Chapter 2 Overview of the Health System in Rwanda

This chapter provides a brief overview of the health system in Rwanda as it relates to health facilities and outpatient services. The chapter provides a context in which to view the findings of the Rwanda Service Provision Assessment (RSPA) survey. Information is presented regarding the following:

1. General organization of the health system;
2. The package of health services provided at different facility levels; and
3. Issues related to the health system and quality of care.

Information in this chapter is drawn from a variety of sources from the government and Republic of Rwanda (MoH, 1997a; MoH, 1997b; MoH, 1995-2001; Republic of Rwanda, 2001).

2.1 General Organization of the Health System

Following the 35th session of the African Regional Committee of the World Health Organization held at Lusaka in 1985, Rwanda adopted a health development strategy based on decentralized management and district-level care. The decentralization process began with the development of provincial-level health offices for health system management. Progress was made toward decentralizing management to the province and, ultimately, to the district level.

The development of the health system was completely disrupted at the time of the 1994 genocide. Much of the infrastructure, equipment, personnel, and the health system itself was destroyed. With the advent of peace, the government has been working to rebuild the health system. In February 1995, the government issued a new policy to guide the reconstruction of the health system.

Since 2000, steps have been taken toward restructuring and decentralizing management. The district health offices have operated as autonomous entities, providing services to well-defined populations in either urban or rural zones. The district health offices are responsible for the health needs of the population in that zone and for the health facilities and services, whether provided through the governmental or private sector. Decentralization of financial and logistic resource management has been implemented universally. However, there remain specific health programs that were initiated as vertical programs and that continue under a vertical management structure.

2.2 Overview of Operating Authorities for Health Services

Health services in Rwanda are provided through the public sector, government-assisted health facilities (GAHFs), private health facilities, and traditional healers.

2.2.1 Public Sector

The public sector is organized into three levels, with each level having a defined technical and administrative platform called a minimum package of activities. Each level coordinates with each other, to prevent overlap and to improve use of resources and services.

1. The central level, based in the capital, is primarily responsible for developing health policy and the overall strategic and technical framework within which health services are provided. The central level is also responsible for monitoring and evaluating operational programs and for managing the national referral facilities (the Butare Teaching Hospital and the teaching hospital in Kigali).

2. The intermediate level consists of 11 provincial health offices managed under health, gender, and social affairs guidelines. The Public Health Department of Kigali City also is in the intermediate level.

3. The peripheral level consists of district health offices. Each district has an administrative office, a district hospital, and primary health care facilities (health centers). The district administrative offices are responsible for planning, managing, coordinating, and evaluating, on a daily basis, the activities occurring in the health district. This administrative unit (work group) is made up of a basic management team of health professionals and managers, representatives of program managers active at the community level, community leaders, and directors of nursing schools.

At the end of 2001, there were 39 functional health districts, each with a district management team. Only 33 of these, however, had a functioning hospital. The main function of district hospitals is to care for patients referred by a primary-level facility. Although curative and rehabilitative care are the principal functions of the hospital, the hospitals are also responsible for supporting preventive and promotional activities within the catchment area. Hospital management participates in the planning of district activities and training and supervision of district personnel. Although the mean hospital capacity of one bed per 1,000 people is not unreasonable, it masks substantial variation among districts and provinces.

There were 365 peripheral health facilities at the end of 2001; 252 were health centers while 113 were health posts and dispensaries. Health centers are responsible for providing basic primary health care, which includes a complete and integrated array of curative, preventive, promotional, and rehabilitation services. Health posts, set up to take care of transitional situations, such as the flow of refugees or the existence of an epidemic, are not intended to remain a permanent part of the health system and will gradually be phased out.

There is a nationwide lack of physicians, nurses, and managers with sufficient experience to respond to the needs of both administrative structures and health facilities. This problem is more acute at the periphery, where operational management and delivery of health services occur.

2.2.2 Government-assisted Health Facilities

The conventional nonprofit sector is made up of health facilities run by various religious groups and nonprofit associations. In 2001, 40 percent of primary and secondary health facilities were in this category. Government-assisted health facilities (GAHFs)—called agréé facilities in Rwanda—are completely integrated into the public health system, and are included in the RSPA. The government provides services to both public and conventional nonprofit facilities, irrespective of their resources (human, equipment, or operating budget). GAHF staff and government staff are equally eligible for government-sponsored in-service education. GHAF representatives participate integrally in the work group (district management team) of each district and have a formal agreement to follow the policies of the MoH.

2.2.3 Private Sector

Since 1995, the private medical sector in Rwanda has grown considerably and continues to grow. In 1999, there were 69 private physicians either with private practices or working as employees of NGOs, commercial establishments, private insurance companies, or mutual societies. The number of private pharmacies throughout the country increased from 300 in 1999 to 405 in 2001.

As of 1999 there were 329 private health facilities in Rwanda, with more than 50 percent located in or near Kigali. Among these facilities, 63 were headed by physicians, 242 were headed by nurses, and 14 were headed by persons who were not medically trained. These private facilities have hospitalization capacity and some have very specialized services, such as gastrology, ophthalmology, and physiotherapy. They are often staffed with trained paramedical staff.

2.2.4 Traditional Medicine

Traditional medicine is widely used in Rwanda. Sick people are as likely to consult traditional practitioners as their modern health care providers, depending on the nature of the problem. The MoH and the Institute of Scientific Research and Technology are trying to organize traditional medical practitioners into associations, but few of these associations were functioning in 2001.

To improve the quality of home deliveries, the MoH has developed programs to improve the network and skills of traditional birth attendants (TBAs). A training program was implemented in four pilot districts (Byumba, Cyangugu, Gikongoro, and Gitarama) to train 1,200 TBAs. The expected role of the TBA is primarily to encourage pregnant women to seek services for ANC, vaccinations, and family planning and to improve their recognition of risk factors for which they should be referred to a facility. In addition, TBAs are trained in better delivery practices, specifically regarding hygienic conditions in case a woman cannot deliver in a facility. The number of TBAs trained in the pilot districts increased from 1,200 to 1,800 by the end of 2001. The trained TBAs received basic equipment and supervision. This program may be expanded to other districts if the evaluation determines that it is pertinent and effective.

2.3 Geographic Distribution and Populations Served by Health Facilities

To ensure the most efficient health care coverage possible, given limited availability of resources, norms were established in 1997. These norms include an average coverage of 200,000 people per district, with one hospital per district and 20,000 people per health center. The geographic area covered by an administrative unit or health care facility is the catchment area, or "zone de rayonnement."

Originally, under the restructuring of the health system, administrative units for the health system were formed primarily base on geographic accessibility, regardless of the availability of infrastructure or existing civil administrative boundaries. As a result, it is not uncommon to find health centers or managers responsible for populations that cross several administrative boundaries.

Over time, the boundaries for the administrative units for the health system have been adapted, taking into account the size and boundaries of civil administrative units, while still considering geographic accessibility. At present, a population is defined as having access to health care if the service can be reached by foot in one and a half hours. Considering the current distribution of facilities, about 85 percent of the population live within one and a half hours of a primary care health unit. Geographic distance and mountainous terrain, however, continue to constrain access to health care. To improve geographic accessibility, a referral system combining access to ambulance services and a telephone network for district-level facilities is gradually being developed. This system will solve the problem of geographic accessibility between primary care health centers and hospitals, but not the problem of transporting patients to health centers, which still depends largely on traditional means of transportation. District health offices in Rwanda are characterized by great variability in size and demographic coverage. The population covered by a district facility varies from 70,000 to 480,000 people. The national average is around 200,000, which approximates the national norm.

2.4 Package of Health Services

Most common illnesses in Rwanda are transmissible diseases that are preventable through improved hygienic measures and changes in individual health behavior. The ten most important causes of morbidity and mortality fall into this category. Nine in ten health consultations at primary care facilities in Rwanda are for infectious diseases, such as malaria, respiratory infections, diarrhea, parasites, skin diseases, HIV/AIDS, tuberculosis, typhus, cholera, and meningitis. A package of activities directed toward these, as well as common preventive interventions, has been defined for each level of the health system.

2.4.1 Minimum Package of Activities for the Peripheral Level

At the health center level, the minimum package of activities (MPA) includes:

1. Promotional activities, including information, education, and communication (IEC); psychosocial support; nutritional activities related to small farming and food preparation; community participation; management and financing of health services; home visits; and hygiene and sanitation in the catchment area around the health center. Rwanda has a large population that has not completed primary education (over 60 percent of men and women over age 15), with many having no formal education (ONAPO and ORC Macro, 2001). Fifteen percent of men and women age 15-24 (with larger percentages at older ages) reported having no education. Thus, visual aids for promoting health education messages are important. The MoH has indicated that the availability and use of visual materials for providing information, education, and communication (IEC) for health education is a concern, and in fact, during June 2002 a national seminar was held specifically to review the use of IEC materials related to reproductive health and to discuss ways to improve the situation.
2. Preventive activities in areas such as premarital consultation, ANC, postpartum care for the mother and child, family planning counseling and services, school health, and epidemiologic surveillance activities.
3. Curative activities, including consultations, management of chronically ill patients, nutritional rehabilitation, curative care, observation before hospitalization, normal deliveries, minor surgical interventions, and laboratory testing.

Each health center is responsible for managing personnel, supplies, and financial resources and for training staff. The health center oversees general health-related activities that include development of health promoters and intersectoral collaboration with other departments (e.g., social welfare and agriculture) when appropriate. Health centers are the focal point for the development of community participation.

Since the economic crisis of the 1980s, free health care has become difficult to sustain. To improve the provision of medications, Rwanda adopted a strategy of health service financing based on community participation, following the Bamako Initiative. At the onset of the 1994 genocide, the program covered 68 percent of all health centers. After the war, the Bamako Initiative was relaunched. It was implemented by establishing committees in health centers and district health offices that included community members. Health committee representatives focused primarily on overseeing the financial management of the health center. There was little emphasis on a broader community role of liasing with community members to identify important health concerns and mobilizing the community to participate in activities or health projects. To fill this void, in 1995, MoH decided to set up a network of health promoters throughout the country. This initiative was inspired by a program of community agents introduced by ONAPO before 1994. At the time, the program focused on issues related to family planning. By 1999, practically all primary care facilities had a health committee whose membership was elected according to ministerial directives and a board of directors. Since April 2000, the committees have included health promoters elected by the population, thus guaranteeing better representation of community concerns.

2.4.2 Complementary Package of Activities for District Hospitals

The complementary package of activities (CPA) for district hospitals includes activities 1 and 3 of the MPA for the peripheral level, but emphasizes treating referred cases. Additional activities under the CPA include the following:

1. Prevention, including preventive consultations for referred cases and ANC consultations for at-risk pregnancies;

2. Family planning, with the provision of all methods for referred cases, including female and male sterilization;
3. Curative care, including management of referred cases, referrals for tertiary-level care, management of difficult labor, medical and surgical emergencies, minor and major surgical interventions, inpatient care, laboratory testing, and medical imaging; and
4. Management, including the training of paramedical personnel in district schools and collaboration with the district work group for continuing education and supervision activities.

2.4.3 Complementary Package of Activities for National Referral Hospitals

Although the national referral hospitals provide the highest level of service and should function almost solely as referral centers from district hospitals, in reality, there is an overlap of the activities of the district and national referral hospitals. This is because there is still an unclear delineation of responsibilities for the central-level national referral hospitals, and there are not enough functioning district hospitals, especially in urban areas. This results in national referral hospitals often assuming the responsibilities of district hospitals.

2.5 Progress in Implementing the Minimum Package of Activities and the Complementary Package of Activities

According to the 1999 MoH annual report, the 11 provincial management units carried out 92 percent of the activities linked to their functions. Areas of responsibility that were assessed as weak were provision of adequate supervision, in-service training, analysis of health information, and project management.

According to the same source, 93 percent of the responsibilities of the district management teams were carried out; however, 23 percent of the activities undertaken were outside an established norm. Similar to the findings for the central level, areas of responsibility that were assessed as weak were provision of in-service training, financial management, adequate supplies of medications, and supervision and monitoring of services.

The report found that, overall, health centers successfully provided 64 percent of the activities of the MPA. The proportion of the MPA successfully implemented varied widely with respect to activities and districts. Thirty-five districts were found to consistently provide more than 50 percent of the MPAs successfully. Four particular activities defined in the MPA, however, were found more often than others to be provided at below acceptable levels of activity for successful implementation. These were postpartum visits (24 percent), activities related to psychosocial management (18 percent), school health programs (12 percent), and premarital counseling (2 percent).

In general, the activities of the CPA for district hospitals were successfully carried out at the 33 functioning hospitals in Rwanda, with an overall assessment that 88 percent of activities were being provided at an acceptable level. The major identified areas of weakness were surgical and laboratory activities. The full range of surgical and laboratory services that is described in the CPA is not always available at all hospitals.

Hospitals and dispensaries are frequently adjacent to one another, with hospitals offering primarily inpatient services and dispensaries offering outpatient services. The objective is a complete separation of the two services, but this has not yet been fully implemented. In certain hospitals, the lack of an effective separation of hospital and dispensary (outpatient unit) functions contributes to overburdening hospital services and hampers management, especially of community and primary-care-level functions. In 1999, only 16 hospitals had managed a complete separation between the hospital and the dispensary.

2.6 Use of Curative Consultation Services

Health information system data on the annual number of outpatient clients is used to calculate the utilization rate for health services. Data for the period before 1994 are not computerized. However in 1995, at a time when needs were great, aid assistance was massive, and care was nearly free, the utilization rate of primary care services was 0.6 new cases per person (population) per year. In 1997 and 1998, the utilization rate was 0.3, after which it stayed the same through 2001 (Table 2.1). The decline in the service utilization rate can be attributed to several factors, but it is believed that the implementation of cost recovery—almost universally implemented since 1989 and resumed in 1999—is mainly responsible.

Table 2.1 Trends in utilization of curative consultation services

Curative health services utilization rates (new cases per person in the population per year), referral rates, and referral return rates, Rwanda 1995-2001

	Year						
Curative consultation rate	1995	1996	1997	1998	1999	2000	2001
Curative care consultation rate	0.6	u	0.3	0.3	0.3	0.3	0.3
Referral rate	u	u	u	1.4	1.9	2.2	2.3
Referral return rate	u	u	u	22.8	12.5	11.7	27.3

Source: MoH annual activity report of activities from 1995, 1997 to 2001, Information System Service of the Health Centers
u = Unknown (not available)

Rates of referral are judged by the MoH to be low. This may be because of a failure of primary care providers to recognize the gravity of certain symptoms, the refusal of referral by the patient after considering the relative cost of displacement and hospitalization, the lack of communication between the primary care site and the referral site, and problems arranging transportation to the referral site. The low percentage of return referrals, although increasing, is indicative of the weak link between hospitals and health centers.

2.7 Issues Related to Quality of Care

Concerned about the impact of its interventions on the quality of care, the MoH in 1994 created a division charged with promoting quality care. This division is responsible for promoting, coordinating, and elaborating on quality-of-care standards, monitoring and evaluating the quality of care in the country, and creating and launching strategies and tools or instruments needed to develop quality-care initiatives.

2.8 Supervision

Supervision plays an essential part in implementing a health policy and in improving the quality of services and care. A top-down supervisory system was installed in Rwanda in 1995. Each level of the structure supervises the level under it. Supervision is carried out by a team from the district administrative unit. It is usually performed by the supervisors, the managing administrator, the pharmacy manager, or other supervisors. Supervision by physicians is rare.

2.9 System of Supply and Distribution of Medications

In Rwanda, the objective of the health policy is to make medications accessible to the population. Since 1995, the national policy has recommended using generic essential medications, distributed to health units in the country through an independent central purchasing supply house, Centrale d'Achat des Médicaments Essentiels au Rwanda (CAMERWA), and a network of district pharmacies. CAMERWA is a nonprofit association that ensures a supply of medications to the public sector. It sells medications to district pharmacies and to certain health facilities on a for-profit basis as a means of financing the

activities of CAMERWA and, subsequently, to sustain the system. Supplies are provided to health facilities directly from CAMERWA through the district pharmacies or through other private sources such as the Bureau des Formations Médicales Agrées au Rwanda (BUFMAR), a for-profit private company that supplies medications mainly to private health facilities.

The list of essential medications is revised regularly; it was last revised in May 2000. The list includes medical consumables (medicines and other consumable supplies, such as bandages) and materials and reaction agents for laboratories. The list is based on the main causes of mortality and morbidity in the country and on the standards of evidence established by the most recent pathology reports. Currently, most of the medications are imported.

2.10 Availability of Human Resources

Before 1994, Rwanda lacked human resources in health, both in quality and quantity. This situation worsened with the genocide of 1994, when many people were killed or went into exile. The number of physicians working in the public sector dropped sharply after 1994. In 1988, there were 253 physicians working in the public sector; in 1995 this had dropped to 117 (data not shown). In 2000 the number had increased to 144 physicians (Table 2.2). The existing number of physicians is lower than the desired number—205 physicians in 2002. The gap is made worse by the increasing shift of physicians from the public sector to the private sector or to advanced studies.

Table 2.2 Trends in manpower in the Ministry of Health

Percentage of various types of personnel in the Ministry of Health, Rwanda 1988, 1997, and 2000

	1988		1997		2000	
Personnel	Number	Percent	Number	Percent	Number	Percent
Physicians	253	5	181	4	144	4
Nurses and paramedical providers	1,319	24	1,068	22	1,966	60
Nonmedical personnel	921	16	1,377	28	820	25
Nonmedical support personnel	3,096	55	2,274	46	349	11
Total	5,589	100	4,900	100	3,279	100

Note: The decrease in physicians is explained by physicians shifting from the public sector to the private sector.
Source: Ministry of Health and Social Affairs, Annual Report 1988, and Development Plan for Human Resources in Health, Ministry of Health, 2000.

There is also a lack of nursing personnel, although the country has considerable training potential. In recent years, 800 nurses graduated at the A2 level every year, which shows that for this group of health professionals, quantitative needs can be filled quickly in the future. With respect to paramedical personnel, the country has virtually no advanced-level physiotherapists, radiologists, anesthesiologists, midwives, or laboratory technicians. Since 1996, the Kigali Health Institute has been training paramedical personnel as physiotherapists, radiologists, anesthesiologists, midwives, laboratory technicians, and dental technicians. The training takes three years after secondary school is completed.

2.11 Basic Qualifications for Health Personnel

Health personnel currently consists of individuals who did their studies in Rwanda or in neighboring countries, such as Burundi, Uganda, the Democratic Republic of the Congo, and Tanzania. At the lowest level of qualification (auxiliary), the individual has to complete primary school, which in Rwanda ranges from six to eight years. The qualification is based on the number of years and the level of post-primary school education completed. For intermediate-level qualification, the minimum number of years beyond general studies is an average of three years (varying from two to four years). The number of years of training to become a physician is normally six years.

2.12 Health-sector Financing

Traditionally, the level of health-sector financing in Rwanda has been low. The largest sources of funding are the government allocation to the MoH through the Ministry of Finance and Economic Planning, contributions from the population, and external assistance from contributions or loan agreements with multilateral, bilateral, or nongovernmental partners of the MoH.

Between 1978 and 1994, funds allocated to the MoH for health programs continued to decrease. However, after the genocide of 1994, the share for health expenditures in the national budget started to increase. In 1999-2000, this share reached 4 percent, which corresponds to around 3.5 billion Rwandan francs, or about US$1.25 per person in the population. In relation to the national economy, only 0.6 percent of the gross domestic product is dedicated to health.

In 1999, about 60 percent of government funds for the health sector were directed to services in outlying areas, 15 percent were allocated to referral hospitals, and 25 percent were allocated to central and regional management and other services. Between 1995 and 2000, external financial assistance grew considerably in the form of humanitarian rescue aid, especially for the rehabilitation of infrastructure, which had been severely damaged or completely destroyed. The MoH's dependence on external aid is considerable; however, the level of assistance to date remains constant.

The means to achieve a better balance between the provision of services and financing in the health sector is not simple. However, possible options, which may or may not be feasible under current conditions, include a significant increase in health spending by the government, a substantial increase in external contributions, the mobilization and rationalization of resources coming from the population, better prioritization of health interventions, or a combination of these options.