Strengths and Weaknesses of Strategic Health Purchasing for Universal Health Coverage in Rwanda

Stella M. Umuhzo, Sabine F. Musange, Alypio Nyandwi, Agnes Gatome-Munyu, Angeline Mumararungu, Regis Hitimana, Alexis Rulisa, and Parfait Uwaliraye

ABSTRACT
In the context of scarce resources and increasing health care costs, strategic purchasing is viewed as a key mechanism to spur countries’ progress toward universal health coverage (UHC), by using limited resources more effectively. We applied the Strategic Health Purchasing Progress Tracking Framework to examine the health purchasing arrangements in three health financing schemes in Rwanda—the Community Based Health Insurance (CBHI) scheme, the Rwanda Social Security Board (RSSB) medical scheme, and performance-based financing (PBF). Data were collected from secondary and primary sources between September 2020 and March 2021. The objective of the study was to identify areas of progress in strategic purchasing that can be built on, and to identify areas of overlap, duplication, or conflict that limit progress in strategic purchasing to advance UHC goals. This study found that Rwanda has made progress in many areas of strategic purchasing and has a strong foundation for building further. However, some overlaps and duplication of functions weaken the power of purchasers to improve resource allocation, incentives for providers, and accountability. In addition, some of the policies within the purchasing functions could be made more strategic. In particular, open-ended fee-for-service payment in the CBHI scheme not only threatens the scheme’s financial sustainability but also imposes a high administrative burden. Better alignment and integration of contracting, incentives, and information system design to provide timely and relevant information for purchasing decisions would contribute to more strategic health purchasing and ensure that Rwanda’s health sector achievements are sustained and expanded.

Introduction
Rwanda is a low-income country with a per capita gross domestic product of 837 USD in 2019 and an estimated population of 12.9 million. Rwanda has made tremendous progress toward universal health coverage (UHC) over the past two decades, and is recognized globally for its achievements in extending health coverage with financial protection. The Community Based Health Insurance (CBHI) scheme has led to increases in health service utilization and better financial protection since it began in 2005. In 2019, 83% of Rwandan women and men ages 15 to 49 had health insurance; of those, 93% were members of the CBHI scheme. Despite these successes, the financial sustainability of the scheme is a constant concern. It has consistently run at a deficit since 2011, and that deficit continues to grow in spite of several new revenue sources, the most recent one added in 2020.

Health purchasing is the allocation of pooled funds to the providers of health services. Strategic purchasing means actively creating incentives so funding is used equitably and efficiently and information is used to make decisions about what health services should have priority for public funding, where and from which providers those health services should be accessible, and how and how much will be paid to deliver the services.

Rwanda is still struggling to fully leverage strategic purchasing to ensure the financial sustainability of the CBHI scheme and continue to make progress toward UHC. This paper examines the purchasing arrangements in the CBHI, Rwanda Social Security Board (RSSB), and performance-based financing (PBF) schemes in order to inform efforts to better align purchasing arrangements in Rwanda and move toward more strategic purchasing. This study is the first one to...
assesses the strengths and shortcomings of health purchasing arrangements in Rwanda and how they can better support progress toward UHC.

**Rwanda’s Health Financing Context**

Rwanda has attained a good level of service coverage (56.9%) with modest per capita government spending (58 international dollars) and provides lessons on how to maximize value from limited health resources.9–11 Direct out-of-pocket spending is 9% of total health expenditure, indicating a good level of financial protection.12

The CBHI scheme targets the informal sector, which accounts for more than 95% of the Rwandan population. Its revenue comes from member contributions, government subsidies, and donor funding (for the very poor and other vulnerable groups). This has pooled risk across social groups to improve equity and fairness.

RSSB provides health coverage to civil servants, employees of private institutions, and pensioners who contributed to their health care while employed. It has a relatively smaller pool, but with a far larger revenue base because RSSB members make higher contributions than CBHI members. Contributions are paid by both employers and employees, at the rate of 15% of the basic salary, shared equally between the employer and the employee. The CBHI and RSSB schemes are currently managed by RSSB, but within different management units. There is cross-subsidization of CBHI by RSSB and other health insurance schemes, as mandated by law.13

Initiated as a pilot project in 2001 and scaled up nationwide in 2006, the PBF scheme was designed to increase the quantity and quality of health care services in Rwanda. Under the PBF framework, the purchaser, the Ministry of Health (MOH), pays each public health provider for a set of quantitative indicators adjusted by the overall quality offered at the health facility. The indicators are determined by the MOH based on national priorities and/or service delivery protocols. In 2010, PBF was expanded from health facilities to the community level to offer financial incentives to community health workers (CHWs). This expansion was possible because of the established CHW system, a well-defined package of services, well-organized CHW cooperatives, and the availability of resources from both the national government and development partners.14

In 2014, the MOH linked the PBF incentives to the hospital accreditation program to provide a financial incentive to hospital managers to pursue accreditation and enhance the quality of hospital services.6,15 Accreditation standards were developed and disseminated by the MOH and implemented through quality assurance teams established in each hospital.

**Methods**

**Analytical Framework**

We used the Strategic Health Purchasing Progress Tracking Framework (Figure 1), which was developed by the Strategic Purchasing Africa Resource Center (SPARC) and its technical partners, to assess the purchasing arrangements of the CBHI, RSSB, and PBF schemes.16 Our study compiled descriptive information on: (1) the purchasing functions—benefits specification, contracting arrangements, provider payment, and performance monitoring—and their execution through the three schemes; and (2) external factors and governance arrangements and how they are linked to strategic purchasing.

**Data Collection and Analysis**

Data were collected between September 2020 and March 2021 by a research team from the University of Rwanda School of Public Health, RSSB and MOH, using a Microsoft Excel–based data collection tool based on the framework. Data were collected primarily through document reviews, complemented by in-depth interviews as needed. Documents included policy documents; decrees, orders, and directives; national health accounts; resource tracking surveys; MOH statistical yearbooks; activity reports and/or websites of units in charge of managing and/or implementing the policies under study; scientific literature; and articles in the national press.

Sixteen key informants were selected based on their institutional affiliations and in-depth knowledge of the purchasing arrangements in Rwanda’s financing schemes. They included policy makers from the MOH (2), RSSB (3), and the Ministry of Finance and Economic Planning (MINECOFIN) (1); and representatives of development partners (2), academia (2), the National Health Insurance Council (NHIC) (1), public providers (2), private providers (1), and civil society organizations (2). All participants were informed of the objectives of the study and why they were selected and understood that their participation was voluntary. Each informant provided written informed consent.

All interviews were conducted in English, and some were audio-recorded with the permission of the respondents and then transcribed. Research team members also
Figure 1. Strategic Health Purchasing Progress Tracking Framework.

recorded field notes. The transcripts and field notes were grouped into themes and subthemes. Data extraction criteria were agreed upon by all of the authors, who organized the data in Excel. The data analysis focused on describing the elements of the purchasing arrangements in the health financing schemes and identifying strengths and weaknesses based on the benchmarks in the Strategic Health Purchasing Progress Tracking Framework.16

We used a descriptive and narrative approach to synthesize information and describe the policies and processes used to carry out the health purchasing functions as well as the governance arrangements.

Results

Table 1 summarizes the purchasing functions in Rwanda’s health financing schemes.

Governance Arrangements

Institutional Responsibilities and Capacity

Purchasing reforms in Rwanda have focused primarily on improving governance and institutional arrangements, establishing a strong regulatory framework for engaging stakeholders, and improving service coverage.17 Several institutions are involved in designing and implementing purchasing functions with coherent lines of accountability and a strong regulatory framework, including the MOH, RSSB, MINECOFIN, National Bank of Rwanda, the NHIC, public and private health care providers, public and private health insurance providers, health insurance beneficiaries, and development partners (Table 2).

In 2015, the Rwandan government transferred management of the CBHI scheme from the MOH to RSSB, in an effort to consolidate management of the schemes and reduce administrative costs. This transfer was also intended to create a purchaser-provider split—because the MOH is the main provider of services—to improve efficiency and sustainability. The MOH leads policy development, regulation, performance monitoring in the health sector, accredits public hospitals and monitors compliance with clinical guidelines and standards. RSSB is largely responsible for pooling and managing funds, contracting with providers, and processing claims, and it has a limited role in monitoring the quality of care.

In the case of PBF, the MOH is the regulator, MOH health facilities are the providers, and MINECOFIN is the purchaser. Even though the government budget is currently the main source of funds, the sustainability of the PBF scheme remains a major challenge.18

Despite robust legal and regulatory frameworks, there is some overlap in mandates and functions between key institutions and players, with certain purchasing
| Main Purchaser Governance | Government Budget Financing | Performance-Based Financing (PBF) | Community Based Health Insurance (CBHI) | Rwanda Social Security Board (RSSB) Medical Scheme |
|---------------------------|-----------------------------|----------------------------------|----------------------------------------|-------------------------------|
| % of Total Health Expenditure | MOH | MOH | RSSB | RSSB |
| Governance | The annual budget appropriation process is led by the Ministry of Finance and Economic Planning (MINECOFIN). MOH is led by the minister and departmental heads. Public facilities receive input-based budgets and do not have autonomy to reallocate budget funds across line items. | The annual budget appropriation process, including on-budget support from external sources, is led by MINECOFIN. MOH’s Department of Planning, Health Financing, Monitoring and Evaluation oversees day-to-day activities related to the implementation of PBF nationwide. At the district level, district steering committees provide direct oversight and verification. Health facilities are allowed to use received funds only for staff incentives. | The scheme is managed by RSSB, a government agency under the oversight of MINECOFIN. MINECOFIN remits the subsidy for Ubudehe category 1 to RSSB; RSSB collects other member contributions. RSSB is led by the director general and the management team. Public facilities have financial autonomy to manage CBHI funds. | The scheme is managed by RSSB. Member contributions are collected directly by RSSB. Public facilities have financial autonomy to manage scheme funds. |
| Financial Management | Budgets are based on MINECOFIN budget estimates from the Medium-Term Expenditure Framework (MTEF) and historical expenditures. Budget overruns are not allowed. | PBF budgets are based on the previous year’s expenditure and available funds from both domestic and external sources. Budget overruns occur, and when PBF funds are depleted and are not sufficient to pay facility claims, the health facilities finance the deficits through internally generated facility revenue. | Budgets are set by management, based on membership and projected revenue. Overruns occur, and MINECOFIN provides additional funding to bridge deficits. Other health financing schemes, such as the RSSB Medical Scheme and private health insurance, cross-subsidize CBHI. Additional domestic funds and subsidies are made available to CBHI to improve the viability of the scheme. | Budgets are estimated based on the previous year’s expenditure plus 15%. The budget is approved by MINECOFIN. The scheme has not had budget overruns. Surpluses are invested. |
| Benefits Specification | No explicit benefit package for budget funding. | PBF pays for a set of maternal and child health, malnutrition, HIV, tuberculosis, and eye care indicators. PBF targets services offered by public facilities and community health workers. | A benefit package is set by ministerial order. It includes preventive, curative, and promotional services and curative care at public facilities, private health posts, and private specialist facilities. A list of essential medicines is defined. | A benefit package is set by ministerial order. It includes preventive, curative, and promotional services and curative care at public and private facilities. Reimbursable medicines are reviewed regularly. |
| Contracting Arrangements | Loose agreements for input-based financing of public facilities | Annual contracts with public facilities only | Loose agreements with public facilities and selective contracting with private facilities for a few specialized health services (e.g., dialysis, eye care, imaging services, and orthopedic and prosthetic devices) | Loose agreements with public providers and selective contracting with private facilities and pharmacies |
| Provider Payment | Providers are paid through input-based budgets, mostly for health worker salaries and facility operation and maintenance budgets. | Fee-for-service based on achievement of targets | Fee-for-service | Fee-for-service |
| Performance Monitoring | Monthly facility activity reporting on DHIS2 and the Integrated Financial Management Information System (IFMIS), MOH facility inspections, annual financial report, internal and external audits, and annual reporting in the Health Resources Tracking Tool | Monthly facility activity reporting on DHIS2, verification of invoices before payment, central-level data verification | Electronic medical records, Mutuelle Membership Management System (3 MS), facility inspections, annual financial report, and facility inspections and audits | Electronic medical records, client membership management database, facility inspections, annual financial report, internal and external audits |

*Health Resource Tracking Tool Report FY 2015/16 and 2016/17.*
functions being performed by multiple institutions. The NHIC is charged with supervision and governance of the health insurance system, monitoring of contracts, quality assurance, and tariff setting. While the members of the NHIC are appointed by the Cabinet of Rwanda, the NHIC has limited capabilities and limited financial resources to carry out its responsibilities. For example, the setting of tariffs for services in public health facilities is meant to be carried out by the NHIC but is done by the MOH. This has created a conflict of interest because the MOH represents public providers. Further, RSSB has limited capacity to set tariffs, redefine the benefit package for the CBHI scheme, or exercise its purchasing power to negotiate prices for services and pharmaceutical products.

Citizen engagement and empowerment is critical to increasing responsiveness to population health needs and values and enforcing purchaser accountability. Our analysis shows that the purchasers have established mechanisms to inform beneficiaries of their entitlements and collect feedback and complaints. For example, RSSB has a toll-free number and suggestion boxes in health

Table 2. Key Stakeholders Engaged in Health Purchasing in Rwanda and Their Functions.

| Stakeholder | Key Functions |
|-------------|---------------|
| Rwanda Social Security Board | • Managing the CBHI and RSSB schemes<br> • Mobilizing funds<br> • Establishing guidelines and regulations as well as policies that support improvement of health insurance<br> • Overall supervising of RSSB according to banking law N°55/2007 of 30/11/2007<br> • Regulating the insurance industry<br> • Overseeing the social protection sector<br> • Engaging CBHI beneficiaries<br> • Managing the National Identification Agency database<br> • Establishing categories in the Ubudehe classification system that determine member contributions based on household income<br> • Maintaining the Ubudehe database<br> • Overseeing the Ubudehe program<br> • Validating CBHI premiums<br> • Paying subsidies as provided by law<br> • Developing benefit packages<br> • Developing appropriate health policies and strategies<br> • Setting standards and procedures that govern health care delivery<br> • Policy making, monitoring and evaluation<br> • Advocating for CBHI and other schemes<br> • Setting goals and targets (qualitative and quantitative) pursued by PBF and ensuring that they align with overall government policy<br> • Implementing the accreditation program<br> • Licensing and certifying health care providers in collaboration with health professional councils and bodies<br> • Developing a PBF assessment/accreditation toolkit, policy, and procedures; setting standards; selecting services to be purchased through PBF<br> • Providing independent supervision of governance in the health insurance ecosystem<br> • Improving governance and accountability in the health insurance system<br> • Monitoring the use of health insurance and providing recommendations on the provision of health insurance services<br> • Monitoring timeliness of health care services provided under contracts<br> • Overseeing quality of insurance services<br> • Setting prices or tariffs for services provided by insurers<br> • Overseeing and coordinating the CBHI, RSSB, and PBF schemes<br> • Mobilizing CBHI members at the grassroots level<br> • Providing tools and other equipment needed to implement ROPL for the collection of CBHI contributions<br> • Opening a ROPL account for collected contributions to facilitate daily funds transfer to the corresponding RSSB account at the Bank of Kigali<br> • Providing payment notification to CBHI contributors in the form of an SMS message<br> • Appointing two staff members as liaison officers for daily management of RSSB accounts and reconciliation<br> • Providing daily reports to RSSB<br> • Providing medical services to beneficiaries<br> • Improving the volume and quality of services<br> • Participating in the PBF scheme |

The MOH has responsibilities under the laws of the Ministry of Health, Local Ministry of Health, and District Ministry of Health. The Regional Health Office (RHOS) is responsible for the smooth running of the health system in the district/district health management team. The RHOS is responsible for coordinating and managing all activities and operations at the district level and implementing PBF activities within the district. The RHOS is also responsible for overseeing and coordinating the CBHI, RSSB, and PBF schemes. The RHOS is responsible for mobilizing CBHI members at the grassroots level. The RHOS is also responsible for providing tools and other equipment needed to implement ROPL for the collection of CBHI contributions. The RHOS is also responsible for opening a ROPL account for collected contributions to facilitate daily funds transfer to the corresponding RSSB account at the Bank of Kigali. The RHOS is also responsible for providing payment notification to CBHI contributors in the form of an SMS message. The RHOS is also responsible for appointing two staff members as liaison officers for daily management of RSSB accounts and reconciliation. The RHOS is also responsible for providing daily reports to RSSB. The RHOS is also responsible for providing medical services to beneficiaries. The RHOS is also responsible for improving the volume and quality of services. The RHOS is also responsible for participating in the PBF scheme.

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facilities. However, no processes or mechanisms are in place to engage with the population about their health priorities, and there is limited ability to ensure accountability to citizens.

**Expenditure Management**

Budgets for CBHI and the RSSB scheme are set by RSSB based on membership and projected revenue. Overruns occur when claims exceed revenues. RSSB has recorded deficits since 2011 for the CBHI scheme, and overruns are covered by supplemental allocations from MINECOFIN. RSSB publishes an annual account and financial report each fiscal year in accordance with Rwanda’s budget and public financial management law and policy. It also conducts regular audits of provider claims. Administrative districts and facilities conduct regular internal and external audits to enforce accountability and transparency.

**Provider Autonomy**

Decentralization reforms implemented in Rwanda in 2006 conferred autonomy to district governments over budgeting and financial management of public health facilities under their jurisdiction. Public providers have limited autonomy to manage government budget funds from MOH and cannot make reallocation decisions across expenditure line items. Public providers have more autonomy to manage revenue generated from the CBHI and RSSB schemes.

**Information Systems**

The government of Rwanda has used the DHIS2 open-source software since 2011 for data collection and disease surveillance and monitoring in both the public and private sectors. DHIS2 is also integrated with the laboratory information system and the standard electronic medical record (EMR) system at the hospital level, allowing for automated transmission of data.

RSSB established the Mutuelle Membership Management System (3MS), which is linked to the Ubudehe (household classification by socioeconomic group) and national identification databases and is used for collecting contributions and registering and verifying members. Members use e-payments to make contributions via mobile phone and online platforms. E-payment also enables RSSB to regularly monitor CBHI revenues, through an automated contribution reconciliation system, as well as the enrollment rates at the national and district levels.

Public and private hospitals have transitioned to EMR systems to capture patients’ clinical information and simplify billing. If EMR systems are fully implemented, they will offer an integrated clinical record with integration between providers and purchasers, but some modules have yet to be implemented. Also, multiple reporting requirements for some vertical programs still exist.

Overall, effective use of these health information systems at all levels of care and interoperability among these systems is still lacking, which limits the ability to provide the necessary data and evidence to make timely decisions. For example, EMR systems are not interoperable with DHIS2 and 3MS, resulting in duplicative data collection by health facilities, RSSB, and the MOH.

**Purchasing Functions**

**Benefits Specification**

The MOH determines the services and medicines provided at all levels of public health facilities covered by the CBHI and RSSB schemes. CBHI is required by law to cover all services and drugs provided at public health facilities. This means that CBHI members have access to a comprehensive range of preventive, rehabilitative, and curative services and drugs offered by public health facilities and some private health facilities. Members of the RSSB scheme have access to all services offered by public health facilities, as well as specialized services provided by private health providers, resulting in a larger benefit package and access to a wider range of providers than are available to CBHI beneficiaries. Both the CBHI and RSSB schemes lack a clearly defined, evidence-based process for updating the benefit package as priorities change.

As part of the PBF scheme, the government provides incentives to providers at the health center level to focus on maternal and child health, HIV, tuberculosis, and child stunting. The community PBF scheme, launched in 2009, provides a benefit package delivered by CHWs and focuses on community mobilization and preventive, curative, and promotive services. The PBF indicators and their weight and costs are reviewed every two years in a transparent, evidence-based process.

**Contracting Arrangements**

Under the CBHI and RSSB schemes, all public facilities are automatically contracted to provide the benefit package. Public health facilities are entitled to a contract of indefinite duration regardless of performance.

RSSB selectively contracts private health posts for the CBHI scheme, to expand geographic availability of services after verifying compliance with MOH facility criteria. It also selectively contracts with private health facilities for specialized health services.
The RSSB scheme uses selective contracting primarily with private, for-profit facilities and pharmacies based on explicit criteria, including the provider’s ability to offer services within a desired time frame, the quality of services, price range, and geographic location.

All health facilities are expected to use standard treatment guidelines and the essential medicines list defined by ministerial order to ensure the availability of the benefit package in adequate quantity and quality. In practice, essential drugs are often not available, and CBHI members have complained about stockouts at public facilities. In some instances, CBHI members pay out of pocket to obtain the medicines they need.

PBF contracting builds on the country’s Imihigo performance contracting process and includes contracts with administrative districts that oversee health facilities and contracts with individual providers.

**Provider Payment**

The CBHI and RSSB schemes purchase health services using fee-for-service payment that is based on tariffs for health services for each public health facility level. MOH sets tariffs for public health facilities for all health insurance schemes through a ministerial order.

RSSB processes provider claims manually, which is administratively complicated and time consuming for the health facilities and RSSB staff. Its lengthy verification process sometimes takes longer than the 30 days stipulated by contract, leading to major delays in paying providers. These delays affect health facility cash flow, liquidity, and purchasing power, leading to shortages in medicines and supplies.

The MOH sets the performance indicators and targets for PBF, and health facilities are paid through MINECOFIN upon verification of their achievement of targets. The unit cost and weights for each quantitative indicator are set by the MOH in collaboration with Rwanda Biomedical Center. Health facilities receive PBF payments quarterly and use them to pay performance-based incentives to staff and/or pay for health facility operational costs.

In addition to receiving output-based payments, public health facilities are paid by line-item budget for the salaries of government employees and their operational costs (maintenance of infrastructure and equipment).

The line-item budget is not adjusted for the volume of services provided, population characteristics, or disease patterns.

**Performance Monitoring**

The schemes in Rwanda use a range of performance monitoring tools and processes, including regular field visits, inspections, claims data analysis, and audits (including counter-verification exercises). RSSB and the MOH use field visits and regular inspections to monitor compliance with the national treatment guidelines and referral system. RSSB mainly monitors compliance with treatment guidelines for lab tests and prescribed drugs and compliance with benefit packages and tariff guidelines. In addition, the MOH monitors structural quality, availability of supplies and commodities, and compliance with quality standards. In a few instances, the MOH and RSSB carry out joint inspections.

For PBF, the evaluation of quantitative indicators is led by the district health unit, and monitoring and supervision of health facilities is reinforced through peer reviews. The evaluation of quantitative indicators is conducted monthly, and quality assessments are conducted quarterly. Since 2014, PBF external assessments for qualitative indicators at the district and provincial hospital levels have been integrated with accreditation assessments. District hospital accreditation and PBF assessment toolkits have been integrated to avoid duplication of effort in measuring quality at the district level. Internal hospital self-assessments are also conducted by hospital staff every six months. Annual external assessments are conducted by certified accreditation surveyors on an annual basis.

Community health committees with community representatives, have been established to provide oversight of public health facilities under their jurisdiction, and district health units have been established in all districts to ensure the coordination, management, and accountability of the decentralized health system. These entities have limited capacity to carry out their intended functions. Quality improvement committees have been established in each public hospital to help coordinate quality management activities, in collaboration with the MOH, and strengthen the voice of users in health services.

**Assessing Strategic Purchasing Progress**

This study found evidence of progress in strategic purchasing in the CBHI, RSSB, and PBF schemes as well as opportunities to better harmonize purchasing across the schemes and make purchasing more strategic.

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*a Under the Imihigo system, each administrative level of the health care system formulates a set of actions that will meet specific performance indicators. Most of the results and indicators are linked to the district mayor’s own performance contract, which is in turn tied to and consistent with national-level health policy. This integrated system of health planning and accountability works in tandem with the district development planning process.*
**Governance Arrangements**

In Rwanda, several institutions are involved in designing and implementing purchasing functions. They generally have coherent lines of accountability, but shortcomings in governance have led to some overlapping mandates and duplicative functions, which can limit strategic purchasing power. This finding echoes previous work in other low- and middle-income countries, including in sub-Saharan Africa. For example, the MOH sets tariffs for services because of the limited capabilities of the NHIC, and this leads to a conflict of interest and diminished potential for systemic change. This points to a need to redefine institutional arrangements, ensure that all stakeholders have the capacity to carry out their mandates, facilitate mutual accountability, incentivize collaboration, and address conflicts of interest.

Rwanda has implemented a range of health and financial management systems that have improved the CBHI enrollment process, health facility billing and claims procedures, and cost containment. But effective use of these systems at all levels of care is still lacking, as is interoperability among the systems. This limits the availability of data and evidence for timely decision making.

The lack of accurate, real-time data and the absence of a biometric fingerprint system in the CBHI and RSSB schemes also hamper efforts to detect fraud and abuse. Ongoing reforms aim to consolidate systems and information architecture and improve how they interact. RSSB has also initiated a redesign of its business processes through automation and paperless claims management, which will help streamline its business processes. Also, automated claims management and integration with electronic medical records of the providers could be used to improve the enforcement of contracts and the compliance with standard treatment guidelines.

**Purchasing Functions and Capacities**

**Benefits Specification**

In Rwanda, significant progress has been made in strengthening and expanding the set of services and interventions available to the population in line with the health system objectives. We found, however, that the benefit packages and lists of drugs are not aligned with budgetary limits. There is also no clear methodology for defining and regularly updating the benefit package for CBHI. The limited use of scientific data and evidence in defining benefit packages is commonly noted in the literature on both developed and developing countries. Transparent processes are lacking for including citizen voices in benefits specification processes.

In recent years, the MOH and RSSB have introduced health technology assessments to inform priority setting. These use disaggregated country-level data and rely on improved individual, institutional, and organizational capacity to use evidence to define benefit packages.

This study found variability across benefit packages that may be contributing to inequity. The RSSB scheme has a broader benefit package and wider range of contracted providers than CBHI. These differences in entitlements, which are managed by the same purchasing agency, have led to inequities in access and out-of-pocket payments by CBHI beneficiaries for services that are not available in the public sector. While we did not examine this issue in detail, research in several other countries has shown that differences in benefit package design are associated with differences in the level of financial protection, with more generous benefit packages associated with lower out-of-pocket payments.

**Contracting Arrangements**

RSSB uses selective contracting for private providers but automatically includes all public providers in the CBHI and RSSB schemes. This automatic contracting with public health facilities gives public health facility managers little incentive to abide by purchaser requirements. Findings from other settings have shown that selective contracting can be used to negotiate payment rates and manage costs. RSSB could use contracts to specify quality standards that it can enforce, as the current contracting arrangements do not include any provisions related to service quality and efficiency.

Finally, the current separation between the PBF quality improvement and accreditation processes and contracting for other health financing schemes represents a missed opportunity to improve the quality and efficiency of health care services and to purchase more strategically.

**Provider Payment**

The prevalence of fee-for-service payment to providers contributes to CBHI deficits, even as new revenue sources are introduced for the scheme. This is consistent with a large body of evidence showing that fee-for-service is associated with cost escalation and oversupply of health services and can threaten the financial sustainability of purchasers. Fee-for-service also requires laborious administrative processes for health facilities and purchasers. The administrative burden is exacerbated by parallel PBF payments to health facilities.

Mechanisms are needed to streamline and align the RSSB and PBF payment streams to create clearer incentives for providers to improve the quality of care.
A broader review of provider payment systems across financing schemes in Rwanda could identify options that encourage and incentivize quality improvement by linking payment to provider performance coherently across all schemes. This might include transitioning from fee-for-service to capitation at the primary care level, which is currently under discussion. However, evidence from developing and developed countries on the results of changing provider payment methods is mixed in the literature and should be carefully adapted to Rwanda’s context.40

**Performance Monitoring**

Our findings show that although performance monitoring processes are in place, capacity to implement them is limited, which limits opportunities to hold providers accountable for delivering good-quality services.

First, RSSB lacks the capacity to enforce contractual arrangements. Similar findings have been observed in Cameroon and Kenya,29,35 where purchasers have limited ability to exercise their purchasing power to influence the quality of care and enforce provider accountability. Contracts should specify quality standards that RSSB can enforce.

Similarly, the separation of PBF and RSSB payments to health facilities misses the opportunity to aggregate purchasing power across the schemes to improve service quality. PBF uses performance monitoring and provider accreditation to improve the quality of care in public hospitals, but these processes do not cascade to the CBHI and RSSB schemes.

Expanding PBF to the CHW level and linking to the accreditation system has resulted in better adherence to treatment guidelines, improved data quality, benefit package expansion, increased autonomy and accountability for public health facilities, and improvements in quality assurance and provider payment systems.14 Specifically, hospitals have been granted flexibility to develop operational policies and procedures for achieving the required standards, in order to foster a sense of ownership and reflect the local context.15

Despite these advances in performance monitoring, we found that most health facilities—especially in rural and hard-to-reach areas—have not met the required accreditation standards. Most private health facilities are also not accredited. Limited financial and human resources are the main obstacles to expanding the quality improvement program.

Overall, there is a good foundation for performance monitoring and accountability across the various health financing schemes in Rwanda. **Imihigo** performance contracts and supervision have contributed significantly to performance improvements. Harmonizing and strengthening existing performance monitoring and accreditation processes, together with more integrated data systems, could help ensure that purchasing contracts are enforced and providers are held accountable for service quality and other performance dimensions.

**Limitations of the Study**

This study provides the first in-depth analysis of strategic health purchasing in Rwanda, using a framework that has been applied in similar settings.35, 41–43 This provides a basis for both in-country policy dialogue and cross-country learning and comparison. However, certain limitations should be taken into account when interpreting the results. First, this study focuses on the CBHI, RSSB, and PBF schemes, which are the largest purchasers of health care in Rwanda. It does not examine other public health schemes such as the Military Medical Insurance scheme and the Medical Insurance Scheme of the University of Rwanda, nor does it consider private insurance schemes. Another limitation pertains to the paucity of peer-reviewed literature on this topic in Rwanda. As a result, this assessment relies heavily on gray literature (government publications, health insurance reports, and websites) and key informant interviews. We suggest that future studies include all health financing schemes and purchasers in Rwanda to provide a more critical analysis and a wider spectrum of health care purchasing arrangements. Finally, this study provides a cross-sectional view of the current purchasing arrangements and requires to be updated regularly to observe trends in progress over time.

**Conclusion**

Progress in strategic purchasing in Rwanda has been achieved to some degree across all purchasing functions in the country’s three main health financing schemes. This has contributed to improved access to health services and better health outcomes over the past 15 years. Rwanda has made progress in increasing financial protection for the majority of Rwandans through CBHI subsidies, a defined benefit package and entitlements that target population health needs, and increased access to services through public and private health facilities, which has led to improvements in health indicators over time. However, there is room for improvement to make purchasing more strategic and better aligned with population health needs and improve the quality of health services.
Overlapping roles and responsibilities among purchasers weakens the power of any one purchaser to improve resource allocation, incentives, and accountability. Duplication of functions also adds administrative costs, which is of particular concern for the CBHI and PBF schemes, which face ongoing financial sustainability concerns. Better alignment and integration of contracting, incentives, and information system design can enable further progress toward strategic health purchasing and ensure that Rwanda’s health sector achievements are sustained and expanded.

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Ethical Approval and Informed Consent

Ethical approval was obtained from the University of Rwanda ethical review board. Informed consent was provided by all key informants.

Data Availability Statement

The authors confirm that the data supporting the findings of this study are available within the article and/or its supplementary materials.

Author Contributions

The authors led the data collection and populated the Strategic Health Purchasing Progress Tracking Framework. SMU led the drafting of the manuscript, and all of the authors reviewed the drafts.

Disclosure of Potential Conflicts of Interest

No potential conflict of interest was reported by the author(s).

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ORCID

Stella M. Umuhaza (http://orcid.org/0000-0003-2759-0947)
Sabine F. Musange (http://orcid.org/0000-0001-5788-8874)
Agnes Gatome-Munyua (http://orcid.org/0000-0001-8910-4989)

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