<p>Countries should have both <i>strategic</i> and <i>operational</i> HRH plans. Strategic plans help make fundamental decisions about human resources by taking a long-range view of the health goals it hopes to achieve and, in broad terms, how HRH will be applied to help achieve those goals. Operational plans are related to the implementation of the strategies on a day-to-day basis. Operational plans will spell out how many providers, with what skills, are needed where, and when. Operational plans take into account labor market dynamics and shifting health needs. Operational plans are usually maintained in detail on a rolling 5-year horizon. They will also usually spell out the methods for using HRH to achieve health goals. For example, if training more staff is the strategy selected for improving staffing in remote facilities, the operational plan would include the start date for training courses and the number of tutors needed.</p> <p>If the country has a strategic and operational HRH plan, determine when the plans were developed and/or updated. Existence of an HRH plan is a positive sign; however, plans are not always implemented. Also determine the extent to which the plan is used to determine establishments, vacancies, permission to hire, and changes in staffing plans (e.g., shifting establishments from one district to another).</p>
14. Maturity of the HRIS	<p>Government planners and decisionmakers cannot do their jobs without accurate and timely data on the health workforce, both public and private. While some countries have made remarkable strides in adoption and use of modern human resources databases such as the USAID HRIS system, others are still relying on out-of-date and inaccurate paper-based systems. Still others have disparate systems (e.g., payroll, civil service, professional associations) that could provide reliable HRH data but which don’t interact or which use incompatible data structures.</p> <p>WHO’s NHWA represents an attainable standard for HRH data in all countries. We recommend using the 10 modules of the NHWA as a comparator for the relative maturity of the HRIS system, focusing first on its <i>Module 1: Active Health Workforce Stock</i> as the minimum data set for HRH. Additional questions about the HRIS to consider include:</p> <ul style="list-style-type: none"> • Is there a dedicated HRIS unit or function? Are there counterparts in the subnational offices? • Does the HRIS have a planning module? • Are there interoperability systems in place to keep HRH-related databases in sync (e.g., payroll, civil service, and MOH HRIS.)?

Indicator	Definition and Interpretation
15. Accessibility of the health workforce	<p>This indicator measures the accessibility of key health providers and services for the population, specifically:</p> <ul style="list-style-type: none"> • Access to a qualified professional who can diagnose and prescribe • Access to a qualified professional who can perform surgery • Access to a qualified professional who can provide essential medicines • Access to emergency maternal and neonatal care • Access to the national basic package of essential care <p>Access can be measured on a macro or individual scale. Globally, one can estimate access based on providers as a ratio to population. Locally, many countries have policies about the maximum amount of travel time or distance to reach the above care types. Use these measures to make judgments about the relative accessibility of these high-impact services.</p> <p>Module Links: Module 2—Service Delivery Indicator (health worker density and distribution per 1000 population) Module 4—Medical Products, Vaccines, and Technologies Indicator (percentage of households more than 5/10/20 km from health facility/pharmacy to dispense essential medicines)</p>
16. Productivity of the workforce	<p>Productivity is a quantitative measure that compares inputs with outputs. In our case, we are interested in the amount of labor needed to achieve a given number of services. Understanding productivity is vital, especially where hiring more providers is financially unfeasible. Helping existing workers to be as productive as possible is the only way to provide more care. For the purposes of the HSA, detailed analyses of productivity will not be possible. Two proxy indicators that will provide value are:</p> <ul style="list-style-type: none"> • The gross ratio of services per provider, taken from registers and the HMIS and the HRIS • Average number of hours worked per week per cadre
17. Enabling environment for good performance	<p>Performance refers to the extent that providers 1) meet clinical standards and guidelines and 2) meet or exceed client expectations. It is beyond the scope of the HSA to conduct performance assessments at any detailed level. While most countries have some sort of performance appraisal system, experience has shown that they are largely detached from day-to-day performance on client service delivery. A useful proxy to consider is the existence of an enabling environment for good performance.</p> <p>Elements of an enabling environment include:</p> <ul style="list-style-type: none"> • Clear job descriptions • Adequate tools and supplies • Recognition or other incentive systems to improve motivation • Regular access to skills updates • Performance appraisal or other feedback systems • Supportive supervision

4.7. Topic E: Human resources for health policies

Overview

HRH policies formalize how the health care system covers the entire career of a health worker, from preparation to enter medical or nursing school to retirement. Important phases include: preservice training, deployment, retention, salaries and incentives, performance quality and mentoring, and a range of issues affecting the worker's ability to provide quality health care to communities. The better these policies are documented, the more likely it is that employees will be treated consistently. However, simply having the policies in place is not sufficient for consistent treatment. During review of documents and interviews, especially with providers, technical team members can probe for how often these policies are followed.

Issues to explore

- Is there a functioning HRH unit or department capable of effectively carrying out core functions related to HRH evidence collation and analysis, planning, policy development, and management?
- Is the national HRH policy/strategy/plan linked to the budgeting process and does it have legal standing?
- What areas do the policies cover, and are there any substantial gaps?
- How detailed are the policies, and have the policies been translated into guidelines and other process documents?
- Do policies cover workers in the private sector?
- When were the policies last updated?
- Do managers or workers know what is in the policies?
- Have any health care workers ever seen the policies?
- Are the policies and guidelines actually followed? In both the public and private sectors?

TIP BOX

STAKEHOLDER INTERVIEWS FOR HRH POLICY

Start interviews with a high-level MOH official. If possible, do a pre-trip telephone interview with the MOH (organized by onsite logistics coordinator) to simply gain contacts for each of the policies you are interested in (e.g., the compensation policy is with the MOF, while the recruitment policy is at the Ministry of Public Service). Ask the in-country logistic coordinator to obtain these documents to review before the team's arrival.

Also plan to interview FBO, NGO, and commercial facilities and professional health associations to determine if private sector policies follow government policies or, if not, if the sector has no policies at all.

Above all, be sure to ask health care workers if these policies have been implemented. See Module 1—Country and Health System Overview for further guidance on HRH Issues to explore in stakeholder interviews.

Table 3.3.6. Human Resources for Health Policies

Indicator	Definition and Interpretation
18. Existence of and use of up- to-date HRH policies	<p>Policies provide the legal framework for decisions about and practices toward health workers, both public and private.</p> <p>Seek evidence that HRH policies exist and are actually used or implemented. If HRH policies exist, describe them:</p> <ul style="list-style-type: none"> • Are they presented as part of an overall HRH policy? • Are they related to or compatible with the HRH strategic plan? • Are they part of the health policy? • Are they part of the public service commission policy? • Make broad statements about the existence of the policies, who controls them, and how well they are put into practice.
19. Existence of clear and up-to- date scopes of practice/staffing norms	<p>This indicator documents the existence of policies in place—often addressed in legislation—requiring registration, licensure, or certification for cadres of staff, such as doctors, nurses, midwives, pharmacists, laboratory technicians, CHWs, and other personnel.</p> <p>This requirement is a mechanism for ensuring that certain professional qualifications are met upon entry to the profession and that periodic reassessments or requalification procedures are in place to ensure that staff members maintain their qualified status. Often these regulations also specify the documentation available upon emigration.</p> <p>Stronger HRH systems have more flexible scopes of practice that allow MOHs to fill shortages in certain cadres and accommodate changing health service delivery needs. For example, the scope of practice for clinical officers may be expanded because the officers can be trained to take on certain clinical procedures and provide valuable services in places that lack access to a physician.</p>
20. Employment policies documented and used	<p>This indicator documents the presence of an employee manual or other written documentation of the conditions of employment—the rules and regulations that govern employees' conditions of service and related policies and procedures, such as leave and discipline.</p> <p>Service documentation lets employees know what to expect in general from the organization and what rules they will be governed by. Lack of service documentation raises issues of fairness. It is also helpful to determine whether the policies described in a manual are actually carried out.</p>

5. SUMMARIZE FINDINGS AND DEVELOP RECOMMENDATIONS

Section 2, Module 4, describes the process that the HSA team will use to synthesize and integrate findings and prioritize recommendations across modules. Annex 2.4.A provides alternative options for synthesizing options as well. 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.B 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. Generic methods for summarizing findings and developing potential interventions for this module include the following:

5.1. Analyzing data and summarizing findings

Using a table organized by the topics of each technical module (see Table 3.3.7) may be the easiest way to summarize and group your findings. Note that additional rows can be added to the table if it is necessary to include other topics based on the specific country context. In anticipation of working with other team members to put findings in the Strengths, Weaknesses, Opportunities, and Threats (SWOT) framework, label each finding as either an S, W, O, or T. Refer to Section 2, Module 4, for additional explanation on the SWOT framework and how to carry out multiproblem causal analysis. Use of a multiproblem or root cause analysis will help to determine wherein lies the main problems and at what point or level of the health system they are best addressed.

The “Comments” column can be used to highlight links to other modules and possible impact on health system performance in terms of equity, efficiency, access, quality, and sustainability. Additional guidance on which indicators address each of the WHO performance criteria is included in Table 3.3.8, Human Resources Indicators by Health System Performance Criteria. An example of findings and performance impact on the health system by each of the performance criterion can be found in Table 3.3.9 from the 2010 Guyana HSA.

Table 3.3.7. Summary of Findings—Human Resources for Health Module

Indicator or Topic	Findings (Designate as S = strength, W = weakness, O = opportunity, T = threat)	Source(s) (List specific documents, interviews, and other materials)	Comments

Table 3.3.8 summarizes the key HRH indicators that address each of the five key performance criteria highlighted by WHO: equity, efficiency, access, quality, and sustainability (WHO 2000).

Table 3.3.8. List of Human Resources for Health Indicators by Health System Performance Criterion

Performance Criteria	Suggested Indicator from Human Resources for Health Module
Equity	1. Ratio of health personnel per 1,000 population 3. Ratio of health care workers by geographic distribution (doctors, nurses, pharmacists, and laboratory technicians)
Efficiency	5. Existence of a costed HRH strategic plan; evidence that strategic plan is being implemented
Access (including coverage)	21. Ratio of rural versus urban admissions/graduates
Quality (including safety)	7. Enabling environment exists for health workers to achieve goals and targets, including clear job descriptions, appropriate tools, supplies, and supportive supervision
Sustainability	22. Active stakeholder participation in HRH policy and processes

Table 3.3.9. Example of Performance of Human Resources for Health in Terms of the Health System Assessment Criteria, Guyana HSA 2010

	Equity	Access	Efficiency	Quality	Sustainability
STRENGTHS AND OPPORTUNITIES	<ul style="list-style-type: none"> Data and standards exist on the human resources necessary to deliver the PPGHS. Strategic approach to providing primary care services in the hinterlands through health posts. 	<ul style="list-style-type: none"> Increased training numbers is bringing more health workers into the system. Foreign doctors improve short-term access to medical services. 	<ul style="list-style-type: none"> HRIS has been developed and is housed in the MISU. IMAI training to improve efficiency of health workers, especially HIV services. 	<ul style="list-style-type: none"> The MDP is improving the quality of health managers. I-Tech and other stakeholders are conducting trainings for health workers to improve quality. 	<ul style="list-style-type: none"> A new health workforce strategic plan is currently in development and is an opportunity to plan for the future.
WEAKNESSES AND THREATS	<ul style="list-style-type: none"> Doctor and nurse distribution is skewed toward hospitals and urban centers. Significant HRH gaps exist across all health cadres, and with nurses in particular. 	<ul style="list-style-type: none"> Foreign doctors often have difficulty integrating into the Guyanese health system and communicating with clients and colleagues. 	<ul style="list-style-type: none"> Current health worker information is not captured by the HRIS, nor is the HRIS used to analyze workforce data and trends. PSM rules and regulations delay hiring of qualified staff. 	<ul style="list-style-type: none"> Worker motivation is adversely affected by working conditions, including incentives and infrastructure. CNE is ad hoc and not required. 	<ul style="list-style-type: none"> Health workers' attrition is very high and retention systems have not been able to fully address the problem. The HRH TWG does not have strong external stakeholder participation.

It may be helpful to organize the description of the HRH situation and key findings along the lines of the Global Strategy on Human Resources for Health and the NHWA. Depending on the amount of data collected and their importance (e.g., a critical health system gap), some of the subheadings can be combined and/or eliminated. The headings correspond to the topics and include:

- Active health workforce stock
- HRH education
- HRH labor force
- HRH serving population health needs
- HRH policy

5.2. Summarizing findings and developing recommendations

After summarizing findings for your module, it is time to synthesize them across modules and develop recommendations for health systems interventions. Section 2, Module 4, suggests an approach for doing this. The recommendations should be specific and actionable, giving the client a clear sense of how to move forward. One important consideration is that recommendations come from the analysis points in the text so that there is a logical connection between the main body of the document and the recommendations section. Additionally, recommendations should be tailored to the types of activities that the country is willing and able to do. A number of recently developed tools and guidelines will be helpful references for developing the recommendations. For example, *Increasing Access to Health Workers in Remote and Rural Areas through Improved Retention* (WHO 2010) offers a comprehensive approach to addressing retention issues.

Table 3.3.10 provides a list of common human resources-related interventions seen that may be helpful to consider in developing recommendations:

- Suggested interventions should be costed and compared to the fiscal space analysis to determine affordability.
- The recommendations should be linked to the national policy and governance milieu and therefore, in addition to “what” policy options appear to be most relevant to the context, there should be implementation considerations to address “how” policy recommendations should be taken forward.
- Implementation considerations should reflect social, cultural, political, and economic feasibility of the proposed policy options.
- Group key problems by the topic areas addressed in the chapter.
- When suggesting interventions, make sure there is a direct link between the problem and the suggested intervention.
- Keep in mind discoveries from a root cause analysis and that causes of problems related to retention and motivation often overlap and thus are likely to respond to similar interventions.

Table 3.3.10. Illustrative Recommendations by Systems Gap for Human Resource Issues by System Performance Criteria

Health Systems Gap	Possible Interventions
Limited or no trained HRH/facilities in rural and/or remote areas	<ul style="list-style-type: none"> • Consider training lower cadres of workers and/or CHWs in less demanding tasks and shift those tasks to them. • Explore ways to use private sector (commercial and/or NGO/FBO) providers to deliver primary health care services where there are no public services.
Shortage of health students from rural areas	<ul style="list-style-type: none"> • Establish incentive payments for rural hardship postings (e.g., special bonuses; loans; vehicles; scholarships; promotions; management responsibilities; retirement benefit packages and/or nonmonetary incentives such as congratulation/thank you notes; public recognition programs; intake of medical students from rural areas; and training in the locations where physicians will later practice.) See the 2010 WHO report on global recommendations on retention, which includes recommendations in four areas: education, regulatory, financial, and personal and professional support.
System Performance Criteria: Access	
Limited number of trained HRH/facilities (particularly in remote, rural, and periurban areas)	<ul style="list-style-type: none"> • See strategies above. • Conduct legal and regulatory review to identify barriers (e.g., need to have physician supervising nurses) that limit access and prevent strategies that address HRH shortage.
Health System Performance Criteria: Efficiency	
Poor planning that does not rationalize existing HRH and PMIs	<ul style="list-style-type: none"> • Improve linkages between planning for needed providers and production of them that includes all sectors (public, commercial, and NGO/FBO). • Involve both organizations that represent service providers and medical training institutions. • Explore opportunities to leverage private sector workers in underserved areas and/or with underserved population groups through a variety of financial and contracting mechanisms (see Module 2, Service Delivery).

Health Systems Gap	Possible Interventions
Shortage of qualified personnel to carry out tasks	<ul style="list-style-type: none"> • Conduct legal and regulatory review to ensure that scopes of practices between different levels of the same health cadre do not overlap and are clearly defined (e.g., scopes between nurses and nurse's aides, pharmacist and pharmacy assistants). • Liberalize scopes of practices and train lower cadres of workers and/or CHW in less demanding tasks and shift those tasks to them. Extend same scopes of practice to some cadres in the private sector (commercial and NGO/FBO). Open training for lower cadres of workers in the private sector located in underserved areas. • Eliminate mandatory retirement policy for public sector. • Explore opportunities to partner with PMIs to reduce the burden at public training institutions and produce the numbers and types of health cadres needed.
HRH workforce not motivated and/or burned out	<ul style="list-style-type: none"> • Provide effective leadership and management at the site level. • Change existing punitive supervision practices (reducing incentives and using blame, which cause fear) to supportive supervision. • Increase work-related self-efficacy: workers are trained to do the tasks; clear expectations are communicated; workers receive feedback on their performance; appropriate selection; clearly communicated job descriptions and standards; and systems for developmental appraisals (Franco et al. 2000). • Retain and get the most out of the current set of providers through a range of incentives and better supervision. • Create “friendly” competition between public and private providers in underserved areas. • Measure and share results of HRH from all sectors; public recognition and high-performance rewards.
Graduates of professional schools lack needed skills	<ul style="list-style-type: none"> • Establish feedback loop/link between the professional schools and the MOH. • Place students in facilities for practicum/clerkships, using faculty or facility staff as preceptors.
Lack of joint planning and review between employees and supervisors	<ul style="list-style-type: none"> • Introduce a process to conduct joint planning based on job descriptions tied to organization's mission/goals and conduct periodic employee performance reviews.

Health Systems Gap	Possible Interventions
Workforce at risk of HIV and AIDS	<ul style="list-style-type: none"> • Implement programs and policies on HIV and AIDS for prevention and protection of employees (e.g., prevention of needle-stick injuries and other exposure to blood-borne pathogens; improve adequate follow up of injured workers including postexposure prophylaxis; provide antiretroviral drugs to HIV-positive personnel; decrease stigma).
No employee feedback on their performance	<ul style="list-style-type: none"> • Strengthen supervision (management training for evaluators or supervisors; define and enforce staff review cycles).
Punitive/controlling supervision	<ul style="list-style-type: none"> • Train supervisors in supportive supervision techniques. • Introduce self-assessment at facilities.
Low HRH retention in domestic health market; attraction and retention, including unequal distribution of health workers and poor coverage in some (usually rural) areas	<ul style="list-style-type: none"> • Incentive payments for rural hardship postings; special bonuses; loans; vehicles; scholarships; promotions; management responsibilities; retirement benefit packages; nonmonetary incentives such as congratulation/thank-you notes; public recognition programs; intake of medical students from rural areas and training in the locations where physicians will later practice. See global recommendations on retention (WHO 2010), which includes recommendations in four areas: education, regulatory, financial, and personal and professional support.

6. ASSESSMENT REPORT CHECKLIST: HUMAN RESOURCES FOR HEALTH CHAPTER

- Profile of HRH
 - A. Overview of the health workforce (can include):
 - a. Number of health care workers in the public, private, and NGO/FBO sectors by cadre
 - b. Number of health care workers in public, private, and NGO/FBO sectors by geographic distribution
 - c. Enabling environment for a strong HRH component
 - d. HRH planning capacity
 - e. HRH development (education and training) through public and private institutions
 - f. HRH performance support (includes management and leadership as well as performance management)
 - B. Authority structure (can include):
 - a. Relationship between the HRH functions
 - b. Level of authority for HRH decisions
- HRH Assessment Indicators
 - A. HRH country situation
 - B. Health workforce stock
 - C. HRH education and training
 - D. Labor market
 - F. Serving population needs
 - G. HRH management systems
 - H. HRH policy
- Summary of Findings and Recommendations
 - A. Presentation of findings
 - B. Recommendations

7. BIBLIOGRAPHY

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