Oxford Policy Management Africa

CABRI – Health/Finance Dialogue 2

Case Study: Financing and Monitoring for Results in the Health Sector in Rwanda

Clara Picanyol

22 June 2012

Preface/Acknowledgements

This case study was developed for use in the CABRI dialogue on 'Value for Money in the Health Sector: health financing and expenditure management for allocative and technical efficiency'. This is the 2nd CABRI dialogue on Value for Money in the Health Sector. The team to support the dialogue is led by John Kruger. Other team members are: Tomas Lievens (health expert), Luize Guimaraes (case study researcher) and Clara Picanyol (case study researcher).

The aim of the case studies developed for the seminar is not to present a research report but to allow participants to apply the approaches, concepts, frameworks and tools presented in the main papers to real life situations. The purpose of the case studies is to present a real life problem to the participants which they should address and work through, using the information presented in the case study, the knowledge from the seminar presentation and their experience.

This case study on Rwanda focuses on monitoring and information systems for expenditure management in the context of results-based financing (RBF). The other case study (Burkina Faso) focuses on health financing. The case study was developed through an initial desk review of documentation and a country visit to interview the personnel involved in the policy design and implementation of the health sector in Rwanda.

The author would like to especially thank Mr. Elias Baingana and his team, as well as everyone who has made themselves available to provide information and share their thoughts for the case study from MINECOFIN, MINISANTE, the districts and the health facilities, particularly to Zachee Iyakaremye and Fidèle Karangwa. The author is also thankful to Alex Murray and Sarah Fox for their insightful briefings.

Responsibility for errors in interpretation or facts remains with the author.

This assessment is being carried out by Oxford Policy Management. The project manager is John Kruger. The remaining team members are Tomas Lievens, Luize Guimaraes and Clara Picanyol. For further information contact John Kruger at john.kruger@opml.co.uk.

The contact point for the client is Nana Boateng, nana.boateng@treasury.gov.za.

Table of contents

List of tables and figures

Abbreviations

CABRI	Collaborative Africa Budget Reform Initiative
CBHI	Community Based Health Insurance
CPAF	Common Performance Assessment Framework
CSR	Caisse Sociale du Rwanda (Rwandan social security fund)
DPs	Development Partners
EDPRS	Economic Development and Poverty Reduction Strategy
GDP	Gross Domestic Product
ITNs	Insecticide treated bed-nets
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MINALOC	Ministry of Local Government
MINECOFIN	Ministry of Finance and Economic Planning
MINISANTE	Ministry of Health (in French)
MMI	Medical Military Insurance
MoF	Ministry of Finance
MoH	Ministry of Health
MTEF	Medium-Term Expenditure Framework
NGO	Non-Governmental Organisation
OPM	Oxford Policy Management
PMMU	Project Management and Monitoring Unit
PBF	Performance-Based Financing
RAMA	Rwandaise d'assurance maladie (Rwandan Health Insurance)
RDHS	Rwanda Demographic and Health Survey
RIDHS	Rwanda Interim Demographic and Health Survey
SPIUs	Single Project Implementation Units
THE	Total Health Expenditure

1 Introduction

Results-based budgeting, a restructuring of expenditure management systems to focus on outputs and outcomes and less on merely controlling inputs, has been a common reform initiative in African economies. More recently some countries have started experimenting with a more specific, and some would say radical, approach to focusing on results, namely results-based financing (RBF). Results-based financing refers to the funding of health service providers partly on the basis of the quantity and quality of actual outputs.

Rwanda presents an interesting case to assess the potential of financing and monitoring system reforms to improve efficiency and value for money in the health system. This case study sketches the range of reforms in one specific country, Rwanda, which has moved systematically towards an output orientation in public management and public finance and has gone further than most countries in result-based financing of health facilities. The underlying questions are:

- What are the requirements for introducing a successful results-focused approach?
- What changes in expenditure management systems and public management are necessary for a successful performance orientation?
- What can other countries learn from the Rwandan case and what are the differences in context which need to be accommodated?

The **rest of this section** sketches the context by briefly highlighting the nature of the health challenge in Rwanda and describing the main features of the health system. The **second section** reviews a range of elements of public finance and public management reform in Rwanda, giving an idea of the breadth of reforms and key aspects of the different reforms. **Section 3** returns to one component of the results-orientated public management, namely results-based financing and looks at recent evidence for Rwanda. **Section 4** concludes before the **final section** sets out the task.

The task: Your Ministers of Health and Finance have just returned from the annual meetings of the African Development Bank and have been convinced that results- or performance-based financing (RBF) as implemented in Rwanda is not “just a donor fad” but really the only “catalyst” available to start addressing the deep structural problems leading to inefficiency and inequity in African health systems. (See Meessen, Soucat and Sekabaraga 2010)

Your permanent secretaries have accepted the principles behind RBF (although a bit sceptical) but have concerns about weaknesses in the current expenditure management system and capacity to implement results-based financing. They have taken note of the successes claimed for the performance-based financing system in Rwanda and ask you to give them urgent briefing notes for a bilateral between the ministries of health and finance on introducing a performance-based financing pilot in health.

1.1 Health in Rwanda

vRwanda is a landlocked country with a population of 11.7 Million in 2012 living within an area of 26,338 km². It is the most densely populated country in Africa with 383 inhabitants per km².

Rwanda has achieved sustained GDP growth over the last 7 years. Per capita GDP (current prices) grew from US$ 235 to US$ 540 between 2002 and 2010. Despite this progress, this level of

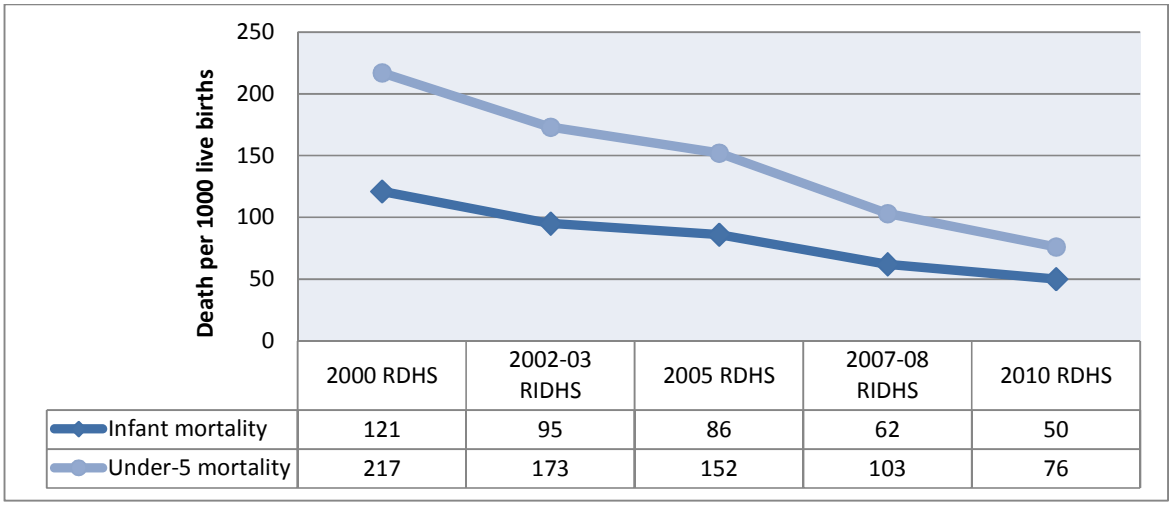
per capita GDP places Rwanda in the poorest category of countries in the World. Poverty is widespread with a headcount poverty ratio of 63.2% of the population in 2011[1] (WB, 2012).

Access to health care presented one of the biggest challenges after the genocide. In 1995, there was an emergency period during which health services were provided free of charge and health personnel was recruited and paid by NGOs and other partners. In 1996, in shifting from emergency to development, there was a reduction of aid, which together with other challenges, resulted in the introduction of direct payments. Since the reintroduction of direct payments in 1996, data from the Health Management Information Systems (HMIS) showed that more and more households were having difficulty meeting their health care costs. This resulted in a decrease in the level of health care utilization reaching a level of 0.28 visits per person per year. One of the reasons for non-utilisation included dissatisfaction with the cost of services. (Kalisa, 2011)

The issue facing Rwanda is similar to many countries in sub-Saharan African, i.e., how to promote access to health care and equity in the health system on the one hand, and the need to mobilize domestic resources for improving the financial viability of health services on the other hand.

Over the last decade, the health care system has showed remarkable improvements. Current health indicators provide evidence of progress attained over the last ten years including the health related Millennium Development Goals (MDGs). The infant and Under-5 mortality rates have decreased dramatically as shown in Figure 1.1, the country improved from the 173th place in the UNICEF ranking of 190 countries to the 166th place from 2006 to 2009.

Figure 1.1 Trends in Infant and U5 Mortality rate (2000-2010)



	2000 RDHS	2002-03 RIDHS	2005 RDHS	2007-08 RIDHS	2010 RDHS
Infant mortality	121	95	86	62	50
Under-5 mortality	217	173	152	103	76

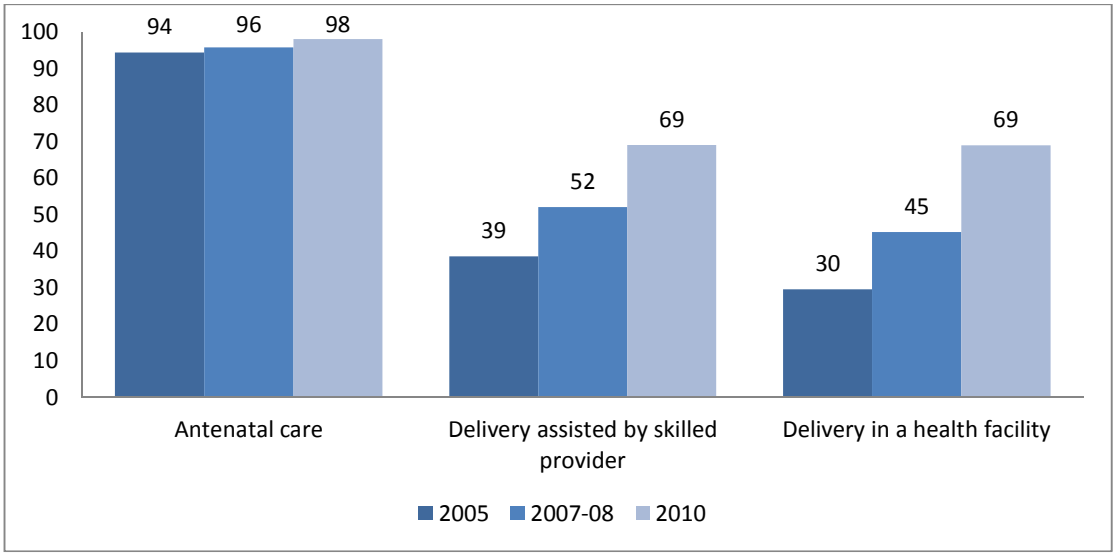
Source: Reproduced from Rwanda Demographic and Health Survey (RDHS) 2010 and 2005, Figure 8.1.

'These impressive achievements are due to an increase in the coverage of essential child health interventions including immunization, use of insecticide treated bed-nets (ITNs), and the management of neonatal and childhood illnesses'. (MINISANTE, 2009b)

[1] Updated from Kalisa (2011) and MINISANTE (2009b).

The trends in maternal care have also been impressive, with deliveries attended by a skilled staff increasing from 39% in 2005 to 69% in 2010 and in health facilities more than doubling from 30% to 69% (see Figure 1.2).

Figure 1.2 Trends in maternal care (2005-2010)



Source: RDHS 2010 and 2005, Figure 9.1.

Given its severe resource constraints, Rwanda has succeeded admirably in strengthening health service delivery and health outcomes over the last number of years. While there is still a long way to go in providing health to its citizens and reaching its health objectives, it seems as if a system has been put in place that can generate continuous improvements in the efficiency and equity of health service provision. The next section describes the main element of this health system.

1.2 The health system in Rwanda

1.2.1 Structure of the health system

The health care system is organised into various levels, with each level having a defined technical and administrative platform called a minimum package of activities. The entire health system is under the oversight of the Ministry of Health (MINISANTE). All public facilities are supported and supervised by MINISANTE directly or through district health offices.

The 6 levels of administration are (MINISANTE, 2009a; MINISANTE, 2009b; Kalisa, 2011):

- *Central level:* MINISANTE and its units provide the strategic vision, policy and stewardship for national programmes, including the setting of norms and standards and the monitoring of central/referral hospitals. MINISANTE has exclusive responsibilities over the procurement of essential drugs and consumables for health. MINISANTE (through Rwanda Biomedical Centre) also supervises a large number of health related agencies.

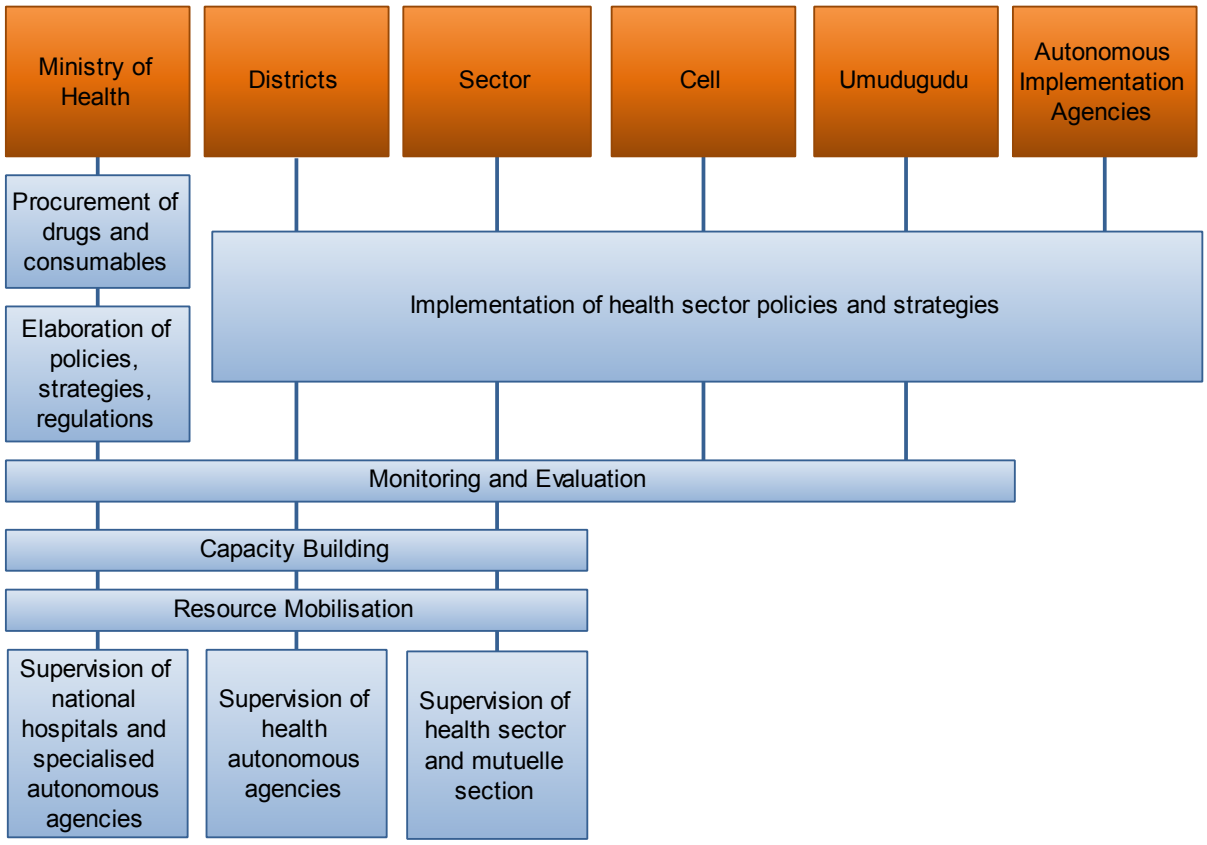
- *District level:* the health units in the district offices are responsible for the planning, managing, coordination and evaluation of health service delivery at district level down to sector, cell and village level. Those units are overseen by district mayors and district

executive committees and secretariats. Delivery contracts are developed between the districts and health care providers.

- *Sector level:* health centres, dispensaries, health posts and community health workers are under the administrative responsibility of the sector executive committee. The subcommittee on health supervises the activities of the health facilities at this level.
- *Cells:* in addition to implementing the health sector policy and strategy, cells also have M&E responsibilities on the lower administrative levels.
- *Villages (or Umudugudu)*: as per cells, *umudugudus* also have M&E responsibilities over the autonomous implementing agencies.
- *Autonomous Implementing Agencies:* These include Health Centres, National Centres, District Hospitals, Teaching Hospitals, Pharmacies, Community Health Insurance/Mutuelles, HIV/AIDS committees.

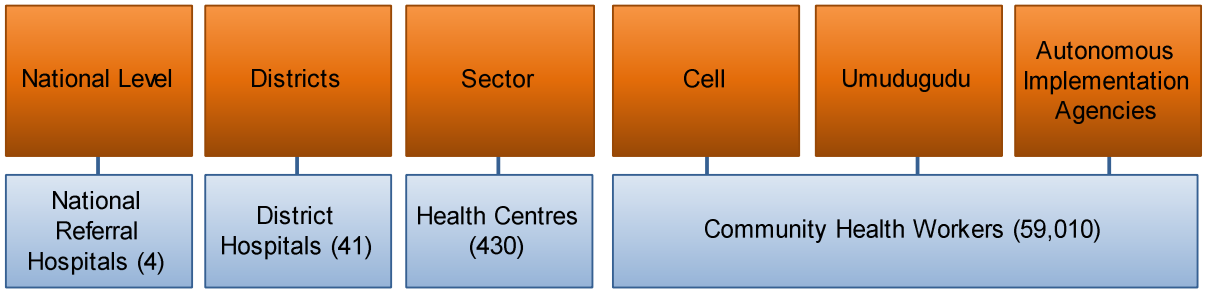
Figure 1.3 summarises the health administration functions for each level as described above. In terms of health care providers, the sector in Rwanda is organised around 4 levels with 3 National Referral Hospitals, 41 District Hospitals, 430 Health Centres, and 59,010 Community Health Workers (CHW). This is shown in Figure 1.4.

Figure 1.3 Health Administrative Functions by Level



Source: Based on MINISANTE (2009a), Health Sector Strategic Plan July 2009 to June 2012, July.

Figure 1.4 Health Care Providers by Level



Source: Based on MINISANTE (2009a), Health Sector Strategic Plan July 2009 to June 2012, July.

1.2.2 Health Care Financing

Total health expenditure (THE) in Rwanda has more than tripled in real terms form US$15.1 in 1998 to US$55.5 in 2010 (See Table 1.1). That has meant an increase from 5.3% of GDP to 10.5% of GDP. Despite this increase, per capita expenditure remains low from a comparative perspective.

The sources of health funding in Rwanda can be divided into three[2], namely:

- public or government funding
- private funding (including out-of-pocket payments and from voluntary health insurance contributions such as the *mutuelles*
- donor funding.

The levels and sources of health financing are presented in Table 1.1. Although there has been some fluctuation funding flows over the last decade or so, external sources (donor funding) contributed about 50% of total health spending with domestic resources contributing the rest. While fluctuations complicate making generalisations on can argue that the average split between public:private:donor health funding in Rwanda over the last decade was about 20:30:50.

Some of this donor funding is managed (on-budget) by the public sector and some by the private sector so expenditure numbers by agents (in contrast to those by source) show that the public sector managed about 50.1% of health expenditure in 2010 and private agents 49.9%. The public sector includes limited social security funding (4% of public sector funding in 2010) meaning that general government tax revenue and donor funds flowing through government account form the bulk of public spending. Private insurance (mutuelles and RAMA) comprised about 10% of private funding and out-of-pocket expenditure about 44% of private spending. Out of pocket expenditure is therefore still a very significant part of total health expenditure at about 22%.

[2] In the Rwanda literature patient out-of-pocket payment and insurance payments are classified as “demand-side payments” and funding from general government revenue as “supply-side funding”. (See MINISANTE (2009b)). This classification is not used here in order to avoid confusion with other areas of the health economics literature, where “demand-side financing” is often defined as subsidies to households to assist them in accessing (“demanding”) health care, for example, a transport allowance. (See Gupta et al. 2010)

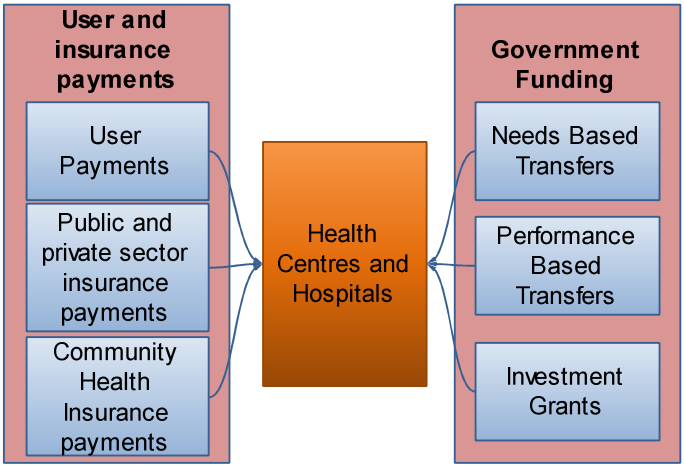
Table 1.1 Levels and Sources of Health Financing (1998-2010)

	1998	2000	2002	2004	2006	2008	2010
Total Health Expenditure (THE)							
Per capita (US$ 2012 at exchange rate)	15.1	9	8.1	14.4	35.5	44.1	55.5
As % of GDP	5.3	4.2	4.2	6.2	10.8	9.4	10.5
External/donor sources							
% of THE	49	52	33	34	49	44	47
Financing agents							
Public (% of THE)	48.4	39.2	52.3	53.6	46.5	47.4	50.1
Private (% of THE)	51.6	60.8	47.7	46.4	53.5	52.6	49.9
Total (% of THE)	100	100	100	100	100	100	100

Source: WHO (2012), Global Health Expenditure Database, Rwanda – National Expenditure on Health; http://apps.who.int/nha/database/StandardReport.aspx?ID=REP_WEB_MINI_TEMPLATE_WEB_VERSION&COUNTRYKEY=84705, accessed 09/06/2012

Health care providers receive their revenue from a number of sources (private and public) and through a number of types of payments as set out in Figure 1.5. On the private side there are fee for service payments from individual users, community health insurance schemes and other health insurers. Government funding flows to the providers through needs-based transfers, performance-based transfers and investment grants. These are discussed further under the health finance reform section. From the data available it is difficult to estimate the proportion of funds flowing to providers through the basic mechanisms.

Figure 1.5 Funding of health care service providers



Source: Based on MINISANTE (2009b), Rwanda Health Financing Policy, December.

2 Key health reform areas in Rwanda

This section reviews 5 recent areas of reform in Rwanda, namely budget reforms towards a greater performance orientation, performance contracting, decentralisation, financing reform and monitoring and evaluation systems. The central focus in the task for participants is the introduction of performance-based financing of health service providers (Section 2.3.2.2) as part of this broader process. In order to learn from the experience of Rwanda it is necessary to entangle how these different reforms are interrelated and interdependent and what the risk associated with introducing them are.

2.1 Rwanda's results-based budgeting

2.1.1 Overview of the budget cycle

The fiscal year in Rwanda runs from July to June. As in many budget processes in Africa, the first step is to determine a macroeconomic framework. This is produced by the Macro Department in the Ministry of Finance and pins down the Medium-Term Expenditure Framework (MTEF). This will provide the Aggregate Expenditure Level affordable in Rwanda.

The Budget Department then allocates budget ceilings to functional sectors and districts in line with the priorities set out in the Economic Development and Poverty Reduction Strategy (EDPRS), i.e., Rwanda's national development plan. The budget ceilings are sent to line ministries in September in the budget call circular and these are later revised in December. Line ministries and districts prepare a draft budget which is consolidated by the Budget Department and reported in the National Budget Framework Paper.

There are bilateral discussions between line ministries and the Ministry of Finance where the budget is discussed vis a vis the expected results to be delivered by the line ministry. In the case of health, many of the indicators are very high-level and determined by the MDGs targets. It is often the case that the Ministry of Health feels it has been allocated insufficient funds to achieve the set targets and uses this argument to increase its budget allocation with the trade-off being that otherwise the MDGs targets set are unrealistic. In other words, the MoH often feels it has been allocated insufficient funds and uses the MDGs to argue for more funding.

Once the budget and targets are agreed, it is sent to Cabinet and Parliament for discussion and acceptance around April.

Finally, after subsequent drafts are generated based on these discussions, the budget is passed by the end of June before the start of the next fiscal year.

2.1.2 Structure of a results-oriented budget

Rwanda moved to a programme-based budget structure around 2003 to improve the results orientation of the budget. It has developed the foundations of a results-based budgeting system through three key instruments:

1. The Annual Budget – which identifies financial inputs required to achieve results;
2. Annual Action Plans – which identify activities required to achieve results; and
3. Performance Contracts – which identify outputs and outcomes.

These three instruments use the same programme structure which in turn allows to link financial inputs to specific outputs and outcomes (see Figure 2.1). The current structure has the following hierarchical levels:

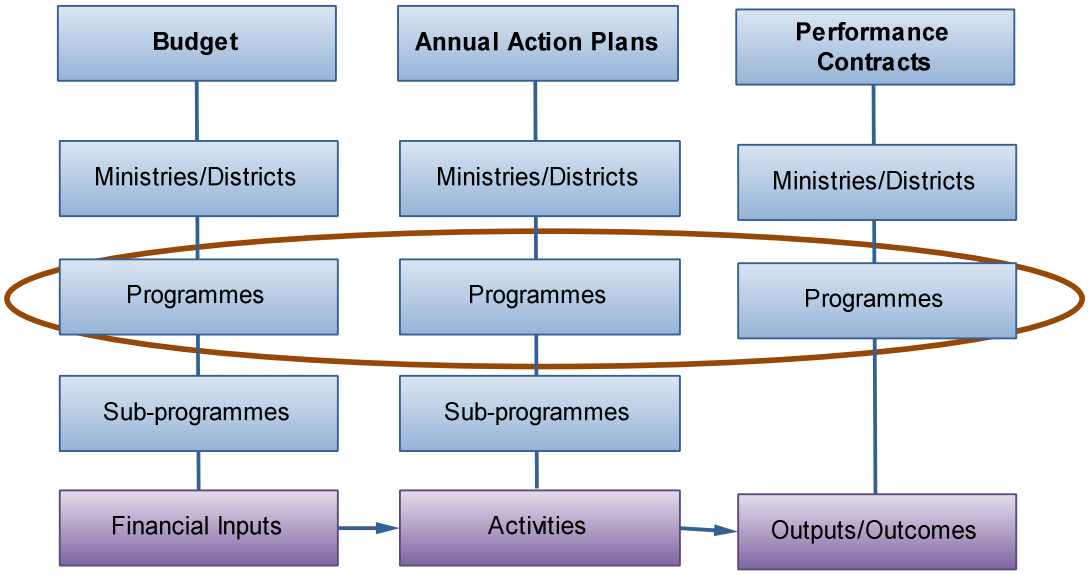
- Programme
  - Sub-programme
    - Outputs / Projects
      - Activities
        - Expenditure line items

As explained in Rwanda's MTEF Preparation Guidelines and Reference Manual (MINECOFIN, 2008b), programmes, and their constituent parts, sub-programmes, are the set of activities that together, are carried out for the specific purpose of achieving defined objectives and intended results respectively. Grouping all activities into programmes and sub-programmes allows for the identification and quantification in monetary terms of all of the inputs e.g. resources such as staff and materials that are used by the programmes and sub-programmes.

The expenditure of the programme (or sub-programme) consists of the sum of direct and indirect costs. Direct costs are usually easier to calculate, e.g., costs of salaries and benefits paid to staff and of goods and services in order to carry out related activities. However, indirect costs usually present a challenge, i.e., the administrative (or overhead) expenses incurred by the organisation in which the activities take place, e.g. finance, administration, human resource management, information technology, etc. Given the challenges of allocating indirect costs to programmes and sub-programmes (e.g., how do you split the internet bill of a ministry between programmes?), Rwanda presents the administrative activities and their related expenditures as a "programme" in itself. Another way to allocate indirect costs would be to allocate administrative expenditure proportionately to programmes based on their expenditure. Different countries have adopted different approaches, e.g., Tanzania has an 'Administration and Management' programme in all its agencies, while the Palestinian Authority allocates administrative costs proportionately to operational programmes. As it is often the case, there is no right way to approach it. While purists would want to accurately estimate the indirect costs that should be attributed to each programme; in practice, presenting the core functions of each Agency in a programme structure is already a great achievement in itself and there is a managerial and operational rational to adopt a more pragmatic approach.

Outputs are agreed at the sub-programme level and relate to the completion of a project, e.g., 10 new health centres built. Outputs are the basis for reporting and accounting and it is not necessary to go down to reporting at the activity or line item level to scrutinise which line expenditure items of which activities were spent if the output has been agreed; it is only reviewed at the aggregate level. The budget structure is standard for all districts and enforced by national regulation.

Figure 2.1 Rwanda's results-based instruments



Source: Reproduced from MINECOFIN (2008).

It is worth noting that the PBF model introduced in the health sector has not altered the structure or organisation of the budget and therefore, it is run as a separate financing channel. This has been raised as one of the points for discussion and possible further elaboration in the recent study on Fiscal Decentralisation in Rwanda (MINECOFIN, 2009), i.e., to explore ways to merge the two strands of funding of health facilities: the decentralised budget and the PBF.

Over the years, the programme structure has been amended with piecemeal changes to accommodate changing structures in line ministries (e.g., two ministries merging) or new ministers designing a new structure. The small changes over time ended up somehow diluting the initial programme structure as these changes were done without clear rules so the basic principles were compromised. MINECOFIN is currently in the process of undertaking a comprehensive assessment of the programme structure to re-define it and expects that this process can take up to two years.

2.2 Performance contracting

One of the key issues to finance and monitor for results is how to create the necessary feedback mechanisms so that results have an effect, i.e., so there is accountability. Also in this area, Rwanda presents a unique case with the introduction of 'performance contracts' at all levels of the public service.

Performance contracts are annual agreements setting targets for the year between an agency or individual and the one responsible for their oversight. These contracts are signed at the beginning of the year and evaluated at the end and work throughout the entire public service, i.e., individuals sign one with their line managers, parastatals sign one with their head ministry, districts sign one with MINALOC, district hospitals sign one with district officers, health centres sign one with district hospitals, community health workers sign one with health centres, etc.

The performance contract indeed is seen to be what drives individuals in the public service to perform well in Rwanda; it is what completes the cycle of planning, financing and monitoring for

results and are taken very seriously by all members of society. Although there have been attempts to introduce these in other countries (e.g., Zimbabwe around 2006), Rwanda perhaps presents the only success story among sub-Saharan African countries also in this field. Box 2.1 summarises the evolution of performance contracts, originally named *Imihigo* contracts.

Box 2.1 Evolution of *Imihigo* contracts

Imihigo contracts started as a signed agreement between mayors and the President and were presented at the end of the year to strengthen accountability of local authorities to the public and central government.

When line ministries were trying to collect the information they required for EDPRS reporting from districts, it was realised that, as *Imihigo* attracted attention, it was the best choice for effective M&E at the district level. As a result, since 2008, *Imihigo* indicators have become more comprehensive in capturing the EDPRS, the MDGs and sector- and district-specific priorities. This has been achieved via the central government's active involvement in the districts' setting of targets and deliverables, and close monitoring of the implementation of programmes through the *Imihigo*.

In 2010, plans were implemented to ensure the *Imihigo* was aligned with the EDPRS. There followed a reshaping of the report template, a week-long forum for all districts and sectors to clarify inputs and outputs as well as intensive on-the-job training from MINECOFIN and MINALOC staff in districts (for around one or two months at a time). This intervention (ongoing) has resulted in *Imihigo* contracts now including 12 indicators related to economic, social and governance sectors, which are drawn from the District Development Plans, Sector Strategic Plans and EDPRS frameworks.

Source: Adapted from Murray et al (2010).

2.3 Health finance reforms

2.3.1 Health insurance in Rwanda[3]

Rwanda is aiming at universal health insurance coverage and has developed a number of schemes that together constitute its health insurance system. The three most important ones are:

- the Rwandaise d'assurance maladie (RAMA) (Rwanda Health Insurance),
- the Medical Military Insurance (MMI),
- the Community based health insurance (CBHI) (mutuelles)

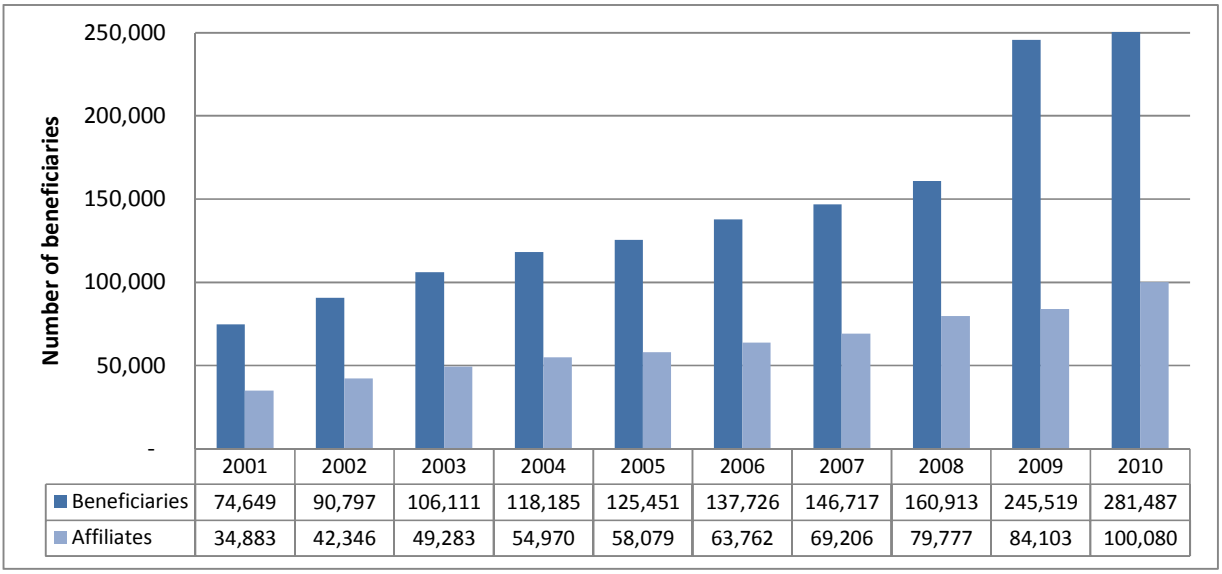
The Rwandaise d'assurance maladie (RAMA)

RAMA was created in 2001 in order to provide health insurance services to public servants and the private sector. RAMA provides health insurance scheme for the entire public sector (excluding military forces) and for the majority of the formal private sector.

The coverage of the RAMA has steadily increased since its creation but is still limited (See Figure 2.2). It covered approximately 2.3% of the total population in 2007 (main members and dependents). Affiliation is compulsory for all civil servants and staff of public or parastatal organisations, including development projects, but excluding military. Spouses and legal dependents are covered for the same benefits than affiliates. Affiliation for private companies is voluntary and is conditioned on prior approval by the board of directors of a formal request. As a result private members are a limited share of the beneficiaries of the scheme.

[3] This section is based on MINISANTE (2010), MINISANTE (2009b) and Kalisa (2011).

Figure 2.2 Population coverage by the RAMA (2001-2010)



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beneficiaries	74,649	90,797	106,111	118,185	125,451	137,726	146,717	160,913	245,519	281,487
Affiliates	34,883	42,346	49,283	54,970	58,079	63,762	69,206	79,777	84,103	100,080

Source: NISR (2011), Rwanda Statistical Yearbook, 2011 Edition, National Institute of Statistics of Rwanda

There is potential for further expansion of the scheme in the formal private sector, which is estimated at 5% of the population. It seems as if a requirement for candidates to join the social security fund of Rwanda ("Caisse Sociale du Rwanda", CSR) and the voluntary nature of membership provide poor incentives for private companies to register for health insurance.

The total contribution rate for RAMA members is of 15% of the base salary with contribution shared equally between employer and employee. Contributions are directly deducted from employees' payrolls and paid by employers every month.

Payment of public health facilities is based on fee-for-service on a tariff for services reviewed annually by MINISANTE in consultation with the main insurance schemes and public health providers. Individual bills are transferred to RAMA for reimbursement. Co-payments of 15% are due by RAMA members at all levels of the network.

Military Medical Insurance (MMI)

The MMI was created in 2006 in order to provide health insurance coverage and medical care services to Rwandan military forces based on solidarity, equity and fairness principles. The MMI was established separately after an unsuccessful attempt to integrate army forces with other the public servants in the RAMA scheme. The main reasons to justify this separation are the higher risk and potential cost of treatments provided to military, national security and social recognition of services to the nation.

The coverage of the MMI is not available for national security reasons but is estimated at approximately 100,000 beneficiaries. This represents approximately 1% of the total population in 2007. Affiliation is compulsory for all military and extends insurance benefits to their spouses and legal dependents.

The total contribution for MMI members is of 22.5% with 5% covered by affiliates and the remaining 17.5% by the employer, i.e. the government. Contributions are directly deducted from employees' payrolls and paid monthly.

The MMI's benefit package is based on the services provided by the RAMA but is in some extent broader. These services can be provided by any health facility or provider which has signed a "partnership convention" with the MMI. The provider payment mechanism is the same as for the RAMA.

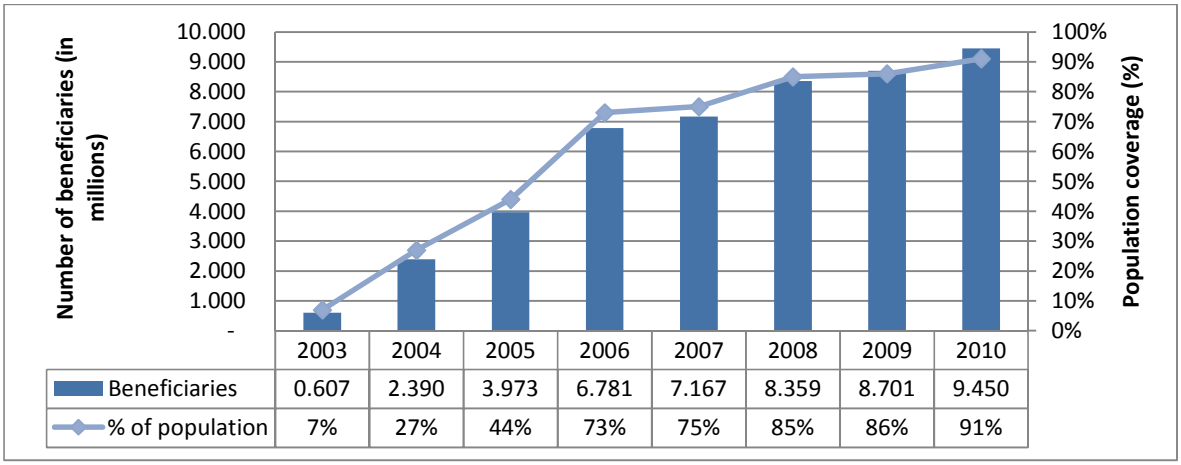
Community-based health insurance schemes

The Community Based Health Insurance (CBHI) schemes are schemes whose members are mainly rural dwellers and informal sector workers in both rural and urban areas which make up the majority of the population. By the end of 2009 about 8.7 million Rwandans (or 86% of the population) were covered by these schemes (see Figure 2.3).

In 1999, a pilot prepayment scheme, *mutuelle*, was initiated by the GoR with technical support from USAID. The program was piloted in 53 health centers in three districts hospitals: Byumba, Kabgayi, and Kabutare. In November 2004, the Ministry of Health created the *Mutuelle Health Insurance Policy in Rwanda* which aimed to: institutionalize *mutuelles*; define a national *mutuelle* policy for Rwanda; set-up the organization and management of *mutuelle* schemes; and strengthen the overall framework and partnerships.

Initially, the impetus for the development of *mutuelles* came from the local level. They began as very small health insurance schemes offering a very limited package of health services in health centers. Therefore, the coverage rate of *mutuelles* was very low. At the time, *mutuelles* were weak as they suffered from a permanent lack of financial resources and poor management capacities. *Mutuelles* have since strengthened, “pushed” by the central government (end 2004), as the government recognized that the health sector was highly dependent on external assistance and that the financial sustainability of the health sector could be jeopardised.

Figure 2.3 Community Health Insurance Coverage (2003-2010)



Source: NISR (2011), Rwanda Statistical Yearbook, 2011 Edition, National Institute of Statistics of Rwanda.

The national roll-out of *mutuelles* was initiated in 2006, with the financial support of the Global Fund after a successful proposal application on health systems strengthening (US$ 29 million over 5 years). Until then, *mutuelles* were limited to district level projects supported by NGOs. *Mutuelles* cover now the entire country. Today, over 85% of the population is covered by it (see Figure 2.3). As of April 2007, every Rwandan is obliged by law to have some form of health insurance (article 33 of Law N°62/2007). *Mutuelles* members are by law entitled to a comprehensive list of curative and preventive services at all levels of the health facility network.

Administrative and executive structures are present at each level where funds are to be pooled, i.e. at sector, district and central/national level.The scheme is a mixed structure of parastatal and associative management. As they provide health insurance coverage for the poor and very poor people with the support of public subsidies, *mutuelles* also play an equity role.

Households finance the largest share of *mutuelles* at 70%, with other institutional sources financing 30%. Facilities are paid a fee for service from the insurance and beneficiaries have to pay 10% of the total cost at hospital level and a flat fee of RWF 200 at health centre level.

Samson (2009) argued that “the essential innovation of Rwanda’s approach consists of the decentralized model that mobilizes broad-based community support. Contribution rates are kept low in order to facilitate broad coverage, creating economies of scale for the scheme and the affiliated health-care providers.” He also indicates that the scheme “is reported to have improved local health-care facilities by increasing the number of medical staff, facilitated the availability of medical supplies and raised community attendance.”

2.3.2 Government funding of health

As indicated, the Rwandan government funds health service providers through three main types of transfers, namely needs-based transfers, performance based transfers and investment or capital grants.

2.3.2.1 Needs based transfers

The needs based transfer is a monthly block grant transferred from the central Government to health centres and hospitals. The amount of the grant is calculated on the basis of the number of personnel employed weighted by population and poverty level. These transfers are managed at the facility level. In 2008, these transfers accounted for approximately US$ 2.5 per capita. (MINISANTE, 2009b)

2.3.2.2 Performance based transfers

Facilities receive quarterly transfers in the form of a block grants transferred by the government directly to health centres and hospitals and to districts for community health. Its value depends on the performance of the health facilities and achievement of predetermined indicators. According to Rusa et al (2009) “[a] standardized set of core services, a unique fee structure, and contracts were developed. Under the PBF scheme, health centres are reimbursed for the quantity of services provided according to a standardized fee structure for a list of fourteen services, adjusted by a composite quality score. Health centres can raise revenues by increasing the quantity of these services delivered and by improving quality.

The bonus payments are calculated on the basis of quantity and quality with:

*Health Centre PBF earnings = (fees * quantity) * (% quality score)”*

Table 2.1 Quantity/output indicators for determination of RBF payments to primary health care centres in Rwanda

	OUTPUT INDICATORS	Amount paid per unit (US$)
Visit Indicators: Number of …		
1	curative care visits	0.18
2	first prenatal care visits	0.09
3	women who completed 4 prenatal care visits	0.37
4	first time family planning visits (new contraceptive users)	1.83
5	contraceptive resupply visits	0.18
6	deliveries in the facility	4.59
7	child (0 - 59 months) preventive care visits	0.18
Content of care indicators: Number of …		
8	women who received tetanus vaccine during prenatal care	0.46
9	women who received malaria vaccine during prenatal care	0.46
10	at risk pregnancies referred to hospital for delivery	1.83
11	emergency transfers to hospital for obstetric care	4.59
12	children who completed vaccinations (child preventive care)	0.92
13	malnourished children referred for treatment	1.83
14	other emergency referrals	1.83

Source: Basinga (et al. 2010)

Table 2.1 sets out the quantity indicators used in calculating the results-based payments to primary health care centres. Quality is assessed quarterly by a team from the district hospital using a supervisory check list that measures thirteen services and 185 variables (see Table 2.2). A score below 100% reduces bonus payments proportionately. Prospective hospital budget are determined on the basis of outputs (50%), quality (30%) and administration (20%) (Rusa et al. 2006).

The system of performance bonuses are based on a range of contracts between different levels of government: those between the Ministry of Health and the administrative districts, performance contracts between district steering committees and the health centre management committees, and motivation contracts between the health centre committees and individual health workers.

“For data verification and validation, data entry and retrieval are performed through the Internet. District PBF steering committees validate invoices quarterly. Data are validated by specially trained data agents from the district health department (under the Ministry of Local Administration) or from a specially designated team from the district hospital. The district hospital team checks quality on a quarterly basis. The PBF steering committees validate bills and send them to the Ministry of Health to approve quarterly district payments, through the Ministry of Finance, into health centre bank accounts. Both government and other purchasers use the same health facility bank accounts to transfer quarterly payments. A multistage random sampling of both quantity data, which uses client satisfaction surveys in the community, and quality data, which revalidates randomly sampled quality checklists, is also used”. (Rusa et al, 2009)[4]

[4] See also Basinga et al. (2010:3) for a brief discussion of reporting and monitoring of quality.

Table 2.2 Thirteen areas for determining quality assessment of primary health care centres in Rwanda

	Service	Weight	Share of weight allocated to structural components	Share of weight allocated to process components	Means of assessment
1	General administration	0.052	1.00	0.00	Direct observation
2	Cleanliness	0.028	1.00	0.00	Direct observation
3	Curative care	0.170	0.23	0.77	Medical record review
4	Delivery	0.130	0.40	0.60	Medical record review
5	Prenatal care	0.126	0.12	0.88	Direct observation
6	Family planning	0.114	0.22	0.78	Medical record review
7	Immunization	0.070	0.40	0.60	Direct observation
8	Growth monitoring	0.052	0.15	0.85	Direct observation
9	HIV services	0.090	1.00	0.00	Direct observation
10	Tuberculosis service	0.028	0.28	0.72	Direct observation
11	Laboratory	0.030	1.00	0.00	Direct observation
12	Pharmacy management	0.060	1.00	0.00	Direct observation
13	Financial management	0.050	1.00	0.00	Direct observation
	Total	1.000			

Source: Basinga et al. (2010)

As Basinga et al.(2010) reports: “P4P payments go directly to facilities and are used at each facility’s discretion. In the sample of 80 treatment facilities in the study, the P4P payments increased average overall expenditure by 22%. On average, facilities allocated 77 percent of the P4P funds to increase personnel compensation, amounting to a 38% increase in staff salaries.”

2.3.2.3 Investment grants

Payments from investment grants are for construction and equipment as per the national plan and are managed directly by the central government.

2.3.3 Donor funds

As in many countries, donor funds are quite fragmented and often transferred directly to facilities, sometimes made in kind (commodities, training, TA) and sometimes in cash. The largest donor is the Global Fund for HIV/AIDS, Malaria and Tuberculosis which accounts for over 90% of donor funds in the sector.

2.4 Decentralised management

At the second level of government, Rwanda has four provinces (North, East, South and West) and the City of Kigali. It is further subdivided into 30 districts, 415 sectors, 2,148 cells and, finally, 14,980 villages (Imidugudu). The district is the basic political-administrative unit of the country. Before the territorial reform in January, 2006, the country was divided into 11 provinces and the City of Kigali, with the provinces being further subdivided into districts, sectors and cells. At this stage districts are ‘budget agencies’ (cost centres) and make a consolidated request for funding of the health sector based on MTEF and historical allocations. The law determining the Organisation and the Functioning of the Districts adopted in February 2006 defines health as one of the concurrent responsibilities between the central government and districts.

Following the decentralization process and public reform, the administrative organization was simplified and changes also impacted the health system in 2006. The current structure comprises of decentralized and de-concentrated bodies consisting of provinces, districts, sectors, cells and villages. Decentralization reforms have increased the roles of local governments, the districts, in service delivery in the health sector. The central government agencies' roles and responsibilities are mainly in policy formulation, regulation and support to local governments through capacity building, financing and monitoring and evaluation. Decentralisation reforms have been deepened in the health sector in 2006 and have resulted in large autonomy in budgeting and financial management of health facilities. The functions of each administrative level are shown in Figure 1.3 above.

The MoH continue to be responsible for the assignment and movement of qualified health professionals but the non-qualified staff are the responsibility of the lower levels of administration. There are provincial and health management teams. The provincial management team is defined according to the management structure of the province, and the Minister of Health in consultation with the Prefect and the Minister responsible for civil service assure its nomination. The health district management team is defined according to the management structure of the district; service providers have a specific professional status. The health centre depends administratively on the district within which it is situated. The district hospital depends administratively on the district within which it is situated. Different package of activities have been defined for each level of the health pyramid in order to provide equitable and quality care across the country, to ensure that there are procedural standards for operation and management, to allow for better planning and management of resources, and to provide the basis for establishing and evaluating the quality of health services. MINISANTE (2005)

Some of the mechanisms that were put in place in order to implement and coordinate the decentralisation policy were: the creation of an intergovernmental fiscal relations department in MINECOFIN to help of Public Financial Management aspects of the reform; the preparation of a district Budget Call Circular; and training to districts on procurement, budget and planning, and audit.

However, a recent study by MINECOFIN in collaboration with the Ministry of Local Government (MINALOC) and MINISANTE notes that while impressive achievements in the decentralised health system have been made, MINISANTE's operational approach to districts has been mostly under a deconcentration mode. It further note that the great progress has been reached with little involvement of local government administrations and as a consequence, local administrative authorities have not yet taken full ownership of the governance of health services; rather, health activities are still considered a responsibility of MINISANTE, and are managed by district hospitals and health centres, and are sometimes delivered directly from the central level. Guidelines for integrated technical and administrative supervision were developed but have not yet been implemented (MINECOFIN, 2012).

Another challenge faced due to the decentralised policy is the reporting from health facilities and hospitals to districts. The health centres send monthly and quarterly reports to hospitals and these are shared with districts and MINISANTE. As hospitals and health centres are not 'budget agencies', detailed expenditure at hospital and health centre level is not captured and reconciled in the financial reporting of the districts. So what MINECOFIN receive on their part is a statement of expenditure from districts on the overall earmarked transfers but not on the details of the expenditure at hospital and health centre level (MINECOFIN, 2012). MINECOFIN is planning to rollout IFMIS (Integrated Financial Management Information System) up to the smallest cost centre; i.e sector, health centre, etc. This was pointed out by the Fiscal Decentralisation Unit of MINECOFIN as one of the issues they are currently addressing and there is an initiative to prepare

a template for hospitals and health centres on how to report on financial and non-financial use of transfers in a more detailed and systematic manner. The principle is that since hospitals and health centres continue to receive funds from Government, they are not fully financially autonomous and should report on these funds. This was also noted in a report from the Auditor-General. Capacity issues are likely to be faced as there is currently only one accountant and two internal auditors per district to report on all sectors.

From MINISANTE, it is also recognised that financial management at the health facility level has not been given much attention and although there are guidelines on how resources should be spent (e.g., 5% allocated to a reserve fund, etc.), these are not widely used.

2.5 Information systems and monitoring

2.5.1 Results Monitoring in Rwanda

Similar to the case of Rwanda's health financing systems, the reforms in the area of monitoring systems also place her as a pioneer in sub-Saharan Africa. In line with its health financing policy, the monitoring system has moved away from an input-based centralised control system and towards a performance-based system with contractual arrangement with autonomous actors. The performance contractual arrangements are discussed in Section 2.2.

The health sector financing is monitored at the highest level with relatively few high-level indicators derived from the MDGs, the EDPRS and Rwanda's Vision 2020, which in turn guide the health sector logical framework. The main ones related to financing monitoring are presented in Table 2.3.

Table 2.3 Health Financing Key Indicators

Indicator	Baseline
Level of utilisation of modern curative care among the poorest 40% of the population	N/A
Out-of-pocket health expenditures (US$) per capita	US$ 7.5
Incidence of catastrophic health expenditure	2.9%
% of the population enrolled in health insurance schemes	81%
% of the poorest 20% who benefited from health insurance coverage with targeted subsidies	N/A
Per capital total health expenditure	33.9
Share (%) of health in the government expenditures	11.4
Share (%) of external assistance in total health expenditures	53
% of external assistance to health channelled through budget and sector support mechanisms	N/A

Source: Reproduced from MINISANTE (2009b), Rwanda Health Financing Policy, December.

The high-level indicators are tied to specific outputs that can be tracked regularly by the Government. As the strategic plan for the health sector runs for three years, it is scheduled that at the end of it there is an external evaluation in order to take stock and inform the future plan.

A number of systems have been developed in recent years to provide the relevant data sources to monitor results. Many of these systems are web-based and have largely improved the timeliness and accuracy of health sector information. The web-based tools enable information to be available at the central level directly as data is introduced from health facilities. Representatives at the district and health facility level expressed their satisfaction in the introduction of these systems although they noted that not all health centres are connected to the network and further

infrastructure still needs to be put in place. IT infrastructure is estimated to cover 85% of health centres and 100% of hospitals. In order to ensure full coverage, MINISANTE is coordinating with the Ministry of Infrastructure to ensure that health facilities are part of the national plan on connectivity.

The system of data entering at the health facility level means that MINISANTE has readily access to the information and does not depend on the coordination of facilities by the districts. However, this in turn means that the focus of the capacity building efforts on health information management where put at the hospital and health centres level, and not in the district offices. Also as a result of this, district officers do not yet use the information collected on the activities of health facilities to analyse and plan health initiatives in their districts (MINECOFIN, 2012).MINISANTE recognises this and is currently working with MINALOC to reorganise the health departments of the districts to have M&E officers in their administration instead of only in the district hospitals as it is currently the case.

At the central level, although capacity is strong, there are still gaps as for example there is only one statistician to analyse data (although another one is being recruited). Monitoring is a time consuming exercise and there is always the risk of not leaving time for evaluation. As it is often the case, some donors continue to use their own monitoring systems, which increases the monitoring burden of the system. This is of course a challenge for districts and reporting sheets often have to be filled in manually on paper and taken to the headquarters of the government.

2.5.2 Monitoring tools

Some studies have counted up to seven operational IT information systems collecting their own information in the health sector with its own collection tools in place (Murray et al, 2010; Frasier et al, 2008). The vertical programmes have not streamlined or harmonised its data systems. This means that they continue to use their own data systems for tracking and monitoring and these are not integrated into a comprehensive data system for the whole sector. For example, HIV has its own monitoring system called TRACnet. Vertical programmes dedicate significant amount of resources to M&E and fund the necessary staff to carry it out. In fact, most of the skilled people on data management and M&E are paid by vertical programmes, including the staff managing the HMIS. This of course, is an aid management issue and has implications for sustainability. In so far as the core M&E systems are operated by staff paid by vertical programmes funded by donors, the sustainability of them depends on the life of the donor funded projects as it is currently not provided for in Rwanda's domestic budget.

The interconnectivity and interoperability of the various databases is very limited. In addition to the various tools managed by MINISANTE, MINECOFIN has its own monitoring tools which apply to all the sectors. As these systems have mainly been developed on an *adhoc* basis, although there have been efforts to align indicators between the various databases, these are still run independently from each other. Operating and connecting them in an integrated manner would need to be preceded by a great coordination and consensus building process to ensure the resulting format answers the requirements of the various agents interested (MINISANTE, MINECOFIN, donors, etc.).

The challenge with monitoring tools in many countries is the lack of incentives of those that have to spend their time completing reporting forms. One of the factors contributing to the regular use and completion of the existing monitoring tools in Rwanda is the realisation by those completing the forms that the data is used both for analysis and in some cases (like in the PBF), linked to financial incentives. In addition, the existence of performance contracts at all levels links the monitoring to evaluation and accountability, which indeed forces the monitoring to happen. In this regard,

monitoring is not just used for central planning but also for assessing individuals' and agencies' performance.

The main monitoring tools in the health sector are the following:

- Health Management Information System (HMIS)
- Monitoring for Performance Based Financing
- Monitoring of HIV/AIDS: TRACnet
- Monitoring by MINECOFIN
- Joint Sector Reviews
- Community level monitoring

In addition, further data is obtained from sector related evaluations such as Public Expenditure Tracking Surveys, Public Expenditure Reviews, and project or programme specific evaluations.

The Health Management Information System (HMIS)

The HMIS constitutes the main source of information used for Government reporting. Health facilities submit all their information to district hospitals in soft copy (MSExcel) and the latter enter the data in the software. The data managers at the district hospital often visit and supervise the completion of reports by health centres as capacity at that level is still an issue. District hospitals are therefore responsible for all the data in their catchment centre. At the central level, there is also a team of data managers that run quality checks on the data and visit health facilities when necessary.

The HMIS has evolved significantly in recent years. As in many countries, it contained abundant errors and the information in it was not seen as reliable. One of the problems was the size of the reporting template which was large and therefore very time consuming. MINISANTE consulted with all programmes (particularly donor funded ones) to know which information they actually needed and brought down the reporting template from 25-30 pages to its current 6 pages. As a result, the quality of the data has also improved as more attention is given to fewer indicators. This is an example of a common trade-off between quantity and quality in data collection.

The amount of data in the system is seen as sufficient. The HMIS contains data on service delivery, human resources (although this is being transferred to a separate software) and financial aspects. However, the data is not always used for analysis and representatives from MINISANTE acknowledge that it could be further used for management purposes. For example, at the moment, the data on the financial resources are not related to the data on service delivery to develop, for example, cost effectiveness measures across facilities. This is also because the detail on how financial resources are allocated within a district is still limited.

Monitoring for Performance-Based Financing

The HMIS was not strong enough to be used as the only monitoring tool for the PBF programme so parallel systems were put in place to link performance to payments. Also, some of the PBF indicators are qualitative and the HMIS only captures quantitative data.

The contribution of PBF to a stronger overall health monitoring system has been substantial. For example, as some of the payments are linked to the completion and timeliness of reporting in the

HMIS, PBF has of course contributed to addressing these, which had been an issue for years as it still is in many countries. At the health facility level, PBF has made reporting a priority as it is directly linked to payments and can severely affect the financial capacity of facilities.

A contributing factor to the success of monitoring is the partnership created between the different agencies involved, from the central level down to the community which constitute evaluation teams. This shows that the central level, e.g., the Ministry of Health, should count on the different layers of administration to monitor service delivery.

Monitoring of HIV/AIDS: TRACnet

TRACnet is a national reporting system for HIV treatment used by GoR since 2005. The government collects monthly data from facilities utilizing mobile phones as the tool for data submission. This feeds into national level drug procurement as almost all facilities providing ARV for HIV submit their data and this feeds into a Rwanda-based pharmaceutical company that takes stock of the availability of ARV drugs. This system appears to be working well to monitor HIV in particular but has not yet been integrated with HMIS. (Frasier et al, 2008)

Monitoring by MINECOFIN

In addition to the various tools managed by the Ministry of Health, the Ministry of Finance in Rwanda has its own monitoring tools of line ministries managed by a dedicated department, the Project Management and Monitoring Unit in MINECOFIN. The role of the unit is to monitor all of Government's projects, both the ones financed with domestic funds as well as external funds. Starting around October 2010, the Government has established Single Project Implementation Units (SPIUs) in a few ministries, including in MINISANTE which is facilitating a lot the sharing of information on progress of projects between MINECOFIN and those line ministries that have established that unit.

The unit has designed project templates which line ministries have to complete and submit quarterly tracking financial as well as physical progress of projects. At the end of the year, there is a compilation of these reports for those ministries that have a SPIU.

In principle, these project reports can have consequences in terms of budget allocation and disbursement. For example, if a project is not performing, MINECOFIN can stop the release of funds. In practice, there have not yet been any such cases.

Joint Sector Budget Review

At the end of the financial year, there is a backward looking Joint Sector Budget Review between the Government and Development Partners (DPs). This is the opportunity to review the performance of the sector against established targets at the beginning of the year. It is perceived as a good platform for monitoring and addressing budget execution issues, e.g., when execution is below 80% in any given project, significant evidence is provided to explain why the money was not spent.

Community level monitoring

At the community level, there are community management committees, with members elected by the community; and, also Community Health Workers with specific tasks on supporting health care delivery. Community Health Workers are organised in cooperative made up of all those within a cell. Although they do not 'monitor' the health sector, they provide administrative supervision of health centres and report to district hospitals regularly, mainly for the PBF programme.

Rwanda has also recently introduced a system of direct reporting between Community Health Workers and higher levels in the health sector, referred to as the 'rapid SMS' system. In essence,

Community Health Workers have been provided with a mobile phone that allows them to send an SMS that is immediately received by district hospitals and by MINISANTE to track the health of pregnant women. The system sends alerts when a pregnant woman needs assistance and reminds them when checks are due. In this sense, it is more a surveillance system to act rapidly in case of need, but it is also contributing to monitoring by providing the information held at central level on Maternal and Child Health. MINISANTE recognises that many services are provided at the community level so the HMIS cannot have complete information if it stops at the health centre level. This system is seen as quite expensive and only started in 2010 so further evaluations will take place to assess its adequacy.

2.5.3 Monitoring for Policy Making

An important objective of monitoring must be of course to inform policy decisions. Even if further analysis could be done with the data in the system, the information is widely used for policy making and to monitor progress on the implementation of policy. For example, the annual reporting on the EDPRS uses the data from HMIS. Similarly, some of the data is also used in the Common Performance Assessment Framework (CPAF) to measure the indicators that lead to Sector Budget Support allocations. The indicators of the HMIS are used as proxies for the high-level policy outcomes which often can't be measured regularly enough to react on time, e.g., although fertility rate is only estimated every 5 years in the Demographic and Household Survey, the HMIS tracks the use of contraceptives which can be measured on an annual basis.

All sector strategies require an evaluation when the period they cover is coming to an end in order to design a new strategy. These evaluations collect qualitative data which most of the monitoring tools cannot do. There are a number of examples where the data collected from monitoring and evaluations have led to a change in policy. For example, when evaluating the implementation of a malaria programme, it was noted that it was more effective to distribute mosquito nets through health centres when mothers went for ANC treatment than distributing them through district offices. In another evaluation, it was noted that faith-based facilities, which represent about 40% of health care providers, do not use modern forms of contraceptives so they issued a policy by which there had to be a health post near all faith-based facilities so women could be directed there for modern contraceptives[5].

[5] Informant interviews

3 Measuring the impact of results-based financing in Rwanda

Liu and Mills (2007) argue that while “pay-for-performance” (additional payment to individuals, groups or people or organisations linked to performance) “is increasingly important in health care, there is no definitive evidence endorsing its effectiveness”. Also from this perspective the Rwandan experience has been important because it has allowed for rigorous monitoring of impact. Basinga et al. (2010) argue that before their study of Rwanda “there [was] little rigorous evidence on [the] impact of pay-for-performance in middle and low-income countries, and none that separates out the effect of incentives from increased resources”.

A number of channels have been identified through which performance-based payments can influence performance and therefor efficiency. Liu and Mills (2007) indicate that the”most important benefit claimed is that it does motivate people to perform better”. In this context Basinga et al. (2010) to low health worker productivity and morale and absenteeism as an important negative factors in health systems in Africa and argue that pay for performance: “incentivize providers to put more effort into specific activities” and increases “the amount of resources available to finance the delivery of services”. Meessen et al. (2010) argue that performance-based financing improves *allocative efficiency* through improving management of the health system as it helps clarifying and describing health priorities and affects *technical efficiency* through motivation of staff and increased staff productivity and so increasing the quantity and quality of health services.

Assessing the impact of specific interventions on outputs and performance in an environment where many different other aspects could have had an influence. The study by Basinga et al took the form of a randomized evaluation comparing over time outputs and quality in a group of “treated” primary health care providers (those receiving pay for performance) against a control group (comparable facilities who did not receive pay for performance over the same period). The specifically ensured that they would not only capture the effect of increased funding but specifically of increased funding through performance pay.

On the basis of the evidence over a period of 2 years (2006 to 2008) from 166 of Rwanda’s 401 primary care facilities they conclude that “incentives in the Rwandan P4P program are significantly associated with increased use and quality of a number of critical maternal and child health care services, but not associated with others.” They further argue that the extent of the impact may depend on the size of the incentive or the reward for a specific service and on the extent of service provider control.

They specifically identify increased utilisation of health services: the probability of institutional delivery increasing by 21 percent from baseline and the probability of young children visiting a health centre increasing by very significant proportions (64 percent over baseline for 0-23 month olds and 133 percent for 24-59 month olds. They also argue that “one of the more important results of this analysis is the [positive] effect of P4P on the quality of [prenatal] care delivered” and so impact on better health outcomes.

4 Conclusion

Over the last decade or so Rwanda has been making significant progress around health service delivery and health outcomes. This has been happening from a low base so that significant challenges still remain.

What is of particular interest for other countries is that the improvement in health services and outcomes in Rwanda can be related not only to increases in inputs (which remain relatively low) but importantly through increasing efficiency and value for money in the health sector. One possible interpretation is that Rwanda has patiently been building the basis for a performance orientated public service with reforms across a range of areas covering budget reforms, performance contracting, financing, decentralisation and information systems and has been reaping the success of this fairly long process.

The challenge for other countries in Africa facing the challenge of using limited resources more efficiently in the health sector is to use the Rwandan experience to identify critical components or pre-conditions and avoid the risks potentially associated with performance-based systems more generally and performance-based financing specifically.

The Task

Your Ministers of Health and Finance have just returned from the annual meetings of the African Development Bank and have been convinced that results- or performance-based financing (RBF) as implemented in Rwanda is not “just a donor fad” but really the only “catalyst” available to start addressing the deep structural problems leading to inefficiency and inequity in African health systems. (See Meessen, Soucat and Sekabaraga 2010)

Your permanent secretaries have accepted the principles behind RBF (although they are a bit sceptical) but have concerns about weaknesses in the current expenditure management system and capacity to implement results-based financing. They have taken note of the successes claimed for the performance-based financing system in Rwanda and asked you to give them urgent briefing notes for a bilateral between the ministries of health and finance on introducing a performance-based financing pilot in health.

Specifically they want you to advise them on:

1. The potential mechanisms/routes through which performance funding can improve the working of the health system.
2. The available evidence on the impact of the introduction of performance-based financing and the relevance of the evidence to different types of African countries.
3. Key preconditions for the introduction of RBF, for example, does it have to build on prior budget reforms which might not have taken place in your country.
4. The risks associated with a results-based system and specifically the potential impact of
    a. Decentralisation on (1) servicing government priorities and (2) fiscal discipline and overspending in the health sector.
    b. Decentralisation and labour relations/interaction with unions.
    c. An essentially fee-for service environment which in other countries (such as the USA) has been associated with very rapid health expenditure growth.
    d. Perverse incentives (for example to provide more expensive/higher priced services), and more broadly, whether the system can be “gamed”.
    e. Weaknesses in your health management information system (and whether it will be up to the task of providing reliable information on levels of service delivery and quality) and the cost of setting up an appropriate health information system.
5. Potential ways of phasing in results-based financing.

References

Chiche, M. (2008). 'Putting Aid on Budget: A Case Study of Rwanda', Study for CABRI and SPA, Mokoro, April

Frasier, H., M. May, R. Wanchoo (2008). 'e-Health Rwanda Case Study', July

GoR (2006a). 'Rwanda Aid Policy', July

GoR (2006b). 'Rwanda Demographic and Health Survey 2005'

GoR (2011a). 'National Budget of the Republic of Rwanda', accessed online

GoR (2011b). 'Rwanda Demographic and Health Survey 2010', Calverton, Maryland, USA: National Institute of Statistics of Rwanda, MINISANTE, and ICF International, December

Gupta, I., Joe, W., and Rudra, S. (2010). Demand Side Financing in Health: How far can it address the issue of low utilization in developing countries? World Health Report (2010) Background Paper, No 27

Kalisa, R. (2011). 'Health insurance Schemes in Rwanda', National University of Rwanda, School of Public Health, CBHI Study tour in Rwanda, June

Kalk, A., N. Groos, J.C. Karasi and E. Girrback (2010). 'Health systems strengthening through insurance subsidies: GFATM experience in Rwanda', Tropical Medicine and International Health, Vol 15, No 1, pp. 94-97, January

Logie, D.E, m. Rowson, F. Ndagije (2008). 'Innovations in Rwanda's health system: looking to the future', Lancet 2008; Vol 372, pp. 256-61, July

Meessen, B. Soucat, A., and Sekabaraga, C. (2011),. Performance-based financing: just a donor fad or a catalyst towards comprehensive health care reform? In Bulletin of the World Health Organisation 89:153-156.

MINECOFIN (2008a), GoR PFM Reform Strategy, August

MINECOFIN (2008b). 'Rwanda's MTEF Preparation Guidelines and Reference Manual'

MINECOFIN (2009). 'Fiscal Decentralisation in Rwanda', Review of Existing Grant Allocation Practice, February

MINECOFIN (2010). 'Budget Calendar Instructions', October

MINECOFIN (2011). '2011-12 Districts' Earmarked Transfers Guidelines', August

MINECOFIN (2012). 'PFM of Health Sector in Rwanda: Analysis of Earmarked Transfers and other Finance Sources at District Level', Final Report, January

MINISANTE (2005). Health Sector Policy, February.

MINISANTE (2006). 'Performance Based Financing of Health Services in Rwanda: Development of a National PBF Model', February. http://pdf.usaid.gov/pdf_docs/PNADI039.pdf

MINISANTE (2009a). 'Health Sector Strategic Plan July 2009 to June 2012', July.

MINISANTE (2009b). 'Rwanda Health Financing Policy', December

MINISANTE (2010). 'Rwanda National Health Insurance Policy', April

Morachiello, E., K. Curnow, C. D. White, F. Mugisha, C. Gasana, S. Hitimana (2010). Public Financial Management Performance Report (PFM-PR), PEFA Assessment, November

Murray-Zmijewski, A. and C. Gasana (2010). 'Monitoring and Evaluation in Rwanda: Country Case Study', Overseas Development Institute, 2010

NISR (2011). 'Rwanda Statistical Yearbook, 2011 Edition', National Institute of Statistics of Rwanda

NISR (2012). The evolution of poverty in Rwanda from 2000 to 2011: Result from the Household Surveys (EICV), February

RTI International (2006). Rwanda HMIS Assessment Report, USAID Rwanda, May

Ruberangeyo, T., C. Ayebare, A. Laminne de Bex (2011). 'Social Protection: An Ongoing Process, Rwanda', Successful Social Protection Floor Experiences

Rukundo, K (2011). 'Overview of Rwanda Health System', National University of Rwanda, School of Public Health, CBHI Study tour in Rwanda, June

Rusa, L., M. Schneidman, G. Fritsche, and L. Musango (2009). 'Rwanda: Performance-Based Financing in the Public Sector', Centre for Global Development, http://www.cgdev.org/doc/books/PBI/10_CGD_Eichler_Levine-Ch10.pdf, chapter in 'Performance Incentives for Global Health: Potential and Pitfalls', Center for Global Development, Performance-Based Incentives Working Group.

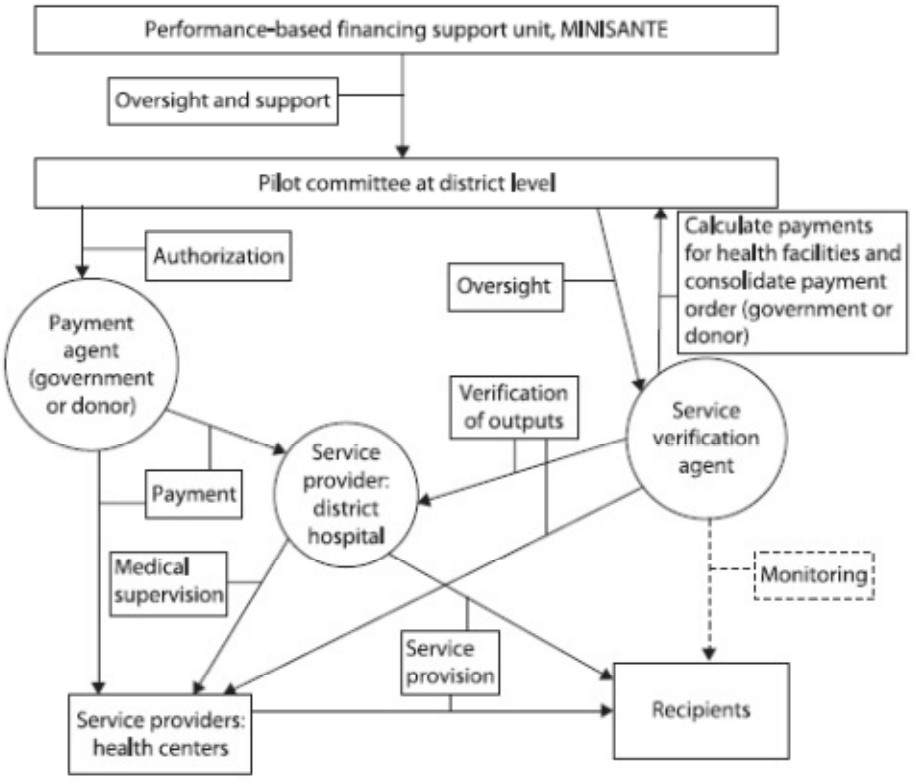
Schmidt, J.O., J. K. Mayindo and A. Kalk (2006).'Thresholds for health insurance in Rwanda: who should pay how much?', Tropical Medicine and International Health, Volume 11 No 8, pp. 1327-1333, August

World Bank (2012). Rwanda country data in "World Databank". World Development Indicators and Global Development Finance

Annex A List of people consulted

Name	Organisation	Position
MR. Elias Baingana	MINECOFIN	Director General of National Budget
Zachee Iyakaremye	MINECOFIN	Budget, Social Sectors Team Leader
Abhimanyu Gahlaut	MINECOFIN	Economist, National Budget, ODI Fellow
Christophe Nsengiyaremye	MINECOFIN	Fiscal Decentralization Coordinator
Nicoletta Feruglio	MINECOFIN	Fiscal Decentralisation Advisor
Ingrid Mutima	MINECOFIN	External Resources Mobilisation
Bob Mugisha	MINECOFIN	Project Management and Monitoring Unit
Fidèle Karangwa	MINISANTE	Budget and Finance Department
Regis Hitimasa	MINISANTE	Planning and Monitoring Unit
Joseph Shema	MINISANTE	Health Financing Unit
Dr. Richard Gakuba	MINISANTE	National e-Health Coordinator
Duka Innocent	MINISANTE	Director of Finance
Hitimana Janvier	Bugesera District	Health Directorate
Dr. Alfred Rutagengwa	Nyamata District Hospital	Director
Victor Ndaruhutse	Nyamata District Hospital	Monitoring and Evaluation Unit
Collins Kamanzi	National University of Rwanda	Coordinator, School of Public Health
Alex Murray-Zmijewsky	Formerly MINECOFIN	Economist, Macro Unit, ODI Fellow
Sarah Fox	Formerly OPM	Health Economist

Annex B Administrative and Oversight Structures for District Hospitals and Health Centres



Source: MINISANTE (2006). 'Performance Based Financing of Health Services in Rwanda: Development of a National PBF Model', February. http://pdf.usaid.gov/pdf_docs/PNADI039.pdf