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EVIDENCE BRIEF

Health financing reforms in support of universal health coverage: A case study for Rwanda

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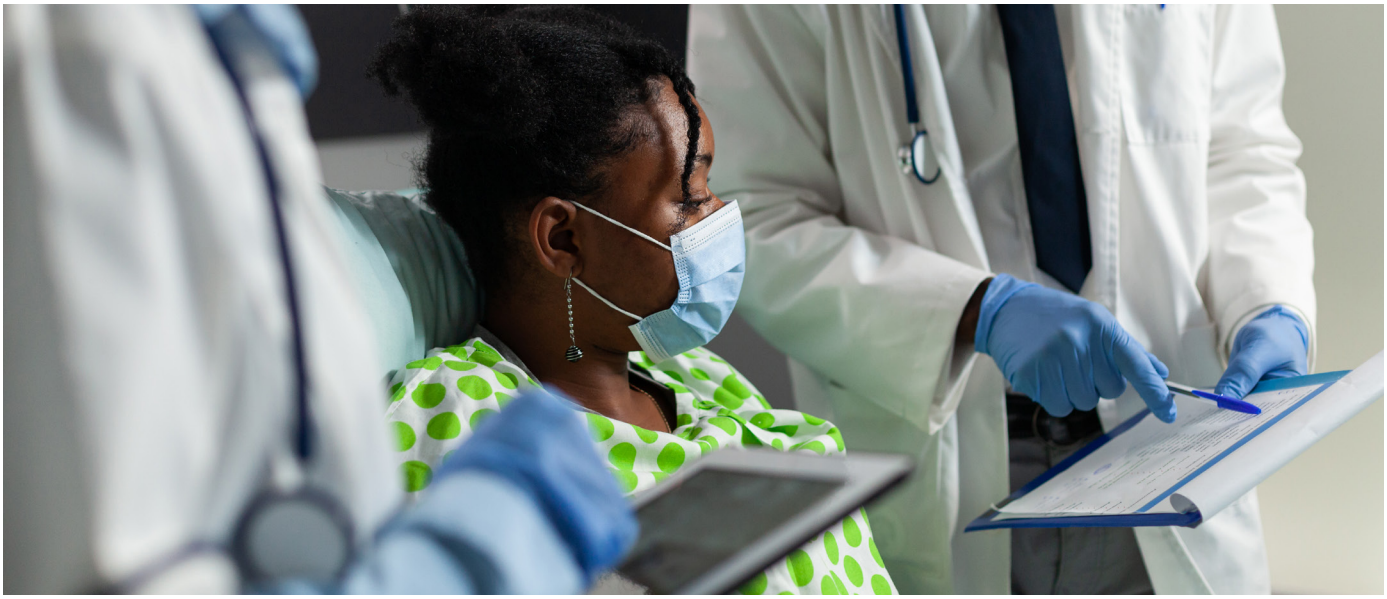

Background

Universal health coverage (UHC) is a global health concept that aims to ensure that all individuals and communities have access to essential health services without financial hardship. It encompasses a broad range of health services, including preventive, promotive, curative, rehabilitative, and palliative care, and is designed to meet the health needs of the entire population [1]. The World Health Organization (WHO) defines UHC as "ensuring that all people have access to needed health services (including prevention, promotion, treatment, rehabilitation, and palliation) of sufficient quality to be effective while also ensuring that the use of these services does not expose the user to financial hardship" [1].

The total population of Rwanda is 13.2 million based on the recent 2022 census, with a slightly higher women population at 51.5% and a population growth of 2.3% [2]. The fertility rate is at 3.6 children on average [2]. The estimated poverty rate was 36.7% in 2018, down from 44.8% in 2010/11 [3]. Rwanda's domestic general spending on healthcare is 17%. However, the external funds still account for 60% of the total health expenditure [4]. In line with the government health spending of over 15%, Rwanda is among the few countries that have surpassed the 2001 Abuja declaration commitment [5]. In addition, Rwanda has achieved immense strides towards the protection of women and children through established (1) legal frameworks such as Organic Budget Law N° 12/2013, Instituting Gender Responsive Budgeting, and the 2015 constitution, which enshrines the principles of gender equality and women's empowerment and provides for the minimum 30% quota for women in all decision-making positions; and (2) institutional mechanisms such as formulated policies on National Policy for family promotion, National gender policy and strategy, National GBV policy, Early Childhood Development Policy, National Policy for orphans and vulnerable children (OVC), Integrated Child Rights Policy, etc. [6].

From 2017 to 2020, Rwanda's current Gross Domestic Product (GDP) showed a positive trend, rising from 882 billion USD to 919 billion USD in 2019-20 [7]

Over the same period, regarding healthcare financing, Rwanda's Total Health Expenditure (THE) witnessed a steady increase over the three years under review. Additionally, THE as a percentage of GDP also demonstrated an upward trajectory, reflecting the country's commitment to healthcare investment [7]. Furthermore, Rwanda's per capita THE in USD exhibited an upward trend over the same period [7]. Figures in Table 1 reflect Rwanda's efforts to strengthen its healthcare system and increase healthcare access and quality for its growing population over the specified time

frame.

In 2019-20, domestic funding sources regained some ground, increasing to approximately 58% of THE from 56% in 2018-19 [7]. Public funding remained stable at around 34% of THE, while private funding sources maintained their share at about 24%. External funding sources slightly decreased to approximately 42% of THE while the OOP payments remained relatively constant at around 4% of THE [7], indicating continued efforts to minimise out-of-pocket spending on healthcare and improve financial protection for the population.

Table 1. **Health expenditure summary statistics 2017-2020**

Indicators	2017-18	2018-19	2019-20
Total Population	12,089,721	12,374,397	12,663,116
Current GDP (in billion USD)	885	882	919
THE (in million USD)	521.1	677.1	710.1
THE as % of GDP	5.6%	6.4%	6.7%
THE per capita (USD)	43	55	56
OOP as % of THE	5%	4%	4%
Funding sources (% of THE)			
Domestic as % of THE	59%	56%	58%
• Public as % of THE (this includes OOP and government expenditure on health as % of THE)	32%	32%	34%
• Private as % of THE	27%	24%	24%
External as % of THE	41%	44%	42%

Source: Rwanda Health Sector Annual Performance Report [7]

Methods

The desk review included an in-depth analysis of relevant data on the WHO's financing reforms/principles around revenue raising, pooling revenues, and purchasing services [8]. The documents reviewed included the health sector strategic plans, policy documents, health survey reports, and research sources, including published and grey literature. The review provides a rapid situational analysis of Rwanda's financing reforms landscape.

Findings

Revenue Raising

Rwanda has implemented tax reforms, including expanding the tax base and improving administration, to boost domestic revenue [10]. Aligning to the WHO's health financing guidelines on revenue raising [8], Rwanda's revenue-raising strategies focus on taxation approaches, public funding predictability, and maintaining a stable flow of public funds.

a). Taxation approaches

Value-Added Tax (VAT): Rwanda has implemented a VAT system, contributing significantly to its revenue base. The VAT rate is set at a standard rate of 18%, with some essential goods and services subject to reduced rates or exemptions [11]. The Government of Rwanda (GOR) has successfully increased its domestic funding through strengthened nutrition-related fiscal policies such as the sugar-sweetened beverages taxation. The taxation of soft drinks, including non-sugar-sweetened beverages, is subject to an excise tax of 39%, with proceeds earmarked broadly for the government [12].

Customs duties: Rwanda's reliance on customs duties has evolved, with efforts to diversify revenue sources. While customs duties remain an essential component, the government aims to reduce dependency and enhance efficiency in revenue collection [11].

Innovations in tax administration: - The Rwanda Revenue Authority (RRA) has implemented technology-driven tax administration solutions, such as electronic billing machines

and online filing systems. These innovations improve efficiency, reduce tax evasion, and enhance revenue collection [11].

b). Public Funding Predictability

Medium-term expenditure framework (MTEF): - Rwanda employs a MTEF to enhance public funding predictability. This multi-year planning approach aligns government priorities with budget allocations, fostering stability and transparency in resource allocation [13].

Performance-based budgeting: - Performance-based budgeting links funding with achieving specific outcomes, promoting accountability, and ensuring that public funds are allocated based on demonstrated effectiveness in achieving policy objectives [11].

c). Stable flow of public funds

Domestic resource mobilization (DRM): - Rwanda has emphasised the importance of domestic resource mobilization to ensure a stable flow of public funds. Efforts to broaden the tax base and reduce dependency on external aid contribute to fiscal sustainability [14].

Diversification of Revenue Sources: - The government is actively working to diversify revenue sources beyond traditional taxation. This includes exploring innovative financing mechanisms and promoting the private sector's role in revenue generation [14].

Pooling revenues

Rwanda has made elaborate pooling mechanisms around the health insurance system to enhance the redistributive capacity of available pre-paid funds. The Rwanda household survey 2019/2020 indicates % health insurance coverage of 87.3%, including the poorest groups [15]. The government supports all individuals living in extreme poverty, which is currently estimated to account for 16% of the population so that they can access healthcare through health insurance and other social services [6]. The health insurance and risk pooling is from a combination of four public health insurance schemes: The Civil Servants' Health Insurance Scheme, RAMA (Rwandaise d'Assud'Assurancee); Military Medical Insurance, MMI; private health insurance and Community-Based Health Insurance (CBHI) [6]. From the 87.3% health insurance coverage, CBHI accounted for 94% of the overall health insurance coverage, with the remaining coverage distributed as follows: RAMA at 3.8%, MMI at 1.2%, and private and other insurance at 1% [15].

The integrated household living conditions survey conducted every three years shows a steady increase in national health insurance coverage (70%, 74%, and 87.3%, respectively) between the years 2013 and 2021 [15–17] and a marked increase at 97.3% health insurance coverage from the 2022 census [18]. Figure 1

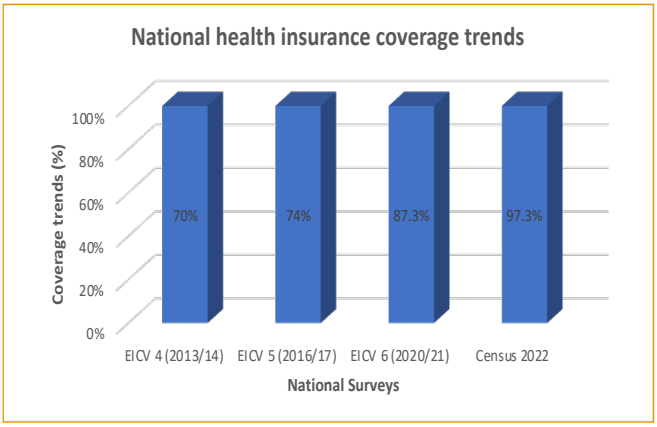

Figure 1: National health insurance coverage trends [15–18]

The 2022 survey reported 97.1% of men had insurance coverage compared to 97.5% of females respectively. Health insurance uptake across the subnational level of government in Rwanda averaged more than 96%. The Northern Province of Rwanda had the highest uptake at 98.9%, while the city of Kigali had the lowest at 96.1% [18]. Figure 2

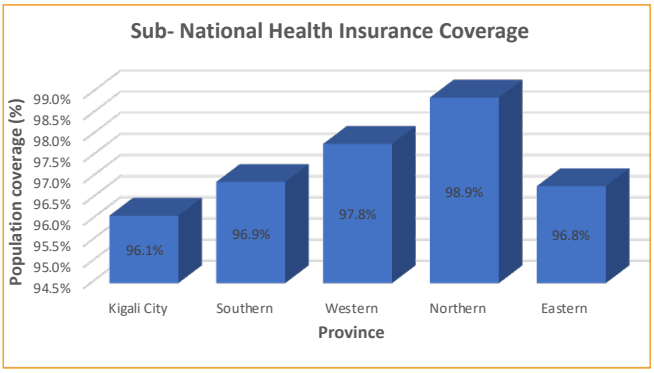

Figure 2: Sub-National Health Insurance Coverage [18]

Community-Based Health Insurance (CBHI) Sustainability Plan:

It is important to note the financing strategies leading to this very high insurance coverage and successful implementation that ensures financial sustainability. The CBHI major pools include government and external funds, individual/household contributory systems, and cross-subsidy contributions, where the other health insurance contribute 5% of their revenues to CBHI [4].

The second strategy is subsidies from the government which is earmarked for CBHI where 50% of the amount collected by the National Ethics Committee on research review fees is contributed to CBHI [7]; the Ministry in

charge of trade pays 10% of fees charged on services offered to gaming companies; the Rwanda National Police covers 50% of fees collected for motor vehicle mechanical inspection. Additionally, the Rwanda National Police pays 10% of fees collected from road traffic fines; the public institution responsible for standards pays 100% of the amount collected as penalties for the trade of substandard products; the City of Kigali charges one hundred Rwandan Francs (FRW 100) from parking fees levied on vehicles for each hour of parking; employers deduct 0.5% of the net salary of the employee; the Rwanda Development Board (RDB) allocates 10% of tourism revenues to beneficiary districts; the Rwanda Revenue Authority levies twenty thousand Rwandan francs (FRW 20,000) for the transfer of ownership on cars and ten thousand Rwandan Francs (FRW 10,000) for the transfer of ownership on motorcycles; and Beneficiary Districts pay four thousand Rwandan Francs (FRW 4,000) per hectare of marshland, five thousand Rwandan Francs (FRW 5,000) per hectare of hillside, and two thousand Rwandan francs (FRW 2,000) per hectare of radical terraces [19]

The other financing strategy is subsidies from the telecommunications or fuel trade companies earmarked for CBHI. Following the publication of Prime Minister's Order No 034/01 of 13/01/2020 related to CBHI in the official gazette of the Republic of Rwanda, The subsidies paid by each telecommunication company to the community-based health insurance scheme [19] are structured as follows:

1. For the first and second years, the subsidy amounts to 2.5% of the company's annual turnover. Starting from the third year after publication, the subsidy increases to 3% of the company's annual turnover.
2. Fuel trade companies provide subsidies equivalent to twenty Rwandan francs (FRW 20) per liter sold.
3. Each telecommunication company or fuel trade company is required to transmit its paid subsidies to the Rwandan Utilities Regulatory Authority in accordance with the authority's instructions. The authority, in turn, forwards the granted subsidies to the community-based health insurance scheme by the 15th of the month following the period for which the subsidies were paid.

Purchasing services

The WHO's health financing guidelines on purchasing services highlight the alignment of resource allocation to population needs and performance, adequate management, and commitments to budgeting and provider payment arrangements [8]. To this end, Rwanda has made progress around (1) the performance-based financing (PBF) program, (2) public finance management (PFM) reform, and (3) program-based budgeting (PBB).

The PBF program was introduced in 2004 and later institutionalized in 2008 [4] Rwanda is working towards this through the PBF, which aims to improve Rwanda's care services by increasing institutional performance and management and increased health worker and CHW motivation/incentives, such as strengthening human resources through education and training and improving equitable recruitment and deployment, etc. [5, 6]. Note that GOR is currently the primary funder of PBF despite receiving external funding support [4]. For instance, in the 2015/16 PBF budget, external funding accounted for 35% against 65% from the government, with estimated increased domestic funds by 2024 [4]. Secondly, performance-based financing effectively manages the resources for health, including the community health workers (CHWs) at the community level [6, 20]. For instance, Rwanda's resources for health have seen near adequate provider-patient ratios relative to the WHO standards where the Rwanda medical doctor and patient ratio is 1/10,055 against 1/10,000 while the Rwanda nurse and patient ratio is 1/1142 against the WHO 1/1000 [21].

The Public Finance Management (PFM) reform includes ecoomic and budget management, financial management and reporting, public procurement, and budget execution. Some critical reforms in PFM involve using a single treasury account, introducing the integrated financial management information system (IFMIS) at national and district levels, and integrating revenue and expenditure management systems [4, 22].

In Rwanda, Program-Based Budgeting (PBB) has been a successful approach in the allocation of resources to improve results in high-priority vertical programme areas including HIV/AIDS, non-communicable diseases (NCDs), and maternity and child health [23]. This model was evaluated by comparing the effect of performance-based payment of health care providers in maternal care services and the input-based funding approach. The findings from this evaluation showed a 23% increase in hospital deliveries and a 56% increase in preventive care for children under 5 years [23]. Here, the budget allocations are linked directly to health outcomes which therefore enhances the programme's performance monitoring and evaluation [23].

Programme-based budgeting has been a successful approach in the allocation of resources to improve results in high-priority vertical programme areas

Photo: Canva

Gaps and challenges, and strategies (if any) used to overcome these

Despite the GOR efforts in prioritising domestic health financing, there exist challenges around the implementation. One, some underprivileged and secluded areas still experience issues with geographic or financial access to healthcare [5]. The "Ubudehe Community Assistance Program" is a social protection programme for the poor and vulnerable populations offered through the Ministry of Health (MoH) to provide subsidised subscriptions for community-based health insurance (BHI) and in-kind social care services [6]. Two, the sustainability of financing the health system is a significant issue due to the fast decreasing external funding against the available internal resources. Consequently, there is a threat to maintaining the desired availability and quality of services [4, 5]. Third, insufficient private sector involvement and the need for strengthened health insurance programmes to ensure the financial independence of healthcare services [5]. Fourth, the challenges around revenue pooling include segregated and fragmented health insurance programmes, which make equality and risk sharing difficult.

Further, limited incentives exist with the fee for service payment and limited capacity for claims review and audits at the sub-national (district) level. Specific to CBHI, the insufficient contribution and fluctuations in membership further threaten CBHI's sustainability [4, 17, 20]. Five, the health purchasing arrangements for the CBHI rely on the service fee, limiting the purchasing mechanism. Considerations such as capitation and accreditation could facilitate the expansion of purchasing options [5]. Furthermore, there are inefficiencies in CBHI from high operational costs against the constrained domestic financing mechanisms [5, 20]. Six, Since the current tariff structure cannot cover the whole cost of service provision, some expenditures are still paid out-of-pocket by patients for private health care providers. In addition, the expansion of the private health sector is limited to access to credit and financing [4]. Notably, Rwanda still faces staff shortages more in the rural areas [24, 25] and the MoH now places a strong emphasis on human resources, as seen in its current Human Resources for Health (HRH) Strategic Plan 2015–2018 and HRH Operational Plan 2016–2018. Lastly, the PBB challenge includes linking the financial inputs to the outcomes thereby highlighting the need for robust health monitoring systems and personnel capacity development in budget planning and execution [26]. To address this challenge, there have been ongoing capacity-building efforts [23].

Discussion

The financial protection from catastrophic health expenditure is four times less in households with health insurance coverage than those without insurance [27] utilisation doubled in households with insurance coverage [28]. The CBHI shows an overall decreased out-of-pocket expenditures by approximately USD 12/ RWF 3,600, representing about 83% of the average per capita healthcare expenditure [29]. Furthermore, a cross-sectional study investigating the CBHI model to children's nutritional status found an inverse association between the CBHI uptake and the risk of stunted growth in children. The odds of stunted growth were reduced by 39% for insured children compared to 53% for uninsured children [30].

Systemic governance and accountability mechanisms exist where health services are demand-driven by the communities, especially the CBHI scheme, the primary organising and financing mechanism for healthcare through a contributory system. In addition, GOR purchases direct contributions to the CBHI fund to cover the indigents.

Public finance management (PFM) enhances the government's purchasing arrangements and invests resources to foster growth without compromising fiscal responsibility [9]. The Zero Tolerance Policy for Corruption improved Rwanda's system to exercise effective governance, and the GOR's attitude on this matter has boosted the benefits of the decentralisation process and overall healthcare management [20].

At the sub-national level (districts), a streamlined receipt of funds from both the local revenues and central government exists. The government funding mainly caters to wages/salaries and infrastructure development, while the districts have complete autonomy in allocating and using the revenues from local taxes and fees. This, therefore, enhances prioritisation and budget execution based on local needs and further promotes local ownership and accountability [4]. For instance, in 2015/16, the budget execution at the district level was relatively high (99.6%) compared to the national rate (86%) [4]. Notably, the E-tax systems have led to a steady improvement in revenue collection as the % of GDP for the FY 2019/2020 was 15.9%, surpassing the initial target of 15.6% [9].

Additionally, a precise mechanism exists for allocating resources to sub-national governments to support strategic resource allocation and ensure a timely flow of resources at the district level [9].

The PBF model has shown an increased healthcare-seeking behaviour and access to treatment at district-level healthcare facilities. For instance, children from poor households in PBF districts had a 44.6% higher probability of receiving treatment, including medications, than health facilities without PBF [31]. The provider-level interventions, such as the human resources for health (HRH) from the PBF model, include establishing performance pay, expanding community health committees' involvement, and improving professional training [24]. Furthermore, HRH training programs improved the procurement of equipment and supplies within medical schools and teaching hospitals and strengthened management and administration [25].

The implementation of the PBB has seen structured and significant improvements in Rwanda's health service delivery. For instance, there have been marked improvements in this approach to maternal and child health where the maternal mortality dropped from 476 per 100,000 live births in 2010 to 210 in 2019 [32]. Additionally, the HIV prevalence rate has remained steady at 3% in recent years due to the targeted funding approach in the HIV/AIDS programming [33].

Lessons from the reforms and implementation of prioritised domestic health financing initiatives

- The immense gains of the mandatory enrolment law of health insurance in Rwanda have led to an increased health insurance coverage of over 90% [4, 15]. Notably, the increased health insurance coverage has led to increased healthcare consumption and reduced risks from catastrophic out-of-pocket expenditures, thereby protecting households from health-related financial risks [5]. Furthermore, the CBHI schemes and CHW cooperatives have led to an increased risk pooling where a large population is enrolled, thereby increasing access and resources to healthcare services [5].
- Domestic revenue collection is a good funding source for the healthcare sector, where there is less dependence on external funding, otherwise less predictable. In addition, devolving functions, such as allocating and using the local revenues collected, prompt greater prioritisation [4]. Notably, the sin tax offers opportunities to expand revenue collections, such as sugar-sweetened beverages taxation [12].
- Fiscal discipline is strengthened by PFM rules and regulations that offer clear direction on the division of labour and are reinforced by a political commitment to execute PFM laws [9].

Conclusion

The government of Rwanda has broad policies and programmes that ultimately promote health reforms and initiatives. Despite the few limitations, the streamlined approaches to healthcare financing have improved healthcare access, including those from the informal sectors and the indigents through pro-poor programmes, and reduced impacts on the out-of-pocket expenses on individual wellbeing. However, reflecting on even more efficient strategies that maximise healthcare purchasing and revenue pooling is essential, ultimately ensuring healthcare access to all.

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