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Hüma Nauroozi The Health Care System in Rwanda





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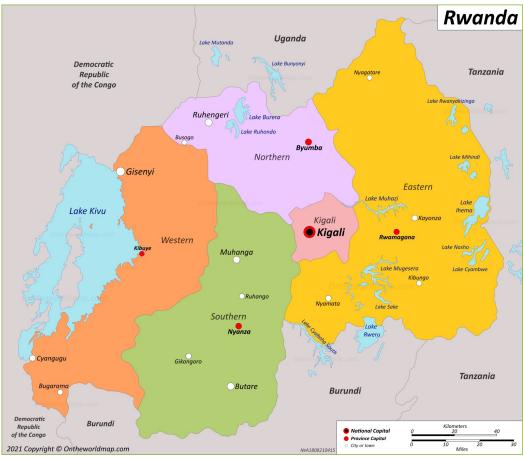
Hüma Nauroozi*

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1. Country overview (latest data available)



Source: https://ontheworldmap.com/rwanda/ (Accessed April 9, 2024)

- » Sub-Region: Sub-Saharan Africa
- » Capital: Kigali
- » Official Language: Kinyarwanda, English, French, Swahili
- » Population size: 13.78 million
- » Share of rural population: 82%
- » GDP: \$13.31 billion

Sources: World Bank 2023, League of Nations 1923

- » Income group: Low-income country
- » Gini Index: 43.7
- Colonial period and independence: German Colony 1899-1919; 1919-1962 mandate territory of the League of Nations under Belgian administration until independence (MoH 2010a)

| Indicator | Rwanda | Global Average |
|---|--------|----------------|
| Male life expectancy (2021) | 64 | 69 |
| Female life expectancy (2021) | 68 | 74 |
| Under-5 mortality rate (2021) | 39 | 38 |
| Maternal mortality rate (2020) | 259 | 223 |
| HIV prevalence (2021) | 2.3% | 0.7% |
| Tuberculosis incidence per 100.000 (2022) | 56 | 134 |

Source: World Bank (2023)

3. A brief summary of healthcare prior to system introduction

Until gaining independence, Rwanda was colonized by Germany (1890-1919) and placed under Belgian Trusteeship by the League of Nations (1919-1959). During this period, healthcare relied predominantly on missionaries who operated medical facilities, in the beginnings partly driven by competition between the Catholic "Pères Blancs" ("White Fathers") and German protestant missionaries for the conversion of the native population. In 1956, when Rwanda was part of Belgian administered Ruanda-Urundi, the region had 35 hospitals and maternities, half of which run by missionaries, resulting in a ratio of 1.4 beds per 1000 people. Additionally, there were 122 dispensaries, 25 of which also run by missionaries. For the whole region there were a total of 70 doctors and 258 (local) nurses and midwives. (Gakusi and Garenne 2002).

Following independence in 1962, Rwanda witnessed an increase in government-run healthcare facilities. Yet, church-based services continued to be pivotal in providing curative and preventive care, being better equipped, more reliable, and offering a broader array of services. These church-based facilities operated under government guidelines, receiving in exchange subsidies of approximately 80% of staff salaries. With independence, President Kayibanda's administration inherited a "free" healthcare policy that proved to be de facto unrealistic and was thus neglected (MoH 2010a; NISR, MOH, and Macro International Inc. 2008). In 1975, out-of-pocket payments became officially mandatory in all public and private healthcare facilities. A joint document from the Government of Rwanda (GoR), USAID, and the Center for Disease Control (CDC) indicates that certain populations received free healthcare, including civil servants, medical personnel, indigents identified by the commune and health centers, prisoners, and the armed forces. About 5% of revenue in health centers went into paying for the exempted. (USAID, GoR and CDC 1983; Schneider, Diop and Bucyana 2000).

To alleviate the financial burden, various Micro Insurance Schemes emerged over the years. The predecessors of the current community-based health insurance schemes, officially established in 2007, trace back to initiatives such as Muvandimwe de Kibungo in 1966 or Umubano Mu Bantu in 1975. Muvandimwe de Kibungo, with 4,016 members, provided cost reimbursement for access to all health facilities in the Kibungo province. NGOs, alongside the state and church, played a crucial role in delivering necessary healthcare services during this period. (USAID, GoR and CDC 1983; Schneider, Diop and Bucyana 2000)

| Name and type of legal act | On the establishment, organization and functioning of a health insurance scheme for government employees (N $^\circ$ 24/2001) |
|---|--|
| Date the law was passed | 27/4/2001 |
| Date of de jure implementation | |
| Brief summary of content | Rwandaise d'Assurance Maladie or RAMA is a social insurance scheme that targets civil servants (excluding military). |
| Socio-political context of introduction | In 1994, the genocide against the Tutsis resulted in the loss of one million lives in Rwanda, causing widespread destruction of health infrastructure, the departure of healthcare workers, and exacerbating health challenges nationwide. |
| | In response to severe poverty rates, the newly established government, led by the Rwandan Patriotic Front (RPF), initiated the development of Vision 2020 and the National Poverty Re- duction Plan (EDPRS) to reconstruct the economy. While the introduction of health insurance was not specifically mentioned, these plans recognize the integral role of health and edu- cation, particularly for the impoverished population to achieve Rwandas socioeconomic goals. (Binagwaho et al., 2015). |
| | Originally, RAMA was designed to cover civil servants and with plans to subsequently expand to the entire population. It remained, however, a separate scheme for the formal sector, due to the government initiation of an alternative program. This community-based health insurance (CBHI) pilot, developed in collaboration with USAID in 1998, was specifically designed to reach the 90% of Rwandans working in the informal sector (see Major reform II). (WHO 2008) |

4. Legal beginning of the system



5. Characteristics of the system at introduction

a. Organisational structure

In 1998, the Rwandan health sector had a three-tier administrative structure: first, the central-level Ministry of Health (MoH) with four directorates, second, 11 health regions, and third, 38 health districts. Care was provided by two public referral hospitals, 28 operational district hospitals, and at 283 health centers, 40 dispensaries, and nine health posts. There were four tertiary care hospitals in Rwanda of which one was privatized in early 1998. (Schneider, Diop, and Bucyana 2000)

RAMA as a social health insurance was overseen by the central government. (WHO 2008)

» Coverage (principal health insurance)

| Percentage of population covered by social insurance schemes | | |
|--|-------|--|
| » Covered by RAMA (2001) | 1.3% | |
| » Covered by CBHI-Pilot (2003) | 7.9%* | |
| Percentage of population uncovered | 90% | |

Source: MoH 2004; WHO 2008

Note: *National Average for Community Health Insurance Scheme Pilot in 2003 before nationwide implementation in 2007 (see Major reform II).

b. Coverage

RAMA covered civil servants and staff of public institutions in its mandatory insurance. A member of RAMA is any Government, public project and all other public institution employee, whose remuneration comes from Government funds. (Law N° 24/2001)

c. Provision

| Number of physicians per 1.000 (1999) | 0.016 |
|---|-------|
| Number of nurses and midwives per 1.000 people (2004) | 0.4 |
| Number of beds in public hospitals per 10.000 people (2004) | 1.7 |

Source: World Bank 2023; Schneider, Diop, and Bucyana 2000

d. Service Package

Covered under the Law are consultations, surgery, dental care, medical imaging, clinical biology tests, physiotherapy, nursing care, hospitalization and treatment fees, pharmaceuticals, antenatal care, care during delivery and postnatal care. The benefit package is decided on ministerial order (Law N° 24/2001). The fairly comprehensive benefit package is, however, undermined by only a fracture of the population being covered.

e. Financing

The Government's total expenditure on health in 2001 were 3.32% of GDP. Expenditures sharply increased to 6.93% in 2003 (World Bank 2023b). RAMA as a social insurance scheme for formal employees is financed by a 15% contribution equally split between employer and employee. When seeking treatment, RAMA insured pay co-payments of 15% for medical treatment and drugs.

f. Regulation

RAMA is a parastatal organization that is a legal entity with administrative and financial autonomy. Initially, RAMA was under the authority of the ministry in charge of public administration, but it has since been transferred to the authority of the Ministry of Finance and Economic Planning. The highest governing body of RAMA is its board of directors whose members are appointed by ministerial decree. In addition, RAMA has an auditing commission and a commission on agreements with health facilities (WHO 2008). Benefit packages for RAMA are set per Ministerial order (Law N° 24/2001). The MoH is responsible for all regulation of the health system regarding service provision.

6. Subsequent historical development of public policy on health care

a. Major Reform I

| Name and type of legal act | Law establishing Military Medical Insurance and determining its organisation and functioning (N $^\circ$ 23/2005) |
|--------------------------------|--|
| Date the law was passed | 12/12/2005 |
| Date of de jure implementation | _ |
| Brief Summary of Content | The MMI was created in order to provide health insurance coverage and medical care services to Rwandan military forces. It was established separately after an unsuccessful attempt to integrate the armed forces into the RAMA scheme. (WHO 2008) |
| Population Coverage | Military personnel still on duty with dependents (About 1% of total population). |
| Type of benefits | MMI covers the same curative and preventive services as RAMA. It further covers prosthe- sis and supplying medicine that is on a list accepted by MMI. |

b. Major Reform II

| Name and type of legal act | Law establishing and Determining the Organisation, Functioning and Management of the Mutual Health Insurance Scheme (N° 62/2007) |
|---|---|
| Date the law was passed | 30/12/2007 |
| Date of <i>de jure</i> implementation | _ |
| Brief Summary of Content | Rwandas Community-Based Health Insurance (CBHI) scheme otherwise known as Mu- tuelles de Santé extends health coverage to rural and informal sectors, primarily for the impoverished. The CBHI covers preventive and curative services based on a flat-rate con- tribution model. |
| Population Coverage | Mandatory for all residents of Rwanda if not subscribed to another insurance scheme. Specifically targets the informal sector. |
| Type of benefits | The benefit package encompasses preventive and curative care at public facilities, private health posts and specific private specialist facilities. It also provides approved medications. |
| Socio-political context of introduction | Following receding donor aid for free healthcare after 1994, and the sharp decline of utilization rates with the reintroduction of user fees, the government sought new ways to improve healthcare access and financing. In 1998/1999, in partnership with USAID, the Ministry of Health, and local communities, diverse <i>Mutuelles</i> or micro-health insurance schemes commenced in three districts. In an effort to promote reconciliation and development in post-genocide Rwanda, the government and USAID emphasised community involvement in the design of the project. (WHO 2008). |
| | By empowering local officials to develop the schemes, coverage increased from 6 micro- insurance schemes in 1998 to 225 in 2004. Voluntary members at the time paid a fixed annual enrolment fee of RWF 2,500 (in 2000), plus regionally varying co-payments of around RWF 100 per episode, covering services such as overnight stays, consultations, c- sections or malaria treatment. Between 2005 and 2010, the community-based program was scaled up nationwide and benefits were unified (MoH 2004). |





7. Description of current health care system

a. Organizational structure

The CBHI is highly decentralized. Rwanda is composed of five provinces with 30 districts that branch into 416 sectors. Sectors include 2148 cells, which inhabit 14.837 villages, the smallest organizational unit. Since 2000 the Rwandan government pursues a decentralization strategy to increase accountability in all sectors (WHO 2008; MoH 2010a). Each of the 30 districts governs their autonomous "Fonds de Mutuelles de Santé". The organizational units are hierarchical, each responsible for the supervision and management of the subsequent structure:

- » The Rwandan Ministry of Health is the central governing body. It formulates strategic visions, national programs and standards for medical treatment. The MoH is responsible for overseeing reference hospitals, capacity building, management of the national risk pool as well as paying subsidies (13% of health expenditure).
- » For each district, the MoH assigns one district director, responsible for planning, management, coordination, and evaluation of health services and all CBHI activities.
- » The sector level is home to health centers, hospital pharmacies and health stations. It has an administrative and finance committee. CBHI units are responsible for new members, managing the mutual health section, including the collection and administration of membership fees and payment, to everyday administrative tasks- administration and collection. They strengthen the management capacities of mobilization committees in villages, cells and sectors (training, supervision and evaluation).
- » At cell level Community Health Workers (CHW) are actively engaged in low level health promotion (family planning, malaria etc.) and referrals. They are elected by their respective communities. (WHO 2008; MoH 2010b)
- » Coverage in %

| Percentage of population covered by social insurance schemes | | |
|--|-------|--|
| » CBHI (2019) | 79.6% | |
| » RAMA (2007) | 2.3% | |
| » MMI (2007) | 1% | |
| Percentage of population uncovered | 10% | |

Source: RSSB 2020:13; WHO 2008

All Rwandans and non-citizens are required to subscribe to one of the insurance schemes, all of which being eligible for the Mutuelles scheme.

b. Provision

| Number/density of physicians per 1000 (2019) | 0.1 |
|--|-----|
| Number of nurses and midwives per 1000 (2019) | 0.9 |
| Number/density of inpatient beds per 1000 (2013) | 1.6 |

Source: World Bank 2023; MoH 2013

There are two benefit packages that CBHI members are entitled to: the minimum package (PMA) which covers all preventive and curative services offered by the health centers, and the complementary package (PCA). PCA is provided in district and national referral hospitals and includes e.g. managing of difficult and caesarean deliveries, surgeries or laboratory analysis. (MoH 2004; MoH 2010b)

On paper, the benefits package is comprehensive if the resources and nurses were in place to deliver these services sustainably. In reality health facilities often do not have the capacities to offer the whole range of required services. The MoH estimates that only 30% of health centers provide the extensive list of services included in these packages (Lu et al. 2012).

c. Financing

Since 2003 the total expenditure for healthcare has remained stable, accounting for 7.32% of GDP in 2020 (World Bank 2023). Contributions for CBHI members are dependent on their Ubudehe-category, a communitylevel socioeconomic classification scheme to estimate eligibility for government aid according to property relations. It was introduced after the regressive nature of the set premium and its influence on enrollment rates and catastrophic health spending on vulnerable populations became clear (Nyinawankunsi, Kunda, and Ndizeye 2015). The original six categories are summarized into four, with indigents in category one being exempted from subsidies. Annual contributions for categories 2-4 are: 2000 FRW; 3000 FRW and 7000 FRW, respectively. Co-Payments consist of 200 FRW at local medical facilities or 10% of the total bill at all district and provincial and referral. Contributions cover 66% of costs in the CBHI System and are further subsidized by the government (14%), from the Global Fund (10%) and the remaining from other sources and aid organizations. Formal and private insurance systems each cross-subsidize the funds by about 1% to the national risk pool (Fenny, Yates, and Thompson 2018; MoH 2010b).

d. Regulation of dominant system

Overall, the Ministry of Health is responsible for oversight of the healthcare system including licensing and providing guidelines. Since 2015 the CBHI Scheme is governed by the Rwandan Social Security Board overseen by the MINECOFIN (Ministry of Economic and Financial Planning) (SPARC 2021). As per organizational scheme, Performance Based Financing is used by the MoH to provide financial incentives for Community Health workers and health facilities to achieve certain preset goals and improve overall quality of care (MoH 2022). The benefit package is set per ministerial order. The mutuelles organization operates through performance contracts established among different tiers of the structure, aligned with Rwanda's decentralization policy. Mutuelles coverage is a key indicator in "Imihigo" contracts between the president and district mayors, to increase commitment and motivating mayors to boost enrollment. (WHO 2008).

8. Co-existing systems

a. Traditional Medicine

A significant portion of Rwandans continue to use traditional medical services in addition to seeking care from western medicine providers. Efforts to institutionalize Traditional Medicine into the healthcare system go back to the 1980s when the National University of Rwanda opened a University Centre for researching Pharmacopoeia and Traditional Medicine (CURPHAMETRA). It was transferred to the Institute of Scientific and Technological Research and then to National Research and Development (NIRDA) in 2013. Some regulations for practicing Traditional Medicine (e.g. Ministerial instruction No. 20/18 of 16/06/2006), and assistance for the organization of practitioners into associations have been put in place. Yet, the institutionalization of Traditional Medicine is far from being sufficient and only a few of these associations are functioning (NISR, MoH, and Macro International Inc. 2008; MoH 2017).

b. Military Medical Insurance (MMI)

The Military Medical Insurance (MMI) provides health insurance and medical services to Rwandan military forces. In 2007 it counted 100.000 beneficiaries, about 1% of the population. Contributions are 22,5% of base salary: 17,5% paid by the government (employer) and 5% coming from affiliates. (Law N° 23/2005, WHO 2008)

c. Rwandaise d'Assurance Maladie (RAMA)

The Rwandaise d'Assurance Maladie (RAMA) is a parastatal organization which is a legal entity with administrative and financial autonomy. In 2010 RAMA moved together with the national pension and occupational scheme



(CSR) to the Rwandan Social Security Board. Affiliation is compulsory for all civil servants and staff of public or parastatal organizations, including NGOs. Workers in the private sector have the option to voluntarily choose between RAMA and private insurance companies, based on their employer's preference. (Law N° 24/2001)

d. Caisse Sociale du Rwanda (CSR):

Established on November 15, 1962, the Caisse Sociale du Rwanda (CSR) or Social Security Fund (SFF) is the oldest and largest Social Insurance Scheme in Rwanda. The CRS is responsible for securing workers and employees in the formal sector, covering pensions, disability benefits, occupational diseases, and workplace accidents. Membership in the CRS is mandatory for formal employees, and it counts the highest number of members among social funds in Rwanda. Contributions are calculated based on the contributor's gross salary, totaling 6% of the salary. This includes a 3% contribution from both the employee and the employee, allocated for pension benefits. An additional 2% of the gross salary is collected based on occupational risk. (WHO 2008).

e. Private Insurance

Some registered private health insurance companies cater to both private companies and individual Rwandans. Private insurance serves as a third alternative for those not mandated to be in social insurance or complimentary coverage. It counts less than 10.000 members (WHO 2008).

f. Fonds d'Assistance aux Rescapés du Génocide (FARG)

Founded in 1998, FARG was created to provide support to victims of the 1994 genocide, offering assistance in education, health, psychological trauma, and financial aid. Approximately 1% of the government expenditure is dedicated to FARG, and it is co-financed by an additional 1% from the formal sector. About 283,000 people benefited from the fund in 2004. (Law N° 02/1998, WHO 2008).

9. Role of global actors

Since its independence, Rwanda heavily relies on foreign aid and support from faith-based facilities for healthcare provision and financing (USAID et al. 1983). Notably about 20% of costs in the Community-Based Health Insurance (CBHI) system are covered by the Global Fund (60%) and the US-Government's PEPFAR. In 2006, a framework was established to enhance aid efficiency and promote direct collaboration with the government (Government of Rwanda 2006). Funds from the Global Fund are specifically utilized to finance subsidies for the very poor (last Ubudehe tier) (Fenny, Yates, and Thompson 2018)

About 40% of healthcare facilities are run by NGOs or charitable organizations as "government assisted facilities" working under guidelines of the government (WHO 2008).

References

- Binagwaho, Agnes, Paul E. Farmer, Sabin Nsanzimana, Corine Karema, Michel Gasana, Jean de Dieu Ngirabega, Fidele Ngabo, et al. 2014. "Rwanda 20 Years on: Investing in Life." *The Lancet* 384 (9940): 371–75. https://doi.org/10.1016/S0140-6736(14)60574-2.
- Fenny, Ama Pokuaa, Robert Yates, and Rachel Thompson. 2018. "Social Health Insurance Schemes in Africa Leave out the Poor." International Health 10 (1): 1–3. https://doi.org/10.1093/inthealth/ihx046.
- Gakusi, Albert-Eneas, and Michel Garenne. 2002. "Contexte Économique et Socio-Politique de La Santé Publique Au Rwanda: De 1900 à 1992.", Les Dossiers du CEPED, 70 (January): 83.
- Government of Rwanda (GoR). 1998. Establishing a National Assistance Fund for Needy Victims of Genocide and Massacres Committed in Rwanda Between 1 October 1990 and 31 December 1994. 02/1998 of 22/01/1998. https:// www.refworld.org/cgi-bin/texis/vtx/rwmain/opendocpdf.pdf?reldoc=y&docid=52df99854.

- ———. 2001. On the Establishment, Organization and Functioning of a Health Insurance Scheme for Government Employees. 24/2001.
- ———. 2005. Law Establishing Military Medical Insurance and Determining Its Organisation and Functioning. 23/2005.
- ———. 2006. Rwanda Aid Policy.
- ----. 2007. Law Establishing and Determining the Organisation, Functioning and Management of the Mutual Health Insurance Scheme. 62/2007.
- League of Nations. 1923. "Belgian Mandate for East Africa." The American Journal of International Law 17 (3): 149–53. https://doi.org/10.2307/2212952.
- Lu, Chunling, Brian Chin, Jiwon Lee Lewandowski, Paulin Basinga, Lisa R. Hirschhorn, Kenneth Hill, Megan Murray, and Agnes Binagwaho. 2012. "Towards Universal Health Coverage: An Evaluation of Rwanda Mutuelles in Its First Eight Years." *PLoS ONE7* (6): e39282. https://doi.org/10.1371/journal.pone.0039282.
- Ministry of Health (MoH). 2004. "Mutual Health Insurance Policy in Rwanda."
- ---. 2010a. "Rwanda National Health Insurance Policy."
- ----. 2010b. "Rwanda Community Based Health Insurance Policy." https://rbc.gov.rw/fileadmin/user_upload/Rwanda_ Community_Based_Health_Insurance_Policy.pdf.
- ---. 2013. "Ministry of Health Annual Report July 2012-June 2013."
- ---. 2017. "Rwanda: National Policy of Traditional, Complementary and Alternative." https://www.medbox.org/ document/rwanda-national-policy-of-traditional-complementary-and-alternative-medicine#GO.
- ----. 2022. "Annual Report 2021/2022." https://www.moh.gov.rw/index.php?eID=dumpFile&t=f&f=69777&token=c65 95d564dd66742bfe4d887df3a3a7ef9652e68.
- National Institute of Statistics Rwanda (NISR), Ministry of Health, and Macro International Inc. 2008. "Rwanda Service Provision Assessment Survey 2007." https://www.dhsprogram.com/pubs/pdf/SPA15/SPA15.pdf.
- Nyinawankunsi, Joséphine, Thérèse Kunda, and Cédric Ndizeye. 2015. "Increasing Equity among Community-Based Health Insurance Members in Rwanda," African Health Monitor, no. 20: 58–62.
- Rwandan Social Security Board (RSSB). 2020. "RSSB Action Plan 2019-2020." https://www.rssb.rw/uploads/RSSB_ Action_Plan_2020_2021_afxujp_4efe2aa692.pdf.
- Schneider, Pia, François P. Diop, and Sosthène Bucyana. 2000. "Development and Implementation of Prepayment Schemes in Rwanda." Technical Report 45. Bethesda, Maryland: Abt Associates Inc.
- Strategic Purchasing Africa Resource Center (SPARC). 2021. "Policy Brief Strategic Health Purchasing in Rwanda." https://sparc.africa/wp-content/uploads/2021/06/SPARC_Policy_Brief_RWANDA_L4.pdf.
- United States Agency for International Development (USAID), Government of Rwanda, and Centers for Disease Control (CDC). 1983. "Combatting Childhood Communicable; Disease Project Country Assessment Rwanda." https://pdf.usaid.gov/pdf_docs/PNAAY356.pdf.
- World Health Organization (WHO). 2008. "Health Financing Systems Review."
- World Bank. 2023. "World Development Indicators." 2023. https://databank.worldbank.org/source/world-developmentindicators.

