Mid-term evaluation of the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (GFATM) 5th Round Project on Health Systems Strengthening:

Assuring Access to Quality Care: The Missing Link to Combat AIDS, Tuberculosis and Malaria in Rwanda

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Executive Summary

1. Rwanda has experienced a real GDP growth rate of 7.2% in 2005, according to the National Institute of Statistics in Rwanda.[1] GDP in 2005 was estimated at USD 2.51 billion or USD 238 per capita (current USD). Rwanda is heavily dependent on foreign aid for financing its development. The Total Official Aid (ODA) disbursed in 2005 amounted to USD 576 million, which corresponds to about 27% of GDP and USD 63.7 per capita (one of the highest rates in Sub-Saharan Africa).[2]

2. The poverty headcount declined from 60% in 2000/2001 to 57% in 2005/2006 (EICV2 2005/06). Poverty in rural areas remained high, where 83% of the population lives poverty remained high (62.5% in 2005/2006). Furthermore, inequality increased throughout the country. The level of inequality was already high in 2000/01, with a Gini coefficient of 0.47, and this rose to 0.51 in 2005/06. [3]

3. Total health care spending has increased continuously in recent years. The most recent NHA (2003) states that Rwanda has moved from being a country with one of the lowest shares of GDP (4% in 2000 and 2002) spent on health to one among the highest (6.6% in 2003) in Africa. The share of the Government budget allocated to health rose from 2.5% in 1998 to approximately 10% in 2005.[4]

4. According to WHO estimates from the country's National Health Account (NHA) data, Rwanda's total health expenditure (THE) in 2005 amounted to RwF 93.193 (nearly USD 168 million if assuming that USD 1 equals RwF 555. Out of this amount public expenditure: amounts to RwF 53,973 million and private Expenditure to RwF 39.219 million. [5] The out-of-pocket-spending (OOPS), net of contribution by donors and external partners, is estimated to be about 5% of the Total Health Expenditure (Ref. chapter–5).

Health care system

5. The health care system in Rwanda is a three-tier system – i.e., 398 health centers tied to 392 *section mutuelles* at section level; 34 district hospitals tied to 30 District Risk Pools in each of the 30 districts and the third tier of the provider system composed of the three *referral* hospitals, two located in Kigali and one in Butare tied to the National Risk Pool.

6. The Government of Rwanda recently passed a legislation which provides a legal basis for the *mutuelles*. Following the passage of legislation enrollment into *mutuelle* health insurance is COMPULSORY for all, excepting those covered by the other health insurance schemes (like RAMA, MMI, private insurers, and Government sponsored programs FARG, Gacaca and the fund for prisoners).

7. Currently, an estimated 7 million people across the country are covered by some form of insurance (table–1). *Mutuelle* insurance is rapidly growing, i.e., coverage rate increased from less than 7% in 2003 to more than 70% in 2007. Mutual insurance covered an estimated 6.33 million people in 2007.

8. Pricing of the premium to be paid by the population was set at the national level at RwF 1,000 (ca. USD 2) per person per year for the minimum package of activities (MPA) and RwF

[1] http://www.statistics.gov.rw
[2] WDI / GFD Database, The World Bank
[3] National Institute of Statistics Rwanda (2006): *"Integrated Living Conditions Survey 2005-06 (ECIV2)"*.
[4] Ministry of Finance and Economic Planning, Ministry of Health (2006): Scaling up to achieve the health MDGs in Rwanda. A background study for the high level forum meeting.
[5] http://www.who.int/nha/country/rwa/en/

1,000 for the complementary package of activities (CPA). Currently, the population only needs to pay RwF 1,000 for the minimum package. The RwF 1,000 for the complementary package of activities is currently paid for by the Government. For indigents, orphans and people living with HIV/AIDS, the GFATM is paying the premium for both the minimum and the complementary package of activities. More details follow in chapter-2.

The GFATM HSS Project

9. The GFATM HSS Project contributed to increasing the health insurance coverage (i.e., number of people insured) from 44.1% in 2005 to more than 70% in Mid 2007. The project exceeded expectations in the coverage of indigents and people living with HIV/AIDS. Against cumulative target (i.e., year 1 and 2 combined) of 1,530,745 indigents/very poor the achievement was 1,574,306. Similarly, in the case of PLWHA against a target of 76,074 for year 1 and 2 combined the achievement was 276,535. (Ref. section 2.3.2).

10. The utilization rates increased commensurately over the period, i.e., with the increase in coverage rate. At health centers, utilization increased from 39.8% in 2005 to 48.7% in June 2007 (exceeding the target set at 45%). The utilization rate at district hospitals also increased from 35.2% in 2005 to 43.4% in June 2006 (nearly reaching the target set at 45%).[6]

11. The project contributed towards improving the quality of health service delivery by investing in a) capacity building of health workers and health administrative personnel regarding quality assurance and performance-based financing; b) strengthening the ability of health personnel to deal with the health management information system (HMIS); c) focusing on initiatives to reduce the waiting period at the hospitals and health centers and also minimizing drug stock-outs; and d) investments in certain infrastructure like solar panels and computers.

12. Fund transfer by the project to the various sub-recipients has been highly satisfactory (in excess of 85%) and so has the utilization (in excess of 98%) of the funds by the various sub-recipients for the planned activities. (Ref. section-3).

13. The project's emphasis on improving the coverage rates without attendant increase in capacity of the *mutuelles* (both human resources and basic infrastructure like computers) could negatively impact the performance of the *mutuelles*. Currently, ONE person is dedicated to manage the section *mutuelle* and the District Risk Pool respectively.

Systemic issues vis-à-vis the Rwandan Health System

14. An estimated 50% (or about 1.85 million) of people living in extreme poverty (i.e., living on RwF 175 per person per day) have to fund their way through to get access to even the basic care. The EICV2 2005/06 survey mentions that the total number of Rwandans living in poverty (i.e., people living on income equivalent of RwF 250 or USD 0.45 per person per day) is estimated to have increased from around 4.8 million in 2000/01 to 5.4 million in 2005/06. The same study also goes on to mention that 36.9% of the total population (table–11) is living in extreme poverty (i.e., income equivalent of RwF 175 per day or USD 0.31 per day). Based on the existing population people living in extreme poverty is estimated to be in excess of 3.65 million, whereas the total number of very poor/indigents supported by the GFATM HSS project is about 803,500 (in 2006) and that by the Government and other donors is estimated to be about 1.0million.

15. The current policy of flat premium and compulsory participation in the *mutuelle* health insurance, particularly for those who are currently not insured, seems more like taxation rather than insurance. Though the policy of flat premium may be justified on the grounds of simplicity

[6] PMU (2007) HSS Progress Report 18 mois

in management and administration it seems financially not fair particularly when one is trying to ensure equity in financing and access to health care.

16. Also, note that health insurance is estimated to contribute to less than 15 – 20% of the total health expenditure in Rwanda. The OOPS by households; incl. on membership fee or contributions to the formal insurance schemes and co-payments, is estimated to be about 5% of the total health expenditure. Contributions by Government of Rwanda (GoR), donors and other external partners are in excess of 90 – 95% of the total health expenditure (THE). (Ref. section-5.1.3)

17. The *mutuelles* look less of a community managed health insurance and more like a "parastatal", particularly when it comes to management and administration. Community participation is limited to raising awareness and enrolling members into the *mutuelles*. Similarly, the role of the provider and purchaser of health services is blurred by the fact that in the majority of cases health workers are also involved in the operations of the *mutuelles*, particularly the section *mutuelles* at the section level.

18. The Cellule Technique d'Appui aux Mutuelles de Santé (CTAMS), the Health Insurance Scheme Technical Support Unit, the backbone of the *mutuelles* lacks the necessary capacity i.e., low number of technical staff (currently about 6 full-time staff) and logistic infrastructure to continue managing the rapid growth of *mutuelles* and people covered (Ref. table–4). This could impact the development of sustainable *mutuelles*. Also, the lack of a robust Management Information System (MIS) is limiting the ability of CTAMS to a) improve the efficiency of costing for health services; and b) track key indicators like the utilization rates, renewal rates, level of surplus and deployment of surplus funds within the *mutuelles*.

19. A recent report by the Ministry of Health[7] shows that health centers and district hospitals meet less than 30% of required staffing norms. Shortages are seen for almost every category of staff (Ref. table–7 in section-2). This could negatively affect the ability of the health system to respond to the populations need for quality care.

20. The geographical accessibility of health centers could also negatively impact the ability to access to quality care, particularly by the poor. For example, in Gikongoro, one of the poorest districts in the country, only 30% of population lives within 5 km of a health center, which is well below the national average. Hence, improving access to functioning health facilities, which need to be sufficiently staffed should be the first priority.

Conclusions and Recommendations

21. The Project contributes to Rwanda's health sector policy, PRSP, vision 2020 and MDGs. The positive spin-off of the project is the impact on the overall health sector strategy in the country. The Government has recently passed a legislation on *mutuelles* which will contribute towards strengthening not just only the financing part but also the involvement of the community in the decision-making process. The government is also changing the way it funds the health systems i.e., moving more and more in the direction of demand side financing (financing of health insurance premium of the very poor, and poor; and also the PBF mechanism which is being expanded across the country) rather than focusing on input financing.

22. There is a need to design a financing mechanism in partnership with GoR and Donors to mobilize additional financial resources to reach the unserved. It could be possible that more than 27–30% of the population who are currently not participating in the *mutuelle* could be from the low-income groups who just cannot afford to pay the insurance premiums from their current incomes.

[7] Minisante (April 2006): "*Human Resources for Health Strategic Plan 2006-2010*"

23. Another recommendation is to pilot financing health insurance via savings and credit mechanisms. This could be done by two ways a) using the existing model of product offering via Banque Populaire; or b) by offering a soft loan to the members to finance the premium payments. The soft loan could be financed by grant from an external lending institution like KfW Development Bank or the World Bank. Note: the second model may be interesting to explore because of the low uptake of the credit from Banque Populaire. The model could help in expanding insurance to larger segment of population who are unable to finance using their current income, but may have the ability to smooth the consumption over time.

24. Similarly, initiating "open enrollment" as against annual enrollment (or calendar year enrollment) could contribute to increasing member enrollment in the *mutuelles*. Currently, an estimated 10 – 15% of population enrolls even during the 5th month and onwards, primarily due to lack of availability of money. This deprives the health insurance coverage for the first few months and the households are vulnerable to health shocks in the interim.

25. a) Increasing community participation and ownership of the *mutuelles* and the District Risk Pools; b) strengthening the capacity of the section *mutuelles* and also the District Risk Pool; and c) building the capacity of the CTAMS should be the priority areas. Also, informational and educational campaigns (IEC) to increase the awareness about health insurance (especially among the indigents, eventually making sure that they know that they are covered) and also educate people about the advantages of preventive care should be considered another focal area.

26. Possibilities for Operational Research (OR) about the impact of *mutuelles* should be explored more. Areas of special interest are for instance the population's capacity to pay for premium and co-payment; in how far enrollment translates into access; capacity of *mutuelles*,; relationship between health centers and section *mutuelles*; flow of funds in the system; level of community participation; impact on financial protection from health shocks; and impact on insurance coverage and utilization of health care and also on the health status particularly of the indigents).

27. Activity indicators should be reviewed given that a) the project has been expanded to the whole country (e.g. with regard to the number of poor and PLWHA to be covered); and b) due to increase prices (e.g., CPA benefit package increased from RwF 500 to RwF 1,000)

28. Impact indicators should be updated (e.g. HIV prevalence among pregnant women, maternal and infant mortality) based on the new DHS 2005 and other more recent surveys.

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EXCHANGE RATE

US Dollar USD 1 = Rwandan Francs RwF 555

Abbreviations

CCM	Country Coordinating Mechanism
CNLS	National Commission against HIV/AIDS
CPA	Complementary Package of Activities
CTAMS	Cellule Technique d'Appui Aux Mutuelles de Sante
DHS	Demographic Health Survey
EICV	Integrated Living Conditions Survey
ESP	(Ecole de Sante Publique) School of Public Health
FARG	Genocide Survivors Support Fund
FGD	Focus Group Discussions
Gacaca	Traditional courts to solve crimes related to the Genocide
GDP	Gross Domestic Product
GFATM	Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria
GoR	Government of Rwanda
GTZ	Gesellschaft für Technische Zusammenarbeit
HF	Health Financing
HMIS	Health Management Information System
HSS	Health Systems Strengthening
HSSP	Health Sector Strategic Plan
IEC	Informational and Educational Campaigns
KHI	Kigali Health Institute
MAS	Management Information system for mutuelles piloted by ILO
MAP	World Bank Multi-sector AIDS project
MBB	Marginal Budgeting for Bottlenecks
MDGs	Millennium Development Goals
MIS	Management Information System
MMI	Military Medical Insurance
MOH	Ministry of Health
MPA	Minimum Package of Activities
NHA	National Health Accounts
NUR	National University of Rwanda
ODA	Official Development Aid
OOPS	Out Of Pocket Spending
OPD	Out-patients Department
OR	Operational Research
P4P	Performance for Pay
PACFA	Protection and Care of Families Against HIV/AIDS
PBF	Performance-Based Financing
PLWHA	People Living With HIV/AIDS
PMU	Project Management Unit
PR	Principal Recipient
PRSP	Poverty Reduction Strategy Paper
QA	Quality Assurance
RAMA	Regime d'Assurance Maladie des Agents de l'Etat
RGPH	Rwanda General Population and Housing Census
SWOT	Strenghts, Weaknesses, Opportunities and Threats
TB	Tuberculosis
THE	Total Health Expenditure
UPDC, former USS	Capacity Development Unit in the Ministry of Health

Introduction

The mid-term review of the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (GFATM) Round 5 Health Systems Strengthening (HSS) project has been conducted between August 20 and September 3rd 2007 (following a one-week preparatory mission that had taken place in June 2007).

The process of collecting information for this report involved a review of key project document and background studies, interviews with key stakeholders, visits to the field as well as focus group discussions with beneficiaries and managers of the health systems at the district and section level.

The terms of reference provided by the CCM were:

- To assist the CCM in analyzing the changes in environment and external influences, systemic weaknesses, financial and management procedures of the project and the adherence to GFATM principles
- To participate in the evaluation of progress achieved according to expected results
- To provide contextual information concerning the project
- To identify other relevant activities in order to guarantee the achievement of the project objectives
- To make recommendations on the phase two priorities and activities

The structure of the report is as follows: The first chapter provides background information on the health system in Rwanda. The second chapter discusses the achievements of the GFATM HSS project. Chapter three analyzes the financial flows of the GFATM project and chapter four formulates recommendations for phase two of the GFTAM HSS project. Subsequently, as the GFATM project is closely linked to and directly supporting the Rwandan Government policy on *mutuelle*s and health systems strengthening, a chapter was included to take a closer look at the achievements and shortcomings of the Rwandan system of *mutuelle*s in general; chapter five. Finally, chapter six concludes the report by highlighting the most important findings.

1. Contextual information

1.1 General background information

Rwanda is a low-income country with about 90% of its population engaged in mainly subsistence livelihood. The results from the recent EICV2 survey (Integrated Living Conditions Survey 2005/06) show that the vast majority of households (93%) rely predominantly on one main type of income, and this reliance has only declined marginally (3%) since 2000/01. Rwanda is one of the most densely populated countries in Africa (according to the vision 2020, 340 people per sq km in 2000 with a high population growth rate of 3.2% p.a.)[8]. The country is landlocked with few natural resources, primary foreign exchange earners are coffee and tea. The 1994 genocide decimated Rwanda's fragile economic base, severely impoverished the population, particularly women, and eroded the country's ability to attract private and external investment.

The country has made substantial progress in stabilizing and rehabilitating its economy to pre-1994 levels, although poverty levels are still higher now than before the Genocide.[9] In the past five years, however, poverty has been slightly declining: preliminary analyses of the second household living conditions survey (EICV 2005/2006) suggest that the poverty headcount declined from 60% in 2000/2001 to 57% in 2005/2006. In the rural areas though, where 83% of the population lives, poverty remained high (62.5% in 2005/2006). Furthermore, inequality increased throughout the country. The level of inequality was already high in 2000/01, with a Gini coefficient of 0.47, and this rose to 0.51 in 2005/06. [10]

GDP has experienced a real growth rate of 7.2% in 2005, according to the National Institute of Statistics in Rwanda.[11] GDP in 2005 was however still low at USD 2.51 billion or USD 238 per capita (current USD). Rwanda is heavily dependent on foreign aid for financing its development. Total Official Aid (ODA) disbursed in 2005 amounted to USD 576 million, which corresponds to about 27% of GDP and USD 63.7 per capita (one of the highest rates in Sub-Saharan Africa).[12]

The 2002 Rwanda General Population and Housing Census (RGPH) estimated the natural growth rate at 2.6% and the fertility rate at 5.9%. Population density is high across the country and is increasing steadily: 321 inhabitants per square kilometer in 2002, compared with 283 in 1991 and 191 in 1978. The population is essentially young, with 67 of all Rwandans under the age of 20. In terms of gender, the 2002 RGPH shows females to be in the majority (52%) while males make up 48% of the population.[13]

[8] Republic of Rwanda, Ministry of Finance and Economic Planning (2000): Rwanda Vision 2020
[9] National Institute of Statistics of Rwanda (2006): Preliminary Poverty Update Report – Integrated Living Conditions Survey 2005/2006. Kigali: December
[10] National Institute of Statistics Rwanda (2006): "*Integrated Living Conditions Survey 2005-06 (ECIV2)"*.
[11] http://www.statistics.gov.rw
[12] WDI / GFD Database, The World Bank
[13] Ministry of Health (2005): DHS 2005

1.2 Health Indicators

According to the Rwandan Demographic Health Survey (DHS) 2005 the maternal mortality is 750/100,000 live births, under five mortality 152/1,000 live births, and infant mortality is 85/1,000 live births. A bit more than a third of all deliveries (38.7%) are assisted deliveries. [14]
The three diseases targeted by the Global Fund strongly affect the Rwandan population. The HIV prevalence among adults age 15+ years is 3,133/100,000 population (2005). For 2005, it was also estimated that 232 deaths per 100,000 population occurred due to HIV AIDS. According to the Rwandan Demographic Health Survey (DHS) 2005, 3% of all people between 15 and 49 years are HIV positive (3.6% of women and 2.3% of men). Tuberculosis prevalence and incidence[15] amounted to 637/100,000 population and 361/100,000 population in 2005 respectively.[16] Registered malaria incidence reached 12,000/100,000 population. [17] Malaria is the cause of 40% of consultations in health facilities.[18]

1.3 The Rwandan Health System

The public health system in Rwanda has three levels: the central, the district and the section level.

- The ***central level*** is made up of the directorate of the Ministry of Health and the three national referral hospitals.
- There are 30 ***health districts*** in Rwanda (corresponding to the administrative districts in Rwanda since the administrative reforms in 2006), each served by at least one district hospital. Hospitalization coverage at referral and district hospitals is referred to as the CPA *(Complementary package of activities*).
- There are 398 ***health centers*** at section level. Not all sections are served by a health center yet. Basic services covered at the health centre are referred to as the MPA (*Minimum package of activities*).

Apart from the public sector, health services are also provided by the private sector and by traditional healers. The private sector is growing considerably (both for profit and non-profit establishments, such as health centers run by churches or NGOs). Almost all private establishments are situated in Kigali.

1.4 Health Financing in Rwanda

Total health care spending has increased continuously in recent years. The most recent NHA states that Rwanda has moved from being a country with one of the lowest shares of GDP (4% in 2000 and 2002) spent on health to one among the highest (6.6% in 2003) in Africa. The share of the Government budget allocated to health rose from 2.5% in 1998 to approximately 10% in

[14] Ministry of Health (2005): DHS 2005
[15] Prevalence = total number of cases at a given point in time: Incidence = number of new cases
[16] WHO: http://www.who.int/whosis/database/core/core_select_process.cfm
[17] The Global Fund to Fight HIV AIDS, Tuberculosis and Malaria (2005): Fifth call for proposals. Assuring access to quality care: the missing link to combat AIDS, Tuberculosis and Malaria in Rwanda.
[18] Ministry of Health (2005): DHS 2005

2005.[19] The goal of the Health Sector Strategic Plan (HSSP) is to achieve a health budget of 12% of total public expenditure by 2009 and Rwanda seems to be moving in this direction.

According to WHO estimates from the country's National Health Account (NHA) data, Rwanda's total health expenditure (THE) in 2005 amounted to RwF 93.193 million (nearly USD 168 million if assuming that USD 1 equals RwF 555. Out of this amount public expenditure: amounts to RwF 53,973 million and private Expenditure to RwF 39.219 million. [20]

Donors are contributing the largest share of health care financing in Rwanda. Donor funding has more than doubled since 1998. The latest NHA (2003) shows that donors funded 42%, followed by the Government at 33% and the private sector at 25%. Both the increase in donor funding and Government expenditures on health lead to increased per capita health expenditure growing from USD 9.30 in 2002 to USD 13.93 in 2003. The goal of the HSSP is reaching USD 16 per capita by 2009. According to estimates in the recent joint report by the Ministry of Finance and Planning and the Ministry of Health[21], total health expenditure in 2005 may have reached between USD 15 –17 per head.[22] Despite these achievements, Rwanda still faces major challenges in reaching the level of health expenditure required to achieve Vision 2020 and to meet the MDGs on health. The Marginal Budgeting for Bottlenecks methodology (a methodology focusing on where additional funding should be concentrated in order to overcome bottlenecks and maximize the impact on the MDGs) estimates that additional health expenditures amounting to USD 20 per person (beyond current spending levels) would be required for a more comprehensive health care package including anti-retroviral treatment. A more limited package would cost about USD 10 per person beyond present spending levels.[23]

Apart from the need of increasing the health budget, there is also substantial scope for making better use of resources, i.e. improving the allocation and management of existing health expenditure. Much of donors' support is earmarked. For instance, more than USD 100 million is earmarked for HIV AIDS whereas just USD 1 million is spent on the integrated management of childhood illnesses. Resources are also not evenly geographically distributed: per capita aid for health in 2005 varied from USD 1.86 per capita in the least funded to USD 11.84 in the highest funded province. 21 donors and over 40 NGOs are active in the health sector of Rwanda. There are large numbers of projects, donor pipelines are often short with 55% of donor projects due to end within a year. Some 27% of total Government and donor expenditure is absorbed in administration. For these reasons, the Government has initiated a process of improving aid harmonization and alignment.[24]

1.5 Health Insurance in Rwanda

Three major types of health insurance schemes exist in Rwanda, namely (details Ref. ANNEX-3):

[19] Ministry of Finance and Economic Planning, Ministry of Health (2006): Scaling up to achieve the health MDGs in Rwanda. A background study for the high level forum meeting.
[20] http://www.who.int/nha/country/rwa/en/
[21] Ministry of Finance and Economic Planning, Ministry of Health (2006): Scaling up to achieve the health MDGs in Rwanda. A background study for the high level forum meeting.
[22] Diop, F. et al. (2007): Health Financing Task Force Discussion Paper: Policy Crossroads for *Mutuelles* and health financing in Rwanda.
[23] Ministry of Finance and Economic Planning, Ministry of Health (2006): Scaling up to achieve the health MDGs in Rwanda. A background study for the high level forum meeting.
[24] Ministry of Finance and Economic Planning, Ministry of Health (2006): Scaling up to achieve the health MDGs in Rwanda. A background study for the high level forum meeting

1. Health insurance systems for the formal sector – RAMA (Regime d'Assurance Maladie des Agents de l'Etat) for the Civil Servants; and MMI (Military Medical Insurance) for military staff and their family;
2. Government Funds covering health care of special groups such as the Genocide Survivors' Support Fund (FARG); Members and beneficiaries of Gacaca Courts[25]; and Fund for Prisoners Health Care;
3. Mutual health insurance

The emergence of private health insurance is a recent phenomenon i.e., started in 2005 and serves a very small market. There are three insurance companies (CORAR, SORAS, and AAR) that operate in this market.

Table 1: *Beneficiaries in the Various Health Insurance Schemes*

Type of Scheme	Name of the Scheme	Number of Beneficiaries (07/2007)
Health insurance for the formal Sector	RAMA	196 ,442
	MMI	Estimated more than 100,000
Health Insurance for Special Groups	FARG	304,232
	Gacaca	413,356
	Fund for Prisoners	169,442
Community-based health insurance	*mutuelles* de santé / *mutuelles*	6,325,800
Private Health Insurance		7828

The various health insurance schemes cumulatively are estimated to contribute to about 15 – 20% of the total health expenditure in the country.

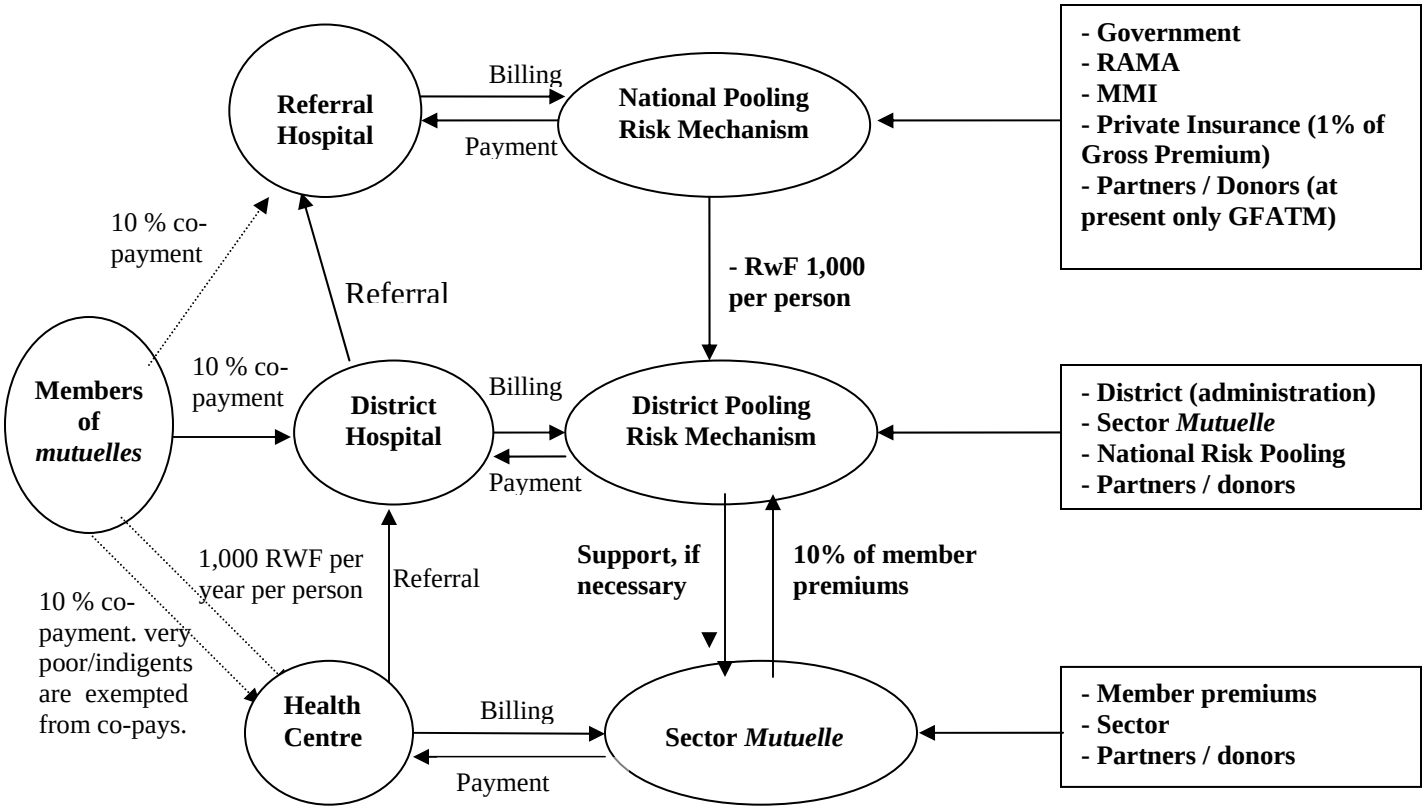
1.6 Structure of Health System

The basis of access to health care (Ref. figure–1) are the 398 *mutuelles* at section level, in this document from now on referred to as section *mutuelles* which are tied to the 398 health centers at section level. At district level, there is a District Pooling Risk Mechanism tied to each of the 30 district hospitals in the country. The third tier of the provider system is composed of the three *referral* hospitals, two located in Kigali and one in Butare. The Government of Rwanda recently passed a legislation which provides a legal basis for the *mutuelles*. Following the passage of legislation enrollment into *mutuelle* health insurance is COMPULSORY for all, excepting those covered by the other health insurance schemes (like RAMA, MMI, Private Insurers, and Government sponsored programs FARG, Gacaca and the fund for prisoners).

A technical support centre for *mutuelles*, Cellule Technique d'Appui aux Mutuelles de Santé (CTAMS), provides technical assistance to the *mutuelles* . For further details, see chapter-2.

[25] Community managed conflict resolution bodies.dealing with crime related to the Genocide

Figure 1: *Mutuelles in the Rwandan Health Care System*



NOTE: There are several additional actors who need to be mentioned to complete the picture:

- The Ministry of Health on the Policy Level
- CTAMS transferring funds and providing technical assistance on all levels
- Communities and various development partners / donors intervening on all levels
- The technical working group on *mutuelles* involving a large variety of stakeholders (subrecipients, Government and development partners)
- Management Committees (consisting of local community members) at each section *mutuelle* and District Pooling Risk Mechanism

1.7 Financing of Health System

As figure 1 shows, health financing occurs at three levels:

1. National (Risk) Pooling
2. District (Risk) Pooling
3. Section level

1. *The National (Risk) Pooling* mechanism shall be financed through –

- Contributions from RAMA, MMI and private insurance companies
- Subsidies from the Rwandan government – a) RwF 1,000 per person for *Comprehensive Benefit Package,* and b) any deficit that may exist, and

- Contributions from different donors, at the time being only the GFATM

At the moment, the national risk pool is financed by the Government via the health budget (estimated to be 400 Million Rwandan Francs for 2007)[26] and the GFATM (estimated to be ca. 1.6 billion Rwandan Francs for 2007). The National Risk Pooling is a way towards introducing some elements of solidarity i.e., between those in the formal and the informal sector, and between the rich and the poor. The Pool will be used to pay for a) the health care expenses of all those enrolled in the formal social security schemes like RAMA, MMI, and the various government sponsored scheme like FARG, and Gacaca; and b) the tertiary care at the referral hospitals for all the insured.

2. *The District Risk Pool* shall be financed through:

- 10% contributions from section *mutuelles*
- Transfers from National (Risk) Pooling mechanism (including the GFATM HSS Funding for the Complementary Package or CPA)
- District contributions, and
- Partners and donors

Funds will be used to pay for health care services at district hospital (including hospitalization, diagnostics and drugs and ambulance services) for the insured population/members, administration costs of district *mutuelles*, and allowances for administrative council meetings of the District Pooling Risk Mechanism.

3. *The section mutuelles* shall be financed through:

- Member contributions of RwF 1,000 per head per year (of which 10% is transferred to the District Pooling Risk Mechanism)
- Donors and Government finance the contributions on behalf of the bottom 15 – 20% (i.e., indigent population)

4. Pricing of the premium to be paid by the population was set at the national level at RwF 1,000 (ca. USD 2) per person per year for the minimum package of activities and RwF 1,000 for the complementary package of activities. Currently, the population only needs to pay RwF 1,000 for the minimum package. The RwF 1,000 for the complementary package of activities is currently paid for by the Government. For indigents, orphans and people living with HIV/AIDS, the GFATM is paying for the premium for both the minimum and the complementary package of activities. More details follow in chapter 2.

[26] ILO Step Afrique (2007): Rapport d'Avancement des activites au Rwanda. Janvier – Mai 2007

2. Achievements of the GFATM 5th Round Project on HSS

2.1 Project rationale

The main rationale for the 5th round proposal on health systems strengthening of the GFATM in Rwanda[27] was the fact that *the population did not interact with health services in case of disease.* According to the Systeme d'Information Sanitaire (SIS), there were only approximately 3 million consultations annually in 2005 (about 0.3 visits per capita in 2001).

The *reasons for low utilization rates* were mainly:

i) a large part of the population being unable to pay for health services, and
ii) the perceived quality of services not justifying the expense.

These two problems were therefore the center of attention of the Global Fund project on health systems strengthening (HSS) that started in January 2006. Available evidence from Rwanda demonstrated that the members of existing health insurance schemes for the low-income population (*mutuelles)* have better financial access to health care than non-members (i.e., members utilize health services 3 to 5 times more than non-members)[28]. Hence, it was decided to tackle the problem of low-utilization rates by supporting the roll-out of *mutuelles* in line with the Government policy. The project in many ways is seen as the missing link to combating the three diseases HIV/AIDS, Malaria and Tuberculosis by way of strengthening the overall health system. The three diseases collectively contribute to the highest disease burden in the country (Ref. table-2) and hence trying to deal with the disease via a vertical program without strengthening the health system was deemed as an exercise in futility.

Table 2: *Burden of Disease in Rwanda (2002)*

	DALYS[29] (per 100,000 pop.)	Deaths (per 100,000 pop.)
Communicable, maternal, perinatal and nutritional conditions	41,707	1,200.8
HIV/AIDS	8,514	281.4
Tuberculosis	1,731	65.9
Malaria	1,458	35.8
Non-communicable diseases	8,740	2,854

Source: WHO: Death and DALY estimates for 2002 by cause for WHO Member States[30]

2.2 Project design

In January 2006, the GFATM started implementing the 5th round proposal **Assuring access to quality care: the missing link to combat AIDS, Tuberculosis and Malaria (RWN-505-G05-S)**. The project's duration is five years and the total budget amounts to USD 33,945,080 Million. The project wants to achieve the following two objectives:

[27] The Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (2005): Fifth Call for Proposals. Assuring Access to Quality Care: The missing link to combat AIDS, Tuberculosis and Malaria in Rwanda.
[28] ibid
[29] Disability adjusted life years (DALYs) = loss of years due to the disease
[30] http://www.who.int/healthinfo/statistics/bodgbddeathdalyestimates.xls

1) **To improve financial accessibility to health care for the very poor, people living with HIV/AIDS (PLWHA) and orphans**
2) **to strengthen and improve performance and quality of the health delivery system**

To fulfill the project objectives, the following **activities** (as laid out in the Grant Agreement Phase 1) [31]were to be implemented:

- Finance and/or co-finance health insurance membership fees for the poor, for orphans and for people living with HIV/AIDS;
- Provide pre-service and in-service training to clinical and other health service staff;
- Develop and establish a nation-wide training program for administrative and supervisory staff in order to enhance the efficiency of programs financed by the Global Fund;
- Provide electricity to health centers in the target areas to assure the functioning of basic services, safe keeping of vaccines and treatment of nocturnal emergencies;
- Provide technical assistance to the insurance providers (both in financial supervision and in monitoring and evaluation of progress achieved);
- Undertake operational research to monitor progress and identify challenges in the course of implementation.

After the proposal has been submitted, however, the project design underwent a number of changes. Project indicators for the second project phase need to be revised accordingly.

First, the payment of premiums for indigents, people living with HIV/AIDS and orphans was extended to the whole country instead of the six target provinces initially identified. The reason for this change was the administrative reform carried out in 2006 which reduced the number of provinces from twelve to four as well as equity concerns of leaving very poor people out. Regarding the other project activities, however, the project was not extended beyond the initial target provinces.

Second, it has been originally planned to cover the costs for the complementary package of activities (CPA) for 989,972 poor in 2006 and a similar number in the following years (with the Rwandan Government supposed to pay for the CPA for the remaining population). The Government however changed the fees charged for the CPA from RwF 500 to RwF 1,000. The project could therefore only cover 546,464 people during 2006.

Third, the initial proposal foresaw the establishment of a consortium (GTZ, UNDP and PACFA). This consortium, however, did not come into being due to CCM-Rwanda recommendations adopted in the CCM Meeting on Nov 03 2007. The decision was taken a) in order to strengthen national capacity, and b) to prevent overhead costs of the members of the Consortium that would have reduced the total amount of available funds to the project.

Fourth, the premium for people living with HIV/AIDS (PLWHA) is now calculated at the same rate as the premium of indigents and orphans (USD 3.6) and not at USD 13.5 as originally calculated. Therefore sub-recipient PACFA was able to cover a larger number of PLWHA. On the one hand, it became a country strategy to treat PLWHA in the same way as other groups in order to avoid stigmatization; on the other, the costs for treatment of HIV patients were ultimately not considered higher than for other patients due to the large number of existing vertical programs providing additional funds for HIV-related treatment.

[31] CCM (2005) : Grant Agreement Phase I

2.3 Achievement of Expected Results

2.3.1 Progress Update Report (June 30 2007)

Table 3: *Progress Update (June 30 2007)*

Obj.	Service Delivery Area	Indicator Description	Baseline		Intended targets to date	Actual results to date	Reasons for programmatic deviation and any other comments
			Value	Year			
1	Support for the very poor	Number of yearly insurance subscriptions paid for very poor people receiving both minimum package of activities and complementary package of activities	45,384	2005	1,530,754	1,574,309	Membership fees have been changed in 2006 toUSD 3.6 instead of USD 3.8 as resulting in an increase of the targets. This gives opportunity to cover also very poor persons non covered by others donors after the administrative reform in 2006.
1	Support for the poor	Number of yearly CPA insurance subscrip-tions paid for poor people (co financing)	53,491	2005	2,305,249	1,346,180	Membership fees have been changed from USD 1 to USD 2 for CPA as a result the targeted number of beneficiaries was reduced.
1	Coordination & partnership development	Number of participants in coordination meetings & sensitization meetings.	N/A	2005	310,296	178,010	Figures from both PACFA & CBHI (CTAMS) are added as both have the same activity.(complementarity).
1	Support for Orphans	Number of yearly insurance subscriptions paid for orphans (MPA and CPA)	N/A	2005	158,722	151,921	
1	Support for PLWAs	Number of yearly insurance subscriptions paid for PLWHAs (MPA and CPA)	3,500	2005	76,074	276,535	The country strategy is to consider PLWHA like others as medical care is concerned. So the amount of money planned (USD 13.5 /person) have been changed to 3.6 UDS/person, the difference was used to cover an additional number
1	Health System Strengthening	Utilization rate of health center facilities (07/2007)	39.8%	2005	45%	48.7%	2 137 400 consultations for 4 672 199 expected if norm considered is one contact per person per year(WHO) and knowing that the total population is 9 344 399.
1	Health System Strengthening	Utilization rate of district hospitals (07/2007)	35.2%	2005	45%	43.4%	Among all patients expected to the Health center for one contact by person per year,10% are supposed to be referred to district hospital. HIMS reported 121.753 cases, this represents 56%..
1	Health System Strengthening	Percentage increase in patient satisfaction (care provided in health centres) among the target group (poor, very poor, PLWH,Orphans	60%	2005	80%	-	Study on going with PACFA
1	Health System Strengthening	Transit time (hours) for health centre and district hospitals (time between entry of patient into health facility and treatment)	3hrs	2005	2.5	-	Study on going with UPDC
2	Human resources	Number of students and medical interns trained on Quality Assurance (QA) approach & Health financing (HF)	0	2005	140	112	On Going activity with KHI and SPH
2	Human resources	Number of Maters Public health students trained on QA, PBF and health financing	0	2005	50	25	On Going activity with SPH
2	Human resources	In-service training on QA & HF and health financing of 19 hospital managers,19 health district supervisors, 187 heads of HCs & 187 deputy-mayors in charge of health affairs.	0	2005	526	105	

2	Human resources	Number of health district supervisors, district hospital health information system and health center personnel trained on HIS management	0	2005	824	121	The new administrative restructuring did not allow the achievement of targets. This training is planned for the third trimester 2007.
2	Human resources	Number of professionals trained on Monitoring & evaluation/Operational research (M&E/OR).	0	2005	34	60	The training is planned for the third trimester 2007.
2	Procurement & supply mgmt. capacity bldg.	Number of procurement officers trained	0	2005	450	61	61 Trainers of Health providers have been trained country-wide, the budget was not enough to train drugs managers at level of Health centers(164).
2	Procurement & supply mgmt. capacity bldg.	Number of HDs using computerized program for drug management.	0	2005	19	61	Idem supra , it was an integrated training with this topic
2	Procurement & supply mgmt. capacity bldg.	Number of HDs, DHs & HCs with telephone subscription.	35	2005	450	0	Planned for third trimester
2	Procurement & supply mgmt. capacity bldg.	Number of HDs with internet connection	8	2005	19	0	Process of installation has started; this will be operational during the third trimester 2007.
2	Procurement & supply mgmt. capacity bldg.	Average number of days of stockout of key first line antimalarial drugs in a year in health centres.	7	2005	3	0	
2	Procurement & supply mgmt. capacity bldg.	Number of HCs with functioning solar panels	0	2005	74	37	The budget was not enough to purchase all solar panels
2	Comm.systems strengthening	Number Protection and care of families against AIDS (PACFA) personnel trained on project management.	0	2005	10	10	Completed
2	Comm.systems strengthening	Number of PACFA personnel trained on management of *mutuelles*	0	2005	10	10	Completed
2	Comm.systems strengthening	Number of district mutuelle officers & managers supervised every quarter	N/A	N/A	320	167	On Going activity
2	Comm.systems strengthening	Number of project sub recipients supervised every 3 months	N/A	N/A	10	10	
2	Coordination & partnership development	Number of coordination & sensitization meetings held	N/A	N/A	240	105	On Going activity
2	Comm.systems strengthening	Case fatality rate of HIV/AIDS in health centers	0	2005	0.8%	0.2%	
2	Comm.systems strengthening	Case fatality rate of TB in health centers	1.47%	2005	0.05%	0.05	
2	Comm.systems strengthening	Overall case fatality rate in health centers	0.06%	2005	0.03%	0.01%	
2	Comm.systems strengthening	Number of OPD consultations in health centers (New cases) (Nombre de nouveaux cas consultés dans les centres de santé).	2.960. 087	2003	3,552,104	2.137.400	The data is related to the 1st semester 2007.

Source: Table based on HSS Progress Report 18 mois, Ongoing progress update and disbursement request 30 June 2007 elaborated by the PMU

2.3.2 Achievement of objective 1: improve financial accessibility to health care for the very poor, people living with HIV/AIDS (PLWHA) and orphans

The project performance for objective one can be considered good. The project exceeded expectations in the coverage of indigents and people living with HIV/AIDS (PLWHA). Against cumulative target (i.e., year 1 and 2 combined) of 1,530,745 indigents, the achievement was 1,574,306. Similarly, in the case of PLWHA against a target of 76,074 for year 1 and 2 combined the achievement was 276,535. This was possible for two reasons a) the membership fees for MPA and CPA together got reduced from USD 3.8 to USD 3.6; and b) the membership fee for PLWHA decreased from USD 13.5 to USD 3.6, as it was agreed that additional cost of treating HIV/AIDS positive will be financed from other sources rather than using the insurance proceeds.

The GFATM HSS Project has contributed to increasing the health insurance coverage (i.e., number of people insured). As can be seen from table-4 below, the coverage increased from 44.1% in 2005 to 73% at the end of 2006 (72% in July 2007, membership for this year still increasing). Another reason for the sharp increase in membership was the extension of the benefit package, i.e. the inclusion of the CPA from 2004 onwards.

Table 4: *Evolution of Mutuelles between 2003 and 2007*[32]

Year	Number of *mutuelles*	Membership (%)
2003	88	7
2004	226	27
2005	354	44.1
2006	392	73
30 July 2007	398	72

The utilization rates increased commensurately over the period, i.e., with the increase in coverage rate. At health centers, utilization increased from 39.8% in 2005 to 48.2 % in June 2007 (exceeding the target set at 45%). The utilization rate at district hospitals also increased from 35.2% in 2005 to 43.4% in June 2007 and thereby already nearly reached the target set for end 2007 at 45%. [33] Though it is difficult to establish a one-to-one correlation between increased coverage rates and utilization, nevertheless the fact that utilization rates have increased both at the health center and district hospital level is interesting to note.

The table below shows the utilization of health services (note that these only account for new cases) at the health centers increasing with enrollment over the year. It should be taken into account though that information from the HMIS is not yet completely reliable, there are some flaws in the system. However, a new HMIS, which will be web-based will be launched in 2008.

Table 5: ***Evolution of Utilization Rates at Health Centers from January 2006 to April 2007***

Year	**2006**												**2007**			
Month	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	07
Utilization rate %	43.7	43.9	51.5	52.5	55.3	57.7	59.1	59.2	57.9	58.8	60.2	61.4	31.1	43.1	53.5	49.4

Source: Ministry of Health (2007): HMIS

[32] Inyarubuga, H. (2007): Les *mutuelles* de sante au Rwanda. Une force pragmatique de mutualisation de risque lie a la maladie ; database from CTAMS

[33] PMU (2007) HSS Progress Report 18 mois

Focus group discussions with community members in the sections of Ghanga and Masaka in Kigali District as well as Shyogwe and Kabuga in Muhanga District have shown that the satisfaction of beneficiaries is very high. All people present that belonged to the section *mutuelle* had a) health insurance cards i.e., a reflection that they were aware of health insurance; and b) are utilizing health services more often than before. Co-payment at health center level is not considered a problem. The higher level of satisfaction has been further corroborated by the EICV2 survey (Table-6), conducted between October 2005 and 2006, which observed that the service levels improved over the last 12 months. Nevertheless a detailed survey needs to be carried out to specifically find out the impact of the GFATM HSS project on both utilization rates and client satisfaction.

Table 6: *User Satisfaction with Services, by Stratum (%)*

Services	Users satisfied with service (%)				Users observing improvement in service in last 12 months (%)			
	City of Kigali	Other Urban	Rural	All	City of Kigali	Other Urban	Rural	All
Health care centre	69.0	75.3	77.9	77.1	24.0	31.9	37.9	36.5
District hospital	57.6	72.0	75.7	73.9	20.4	28.5	32.8	31.4

Source: EICV2.

Note: (1) Figures are calculated for people that use each facility. (2) Data refers to the quality of the nearest available service of each type

Despite all these positive achievement, however, there have been a few constraints. The project could not cover the CPA for as many poor as envisaged (an accumulated number of 1,346,180 instead of 2,305,249 for 2006 and 2007) due to the increase in the cost for the membership fee related to the CPA i.e., the actual cost of CPA is RwF 1,000 per head per year against a budgeted amount of RwF 500 per head per year. Those not covered by the GFATM and other donors are to be covered by the Government. Similarly, the number of orphans covered by the project is lower than planned (151,921 instead of 158,722 accumulated numbers for 2006 and 2007). PACFA, the sub-recipient identifying and enrolling the orphans, explained that the main reason for the reduction was that there have been difficulties in finding all orphans, which is based on the traditional approach of involving the neighbors and village elders in identifying the orphans, that have been on a preliminary list.

There have been complaints in 2006 that the identification process of indigents, PLWHA and orphans and the subsequent issuing of membership cards has taken too long time. This had negative repercussions on people's access to care, as they could not benefit from the system from the beginning of 2006 onwards, but only later in the year. The main reason for the delay was the recentness of the project; the process of identifying the poor involves various levels and takes time. In 2007, there have been no problems with delays.

Finally the question arises whether the number of indigents must not be much higher than envisaged due to the fact that the payment of premiums for indigents had been extended from a targeted 53% of the population (i.e., the 6 province identified in the original proposal) to the whole of Rwanda. Even though the project has reached a larger number of indigents than envisaged (about 20,000-30,000 indigents more per year), it is questionable that it covers all indigents in Rwanda at the time being. Districts reporting the number of indigents to the GFATM did not get enough funds to cover all indigents on their lists, as a result people have been left out.

At present, the budget, and not the needs, ultimately determines the number of indigents to be covered under the GFATM.

2.3.3 Achievement of objective 2: Improve quality of health delivery system

The performance for the second project objective has not been as satisfactory as the performance for the first objective. A number of activities have been carried out at 100% (all the activities under community systems strengthening) or even a higher performance (e.g. the average number of stockout days for first line antimalarial drugs is zero versus envisaged 3 days and the number of health districts using computerized programs is 61 instead of 19). However, there are delays and incidents of under-performance in a large number of activities, such as:

- Only 538 instead of 1,340 students and medical interns have been trained on quality assurance and health financing (but activity is still ongoing for 2007 with KHI and SPH)
- Only 105 instead of 526 health district supervisors, district hospital health information system and health center personnel have been trained on management of health information system so far (but the activity is planned for the third trimester 2007)
- Only 61 instead of 450 procurement officers have been trained so far
- Only 37 instead of 74 of health centers have functioning solar panels due to an increase in cost and problems with the solar panels provider
- Even though some general training was provided to *mutuelles* managers, there is need to provide training in additional modules, such as financial management and MIS.

Most of the activities under objective two aim at providing more and better qualified personnel both at the administrative level as well as in the health care facilities. There is a very large gap between the need for qualified personnel and the availability of staff, especially in the rural areas. A recent report by the Ministry of Health[34] shows that health centers and district hospitals meet less than 30% of required staffing norms. Shortages are seen for almost every category of staff. Table-7 summarizes these findings.

Table 7: *Rwanda MOH – Established Posts Filled and Vacant, December 2005*

	referral hospitals		district hospitals		health centres		NGOs	other	total exc NGO/other		
	posts	filled	posts	filled	posts	filled			posts	filled	
doctor specialist	85	28	175	5	0	2			260	35	13%
doctor generalist	57	48	66	114	465	24	1	3	588	186	32%
nurses A0	83	11	207	6		2			290	19	7%
nurses A1	382	97	769	94	1155	63	1	10	2306	254	11%
identified midwife A1 *	96	19	180	2	465	5	1	3	741	26	4%
nurse A2	190	618	409	1021	930	2135	6	63	1529	3774	247%
nurse A3		72		63		130		1	0	265	
nurse other		12		9		58			0	79	
anesthesiologist A1	20	24	70	7					90	31	34%
physiotherapist	20	24	70	26		4			90	54	60%
nutritionist	8	5	41	22	465	92	1	2	514	119	23%
pharmacist A0	8		9						17	0	0%
pharmacist A1	43	5	35						78	5	6%
env/public health A1 plus		3	70	9		11		11	70	23	33%
mental health A1 plus	28	6	35	9		5			63	20	32%
social worker A1		8		1		5		1		14	
social worker A2	40	26	41	68	465	192	5	2	546	286	59%
social worker aide		7		4		12		1		23	
dentist	10	13	35	3					45	16	36%
dental technicians	10	18	35	13		3		1	45	34	76%
radiology tech	17	10	17	13					34	23	69%
laboratory staff A0	8	3	0			1			8	4	50%
laboratory staff A1	68	18	41	15		3			109	36	33%
laboratory staff A2	0	49	83	101	930	280	3	1	1012	430	42%
laboratory staff A3		7		9		36			0	52	
laboratory staff other		7		1		34			0	42	
	1173	1138	2388	1615	4875	3097	18	99	8436	5850	69%

[34] Minisante (April 2006): "*Human Resources for Health Strategic Plan 2006-2010*"

Nevertheless, quality of health care has been improving in the Rwandan health delivery system. Higher utilization rates as depicted under 2.4.2 are a good indicator for improvements. Other useful indicators that are also monitored through the HSS project are patient satisfaction rates as well as average waiting time. This information is not yet available, but studies by PACFA (about patient satisfaction rates) and UPCD (about waiting times) are in the process. Focus group discussions in Ghanga and Masaka in the district of Kigali have shown that people are generally satisfied with the quality of care, but waiting times that can amount to half a day are a problem.

General mortality at health center level decreased from 0.06% in 2005 to 0.01% in June 2007 and the indicator thereby positively exceeds the target that has been set at 0.03%. Furthermore, data on infant mortality, U5 mortality and also maternal mortality will give a good picture about the evolution of the quality of care when more recent data will be made available. The baseline numbers in the original proposal need to be revised with latest data from the DHS 2005, which are more indicative for the baseline.

Recent data are available for HIV/AIDS and Tuberculosis (TB). The project monitors these diseases to show that through strengthening the health system as a whole, HIV/AIDS, TB and Malaria can be effectively addressed. Death at health center level related to HIV/AIDS decreased from 1.57% in 2005 to 0.2% in June 2007 positively exceeding the target set at 0.8%.

Death at health center level due to TB was 1.47 % in 2005. This rate also decreased to 0.03% at the time the progress report was done (June 2007). TB detection was 48% in 2005. The aim for 2007 was set at 58%. 48.4% of TB cases were detected already in the middle of the year 2007, it is likely that this number will continue to increase until the end of the year and probably also exceed the target rate. The numbers for TB treatment success look even more promising. Treatment success amounted to 59.8% in 2005, the 2007 target is 85% and the rate is already higher at 86% after the first half of the year.

The project certainly contributed to the improvement of quality of care, even though one should have in mind that the direct relationship between the activities and the improvements of quality of care are difficult to determine. Most activities under objective 2 have been geared towards the provision of training which will in general rather have a medium and long-term impact on health systems delivery. Furthermore, there are also other Global Fund projects and donors addressing HIV AIDS, TB, Malaria and other diseases and there are other Government policies in place that aim at improved quality of services, such as the performance-based financing (PBF) approach.

2.3.4 Impact Indicators

The project proposal contains impact indicators such as HIV prevalence amongst pregnant women; increase in TB detection rate and TB treatment completion rate; and infant and maternal mortality rate for the overall project goal of improving the poor rural population's health status over the project duration of five years. It will be a) premature to measure impacts, specifically on infant and maternal mortality; and b) to subsequently attribute the success to the GFATM HSS Project as various other health initiatives are also running in parallel.

It is interesting to note that four of the five the indicators stated in the original project proposal have already been achieved as of date. This is partly due to the more recent baseline data available, such as the DHS 2005:

- According to the DHS 2005, HIV prevalence among women is only at 3.6 % now. For pregnant women it is only 2.2 %.
- The TB case detection rate is already at nearly 49% in June 2007 and is therefore expected to exceed the target rate
- The TB case completion rate has exceeded the target for year 5 already, it achieved 86% already in the middle of the year 2007.
- Similarly, maternal mortality, according to the DHS 2005, has already achieved the target set of 750/100,000 live births.

Hence, it is probably prudent that a revision of the impact indicators for the second phase of the HSS project be made.

2.4 Conclusions

From the level of implementation as reported in the 18 months progress report as well as other documents, the project has made good progress. The project has achieved more than planned in many ways and paved the way for the tremendous development of the *mutuelles* in Rwanda from 2005 onwards. The following discussion of strengths and weaknesses will provide more detailed information.

2.4.1 Strengths

- "Targeting/Identification" of the Very Poor and Poor is good**:** this is based on the Participatory Involvement of the Poor (PIP), a community-based approach whereby the poor, i.e., at the village and cellule, are involved in identifying the V Poor amongst them. This is a "relative poverty" measure.
- The project indeed increased financial access to health services tremendously, i.e., about 1.5 million people benefited from the program annually. It not only provided free health insurance coverage to a large number of indigents, people living with HIV/AIDS and orphans but also triggered the commitment of the Rwandan Government with regard to successfully rolling out *mutuelles* country-wide. Membership at *mutuelles* increased from 44.1% in 2005 to 73% at the end of 2006 (and 72% in July 2007).
- Utilization rates at health centers and district hospitals increased remarkably, from 39.2% in 2004 to 48.7% in June 2007 for the health centers (already exceeding the target set at 45%) and from 45.8% in 2004 to 43.4 for district hospitals (nearly reaching the target set at 45% for the end of the year).
- Efficient and transparent mechanism in transferring membership fees of the V Poor and Poor to the respective *mutuelle* (Ref. figure-4 in chapter-3). Following the verification and random checks of names on the list, CTAMS transfers the amount to the Bank Accounts of the respective m*utuelles* i.e., section *mutuelles* in the case of premium for the MPA and to the District Risk Pool in case of the CPA.

2.4.2.Weaknesses

- Ownership of the *mutuelles* – i.e., the role of community in the administration and decision-making process of the section *mutuelles* and also the District Risk Pools. Currently, the role seems very limited i.e., primarily in sensitizing the community to enroll in the program. Currently, the affairs of the section *mutuelle* is managed by ONE

paid employee PLUS support from health workers in the health centers. To develop a sustainable mutual insurance model, i.e., owned and operated by the community, it is essential for the community to be more proactively engaged in a) negotiating service contract with providers; b) monitoring quality of care; and c) managing the MONEY/FUNDS in the mutual's, apart from other ongoing activities. Also, the oversight of the *mutuelle*s should rest with the Community rather than the local administration.

- The boundaries are blurred between the provider and the payer of health services. Currently, a) the section *mutuelles* are housed within the health centers, and b) are assisted by health workers in the health centers to manage their day-to-day operations leading to clear conflicts of interest. This defeats the ability of the financing arm i.e., the *mutuelles* and District Risk Pool to enforce quality and performance standards. Similarly, from the providers' perspective it limits the scope of the provider charging the true or actual cost of service provided.
- Inequity within the existing system is large– for instance there is a higher number of indigents in the South compared to that in Kigali City. The implication is that district hospitals and health centers generate less revenue from co-payments, since indigents are exempt from co-payments, which translates into increasing deficits needed to be covered by other sources of revenue. Similarly, the GFATM method of supporting the indigents is based on the OVERALL population of the district rather than the percentage of the indigents in the province/district.
- The so far limited existence of a MIS to integrate the various *mutuelles* i.e., section *mutuelle* with the District and National Risk Pool is a constraint in terms of free patient movement (i.e., the ability of patient to get treated in any health centers or district hospital across the country). This has also resulted in delays in issuing membership cards for the poor and also led to difficulties in tracking the membership renewals and other critical information on a regular basis.
- The project's emphasis on improving the coverage rates without attendant increase in capacity of the *mutuelles* (both human resources and basic infrastructure like computers) could negatively impact the performance of the *mutuelles*. Currently, ONE person is dedicated to manage the section *mutuelle* and District Risk Pool respectively.
- Poor progress on the infrastructure element is worrying particularly in a) strengthening the communication channels i.e., installation of telephones at all the health centers; and b) installation of SOLAR PANELS to facilitate power supply to health centers/*mutuelles*.

2.4.3 Opportunities

- If more funds could be made available for payment of premium of indigents, the opportunity would arise of comprehensively covering all people in Rwanda who currently cannot pay their premium for membership at *mutuelles*. Currently, an estimated 15 – 20% of the populations are covered by funding from GFATM, Government and other donors. An equal number (about 15%) of indigents could benefit from additional financial support, as the number of indigents is higher than the 15-20% of population currently covered..
- CTAMS, the institution vested with providing technical assistance to the *mutuelles* is currently constrained by a lack of capacity, particularly manpower and logistical

infrastructure. Capacity building of CTAMS would enable an even more effective implementation of the project due to its central role to the project.

- More and better educated staff at the section *mutuelles* would improve management, data collection and analysis and more timely issuance of membership cards. Training should be provided to managers of *mutuelles* and if funds are available, more staff be employed.
- IECs to increase awareness about health insurance (especially among the indigents) and preventive care would go a long way in a) improving coverage rates; and b) ensuring optimum utilization of health care.
- The MAS information system provides useful information in pilot districts where it is used. A revision of the MAS information system (making the system easier to understand and allowing for a country-wide compilation of data) would contribute to better data available and would facilitate the mobility of health insurance
- OPEN ENROLLMENT and strengthening of the health savings and credit program via Banques Populaires could contribute towards improving enrollment in the health insurance program. This is achieved by consumption smoothing i.e., not lumping all expenses (i.e., school tuition, festival expenses (Christmas)) to the start of the calendar year.
- The law that has recently been passed will strengthen the *mutuelles* system in general and thereby also the implementation of the activities of the GFATM HSS project.
- Fulfillment of training objectives and eventually enlargement of training programs, especially with regard to staff in the field will enhance the qualification of personnel.
- The objectives of PBF and *mutuelles* are complementary; strengthening the link between the two approaches can contribute to improved quality of care by increasing motivation of staff.

2.4.4 Threats

- Potential for staff burn-outs at CTAMS. CTAMS employs currently six people and there are little logistic means (one project car only, but no funds for fuel, etc.). Staff works over time. Considering the important and huge task CTAMS has to fulfill it is important that this is rectified sooner rather than later to ensure that the project does not get derailed.
- Fiscal risk – GFATM HSS project has created a contingent liability situation whereby at the end of the 5th Year Government has to find alternate sources of financing the health insurance premium of about 1.5 million people who are currently financed by GFATM project. Sustainable financing must be secured for the time after the project will have been completed to continue paying the premium for indigents, PLWHA and orphans.
- The capacity of *mutuelles* is limited i.e., most of them operate with one staff only and qualifications of *mutuelles* managers are in most of the cases not sufficient. The threat to the project is whether they can deal with their tasks related to the project on a long-term basis.
- There is still a very large gap between the need for qualified personnel both at the administrative level as well as in the health care facilities, especially in the rural areas. Health centers and district hospitals currently meet less than 30% of required staffing norms, according to the Ministry of Health. Closing the gap in qualified health personnel is beyond the reach of the project.

- Need for additional funds (to the tune of USD 10 – 20 per person per year) in order to effectively improve quality of care (according to the marginal bottlenecks methodology and other studies) is a concern.
- Also, the continued emphasis on vertical programs such as HIV/AIDS as against the overall health system, similar to the GFATM HSS project, is impeding the ability of the health system to respond to various health care needs.

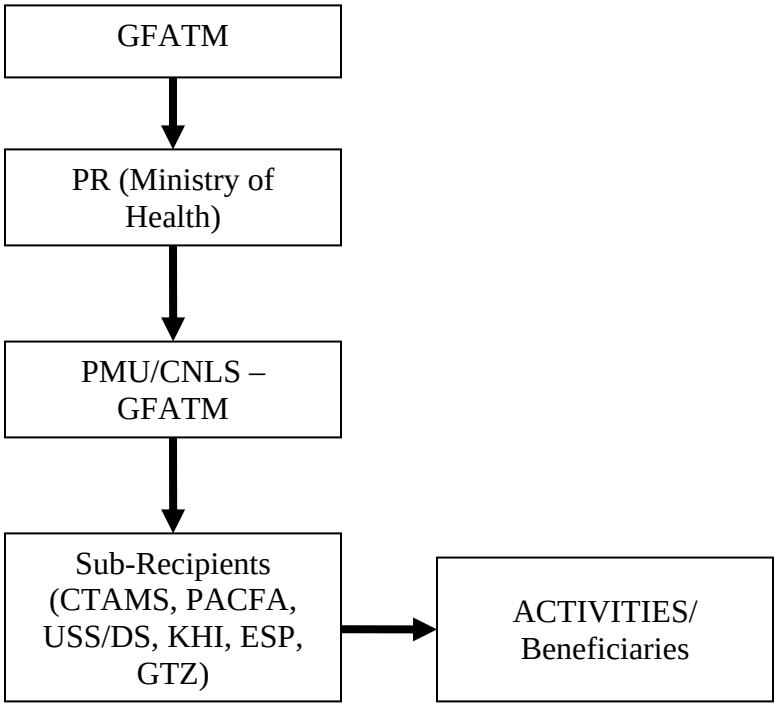
This SWOT analysis has been limited to the mandate and achievements of the GFATM HSS project. However, as this project is an integral part of the Rwandan policy of strengthening health systems by means of rolling out *mutuelles*, a chapter was also included in this report that discusses the system of *mutuelles* in Rwanda in general, chapter five.

3. Financial Management

3.1 Flow of Funds from GFATM to the Sub-recipients

Fund flows from GFATM and from the sub-recipient to the activities/beneficiaries are presented in figure-2 below.

Figure 2: *Fund flow from GFATM to Sub-recipients*



The MOH is the principal recipient of the funds from the GFATM HSS project, but the funds are managed by the Project Management Unit (PMU). The PMU transfers the funds to the various sub-recipients depicted in the figure who use the funds to carry out the activities agreed upon. Later in this chapter, table-) will provide more detailed information.

3.2 Identification and Premium Payment on Behalf of Indigents and Poor by CTAMS

Figure-3 on the next page explain how indigents and poor are identified (in a bottom-up process starting at the cellule level, than compiled at the section level and verified /audited at the district level. Subsequently, figure 4 elaborates the mode of payment.

Figure 3: *Identification of Indigents and Poor*

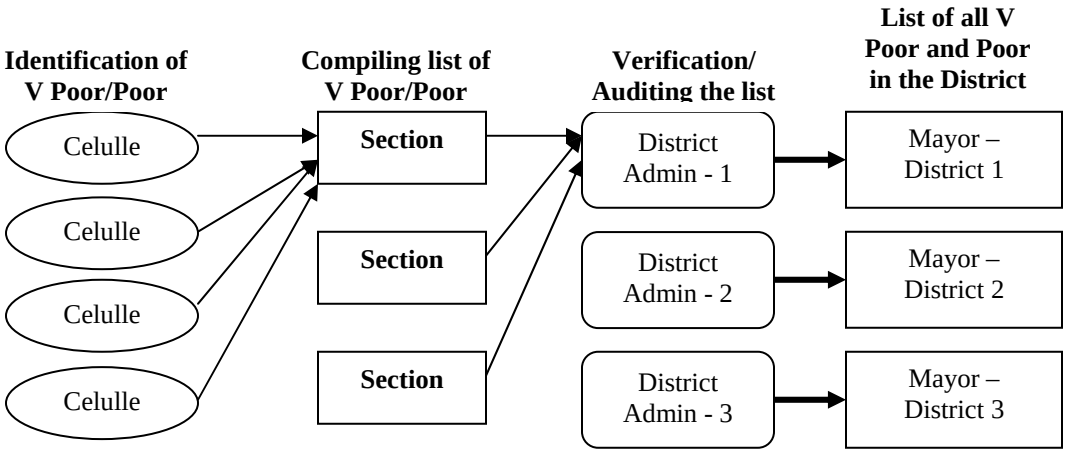
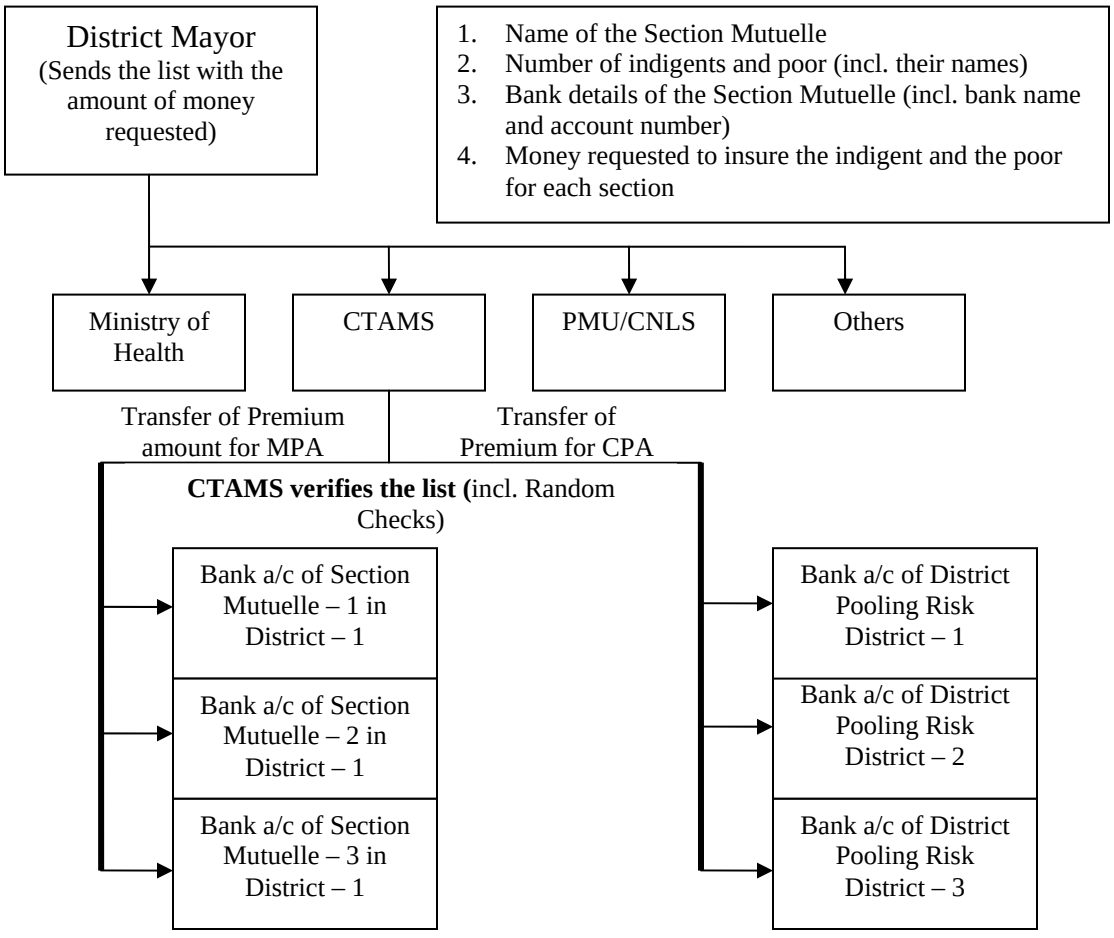


Figure 4: *Premium Payment on Behalf of Indigents and Poor from CTAMS*



Note: PACFA, one of the Sub-recipients, which is tasked with identifying and enrolling PLWHA and Orphans adopts somewhat of similar approach to CTAMS. PACFA works with partner organizations to identify PLWHA and also to track the Orphans. Subsequently, premium money is transferred by PACFA to the respective section *mutuelle* and District Risk Pool on behalf of PWLHA and Orphans.

3.3 Sub-recipients and their Tasks and Achievements

The budget transfers to the key sub-recipients of the project i.e., CTAMS, USS/DS, PACFA, KHI and ESP who are entrusted with improving the financial access and improving the quality of care has been highly satisfactory (in excess of 98% overall) (Ref. table–8). Similarly, the utilization of funds by the sub-recipients for various activities has also been highly satisfactory (i.e., in excess of 85%) (Ref. table–9), excepting M & E.

Table 8: *Budget of Sub-recipients and State of Disbursements of Funds (USD)*

N°	Sub-Recipients	TOTAL Budget	% per Budget	Transferred Amount (Y 1)	Transferred Amount to date (Y2)	Commitments (Signed contracts)	Total transfered Amount to date	% Transferred Amount/ Budget
1	**CTAMS**	9,127,071	64%	4,894,557	4,343,790		9,238,347	101%
2	**PACFA**	1,879,349	13%	905,482	831,595		1,737,077	92%
3	**USS/DS**	2,277,400	16%	1,379,536	198,801	524,994	2,103,331	92%
4	**KHI**	253,597	2%	209,770	58,524		268,294	106%
5	**ESP**	94,500	1%	74,336	28,584		102,920	109%
6	**PMU**	295,950	2%	136,296	148,756		285,051	96%
7	**PR**	120,000	1%	70,339	30,118		100,457	84%
8	**CCM**	55,000	0%	27,331	13,297		40,628	74%
9	**CNLS**	120,000	1%	35,202	23,167		58,369	49%
10	**GTZ**	100,000	1%	30,242	69,758		100,000	100%
	TOTAL	**14,322,867**	**100%**	**7,763,091**	**5,746,390**	**524,994**	**14,034,475**	**98%**

Source: PMU (2007): *HSS Progress Report 18 mois, Ongoing progress update and disbursement request 30 June 2007*

Table 9: *Expenditures by categories on 30/06/2007*

	CATEGORIES	Budget Y1	Total Budget	% age of Total Budget	Expenditures Y1	Expenditures Y2	Total Expenditures	%age
1	Infrastructure and Equipments	2,290,646	**2,303,804**	16%	1,656,928	367,009	**2,023,937**	88%
2	Human Resource	230,546	**494,501**	3%	243,124	125,680	**368,804**	75%
3	Training, Seminars and Workshops	154,600	**338,100**	2%	192,742	45,817	**238,559**	71%
4	Running Costs	436,828	**721,977**	5%	203,948	77,995	**281,943**	39%
5	Community	5,001,206	**9,982,967**	70%	4,325,741	4,997,522	**9,323,263**	93%

	interventions							
6	Drugs, insecticides, lab reagents and medical sundries	0	-	-	-			-
7	Monitoring and Evaluation	304,908	**481,518**	3%	46,956	32,552	**79,509**	17%
8	Others		-	-			-	-
	TOTAL	**8,418,734**	**14,322,867**	**100%**	**6,669,440**	**5,646,574**	**12,316,015**	**86%**

Source: PMU (2007): *HSS Progress Report 18 mois, Ongoing progress update and disbursement request 30 June 2007*

Further information about the role, tasks and use of funds for each sub-recipient is included in table-10 as below.

Table 10: *Sub-recipients and their Tasks and Achievements*

Sub-recipients	**Tasks/Achievement/Use of funds**
Ministry of Health Total Budget: USD 120,000 Budget transfer : USD 100,457 Proportion: 84 %	The Ministry of Health is the principal recipient (PR) of funds, it is responsible for the policy direction and supports the project in terms of personnel and funds. **Use of funds** - Salaries for 2 support staff - 4 consultants for evaluation of health communication tools - Sub recipients supervision
GFATM / PMU-CNLS Total Budget: USD 295,950 Budget transfer : USD 285,051 Proportion: 96 %	PMU-CNLS is responsible for the disbursement of funds and overall project management for all GFATM proposals. The project management unit benefits of functioning fees for the daily execution and follow up of this project. **Use of funds** -Sub recipient supervision - Project staff - Communication - Audit for Sub recipients
CCM Total Budget: USD 55,000 Budget transfer : USD 40,628 Proportion: 74 % Budget: USD 7,500 Expenses: USD 2,647 (35.3%)	CCM-Rwanda holds regular meetings, where all partners, government institutions, civil society and other CCM members follow up initiation and execution of global fund projects. **Use of funds** - Salaries of CCM permanent secretary and two support staff - Communication - Organization of meetings - Consultancy for New proposal - Subrecipient supervision
CTAMS Total Budget: USD 9,127,071 Budget transfer : USD 9,238,347 Proportion: 101 %	CTAMS's mandate is to strengthen *mutuelles* through: - Providing equipment and financing staff for section *mutuelles* - In collaboration with local authorities, identifying indigents and poor households in order to support these by paying for their membership premium. - Supervise activities of *mutuelles* within the districts. **Achievements** - CTAMS purchased 213 computers: 7 for central level, 30 at district level and 176 for section *mutelles* at health center level.

	- CTAMS has organized listings of indigents and poor households in collaboration with local authorities - In 2006, CTAMS paid for 803,500 indigents (PMA and PCA coverage) and for 591,464 poor households (PCA coverage) throughout the country. In 2007, CTAMS paid for 770,809 indigents (PMA and PCA coverage) and for 754,716 poor households (PCA coverage) throughout the country. - In 2006, 20 supervisions were done and 3 meetings were organized to exchange experience and evaluate activities of *mutuelles*. In 2007, 30 supervisions were done and one meeting was organized to exchange experience and evaluate activities.
PACFA Total Budget: USD 1,879,349 Budget transfer : USD 1,737,077 Proportion: 92 %	PACFA (Protection and Care of Families Against HIV/AIDS) is a not for profit association executing projects for the welfare of families and vulnerable people in Rwanda. Through this project, PACFA supports orphans and PLWHA for quality health care by covering PMA and PCA. **Achievements** In 2006, PACFA supported the premiums for health care of: - 77,496 orphans - 117 ,904 PLWHA In 2007, PACFA supported the premiums for health care of: - 68,963 orphans (RwF 137,926,000) - 130,405 PLWHA (RwF 260,810,000)
Kigali Health Institute (KHI) Total Budget: USD 253,597 Budget transfer : USD 268,294 Proportion: 106 %	As a state higher education institution of learning, KHI's mandate is to train high level health personnel capable of providing nursing and allied health professional services. Its role in the project is to: - Train 4000 students (both in-service and graduating students) on Quality Assurance and Health Management over five years - Provide training of trainers. - Provide in-service training on Quality Assurance, Health Insurance for 19 hospital managers, 19 health district supervisors, 187 heads of health centers and 30 deputy–mayors in charge of health affairs. - Develop training modules on Quality Assurance and Health management (Health Framework and PBF) **Achievements** - Kigali Health Institute managed to train 1,168 students from the planed number of 1,200 and will continue to capture graduates of 2007. The indicator of this activity has not yet been achieved. - Kigali Health Institute managed to train 16 trainers under its center of continuing professional training. The trainers were given certificates. The indicator of this activity was achieved. - For In-service training for hospital managers, health supervisors, head of health centers and deputy mayors in charge of health affairs, KHI has so far trained 145. This activity is continuing until the end of year 2007. The indicator of this activity has not been achieved yet. - Development of training modules on Quality Assurance and Health Management has been achieved. Initially the target was to develop 2 modules and this was attained.
School of Public Health (SPH) of the National University of Rwanda (NUR) Total Budget:	The School of Public Health (SPH) of the National University of Rwanda (NUR) is training high level health staff to get public health knowledge in general and in particular for the Rwandan health system. Within this project SPH' mandate is to provide pre-& in service training, in terms of capacity building:

USD 94,500 Budget transfer : USD 102,920 Proportion: 109 %	- Pre–service training in "Quality assurance; PBF & mutual health insurance for 70 medical interns / year - In–service training for health district cadres (directors of health units; hospital directors) as well as central level staff, involved in MPH program (25 / year) **Achievements** - 112 medical interns trained in 2006 (as planned) - 25 MPH students trained in 2006, 25 more are to be trained in 2007
UPDC/MOH Total Budget: USD 2,277,400 Budget transfer : USD 2,103,331 Proportion: 92 %	UPDC/MOH is responsible for the conception of politics, the planning of health activities and the development of capacities. Within this project, UPDC/MOH's mandate is to: - Contribute to the reinforcement of infrastructure and equipment - Provide training of health staff - Supervise guidelines for the improvement of health care **Achievements** - 10 computers have been distributed and 37 solar equipments have been installed. - Several trainings have been organized. o Training for health district supervisors: 945 o Training for M&E at the district level: 94 o Training for Procurement Officers: 511 o Training for managers of *mutuelles*
GTZ Total Budget: USD 100,000 Budget transfer : USD 100,000 Proportion: 100%	In the framework of this project, GTZ has the following mandate: - Provide technical assistance to CTAMS - Evaluate a national electronic management tool for *mutuelles* (MAS) **Achievements** - GTZ coordinates and organizes activities of the technical working group on *mutuelles* - Ongoing evaluation of the electronic tool "MAS" within 3 districts

There have been incidences of over- and under-spending among the project sub-recipients. Over-spending was largely caused by unanticipated cost increases whereas under- spending was mainly a result of non-completion of activities. Some activities are still ongoing, resulting in increased utilization of the budget by the end of the year.

4. Recommendations for Phase II

On basis of the discussion of the project achievements in chapter two, a number of recommendations for phase II of the GFATM HSS project have been developed. In consistence with the structure of the report, the recommendations will be discussed separately for each of the two project objectives. Moreover, recommendations addressing the need to alter some activity and impact indicators have been included at the end.

4.1 Recommendations with Regard to Objective 1: Improved Financial Access to Health Care for the Very Poor, Poor, PLWHA) and Orphans

- Technical assistance to CTAMS, which has a central role in the whole HSS Project. CTAMS currently has 6-staff members but have been given huge tasks to perform – provide technical assistance to 398 section *mutuelle*s, 30 District Risk Pools and also the newly created National Risk Pool. In addition, CTAMS is tasked with managing the HSS fund flow towards premium subsidy for the indigent and the poor. CTAMS also manages the complete MIS of the health insurance system. The huge tasks in relation to human resource capacity within CTAMS has limited its ability to focus on a number of issues incl. M & E of *mutuelles*; work on operational research (i.e., to determine the changes and/or improvements required in its ongoing activities, to understand the impact of health insurance in terms of financial protection and out-of-pocket expenses); and also to understand the impact of co-pays on utilization.

- Explore possibilities for increasing the coverage of more number of indigents (i.e., people living in extreme poverty). As mentioned earlier it is estimated that less than 50% of all indigents are currently covered by various initiatives, incl. the GFATM HSS project. It might be possible that of the 30% of the population which are currently not insured a substantial number may be very poor or poor, but may not be among the bottom 10% of the v poor. Collectively, including the government and donors, design a mechanism to develop alternative and/or additional financing mechanisms to reach the unserved. It could be possible that more than 27 – 30 % of the population who are currently not participating in the *mutuelle* could be from these low-income groups.

- Increasing community participation and ownership of the *mutuelles* and the District Risk Pools. The current structure, particularly in terms of administration, looks more like an extended version of a "parastatal"[35]. The role of the community seems limited to a) sensitizing the population to enroll in the *mutuelle*; and b) some limited oversight of the section *mutuelles*. Otherwise, the mutual insurance program seems to be run by the Manager in-charge of the *mutuelle* and the staff of the health center and district administration respectively.

- Piloting the financing of health insurance using savings and credit mechanism. This could be done by two ways a) using the existing model of product offering via Banque Populaire; or b) by offering a soft loan to the members via the respective *mutuelles*. The soft loan could be financed by grant from an external lending institution like the Kfw or the World Bank. Note: the second model may be interesting to explore because of the low uptake of the credit from Banque Populaire. The model could help in expanding

[35] Parastatal - A company or agency owned or controlled wholly or partly by the government.

insurance to larger segment of population who are unable to finance using their current income, but may have the ability to smooth the consumption over time.

- Strengthening the capacity of the section *mutuelles* and also the District Risk Pool – both these institutions currently are managed by ONE PERSON who among managing the day-to-day operation is also responsible for maintaining member database, monitoring utilization/utilization reviews, quality of care at the respective health facilities i.e., health center and district hospitals. Currently, the system depends on support from the health care provider, which as mentioned earlier is also heavily understaffed. Also, the quality of staff managing the *mutuelles* need to improved, particularly on issues related financial management, management of reserves/surplus, data mining and analyzing cost implication etc.
- To assist in better and efficient capture of members' data, it is recommended that the project assist in supporting the provision of electricity, camera equipment and functioning IT system at the section *mutuelles.* In addition, people need to be trained in working with MIS and analyzing the data.
- IEC campaigns to increase the awareness about health insurance (especially among the indigents, eventually making sure that they know that they are covered) and also on preventive care.
- Explore the possibility of open enrollment as against annual enrollment (or calendar year enrollment). Currently, an estimated 10 – 15% of population enrolls even during the 5th month and onwards, primarily due to lack of availability of cash. This deprives the health insurance coverage for the first few months and the households are vulnerable to health shocks in the interim.
- Pilot setting up of reserve funds at the district and referral hospitals to assist, particularly the poor and other vulnerable groups unable to pay the full co-payment, which is 10% of the fees charged to members of mutuelles for the CPA..
- Operational research about the impact of *mutuelles* (capacity to pay for premium and co-payment, enrollment translating into access, capacity of *mutuelles*, relationship between health centers and section *mutuelles*, flow of funds in the system, level of community participation, impact on financial protection from health shocks, impact on insurance coverage and utilization of health care and also on the health status, particularly of the indigents).

4.2 Recommendations with Regard to Objective 2: to Strengthen and Improve Performance and Quality of the Health Delivery System

- Ensuring the independence of the financing and provision of the health care system. As mentioned earlier, SWOT analysis in chapter–2, the current system is inefficient in imposing quality standards due to conflict of interest between the provider and the payer as a) both are housed within the same unit; and b) the provider is often also the "de facto" manager of the *mutuelles*.
- Human resources could become one of the major constraints moving forward particularly as the insurance coverage rate increase, and as people become more and more aware of the benefit of the insurance system and there will be increasing demand on the formal health sector. The health system with its current staffing levels (at less than 30% of sanctioned strength), might not be able to respond to the patient load. This has been

corroborated by health sector staff & management when conducting the field visits to some health facilities. The current project could assist the Ministry of Health with some TA to help find appropriate solutions to tackle the problem.

- The project needs to invest in continuous monitoring and evaluation, current level of resource utilization is very poor i.e., 16% of budgeted amount used in Phase-1. Though information is being continuously collected there seem to limited capacity to conduct technical evaluations.
- Provide solar panels for remaining health centers in case other donors have not yet already stepped in. The availability of electricity at all health centers would have a strong impact on quality of care as medicine could be stored in a cool place and health services could also be provided at night time
- Support capacity building of "community health workers", who could assist in promotive and preventive health care. Also, the project could explore piloting a new incentive based program to support the community volunteers.
- The project has been relatively slow in investing on OPERATIONAL RESEARCH and also in designing rigorous impact evaluation studies, particularly given a) the uniqueness of the project; and b) spill-over and/or complementary effect of various initiatives like the PBF which is focused on improving the efficiency and quality of service delivery or the decentralization of health services supported by the USAID and others.

4.3 Recommendations with Regard to the Project Design

- Review activity indicators given that a) the project has been expanded to the whole country (e.g. with regard to the number of poor and PLWHA to be covered); and b) due to increase prices (e.g., CPA benefit package increased from RwF 500 to RwF 1,000)
- Review impact indicators (e.g. HIV prevalence among pregnant women, maternal and infant mortality) based on the new DHS 2005 and other more recent surveys.

5. Systemic Issues related to Health System Strengthening in Rwanda

The discussion is organized according to the two objectives of the ongoing GFATM HSS project:

1. To improve financial accessibility to health care for the very poor, poor, people living with HIV/AIDS (PLWHA) and orphans, and
2. to strengthen and improve performance and quality of the health delivery system

For both objectives, discussions will revolve around the following three major issues:

a) ***access and equity***

b) ***capacity issues*** of the respective systems i.e., the financing arm (namely the section m*utuelle*, and the District Risk Pool) and the health service delivery arm (i.e., the health centers and district hospitals)

c) ***sustainability,*** both from a technical and financial standpoint

5.1 Improving financial accessibility to health care

The Government of Rwanda has taken a policy decision (Health sector strategy), whereby *mutuelles* are identified as the cornerstone of national health financing. The health insurance system based on the mutual insurance model is centered on the community ownership and participation of the insurance system. The health insurance system which started in 1999 as a pilot and has been through transformation since then:

- Started as a PILOT in July 1999
- Linkage with credit co-operatives (i.e., Banque Populaires) to finance the premium in 2001
- *mutuelle* development incorporated into the PRSP framework in 2002
- Expansion of *mutuelles* across the country in 2003.
- The GoR adopts national policy for *mutuelle* scale-up in December 2004. In the same year, policy was also adopted by GoR and Donors to co-finance the *mutuelles*.
- New premium and co-payment structure put in place in 2005.In the same year GLOBAL FUND authorizes USD 29 million over 5-years to purchase *mutuelle* membership for the indigents, poor, PLWHA and orphans.
- GoR cabinet ministers adopt a new draft law specific to health section *mutuelles* and send it to parliament for further examination and adoption. The law among other things makes participation in the *mutuelles* COMPULSORY for all those who are not having a health insurance coverage.
- Local authorities sign performance contracts with the President of the Republic, including for tracking *mutuelles* membership coverage.

The health insurance system (including the mutuelles, RAMA, MMI, and Private Insurance) currently is estimated to contribute about 15 – 20% of the total health expenditure in the Country. The OOPS by people, net of contribution by Partners (incl. Donors) and the GoR towards membership fee of *mutuelles*, is estimated to be about 5% of the total health spending, meaning the rest of the health expenditure is financed by GoR, donors and external partners.

Similarly, the idea behind adopting the *mutuelle* health insurance model was to increase the community participation as well as ownership of the health system. The success on this front has

been mixed in the sense that though the GoR has been able to a) raise the awareness of *mutuelle* health insurance amongst the population; and b) put in place some structure such as MANAGEMENT COMMITTEE to oversee the functioning of the *mutuelles*, the current administrative structure of the *mutuelles* resembles more an extended "parastatal" than a "community owned" health insurance model.

5.1.1 Access and Equity

i. *Ability to pay of the population*

There are two issues related to ability to pay – 1) the membership fee for the purchase of the MPA and CPA; and 2) the co-payment charged both at health center and district hospital level.

The recent EICV2 survey 2005-06 points to a relatively higher level of poverty than is accounted for in both the GFATM HSS proposal and also by the Government when determining the number of beneficiaries requiring financial assistance or subsidies to pay for the premium. The EICV2 survey mentions that the total number of Rwandans living in poverty (i.e., people living on income equivalent of RwF 250 per day or USD 0.45 per day) is estimated to have increased from around 4.8 million in 2000/01 to 5.4 million in 2005/06. The same study also goes on to mention that 36.9% of the total population (Table–11) is under extreme poverty (i.e., income equivalent of RwF 175 per day or USD 0.31 per day). Based on the existing population people living in extreme poverty is estimated to be in excess of 3.65 million, whereas the total number of very poor/indigents supported by the GFATM HSS project is about 803,500 (in 2006) and that by the Government and other donors is estimated to be about 1.0 million. This means about 50 % (or an estimated 1.85 million) of people living in extreme poverty have to fund their way through to get access to even the basic care. It is also interesting to note the number of very poor or indigents (i.e., 782,000) did not change much when the GFATM HSS Project was expanded to the entire country as against the six provinces that were mentioned in the original proposal.

Another issue affecting the ability to pay of the population is the fact that the premium is due at the beginning of the year for membership of the calendar year. It has been reported that due to Christmas and school fees due around the same time, people usually do not have sufficient cash at this time of the year, especially as the premium has to be paid for the whole family at once.

Apart from having to pay the premium for MPA and CPA the poor have also to pay a co-payment when seeking health care services both at the health center and district hospital. The co-payment varies from a flat-fee (of RwF 100 – 250 per visit) at the health center level to 10 % of the total charges at the district hospital. The majority of Rwandans have problems with affording the co-payment charged, particularly at the hospital level, according to information provided by a district hospital visited on a field trip.

Table 11: *Percentage of Population Living in Extreme Poverty*

Provinces	**Extreme poverty headcount (Share of Population, %)**
Kigali	6.3
Other urban	25.3
Rural	40.9
By province	
City of Kigali	11.1%
Southern province	47.2%
Western province	40.9%
Northern province	40.8%
Eastern province	28.7%

Source: "*Preliminary poverty update report" December 2006*; the National Institute of Statistics Rwanda

Expected implications:

(a) People who are in need of health care the most will be priced out, which is completely contrary to the objective of the HSS project.
(b) There is potential for under-reporting, as the district officials try to enforce[36] 100% participation of the population in the *mutuelles.*
(c) Enforced collection of premiums, even from those who may not be able to afford them. The recent passage of the law on *mutuelles* makes participation in the *mutuelles* compulsory. The law also provides a legal basis for the *mutuelles* i.e., provides more teeth for enforcement to the Mayors and other district officials to collect the premium from the population at large.

Recommendations

(a) Acknowledge the fact that the number of very poor is much higher than the "bottom 10 percent" of the population.
(b) Collectively, including the government and donors, design a mechanism to develop alternative and/or additional financing mechanisms to reach the unserved. It could be possible that more than 27–30% of the population who are currently not participating in the m*utuelle* could be from these low-income groups.
(c) Though the indigents are not expected to pay the co-payments a majority are forced to pay at the point of service. Develop an "objective" mechanism to determine as to who is an indigent and who is not, particular for the purpose of co-pays is required.
(d) Setting-up of a reserve fund at the level of District and National Risk Pool – the objective of the reserve fund is to assist households, particularly the Poor who cannot afford to pay the co-payment beyond a certain amount.
(e) Establish a payment mechanism enabling periodic payments as against one time payment of premium.

ii. Equity / Redistribution mechanism

The recent development in setting-up the National Risk Pool as well as the District Risk Pool is a step in the direction towards correcting the inequity in health financing. The current health care financing is fraught with both vertical (i.e., lack of redistribution from the rich to the poor, and from young and healthy to the old and weak) and horizontal inequity (people living in impoverished regions and/or regions with low economic opportunities pay the same as people in relatively better-off towns like Kigali City). Also, some specific strata of society enjoy various forms of co-payment through the government (e.g. Gacaca court members, victims of the genocide and prisoners or eventually the employer (as in the case of RAMA and MMI).

The recently constituted National Risk Pool mandates contributions from all the formal sector health insurance schemes incl. the private health insurance. This is to bring about some element of solidarity within the overall health system. Similarly, efforts to pool various sources of funding at the district level into the District Risk Pool to pay for unbridled access to health at the district hospitals primarily for hospitalization is also a step towards addressing the inequity. But, there are some weaknesses such as

- flat premium for all irrespective of the income level; and

[36] **Imihigo,** a performance management contract between the country's president and district mayors includes a set of one-year performance indicators the mayor is expected to achieve. Health insurance coverage rate is one among the indicators the mayor will be judged on.

- lack of risk-pooling/risk sharing among the various regions, for instance the Southern province has one of the highest number of people living in extreme poverty but probably gets the same amount of subsidy as Kigali City or the relatively richer Eastern Province.

The current policy of flat premium may be justified on two fronts a) a substantial percentage of people in the informal sector are dependent on subsistence agriculture where income fluctuations are quite substantially from year to year; and b) the proportion of people living leaving below poverty line (close to 60%) is quite substantial and hence the transaction cost of maintaining a "variable" premium structure might not be worth the effort. But, nevertheless the Government of Rwanda may consider piloting a variable premium subsidy structure based on social category classification (Ref. Table–12).

Table 12: *Social Category Classification*

Social Category	% of Population in the Social Category
Abakire (the rich)	25
Abakene (the threshold poor)	15
Abatindi (the poor)	50
Abatindi Nyakujya (the deprived)	10

Source: Phocus Ntayombya (2003), "*Environmental and Social Management Framework*"; Rwanda Demobilization and Reintegration Program.

Expected implications:

(a) Flat premium subsidy limits the ability to mobilize more resources than is possible and also limits the ability to target more number of very poor who cannot afford to pay.
(b) Reverse redistribution whereby the poor end-up subsidizing the rich, challenging the whole concept of financial fairness and solidarity.

Recommendations:

(a) Piloting premium subsidy based on social category classification, i.e., Abatindi Nyakujya, Abatindi, Abakene, and Abakire.
(b) Piloting a RISK EQUILIZATION FUND along the lines seen in some Social Health Insurance models in Europe and Latin America.
(c) Piloting income-linked contribution or subsidy. For instance in Kigali City agriculture accounts for less than 10% as the income source and the extreme poverty rate is only about 11%.

iii. Enrollment translating into access or lack of awareness?

Enrollment does not necessarily translate into higher access, particularly for indigents and other vulnerable groups for whom premium is paid by a third party i.e., either the Government or the GFATM or other partners. Experiences from various countries show that when processes are not well aligned then the benefit of the social program will be poorly felt. In the present scenario the focus is more on inputs, meaning the Mayor and other district officials are accountable for high coverage rate (enrollment of beneficiaries in the *mutuelles*), rather than increased utilization of health services.

Awareness is not just limited to enrolling members into the scheme, but explaining various other aspects of the insurance scheme including a) the minimum waiting period before benefits could be obtained; b) co-payment requirements (incl. in the health center and district hospitals); and c) their obligations and rights as insured members.

Expected implications:

(a) Poor enrollment of households in the insurance scheme.
(b) Poor utilization of services, loss claims ratio and commensurate build-up of reserves at the *mutuelles* and District Risk Pools.
(c) Weak community participation in the functioning of the *mutuelles* resulting in weak enforcement of quality standards of the providers.

Recommendation:

(a) Increasing community ownership and participation in the operation of the *mutuelles*, particularly the section *mutuelles*.
(b) Increased investments in informational and educational campaigns (IEC) to educated the population about the merits of insurance and the benefits of financial protection offered by insurance.

5.1.2 Capacity

i. *Capacity of mutuelles*

Rwanda has experienced robust growth in the number of *mutuelles* both at the section and district level which is commensurate with the growth in coverage rate (Ref. chapter-2 and table–4). However, the growth of *mutuelles* has not been accompanied by sustained growth in both quality and quantity of trained manpower to manage the *mutuelles*. Currently, ONE person manages a section *mutuelle* and the District Risk Pool respectively. Apart from the Manager of the section *mutuelle* and the District Risk Pool, and some district health officers none of the other health workers assisting in the management of *mutuelles* have any formal training.

Similarly, the MIS is relatively weak or poor. Most of the information is paper-based and hence difficult to monitor and control both member and provider behaviors.

The affairs of *mutuelles* are beyond collecting premiums, issuing I.D. cards and making payment to the providers. The *mutuelles* are supposed to be engaged more proactively with monitoring utilization rates, quality of service provision incl. satisfaction of service levels (such as waiting period, availability of doctors, etc.), negotiating better prices with the providers, and investing in some preventive care efforts to reduce the disease burden of its members. In this regard, the question also arises whether the health insurance system in Rwanda, the *mutuelles*, can really be called a community-based system. At the time being, the system is rather managed by the public sector and the health care system, with the community members only playing a minor role in decision making (as members of Committees at section *mutuelle* and District Pooling Risk level).

Expected implications

(a) Cost overruns in terms of over billing by the providers; and excessive utilization by the insured, particularly given that drugs are also included in the package requiring no additional co-pays.
(b) Poor customer service i.e., inability to monitor quality of service. For instance in some health centers, due to the increase in coverage rates, a higher number of people visiting the health centers resulted in increased administration efforts. The person in charge of the section *mutuelle* will be completely tied-up in processing the payments and other administrative issues and will have limited time to focus on other sustentative issues.

(c) Lack of awareness of insurance benefits, experience from other countries show that awareness building is a very intensive and ongoing process. But given the staff limitation this could also negatively affect in the medium to long-term the initial euphoria of *mutuelles*.

Recommendations

(a) Increase the manpower from existing low-staffing levels. Also, there is a need to engage in some form of "modular" training in managing the *mutuelles*. A community managed training center which continuously churns "community resource persons (CRPs)" to manage the activities of the section *mutuelle* and the District Risk Pool could be piloted in a few districts. Using community members as against some outside professionals will also endear the ownership of the *mutuelles* to the community.
(b) There is a strong need to invest in the IT system. Insurance, and more so health insurance, is a data intensive business. There is need for continuous monitoring and evaluation. Recent efforts to pilot the MAS gestion system developed by the ILO STEP program are a step in the right direction.

ii. *Capacity of CTAMS*

Cellule Technique d'Appui aux Mutuelles de Santé (CTAMS), the Health Scheme Technical Support Unit, is the backbone of the *mutuelles* operating across the country at both the section and district level. CTAMS is a) the technical service providers to all the *mutuelles* and also to the recently constituted National Risk Pool; and b) manages all the fund flows i.e., subsidies from the Government and GFATM funds to the various *mutuelles* as well as the District and National Risk Pools. CTAMS also manages the MIS system of the *mutuelles* at the National level. CTAMS has achieved impressive results, especially when considering the low number of staff (about 6 full-time staff) and lack of logistic infrastructure on the one hand and the rapid growth in *mutuelles* and coverage rate on the other over the last two years.

The technical capacity within CTAMS is comparable to similar types of technical units operating in various Latin American countries, BUT the shortage of man-power and logistics infrastructure could negatively impact the development of a robust mutual health insurance system. Also, the lack of a robust Management Information System (MIS) is limiting the ability of CTAMS to a) improve the efficiency of costing for health services; and b) track key indicators like the utilization rates, renewal rates, level of surplus and deployment of surplus funds within the *mutuelles*.

Expected Implications

(a) Weak *mutuelles* across the country constrained by lack of technical assistance from CTAMS, i.e., CTAMS' inability to keep-up with the demand.
(b) Potential for high cost-overruns at various *mutuelles*, resulting in DEFICITS within the *mutuelles*. Similarly, under utilization of funds by the *mutuelles* could also be a problem resulting low customer satisfaction levels with the *mutuelles*.
(c) Poor/weak reporting on fund utilization and resource management.
(d) Potentially staff burn-outs, and subsequently negative effects on the quality of work.

Recommendations

(a) Immediate investment in human resources and infrastructure (IT system, communication tools and logistics)

(b) Set-up a research and/or M & E cell within CTAMS to both carry out Operational Research work and also to monitor the impact of the health insurance intervention on financial protection and the general health of the insured population.

5.1.3 Sustainable Financing

There are multiple sources of financing for the health systems some which pass through the insurance structure i.e., the *mutuelles* as well as the District and National Risk Pool. But the majority of funds i.e., in excess of 90 – 95% of funds, flows directly to the various providers. This causes difficulty in a) understanding the total financial flows within the overall health system; and b) proper planning for financing the gaps in the health systems so as to ensure that there is no financial exclusion of the very poor and poor in getting access to health care (currently it is estimated that close to 50% of population living in extreme poverty have to fend for themselves).

Hence, the issue of sustainable finances needs to be examined from multiple perspectives:

FIRST, *the current level of OOPS (Out-of-pocket spending) as a percentage of Total Health Expenditure (THE)* in Rwanda is estimated to be between 5% (realistic scenario) to 10% (optimistic scenario). Below is an illustration of the scenario based on some crude calculations.

Table 13: *Scenario 1- District Hospital Muhanga in 2006*

Figures in RwF

Member Contributions - Out of Pocket	
CPA Premium	NONE (all GoR)
Section *Mutuelle* Contribution for MPA	
Non GFATM - Beneficiaries[@]	16,373,130
Co-payment Fees (10%) (Estd)[#]	8,491,114
Sub - Total	**24,864,244**
Total Expenses @ District Hospital	**267,634,359**
% of Expenses Funded by OOPS	9.29%
% of Expenses Funded by GoR	32.63%
% of Expenses Funded by Donors	27.92%
% of Expenses Funded by GFATM	19.24%

@ Estimated members in *mutuelles* 210,531 (70% of 300,759) of which 46,800 are funded by GFATM
# The most optimistic scenario i.e., 10% of amount billed to District Risk Pool (10% of RwF 84,911,140) is paid as co-payments. But, given the high level of extreme poverty (41%) this is most unlikely.

Table 14: *Scenario 2 - National Level Estimation Based on 2006 DATA*

Figures in RwF

Number of people ENROLLED in *mutuelles*	**6,410,690,640**
MPA contribution by GFATM HSS, Donors & Others@	**2,324,262,000**
MPA OOPS on Premium (Estd)	**4,086,428,640**
CPA contribution by GFATM HSS ONLY)	**667,226,000**
CPA OOPS on Premium (Estd) (GoR contributes on behalf of the population not covered by GFATM)	0 .00
Co-Pays (@ District Hosp & Health Center)	N/A
RAMA	N/A
MMI	N/A
Private (Health) Insurance	N/A

Total Member Contribution	**4,086,428,640**
Total Health Expenditure (Estd)	107,800,000,000
Member Contribution – OOP	**3.8%**

@ GFATM HSS – 924,262 and donors + GoR initiatives (FARG, Gacaca, etc) – 1.4 million
SECOND the *capacity of population to contribute is limited*: more than one-third (36.9%) of the population leave in extreme poverty (income equivalent of USD 0.31 per person per day) and another 20 % are poor (i.e., living on an income equivalent of USD 0.45 per person per day).

THIRD *the current health insurance system is inefficient* in that the prices of services are fixed by the GoR which are outdated and also highly under priced. For instance during a recent field visit to the district hospital in Muhanga it was witnessed that the hospitals charges about ONE THIRD to 50% of the actual cost of treatment. This on the face of ensures that the MUTUELLES stay solvent and the "insolvency" or "deficit" at the provider level is filled up by funding from multiple sources including GoR and Donors.

FOURTH the *funding level required to achieve MDGs/ Vision 2020*: Marginal Budgeting for Bottlenecks methodology (a methodology focusing on where additional funding should be concentrated in order to overcome bottlenecks and maximize the impact on the MDGs) estimates that additional health expenditures amounting to USD 20 per person (beyond current spending levels estimated to be USD 15-17 per person) would be required for a more comprehensive health care package including anti-retroviral treatment. A more limited package would cost about USD 10 per person beyond present spending levels, see table below.[37]

Hence, it is important to develop a medium to long-term plan which will ensure sustainable financing while the health system matures over time. A recent planning by the Ministry of Finance (table–15) provides some insights into the level of financing required, this whole issue needs to be revisited.

Table 15: *What Additional Resources Are Available For Health? (2005 USD Per Capita)*

	2005	2010	2015	Increase
High GDP Growth With Doubling of Aid				
Domestic Revenue p.c.	32	40	61	
Aid p.c.	47	83	74	
Total Resources p.c.	79	123	135	56
Health @ 15% of the increase	12	18	20	8
Health @ 10% of the increase	12	16	18	6
5% p.a. GDP Growth With Moderate Aid Increase				
Domestic Revenue p.c.	32	36	41	
Aid p.c.	47	49	55	
Total Resources p.c.	79	85	96	17
Health @ 15% of the increase	12	13	15	3
Health @ 10% of the increase	12	13	14	2

Source: Ministry of Finance and Economic Planning, Ministry of Health (2006): Scaling up to achieve the health MDGs in Rwanda. A background study for the high level forum meeting

[37] Ministry of Finance and Economic Planning, Ministry of Health (2006): Scaling up to achieve the health MDGs in Rwanda. A background study for the high level forum meeting.

Recommendations

In order to sustain the high level of funding required to provide decent health care to the population there is a need for multi-pronged approach including, but not limited to:

(a) Continued and probably committed long-term external funding, similar to the GFATM HSS Project, at least for the next 10 – 15 years by which time the capacity of population to finance their premiums is also expected to increase. Global Fund and other partners currently pay the premiums for over 25% of the population. It should be noted that not all are indigents or members of vulnerable groups though. Some donors fund a larger share of the population, another example for non-indigents getting their premium paid for are the members of the Gacaca courts.
(b) Need for a reinsurance mechanism for the health insurance scheme to be put in place i.e., the National and District Risk Pool.
(c) Premium setting: premium pricing has to be based on the risk or actuarially priced rather than based on the ability to pay. This will provide a true cost of service and help in better financial planning and in setting up intelligent subsidy mechanisms.

5.2 Strengthen and Improve Performance and Quality of the Health Delivery System

5.2.1 Access and Equity

There are two critical issues impacting access to care:

FIRST is related to insufficient insurance coverage at the household level, effectively leaving a large percentage of members without access. The ILO Step Program, by monitoring the introduction of the MAS information system at the *mutuelle* level, found that the average size of family ranges between 2.4 members (i.e., for those who pay there own premium) in comparison to about 5.4 members (membership fee paid by Government sponsored programs like FARG and Gacaca). This was further corroborated by a field visit to the section *mutuelle* of Nyarungenge, Kigali City.

SECOND the increasing coverage rate (from less than 7% in 2003 to more than 70% in 2007) poses new sets of problems/challenges i.e., the capacity of health facilities to cope with increased demand (utilization rates at the health centers increased from less than 28% in 2001 to about 60% in 2006). A recent report by the Ministry of Health[38] shows that health centers and district hospitals meet less than 30% of required staffing norms. Shortages are seen for almost every category of staff (Ref. table–6 in section-2). This could negatively affect the ability of the health system to respond to the populations need for quality care.

Expected Implications

(a) More number of people will fall through the gaps i.e., with no insurance coverage thus limiting the ability to access health care.
(b) Long waiting times at the health center, effectively increasing the opportunity cost (in terms of wasted time) of health care for the poor.
(c) Risk of pushing the poor to the back of the queue, i.e., preferential treatment to the rich and better-off. This would also have a negative effect on equity in terms of access to health care.

[38] Minisante (April 2006): "*Human Resources for Health Strategic Plan 2006-2010*"

(d) Negative implications on quality of care as the DOCTORS to PATIENT and/or NURSES to PATIENT loads start to climb up.

Recommendations

(a) Investing in proper MIS system and also monitoring the enrollment of population.
(b) Investing in human resources – the Government has already acknowledged this as an area requiring immediate attention (Ref. "Human Resources Health Strategic Plan 2006 – 2010" by the Ministry of Health, Government of Rwanda).
(c) Also, the GoR needs to revisit the compensation package for people working in the health sector. Here again the government has initiated certain steps like removing doctors from the Civil Service list thus freeing up the constraint in determining appropriate compensations.

5.2.2 Capacity

i. Health Infrastructure

Capacity issues related to health infrastructure falls under three broad categories:

FIRST is the *geographical accessibility of health centers*. For example, in Gikongoro, one of the poorest provinces in the Country, only 30% of population lives within 5 km of a health center, which is well below the national average. Hence, improving access to functioning health facilities, which need to be sufficiently staffed should be the first priority.

SECOND is related to *basic infrastructure in the health facilities*, particularly at the health centers, such as diagnostic equipments, cooling units for storing temperature-sensitive drugs and vaccines. Towards, this end it is essential to ensure that the health centers have access to continuous power supply, which is currently not the case. The GFATM HSS project also has had some limitations on this front, primarily due to incomplete costing and the resultant lower budget allocated in supporting the installation of solar panels.

THIRD relates to the issue of *lack of means of transport* to supervise health facilities, provide outreach services and transporting pregnant women and other patients for emergency services to the district hospital.

All the above-mentioned issues have been dealt with in detail in the "Strategic Framework Paper 2005 – 2009"by the Ministry of Health, Government of Rwanda, but so far little progress has been witnessed in addressing these issues. This calls for prioritization and also balancing of resources.

It may probably be worthwhile to carry out a detailed needs assessment to determine a) the status of the existing infrastructure; and b) the needs given the growth in demand for health care and also the prevalence of disease. Over the last few years huge investments were made to improve the health infrastructure to respond to the three major diseases, namely HIV/AIDS, Tuberculosis and Malaria, which together accounted for more than 50 – 60% of disease burden. But, in the process investments to strengthen the overall health care delivery system were neglected and/or left behind.

Expected Implications

(a) Poor quality of service delivery, as the health facilities are not able to respond to the prevailing disease burden in the community.

(b) Increasing waiting time and/or queuing for services, which effectively increases the cost of health care from the poor's perspective i.e., the opportunity cost of waiting to get treated vs. investing the time in income-generating activities.
(c) Health centers being more pre-occupied with curative care since outreach efforts to promote preventive care are constrained (by lack of transportation to reach distant villages) and thus increasing the overall health cost.

Recommendations

(a) Enter into a "compact" with donors and other partners to address the issue at the overall health system level, i.e., similar to GFATM HSS Project which is supporting improved financial access to health care.
(b) Engage communities in investment decisions and also place the ownership of the facilities in the hands of the local communities. This will improve accountability in the way the infrastructure is maintained. Furthermore, in the long-term the communities will be more forthcoming in pooling resources to both maintain the facilities and fill gaps in infrastructure needs.

5.2.3 Technical Sustainability

To address the technical sustainability of the health system there is a need for a three-pronged approach:

i. *Improve the autonomy of the provider and payment system* – currently the boundaries are blurred whereby the providers are also managers of the *mutuelles* and the district risk pool. This limits the ability of the payment system i.e., the section *mutuelles* and the District Risk Pool to enforce quality standards on the providers.
ii. *Improve the efficiency and performance of the existing health system*: The traditional approach to health systems relies on funding of inputs (e.g. equipment, training and drugs). Providers were paid according to civil service rates and there was no link between incomes and results and there was no incentive to deliver services "cost efficiently". Alternative, mechanisms such as Performance Based Financing (PBF) or Performance for Pay (P4) calls for participating health facilities to receive financial payments conditional on achieving predetermined performance targets (e.g. increases in immunization, prenatal care, assisted deliveries). The payments are based on "outputs" as against input financing and the goal is to provide incentives to the providers to manage the service delivery more efficiently. The overriding goal of the PBF mechanism is more holistic i.e., to improve a) "utilization" of health services; b) the "quality" of care and c) cost efficiency of the health system.
iii. *Investments in human resources, training and teaching institutes*: This issue has been dealt in greater detail in the Human Resource for Health Strategic Plan 2006-2010 by the Ministry of Health. What is required is an investment plan? The Government might want to explore the possibility of privatizing some elements of health care education. As mentioned earlier the Rwandan health system is highly understaffed i.e., less than 30% of approved positions are filled across various categories (Ref. table–7 in chapter–2) i.e., the needs/demands are higher than the current supply. Hence, there is scope for various players to fill the gap, including the private sector.
iv. *Investments in the Health Management Information Systems* will improve better deployment of resources and also in facilitating development of appropriate cost effective treatment protocols. A new web-based HMIS will be introduced in 2008.

6. Conclusions

i) The project strongly contributes to Rwanda's health sector policy, PRSP, vision 2020 and MDGs

- Health sector policy[39]: project supports especially priority interventions i) human resources, ii) geographical accessibility of health services, iii) community-led health structure development, iv) financial accessibility of health services, v) quality of and demand for health services in the control of diseases (above all HIV/AIDS, malaria and tuberculosis), and vi) strengthening institutional capacity, within the health sector.
- PRSP[40]: project especially supports the objectives i) control of disease, particularly of HIV/AIDS and malaria, ii) providing increased access to basic health care, iii) ensuring improvement in the quality of health services.
- Vision 2020[41]: improving health standards is seen as crucial for the development of an efficient and productive workforce. Health-related goals to reach until 2020 are i) reduction in the infant mortality rate to 50 per 1000 and ii) the maternal mortality rate to 200 per 100.000, iii) increase life expectancy to 55 years, iv) malaria and other potential epidemic diseases under control and v)have the AIDS prevalence reduced to 8% (whereby the latter has already been achieved, 2000 data about HIV/AIDS were too high)
- MDGs[42]: project directly contributes to the achievement of MDGs 4 (reduce child mortality,), 5 (reducing maternal mortality)and 6 (combat HIV/AIDS, malaria and other diseases). It also indirectly contributes to MDG 1 (eradicate extreme hunger and poverty) due to the strong relation between improved health and poverty reduction.

ii) Highlights of the project

The project is one among the three Health System Strengthening (HSS) projects that the Global Fund has approved till date. The commitment to the project, both at the political and administrative level, is of the highest order. The coordination between the various divisions within the Ministry of health and also various other ministries such as the Ministry of Local Administration and Ministry of Education has been good.

- The project has contributed to increasing the financial access to health care (about 70% of the population enrolled in the mutual health insurance in 2007) which is evident from the various data such as the Utilization (increased to 60% end of 2006), OPD Consultations and Hospitalization (fell to 20% from an earlier high rate of 40%) from the health care system. The story has been corroborated following focus group discussions (FGDs) with the beneficiaries during the field visits. Quite a substantial number of participants in the FGDs mentioned that they had not visited the health center or the local hospital when the fell sick in the past, i.e., no insurance coverage. But, following membership in the *mutuelles* since January 2006 quite a good number have started frequenting the health centers.
- Members seem quite happy with the quality of service provided at the health centers and the district hospitals. Availability of drugs and of health workers to attend to patients is considered good.

[39] Government of Rwanda (2005): Health Sector Policy
[40] Government of Rwanda (2002): Poverty Reduction Strategy Paper (PRSP). National Poverty Reduction Programme. Ministry of Finance and Economic Planning.
[41] Republic of Rwanda, Ministry of Finance and Economic Planning (2000): Rwanda Vision 2020
[42] http://www.un.org/millenniumgoals

- Strengthening of the *mutuelle* insurance model incl. strengthening the institutions such as the section *mutuelle*, which have grown in numbers over the last 2-3 years.
- The project also seems to be making investments in improving the systems – i.e., HMIS to track the health care usage and patterns; and MAS system to strengthen the insurance financial management at the section *mutuelles*. Though some of these are pilot initiatives the initial signal seems to be positive and moving in the right direction.
- The positive spin-off of the project is the impact on the overall health sector strategy in the country. The Government has recently passed a legislation on *mutuelles* which will contribute towards strengthening not just only the financing part but also involving community in the decision making process. The government is also changing the way it funds the health systems i.e., moving more and more in the direction of demand side financing (financing of health insurance premium of the very poor, and poor; and also the PBF mechanism which is being expanded across the country) rather than focusing on input financing.

iii) Issues and Challenges moving forward

With the success comes a new set of challenges, and the HSS project is no exception to the rule. The GFATM HSS project has been instrumental in increasing coverage rates, i.e., in excess of 1.5 million NEW BENEFICIARIES. The challenges are multifold:

- The capacity of health system to respond to potential increase in demand for health care, particularly at the health centers and district hospitals. As mentioned earlier the current staff level is at about 30% of the sanctioned positions. Data collected from filed visits, as part of the evaluation, already point to the strain in the system.
- The human resource capacity (both quantity and quality) at the *mutuelles* and District Risk Pool. Over the last 3 years the number of section *mutuelles* has grown from less than 88 to 398 section *mutuelles*. Similarly, coverage rates have increased from less than 7% in 2003 to more than 70% in 2007. But, currently one person each at the section *mutuelle* and District Risk Pool manage the whole operations of the respective entities. Also, skill sets in term of financial management, managing insurance reserve/surplus, doing minimal actuarial calculations to understand the utilization patterns etc. is lacking. In order to develop a "sustainable" mutual health insurance system, substantial investments in all these areas is required.
- Managing information/data is going to be very critical, given the robust growth in health insurance and increased utilization of health services witnessed over the last three years. Institutionalizing the Health management information system (HMIS) is a step in that direction, but the challenge is to continuously mine the data and utilize the data for continuous improvements of the health system.
- Managing the contingent liability situation presented by the HSS project i.e., what happens after the project ends in terms of financing the 1.5 million beneficiaries whose insurance premiums are currently financed by the project.

In conclusion Rwanda Health System could become a model for other countries to emulate, particularly the multi-pronged approach to strengthen the health system i.e., on the one hand efforts are being made to improve the financial access to health care (putting in place an institutional architecture namely the *mutuelles*; financing premium subsidy; and introducing solidarity mechanisms to ensure equity in financing i.e., the district and national level risk pooling) and also quality and efficiency of service delivery (splitting the institutional responsibility vis-à-vis financing and provision of care; training and other capacity building initiatives; introduction of performance based financing; and setting up of district-level incentive funds). The key to the success has been the commitment of the both the political and

administrative set-up and an openness to learn and do the necessary course correction. Similarly, the commitment of the donors and other external partners has been of a high order. Rwanda could become a case study for countries struggling to improve on their respective health system.

References

CCM (2005): *Grant Agreement Phase I*

Diop, F. et al. (2007): *Health Financing Task Force Discussion Paper: Policy Crossroads for Mutuelles and health financing in Rwanda.*

Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (2005): *Fifth Call for Proposals. Assuring Access to Quality Care: The missing link to combat AIDS, Tuberculosis and Malaria in Rwanda.*

Government of Rwanda (2005): *Health Sector Policy*

Government of Rwanda (2002): *Poverty Reduction Strategy Paper (PRSP). National Poverty Reduction Programme. Ministry of Finance and Economic Planning*

ILO Step Afrique (2007): *Rapport d'Avancement des activites au Rwanda. Janvier – Mai 2007*

Inyarubuga, H. (2007): *Les mutuelles de sante au Rwanda. Une force pragmatique de mutualisation de risque lie a la maladie ; data base from CTAMS*

Ministry of Finance and Economic Planning, Ministry of Health (2006): *Scaling up to achieve the health MDGs in Rwanda. A background study for the high level forum meeting*

Ministry of Health (2006): Annual Report

Ministry of Health (2006): *Human Resources for Health Strategic Plan 2006-2010* April 2006

Ministry of Health (2005): *DHS 2005*

National Institute of Statistics Rwanda (2006*): Preliminary poverty update report December 2006*

National Institute of Statistics Rwanda (2006): "*Integrated Living Conditions Survey 2005-06 (ECIV2)*

Phocus Ntayombya (2003), "*Environmental and Social Management Framework*"; Rwanda Demobilization and Reintegration Program.

PMU (2007): *HSS Progress Report 18 mois, Ongoing progress update and disbursement request 30 June 2007*

Republic of Rwanda, Ministry of Finance and Economic Planning (2000): *Rwanda Vision 2020*

World Bank: *WDI / GFD Database*

Consulted Websites

www.statistics.gov.rw
www.un.org/millenniumgoals
www.who.int/nha/country/rwa/en/
www.who.int/healthinfo/statistics/bodgbddeathdalyestimates.xls
http://www.who.int/whosis/database/core/core_select_process.cfm

ANNEX 1: Updated Mission Schedule (Version August 28 2007)

DATE & TIME	Name and Organization
Monday 20th August	
14:30 – 15:00	CCM Secretariat (Ida Hakizinka)
15:10 – 16:00	PMU Coordinator (Dr. Daniel Ngamije)
Tuesday 21st August 2007	
09:00 – 10:30	UPDC Director (Dr. Claude Sekabaraga)
10:30 – 12:00	CTAMS (Hertilan Inyarubuga)
14:00 – 14:30	Permanent Secretary (Carolina Kayonga)
15:30 – 16:00	Kigali Health Institute (Geoffrey Nshimiye)
Wednesday 22nd August 2007	
08:30 – 10:30	School of Public Health (Dr. Maurice Bucagu)
14:00 – 15:00	WHO Representative Rwanda (Dr. Diosdado-Vicente Nue Milang)
15.15 – 16.30	GTZ (Anja Fischer)
Thursday 23rd August 2007	
08:00 – 09:30	Permanent Secretary (Carolina Kayonga)
10:00 – 11:00	Intrahealth Director (Laura Homeck)
11:30 – 12:30	Access Project Coordinator (Blaise Karibushi)
15:00 – 16:00	PACFA (Radegonde Ndejuru)
Friday 24th August 2007	
08:00 – 09:00	Association of Banques Populaires in Kigali, Directeur du développement de reseau (Murekezi Dieudonne)
13:00 – 14:00	Clinton Foundation Director Health Programs (Pascal Bijleveld)
Afternoon	FOCUS GROUP DISCUSSIONS in Murindi and Masaka
Monday 27th August 2007	FIELD TRIP to district of Muhanga (focus group discussions in Mubuga, visit to district administration, health center and *mutuelle* Mubuga, district hospital and Banque Populaire Mushubar
Tuesday 28th August 2007	
11:00 – 11:30	World Bank Country Manager (Victoria Kwakwa)
Thursday 30th August	
14:30 – 17:15	Presentation of preliminary results at CCM Meeting
17:30 – 18:30	ILO Step (Alexandra Panis)
Friday 29th August	Field Trip Bungwe
Saturday 30th August	
Morning	Health Center Nyarungenge (MAS system)
Afternoon	GTZ Health Sector Coordinator (Dr. Andreas Kalk)
Monday, 2 September	
15:00 – 16:00	Ministry of Health, HMIS (Dr. Emilien)

Annex– 2: Country Map

ANNEX – 3 Health insurance schemes in Rwanda

There exist four different kinds of health insurance schemes in Rwanda[43]:

1. Health insurance systems for the formal sector
2. Government funds covering health care of special groups
3. So-called community-based health insurance: *mutuelles*
4. Private health insurance schemes

1. Health insurance systems for the formal sector

a) RAMA

- RAMA: Regime d'Assurance Maladie des Agents de l'Etat, Rwandan medicial insurance scheme for government officials and formal private sector employees.
- The scheme exists since 2001 and is compulsory for all public servants
- The contribution amounts to 15% of a person's salary, equally divided between employer and employee
- RAMA contracted public and selected private health facilities and pharmacies
- All medical benefits in the approved facilities are covered except ARVs, prostheses and spectacles
- 15% co-payment to medical bills

b) MMI

- MMI: Military Medical Insurance of Rwanda.
- The scheme was created March 15, 2006 for military staff and their families
- 22,5% of the salary goes to the system independent on the household size (5% to be paid by the insured person, 17.5% by the Government)
- MMI contracted both public and selected private health facilities and pharmacies
- Same medical benefits as RAMA but including prosthesis
- Co-payment:15% of the bill

2. Government Funds Covering Health Care of Special Groups

a) The Genocide Survivors' Support Fund (FARG)

The FARG is a national fund that has been set up in 1998 to help the most needy victims of the genocide. FARG covers all medical benefits except ARVs and also helps with social problems and schooling of the beneficiaries. It is funded from the regular state budget and from contributions of the basic wage of all workers, businesses as well as independent volunteers and donors.

[43] Information on this section derived from Musango, L. et al. (2006): Rwanda's health system and sickness insurance schemes. In: International Social Security Review; ILO (2007): Etude sur les articulations entre les systemes legaux de securite sociale et les mecanismes de protection sociale a base communautaire, and own observations from interviews conducted in Rwanda

b) Gacaca

The State has organized a community-based process involving the traditional conflict resolution bodies known as Gacaca, to deal with some of the crimes commited during the genocide. Tribunal members of the Gacaca are offered free medical care with 100% of the cost refunded by the State.

c) Fund for Prisoners' Health Care

The Government has set up a fund to provide free health care for prisoners. All medical benefits are covered except ARVs.

3. So-called Community-based Health Insurance / *Mutuelles*

Subject of the report.

4. Private Health Insurance Schemes

There are three insurance companies that have relatively recently launched health insurance:

a) CORAR

- Compagnie Rwandaise d'Assurance et de Reassurance (CORAR) offers health insurance since January 2007
- CORAR is contracting church-based health centers
- CORAR offers 4 different benefit packages from USD 264 to USD 727 per year
- Policies are offered on an individual or group basis

b) SORAS

- Societe Rwandaise d'Assurance (SORAS) is the oldest insurance provider in Rwanda, it was founded in 1982.
- Health insurance is only offered since 2006
- There are different benefit packages ranging from USD 109 to USD 436 per year
- Membership is only group-based (minimum 10 persons)

c) African Air Rescue (AAR) Health Services

- launched in October 2005
- the most expensive health insurance scheme of the three
- 3 packages, mainly emergency services and hospital care including air rescue as well as funeral and rehabilitation services
- No co-payment needed