

Rwanda: Fiscal Space for Health and the MDGs Revisited

Chris Lane

November 2009



**RWANDA: FISCAL SPACE FOR HEALTH
AND THE MDGs REVISITED**

Chris Lane

November, 2009

Health, Nutrition and Population (HNP) Discussion Paper

This series is produced by the Health, Nutrition, and Population Family (HNP) of the World Bank's Human Development Network. The papers in this series aim to provide a vehicle for publishing preliminary and unpolished results on HNP topics to encourage discussion and debate. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations or to members of its Board of Executive Directors or the countries they represent. Citation and the use of material presented in this series should take into account this provisional character. For free copies of papers in this series please contact the individual author(s) whose name appears on the paper.

Enquiries about the series and submissions should be made directly to the Editor, Homira Nassery (HNassery@worldbank.org). Submissions should have been previously reviewed and cleared by the sponsoring department, which will bear the cost of publication. No additional reviews will be undertaken after submission. The sponsoring department and author(s) bear full responsibility for the quality of the technical contents and presentation of material in the series.

Since the material will be published as presented, authors should submit an electronic copy in a predefined format (available at www.worldbank.org/hnppublications on the Guide for Authors page). Drafts that do not meet minimum presentational standards may be returned to authors for more work before being accepted.

For information regarding this and other World Bank publications, please contact the HNP Advisory Services at healthpop@worldbank.org (email), 202-473-2256 (telephone), or 202-522-3234 (fax).

© 2008 The International Bank for Reconstruction and Development / The World Bank
1818 H Street, NW
Washington, DC 20433

All rights reserved.

Health, Nutrition and Population (HNP) Discussion Paper

Rwanda Fiscal Space for Health and the MDGs Revisited

Chris Lane^a

^a HDNHE Consultant, World Bank, Washington DC., USA

Abstract: This paper revisits the issue of fiscal space requirements for achieving health millennium development goals (MDGs) in Rwanda. The paper updates and extends work on financing for the health Millennium Development Goals prepared by the Ministry of Health in 2006.¹ It draws on papers prepared by World Bank staff for a comprehensive health sector review and information collected during a field visit to Kigali in March 2008.²

The context is one of large recent increases of financing from development partners (donors) combined with far reaching reforms of health sector management. The paper aims to provide a concise summary of the key issues for policymakers in Rwanda, development partners, and to inform a broader international audience of the prospects for scaling up financing for health in order to substantially raise the health status of low income country populations.

The main messages of the paper are:

- Large increases of financing and supporting policy reforms have put Rwanda back on track to achieve most, if not all, of the health-related MDGs provided ;
- Rwanda will likely remain aid dependent for the foreseeable future, or at least to 2020, owing to limited domestic resources, underscoring the importance of ensuring long-term commitments from development partners;
- The expansion of aid-financed fiscal space for health is likely to slow over the period to 2009-15 as indications from major donors are for no or slow growth in aid for health;
- Accordingly, it will remain imperative to realize the planned increase in the health share of domestic financed government spending;

- With financing gaps for health opening up before 2015, efficiency gains will be needed to sustain the rate of improvement of health status;
- Part of the current spending inefficiencies result from a considerable mismatch between the government's health priorities and the allocation of external financing that warrants a strengthened mechanism to provide flexible and reliable external funding for health, such as a compact between government and the development partners;
- Specific modalities of a government-donor health compact are proposed in the final section, although much will depend on the views and capacities of the key stakeholders.

The plan of the paper is as follows: section 1 describes the demographic and health context, the strategic objectives through to 2015, and recent and prospective progress towards achieving these objectives; section 2 briefly explains the distinctive features of health financing with an emphasis on primary and secondary services needed to achieve strategic objectives; section 3 considers financial flows in the health sector; section 4 elaborates a forward-looking fiscal space for health scenario; section 5 compares projections of fiscal space and alignment of health spending with a costing scenario developed using the marginal budgeting for bottlenecks (MBB) tool; section 6 concludes with a discussion of the uses and potential of government-development partner compact for health sector financing in support of a long term health strategy.

Keywords: Rwanda, Health Financing, Aid, Fiscal Space

Disclaimer: The findings, interpretations and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

Correspondence Details: Ajay Tandon, 1818 H ST. NW, Washington DC. 20433 USA, tel: 202-473-6338, email: atandon@worldbank.org, website: www.worldbank.org

Table of Contents

ACKNOWLEDGEMENTS	vii
ABBREVIATIONS AND ACRONYMS	viii
1. HEALTH OBJECTIVES AND OUTCOMES	- 10 -
1.1 RWANDA: GROWTH AND POVERTY REDUCTION	- 10 -
1.2 HEALTH STATUS IN CONTEXT.....	- 10 -
1.3 HEALTH STRATEGIC PLANS	- 13 -
1.4 PROGRESS TOWARDS HEALTH GOALS IN RWANDA	- 15 -
2. FINANCING POLICY ARCHITECTURE	- 19 -
3. FINANCING FLOWS IN THE HEALTH SECTOR.	- 21 -
3.1 NHA 2003 AND 2006	- 21 -
3.2 FINANCING DEVELOPMENTS THROUGH 2008.....	- 22 -
4. FISCAL SPACE FOR HEALTH SCENARIO FOR RWANDA 2015	- 23 -
4.1 FISCAL SPACE SCENARIO FOR 2015	- 23 -
4.2 EXTERNAL FINANCING FOR HEALTH.....	- 27 -
4.3 DOMESTIC GOVERNMENT FINANCING FOR HEALTH.....	- 29 -
5. FISCAL SPACE AND HEALTH COSTS	- 31 -
5.1 MBB COSTS AND AVAILABLE FISCAL SPACE.....	- 31 -
5.2 ALIGNMENT OF HEALTH SPENDING WITH NEED	- 35 -
5.3 ENSURING THE LONG TERM AVAILABILITY OF AID FOR HEALTH	- 39 -
6. A GOVERNMENT- DEVELOPMENT PARTNER COMPACT FOR HEALTH SECTOR FINANCING	- 41 -
6.1 Steps towards a compact.....	- 41 -
REFERENCES	- 43 -

ACKNOWLEDGEMENTS

This paper was drafted by Chris Lane, consultant to the World Bank with support from Pablo Gottret and Ajay Tandon, World Bank. It also draws directly on draft papers prepared for a World Bank health sector review prepared by Agnes Soucat, Banefsheh Siadat, Laurence Lannes, Annika Kjellgren (all World Bank) and Sabine Furure (UNICEF). It has benefited from comments by two anonymous peer reviewers.

The authors are grateful to the World Bank for publishing this report as an HNP Discussion Paper.

ABBREVIATIONS AND ACRONYMS

ARV	Anti Retroviral
ACT	Artemesin Combination Therapy
CDC	Centre for Disease Control (US)
CBO	Community based organization
CSO	Civil Society organization
DFID	Department for International Development (UK)
DHS	Demographic and Health Survey
EDPRS	Economic Development and Poverty Reduction Strategy
EFU	External Finance Unit (MINECOFIN)
GAVI	Global Alliance For Vaccines And Immunization
GDP	Gross Domestic Product
GFATM	Global Fund For AIDS, TB and Malaria
GOR	Government of Rwanda
HAART	Highly Active Anti-Retroviral Therapy
HIPC	Highly Indebted Poor Country
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
HLF	High Level Forum
HSSP	Health Sector Strategic Plan
IFF	International Financing facility
IMF	International Monetary Fund
MBB	Marginal Budgeting for Bottlenecks
MDGs	Millennium Development Goals
MINISANTE	Ministry of Health
MINECOFIN	Ministry of Finance and Economic Planning
MMR	Maternal Mortality Rate
MNCH	Maternal, Neonatal and Child Health
MOU	Memorandum Of Understanding
MTEF	Medium Term Expenditure Framework
NGO	Non-Government Organization
ODA	Official Development Assistance
PEPFAR	President's Emergency Program For AIDS Relief (US)
PER	Public Expenditure Review
PRSG	Poverty Reduction Support grant
PRSP	Poverty Reduction Strategy Paper
SPA	Strategic Partnership with Africa
SWAP	Sector Wide Approach
TA	Technical Assistance
UNICEF	United Nations Children's Fund
U5MR	Under 5 Mortality Rate

1. HEALTH OBJECTIVES AND OUTCOMES

This section briefly describes the demographic and health context, the main health programs, strategic objectives and drivers of change over the period to 2015 in the context of the national development strategy. It concludes with an assessment of progress towards achieving the health MDGs and other strategic health objectives of the Rwandan authorities.

1.1 RWANDA: GROWTH AND POVERTY REDUCTION

In the aftermath of the genocide and associated conflicts, real GDP increased by over 10 percent per year during 1996-2000 as the economy recovered from a low base. This was followed by a period of stabilization during 2001-06 with average real GDP growth of 6½ percent.

Consumption poverty is widespread and has fallen moderately in both rural and urban areas since 2000/01. The extreme poverty line represents the level of expenditure needed to provide minimum food requirements of 2,100 kcal per adult per day. In 2005/06, 36.9 percent of the population was below the extreme poverty line down from 41.3 percent in 2000/01. The upper poverty line includes non-food requirements. In 2005/06, 56.9 percent of the population were below the upper poverty line down from 60.3 percent five years before.

The long term development strategy “Vision 2020” aims to transform Rwanda into middle income country by 2020 through growth averaging 7 percent per year. The first poverty reduction strategy (PRS) operationalized the longer term strategy through six pillars: rural development, private sector development, human development, infrastructure, governance and capacity building. The second PRS finalized at end-2007, has three flagship objectives: sustainable growth for jobs and exports driven by an expanding public sector investment program; rural development through public works, cooperatives, credit and agricultural support; governance.

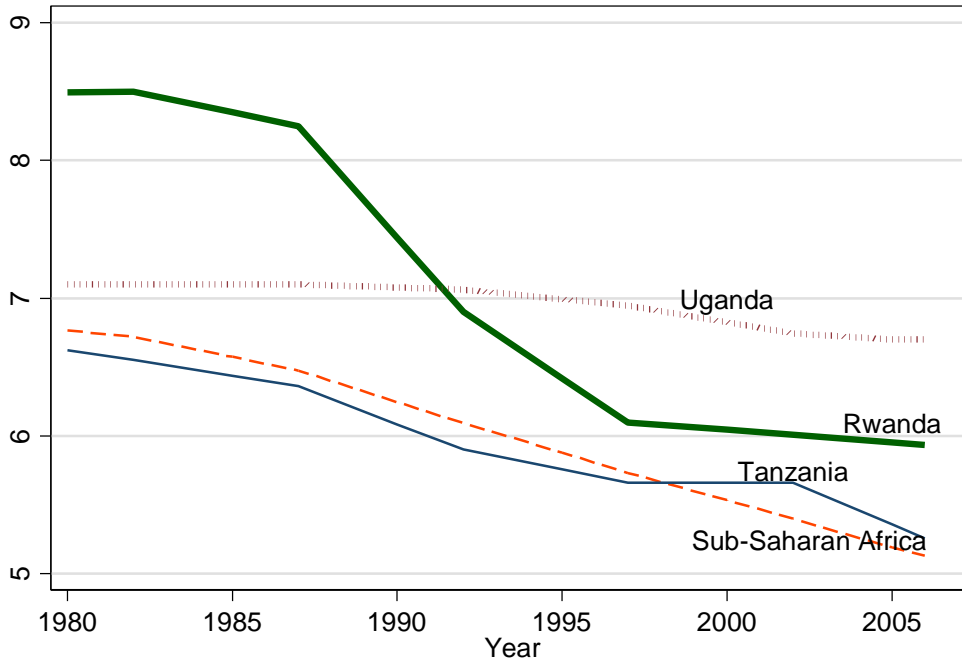
1.2 HEALTH STATUS IN CONTEXT

Demography and fertility³

Rwanda’s population is increasing rapidly with an annual growth rate of 2.6 percent. In 2007, the population of Rwanda was estimated around 9 million inhabitants with 67 percent of all Rwandans aged under 20. In terms of gender, females are in majority (52 percent) and one third of households heads are female.

Although decreasing, the total fertility rate remains high in Rwanda and comparable with neighboring countries (Figure 1.1). The total fertility rate was estimated at 6.1 children per woman for the country as a whole in 2005⁴ compared to 8.5 in 1983. More recent data shows an expansion of the use of modern family planning methods that may further reduce fertility rates (see below).

Figure 1.1 Cross-Country Comparison of Fertility Rates, 1980-2006



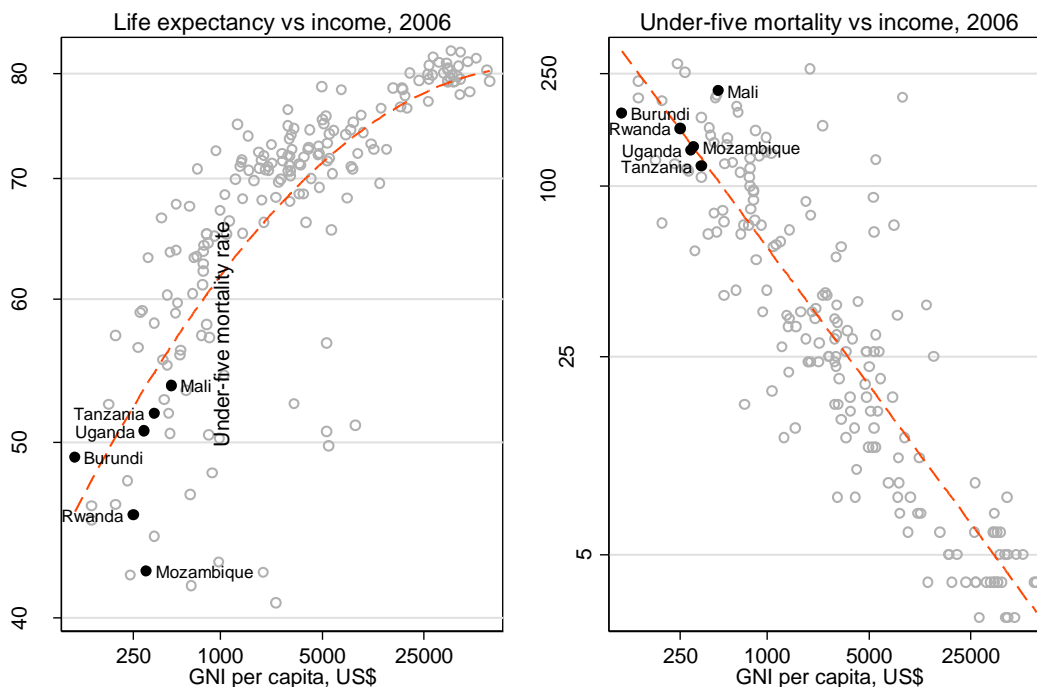
Source: WDI
Sub-Saharan Africa is average excluding South-Africa

Population density in Rwanda is one of the highest in the world with 321 inhabitants per km² and is increasing steadily (there were 283 inhabitants per sq. km. in 1991 and 191 in 1978⁵).

Health Outcomes

Health outcome indicators in Rwanda are similar to those of neighboring countries and countries with a similar level of economic and social development (Figure 1.2).

Figure 1.2 Cross Country income and health outcomes, 2006



Source: WDI
Note: log scale

On a range of health outcome indicators for 2005 (or latest available data prior to 2005) Rwanda is close to the average for sub-Saharan Africa, except HIV prevalence which is below average, and life expectancy is also slightly below average (Table 1.1).

Table 1.1: Health outcomes indicators in Rwanda and SSA, 2005

Countries	Life expectancy	Infant mortality rate	Under 5 mortality rate	Maternal mortality rate	Total fertility rate	HIV prevalence rate among adults (%)	Infant malnutrition
Rwanda 2005	47.4	86	152	750	6.1	3	22.5
SSA	52	91	151	822	5.6	8.6	32
<i>Neighboring countries</i>							
Burundi	44.6	114	190	1300	6.8	3.3	38
Uganda	50.1	70	141	506	6.9	8.3	26
Tanzania	47	100	152	530	5.7	8.1	29
<i>Countries with similar HDI</i>							
Mali	46	120	192	577	6.7	1.5	31
Mozambique	42	134	203	1100	5.6	13.2	47
RCA	46	97	151	700	5.1	13.8	33

Source : Santé et pauvreté au Rwanda : reconstruire et réformer les services de santé dans la perspective des OMD, World Bank, Working Paper No 56, March 2005 and Rwanda Demographic and Health Survey, 2005.

Burden of Disease

Malaria is the principal cause of morbidity and mortality in Rwanda. In 2005, 30 percent of all malaria cases were among children under the age of five. Hospitals reported more than 80,000 cases of severe malaria, 900 of them resulting in death. 35 percent of those who died were children under five.⁶ However, in 2006-07 significant advances were made in increasing the distribution and use of insecticide treated bed nets with usage increasing from 17 to 60 percent in the 15-49 age-group and 13 to 60 percent in the under-5 age-group. Malaria out-patients and in-patients have decreased substantially in facilities monitored for malaria prevalence in patients.⁷

HIV infection is also a public health concern in Rwanda. In 2005, the HIV prevalence in Rwandan population aged 15-49 was 3.0 percent with respectively 3.6 percent among females and 2.3 percent among males. Rates are considerably higher in urban areas (7.3 percent) than in rural areas (2.2percent).⁸ Data on trends in HIV prevalence is hard to interpret but HIV prevalence seems to be decreasing: in voluntary testing services, prevalence has fallen from 10.8 percent in 2004 to 4.8 percent in 2007.⁹

The pattern of tuberculosis prevalence appears to mirror that of HIV infection. The number of TB diagnostic and treatment centers has increased substantially: from 73 to 181 between 2003 and 2007. This has led to an increase in the number of suspected cases (more than doubling between 2005 and 2007) but a halving in the positive case rate (from 13.7 percent to 6.6 percent). About 40 percent of TB cases are HIV positive.¹⁰

1.3 HEALTH STRATEGIC PLANS

The Rwanda Health Sector Strategic Plan (HSSP) covers the period 2005-09. It integrates all sub-sector health plans under a single strategic framework and sets out financing needs in a form that is consistent with the annual budget on a program basis and the medium term expenditure framework (MTEF).

The seven programmatic objectives of the HSSP are:

- (1) improve the availability of human resources
- (2) improve the availability of quality drugs, vaccines, and consumables;
- (3) expand geographical access to health services;
- (4) improve financial access to health services;
- (5) improve quality of and demand for disease control services;
- (6) strengthen national referral hospitals, treatment and research centers and,
- (7) strengthen institutional capacity.

The HSSP set a series of specific health goals under each program objective together with output and outcome based indicators to assess progress (the HSSP logical framework).

HSSP objectives were refined and updated during 2007-08 for the purpose of the second poverty reduction strategy known as the Economic Development and Poverty Reduction Strategy 2008-2012 (EDPRS). A detailed policy matrix supports a Performance Assessment Framework (PAF) for government and development partners.

The EDPRS for health focuses on four strategic objectives setting 2000 as a baseline and setting targets for 2012 and 2015:

- (1) **Reducing population growth** by reducing fertility rates from 5.8 to 4.2 births per woman;
- (2) **Reducing child mortality by three quarters** (from 196 to 50 deaths of under fives per 1000 live births);
- (3) **Reducing maternal mortality by three quarters** (from 1061 to 268 deaths per 100,000 live births);
- (4) **Improving the nutritional status of children** through the reduction of chronic malnutrition from 42 to 25 percent of under-fives.

The EDPRS targets a number of “drivers of change” to attain the strategic objectives that have been agreed in discussions between the government, NGOs and development partners (Table 1.2) While several of the 2012 objectives look very ambitious, recent preliminary data suggest big improvements since 2005 in several areas discussed further below. On the financing side total health spending (public and private) is anticipated to rise steadily through 2011. As regards public health spending, i.e. donors and government, the proportion re-elected on budget is anticipated to increase from 14 percent to over 80 percent between 2006 and 2012 reflecting ongoing efforts to improve aid alignment and harmonization.

Table 1.2 Drivers of change for health sector strategic objectives

Drivers of change	Base 2000	Base 2005-06	Target 2012 Target	MDG Target
Total fertility rate				
% of married women aged 15-49 years using modern contraceptive techniques	4.3	10	70	70
Under 5 Child Mortality Rate (per 1,000)				
% of children fully immunized		75	95	95
% of children sleeping under ITN	7	16	85	90
Maternal Mortality Rate (per 100,000)				
% of assisted births in accredited health centres	26.5	28.2	60+	
% of children Under 5 who have chronic malnutrition				
% of children under 5 who receive 2 vit A doses per year		45	27	25
HIV Incidence				
Annual HIV incidence (% of adults aged 15-24)		1.05	0.5	
Condom use amongst aged 15-25 males		39	50	
Condom use amongst aged 15-25 females		26	35	
Access to health care				
% of population covered under health insurance mechanism		73	90+	
Utilisation rate of primary health care services		0.7	1	
Strengthened health financing and pro-poor approaches				
Per capita allocation to performance based financing for health facilities and community health cooperatives (\$)		1.2	2.95	
Percent of public expenditure on health		6.5	11	15

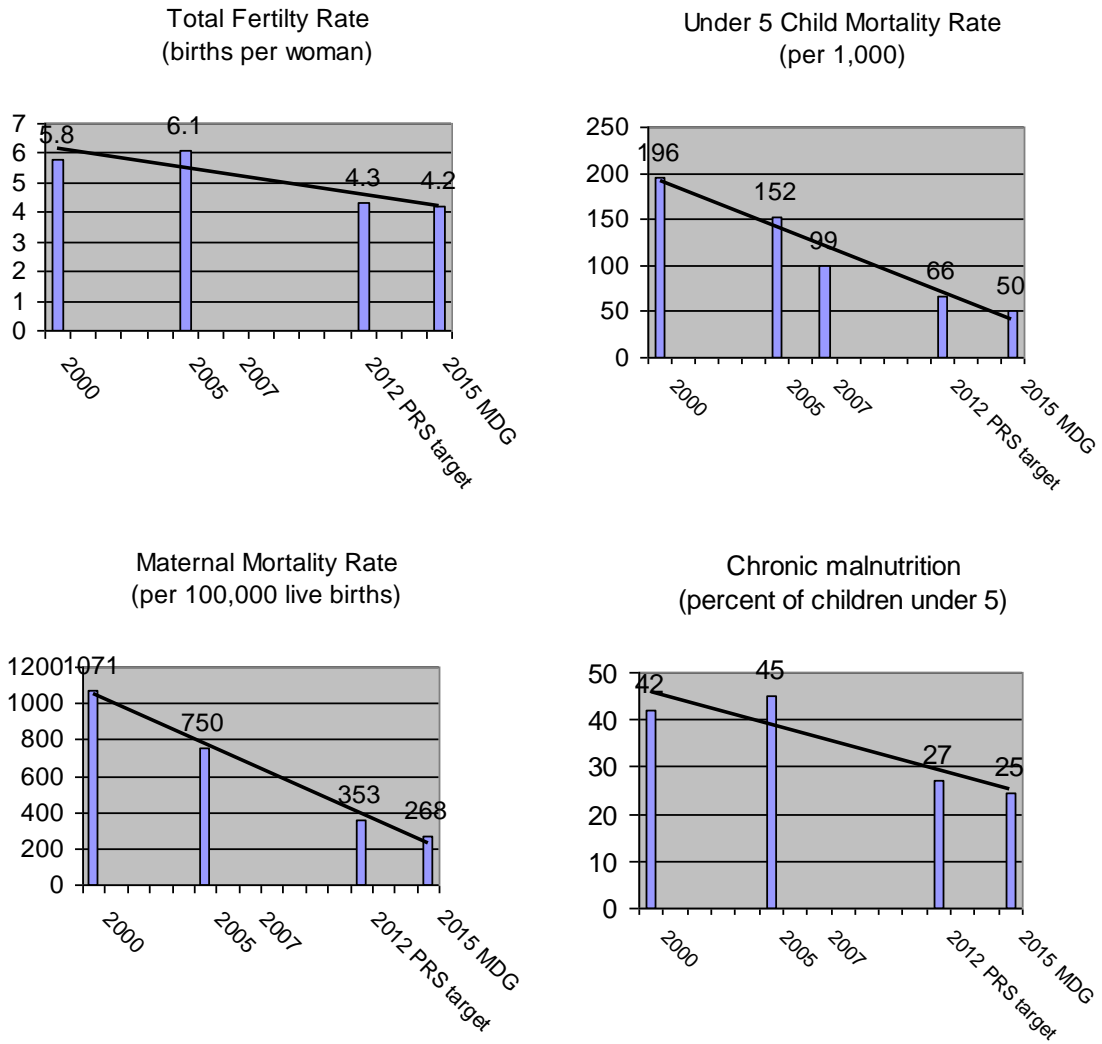
Source: EDPRS Health Population HIV and Nutrition Policy Matrix, March 18, 2008

1.4 PROGRESS TOWARDS HEALTH GOALS IN RWANDA

Recent data on health outputs and indicators suggest that 2 of 4 strategic health objectives for 2012-15 (U5 mortality and maternal mortality rates) would be met or exceeded if the linear rate of improvement during 2000-05 (maternal mortality) or 2000-07 (U5 mortality) is maintained. While this extrapolation has no firm statistical basis, the rate progress on child mortality rates is particularly significant and well ahead of the linear trend: three quarters of the targeted improvement between 2000 and 2012 had been achieved by 2007. The improvement in maternal mortality between 2000 and 2005 is also significant, although it may become progressively more difficult to generate the same absolute annual improvements if the remaining maternal mortality is more costly and difficult to avoid.

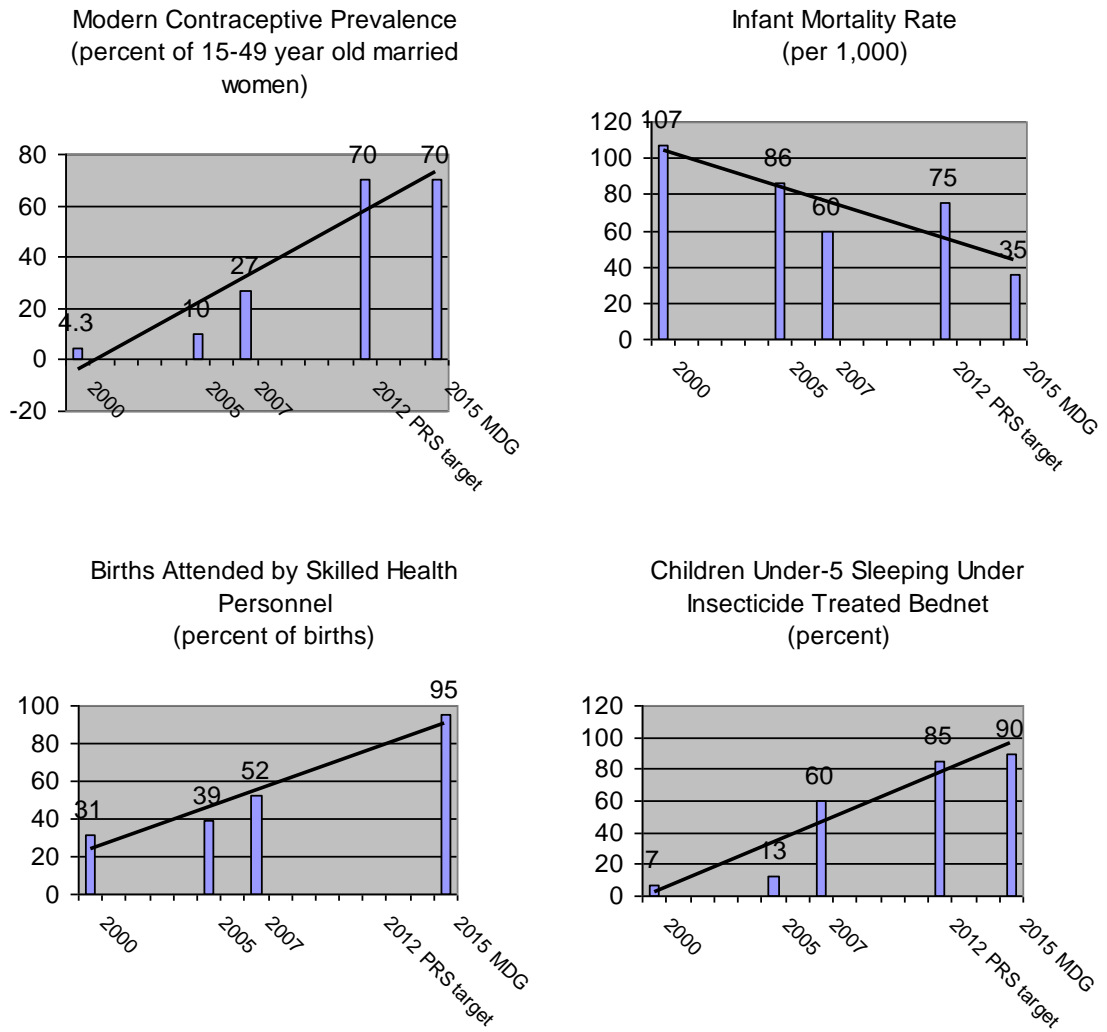
However, fertility rates and child malnutrition have deteriorated over 2000-05 and were clearly off track in relation to PRS or MDG objectives (Figure 1.3). The divergence in the achievement of the strategic goals would reflect many factors, but the relative success in reducing child and maternal mortality may reflect the centrality of health services while achievements on fertility and malnutrition would also have important and perhaps critical other social and economic dimensions.

Figure 1.3 Achievement of Health Sector Strategic Objectives



Sources: Preliminary Rapport Annuel 2007, Ministère de la Sante; Ministry of Health presentation on progress towards the MDGs, May 2008, Rwanda EDPRS 2008-12.

Figure 1.4 Progress to 2007 on key drivers of change of health status



Sources: Preliminary Rapport Annuel 2007, Ministère de la Santé; Ministry of Health presentation on progress towards the MDGs, May 2008, Rwanda EDPRS 2008-12.

Data from 2007 on drivers of change of the fertility rate and the maternal mortality rate indicate significant improvements, give some evidence that improvements are likely from the 2005 data point (Figure 1.4). Specifically:

- The improvement in the take up of modern contraceptive prevalence (from 10 to 27 percent in the two years to 2007) provides some evidence of behavior change that may reduce the fertility rate.
- The jump in the percentage of births attended by skilled health personnel to over half of all births in 2007, puts this indicator on track relative to 2015 objectives and may contribute significantly to a reduction of maternal mortality.
- Further, data on infant mortality and use of insect ice treated bed nets by children to combat malaria both show large improvements between 2005 and 2007, and help to explain the substantial reduction of U5 mortality over the same period.

Other factors that may have contributed to improved health outcomes in the recent period 2005-07 are:

- A scale up of limited social health insurance with coverage rising from 44 percent to 75 percent during 2005-07 (health financing policy is discussed in the following section).
- A large increase in fiscal space for health, defined as the increase of government spending and development assistance in the sector has occurred since 2005. The scale and distribution of this increase is discussed in section 3 of the paper.

2. FINANCING POLICY ARCHITECTURE¹¹

This section explains the distinctive features of the health financing system, with an emphasis on primary and secondary care that are critical to achieving the strategic health objectives. This section draws on a note on Health Care Financing Policy drafted by the staff of the World Bank and the Ministry of Health, Republic of Rwanda (2008, unpublished).

Since 2004, Rwanda has developed a comprehensive financing framework for health building on global health care financing best practices. The framework has two main channels for financing, one from the supply side – transfers from the treasury to districts and health facilities- and one from the demand side – the insurance system.

The financing channels for health facilities were designed as part of a broader post-genocide effort at institution building including: i) the implementation of fiscal decentralization with increased transfers from the central government to local governments and peripheral health facilities on the basis of needs and performance and, ii) the construction of a national system of health insurance including three levels of risk pooling and cross-subsidies from richer to poorer groups.

On the supply side, financing flows from the treasury towards health providers through multiple transfer mechanisms:

1. **Needs-based transfer**, in the form of a monthly block grant provided by the government to health centers and hospitals the amount of which is calculated on the basis of a formula that includes population and poverty levels as a weighing factor (started in 2008);
2. **Performance based transfer (PBF)**, in the form of a quarterly block grant transferred by the government directly to facilities –health centers and hospitals- and to districts for community health.
3. **History-based transfer**, in the form of a subsidy from the government to facilities to maintain their assets.
4. **Investments grants** using the subsidy of the government for construction and equipment as per the national plan
5. **Fragmented donors' transfers** from various donor agencies to specific facilities, the basis of which varies, including performance based contracts with external funding agencies such as US AIDS programs. Criteria for funding are not always known. Most of these transfers are made in kind (commodities, training, TA). Some financial transfers are made although usually not aligned with the four main public finance channels (1-4 above).

On the demand side, health services are financed through three main channels

1. **Demand based user payments**: direct user payments amount to about 20 percent of total expenditures. Most of the funds (63 percent) finance private pharmacists and

shops as well as traditional healers and private clinics. Relatively little is paid to public primary facilities and public hospitals.

2. **Demand based payments from formal insurance including civil service pension scheme RAMA:** payments are made by the insurance system for the formal sector including the civil service
3. **Demand Based payments from community health insurance (mutuelles):** payments are made directly by mutuelles to facilities on the basis of fee for service. Mutuelles have an office in each health center. Mutuelles are funded on a capitation basis: in 2006 70 percent of the premiums were contributed by users, 8 percent by employer, 9 percent by donors and 13 percent by government. Three levels of risk pools are in place: Umurenge (subdistrict) pool covering about 15,000 people, Akarere (district) “District Risk Sharing pool” covering about 300,000 inhabitants and the “National Risk sharing Pool”. In 2006, Mutuelles contributed about US\$ 1.5 per capita to the funding of services

Efficiency and equity problems remain in the current system. On the supply side, a key issue is the equity of the needs based transfers. This transfer is calculated on the basis of the number of personnel employed weighted by population and poverty level. The intention is that the transfer should progressively give more weight to the needs-based criteria and less to the historical criteria. More importantly, there is currently a major problem of efficiency and equity linked to the modes of transfers of donors’ funds. Currently the subsidy from donors appears inefficient with large amounts going to overheads and a lack of clarity on the criteria for allocation to districts and facilities. Finally, a key issue is the governance of the facilities particularly hospitals. Currently the hospitals boards are not functional and there is limited oversight on the use of the public subsidy.

On the demand side, Rwanda has built a system of risk sharing through fund pooling. Yet, the financing of these pools still relies mainly on the contributions of households who are relatively poor and the cross-subsidization from richer groups (inside Rwanda and from external aid) needs to be improved. Another critical issue is the governance of the pools which needs to be strengthened in order to improve oversight on the use of the funds.

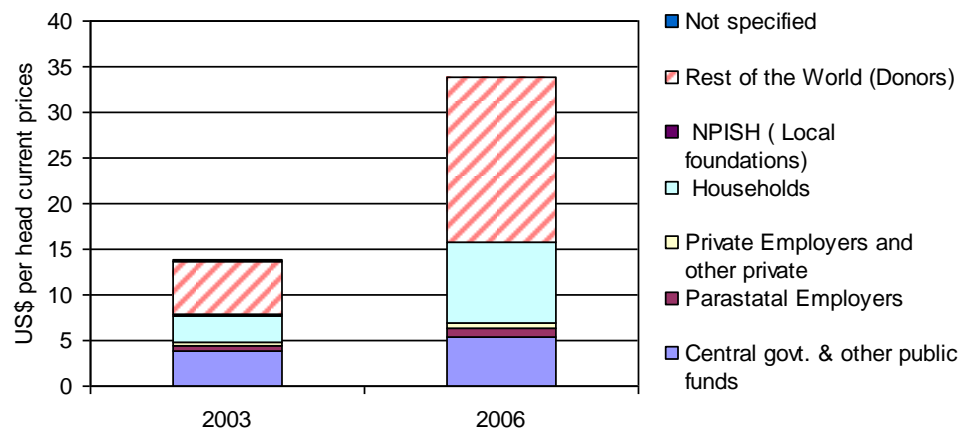
3. FINANCING FLOWS IN THE HEALTH SECTOR.

3.1 NHA 2003 AND 2006

This section surveys health system financing based on national health accounts (NHA) for 2003 and 2006 to set the stage for the analysis of fiscal space in the following section. The NHA provide an in-depth comprehensive source of financing data for government, donor and private spending on health.

Total health financing expanded rapidly during 2003-06 with the largest increases from donors and private individuals (Figure 3.1). Public financing increased at a much slower rate.

Figure 3.1 Rwanda Health Financing Per Capita Sources, 2003-2006 (US\$ current prices)



Source: Rwanda 2003 and 2006 National Health Accounts

Health financing flows rose from 7 to 10 percent of GDP over 2003-06. On a per capita basis in constant prices, financing nearly doubled from \$14 to \$26 per capita over three years. A high level of dependence on external donor finance is evident, accounting for more than half of total health financing by 2006 (Figure 3.2). In current prices and exchange rates, health financing per head amounted to \$34 in 2006.

The expansion was not only rapid, but largely unanticipated. For example, an analysis of health financing needs for achieving the health millennium development goals in mid-2006 had estimated total financing to amount to \$15-17 per head in 2005 or one half the nominal total in the 2006 NHAS.¹²

The reasons for the rapid increase in health financing are not fully clear, but are likely to include the following factors. First, donor financing for health is volatile and unpredictable. The increase reflects in part a jump of donor funding for HIV/AIDS which rose to close to half of total donor funds. Second, the jump in private spending mostly reflects an increase of out-of-pocket spending on health on curative services. This may

also signal that, at least in 2006, increased aid did not displace out of pocket spending on curative services, with the possible exception of HIV/AIDs.

3.2 FINANCING DEVELOPMENTS THROUGH 2008

There is considerable evidence that health financing flows continued to increase through 2008. As the basis for fiscal space for health projections through 2015, available information on government health spending and donor commitments for health aid in 2008 were collected. Private expenditure was projected to remain unchanged as a share of GDP on 2006. These estimates and projections indicate that nominal financing on health increased by half from \$32 per capita in 2006 to \$47 per capita in 2008 (Table 3.1).

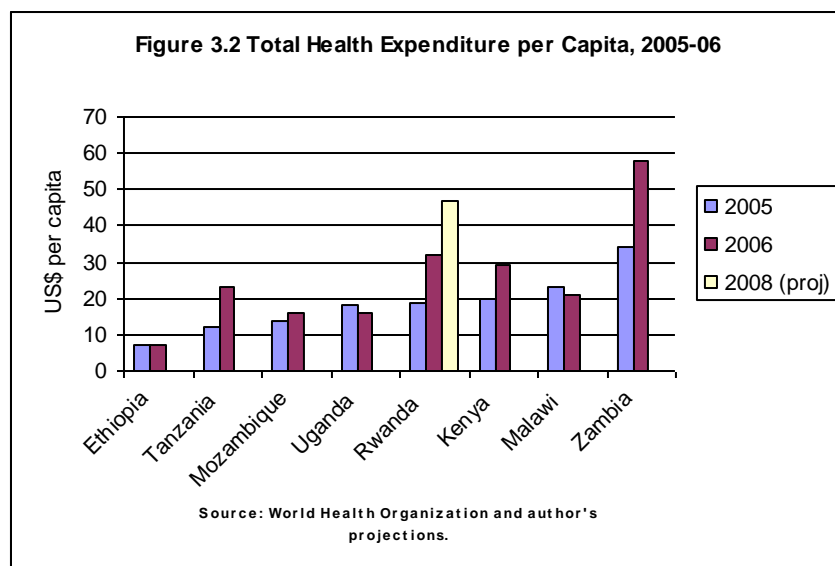
Table. 3.1 Health Financing Scale Up 2003-08

	NHA 2003	NHA 2006	Projection 2008 1/
	nominal US\$ per capita		
Budget	5.2	9.7	11.6
•Government - MoH, transfers, other	3.8	3.5	5.8
•Donor - on budget	1.4	6.3	5.7
Donor - off Budget	4.4	11.8	21.2
Mutuelles (private)	0.0	1.3	1.7
Other Private	4.3	9.1	12.1
Total Health Expenditure	14	32	47

Source: Rwanda National Health Accounts and authors estimates (See fn. 1).

Note: 1/ Projections from 2008 Budget, donors estimates of aid flows in the 2008 Joint Work Plan. Mutuelles and private spending are assumed to remain at 2006 share of GDP levels.

To place these financing increases in perspective, per capita total spending for selected sub-Saharan African countries is shown in Figure 3.2, illustrating the scale of the increases in a cross-country context.



4. FISCAL SPACE FOR HEALTH SCENARIO FOR RWANDA 2015

This section considers the major elements of fiscal space for health in a forward looking sense in a scenario to 2015 and beyond. Fiscal space is represented by total financing from the budget for health including aid, plus off-budget aid for health. It does not include private financing for health or user charges. Section 5 compares projections of fiscal space for health with an MDG costing scenario using the marginal budgeting for bottlenecks model (MBB) that is in operational use in Rwanda.

4.1 FISCAL SPACE SCENARIO FOR 2015

As indicated in the NHA data, there have been dramatic recent changes in fiscal space for health in Rwanda. If these increases are sustained they could be sufficient to cover the estimated costs of scaling up health services to meet the health MDGs if allocated in a cost-effective manner. To put the recent advances of financing in context we compare fiscal space for health projections made in 2006 with updated data through 2008 and latest budgetary projections.

2006 Scenarios (From Government of Rwanda, Scaling up to achieve the health MDGs, Background Paper for the High Level Forum on Health, Tunis, 2006)

The 2006 scenarios find that the available additional funds for health by 2015 from donor and government sources would amount to between \$2 and \$8 per head relative to a 2005 base (expressed in constant 2005 prices). This compares to an estimate of \$20 per head of the additional financing needed to meet health MDGs calculated using the Marginal Budgeting for Bottlenecks (MBB) costing tool. The resulting financing need was assessed as over \$200 million, or between 5 and 7 percent of projected GDP in 2015.

Scenarios were presented for fiscal space with high and low case assumptions. In the high case, GDP growth was projected at 9 percent (5 percent in low case), aid for health doubles by 2010 (aid increases moderately in the low case) and the health share of total budgetary resources available is 15 percent (10 percent in the low case).

2008 Fiscal Space Scenarios, Background Paper for the High Level Forum on Aid Effectiveness, Accra 2008

The 2008 scenarios developed for this paper follow a similar methodology to the 2006 scenarios. The key inputs are:

- The fiscal space scenario projections use actual budget execution data for 2006-07, budgeted government health spending for 2008 and donor health aid commitments for 2008 obtained from the Joint Annual Work Program.¹³
- GDP growth from 2008 is projected to average 7.5 percent using assumptions from the Poverty Reduction Strategy and Budget Framework Paper.¹⁴ This growth rate is approximately the mid-point of high and low case 2006 projections.
- In view of the tripling of nominal aid for health per capita between 2005 and 2008 and current indications of development partners' future levels of support, no further nominal increase in aid for health is assumed after 2008 in US dollar terms, i.e. a decline in constant price terms.
- Government recurrent spending on health is assumed to follow medium term projections in the 2008 budget through 2010 (rising from 6.5 to 8.3 percent of total recurrent spending) and is then projected to rise to 11 percent by 2012 (EDPRS assumptions) and 15 percent of spending as envisaged in the poverty reduction strategy representing the high case for fiscal space. The share of health in recurrent spending remains unchanged at 8.3 percent in the low case (similar to the 10 percent in the 2006 low case scenario). Total spending rises at the same rate as real GDP.
- It is assumed that population growth remains at 2.7 percent per year through 2012, and 2.5 percent for the period 2013-20.

The projected increase in resources for health by 2015 ranges between \$14 per head (low case) and \$19 per head (high case) and are significantly higher than earlier estimates (Table 4.1).

Table 4.1 Projected additional government, on-budget and off-budget aid resources available for health?, 2005-15

	2005	2010	2015	Increase
	(government and aid financed health spending constant US\$ per capita)			
2006 Projections (Tunis)				
High case (9 percent GDP growth, doubling of aid, 15 percent health share of govt recurrent spending)	12	18	20	8
Low case (5 percent GDP growth, moderate aid increase, 10 percent health share of govt recurrent spending)	12	13	14	2
2008 Projections (Accra)				
High case (7.5 percent GDP growth 15 percent health share of govt recurrent spending by 2015, constant aid)	12	30	31	19
Low case (7.5 percent GDP growth 8.3 percent health share of govt recurrent spending by 2015, constant aid)	12	30	26	14

Sources: Republic of Rwanda. 2006. Scaling up to achieve the health MDGs in Rwanda and author's estimates and projections.

The differences in fiscal space are accounted for both by increases in aid and in domestic financing of health (Table 4.2).

External aid per capita				
	2005	2010	2015	2020
2008 (Accra) (High and low scenario)	8.5	24.3	19.5	16.8
2006 (Tunis) High	8.5	14.0	13.9	15.6
2006 (Tunis) Low	8.5	9.4	9.9	9.9
Domestic financing per capita				
	2005	2010	2015	2020
2008 (Accra) High	3.2	6.2	11.3	14.3
2008 (Accra) Low	3.2	6.2	6.2	7.9
2006 (Tunis) High	3.2	4.0	6.1	10.4
2006 (Tunis) Low	3.2	3.6	4.1	5.1
Total financing per capita				
	2005	2010	2015	2020
2008 (Accra) High	11.7	30.5	30.7	31.1
2008 (Accra) Low	11.7	30.5	25.7	24.7
2006 (Tunis) High	11.7	18.0	20.0	26.0
2006 (Tunis) Low	11.7	13.0	14.0	15.0

Source: Author's estimates and projections.

All of the increase of fiscal space for health relative to earlier projections is in the baseline data through 2008 rather than a result of assumptions made for the future (Figure 4.1).

Growth and Revenue Assumptions in the Fiscal Space Scenario

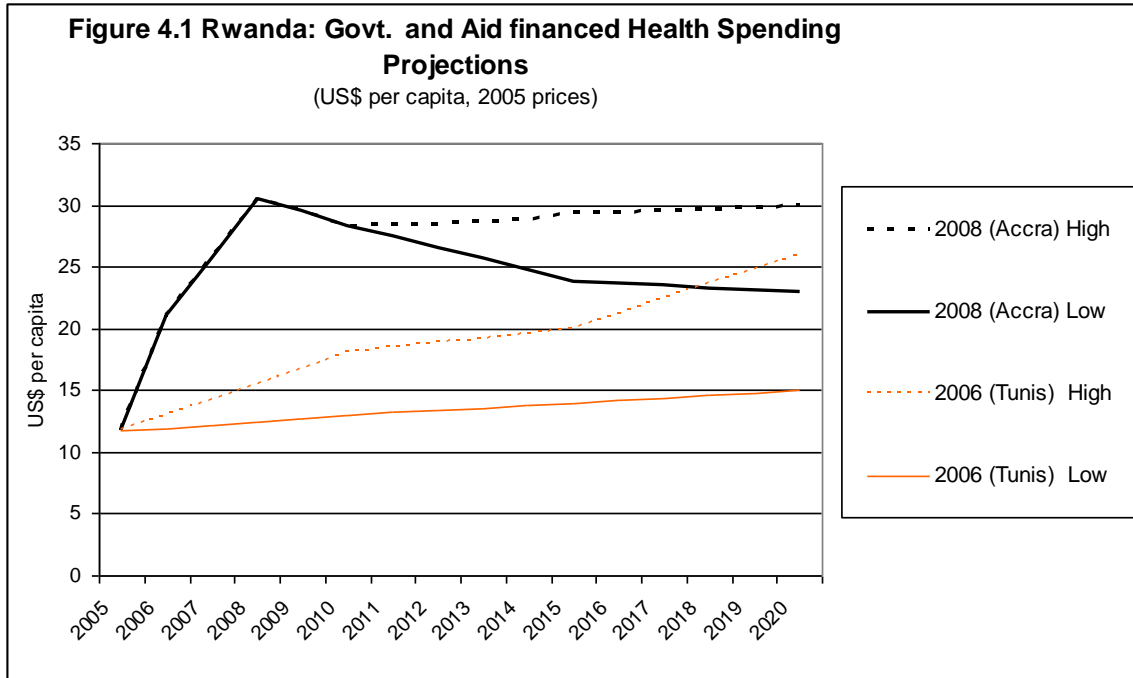
Projections for medium-term growth and revenue in both the high and low cases of the fiscal space scenario apply assumptions from the EDPRS and the budget framework.

GDP growth is assumed to rise from an average of 6½ percent between 2000 and 2007 to 7½ percent by 2010 and 8 percent by 2015. The acceleration of projected growth results higher investment rates both in the public and private sectors. The growth projection is more optimistic than assumptions of 5 percent used in the IMF medium term framework.¹⁵ The IMF projections acknowledge their assumptions err on the side of caution. However, the impact of rapid growth on recurrent spending for health is less strong than might be expected as the high growth scenario requires an increase in investment spending in non-health sectors, restricting the growth of recurrent spending overall and health recurrent spending.

The fiscal space scenario takes a conservative assessment of the prospects for revenue which link to domestically financed health spending. Using the EDPRS and Budget Framework the revenue to GDP ratio is assumed to remain at its 2007 level of 13 percent of GDP over the medium term, i.e. real revenue grows at the same rate as real GDP. However, a consultant report on prospects for raising revenue suggested measures amounting to 2 percent of 2008 GDP focused on raising the yield of property taxes and eliminating exemptions.¹⁶ An IMF mission on tax administration also provided multiple recommendations for improving tax administration in the Rwanda Revenue Authority and the Customs Administration (notably tackling tax fraud, and improved risk assessments) which could over time improve tax collection rates).¹⁷

On balance, a case could be made in the low case scenario for: lower rates of GDP growth; tilting government spending more towards recurrent spending and incorporating a modest increase in the revenue yield to GDP. As overall the impact of changing these assumptions would be small or neutral, the fiscal space scenario sticks with the assumptions used in the EDPRS for GDP, recurrent spending and revenue rather than create two separate but largely similar budget scenarios.

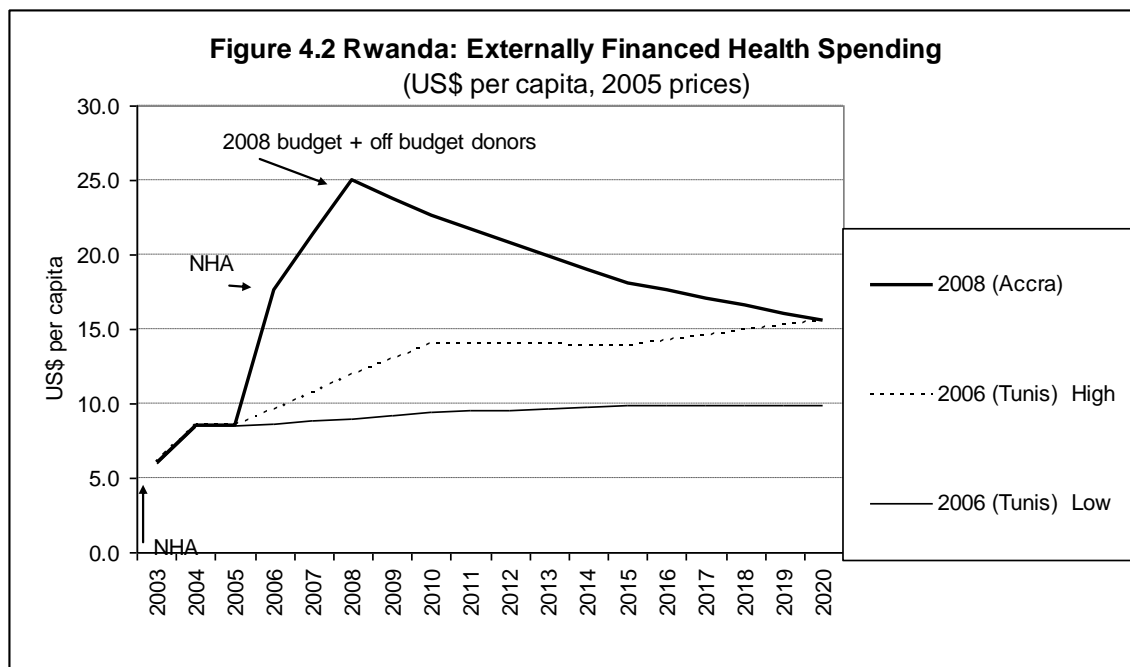
Clearly, if growth did fall short of the targeted rates this would impact the domestic financing for health. As a rule of thumb, a decline in average growth from 7.5 percent to 5 percent would translate into a \$1 per capita recurrent health spending reduction by 2015.



Sources: Republic of Rwanda. 2006. Scaling up to achieve the health MDGs in Rwanda and author's estimates and projections.

4.2 EXTERNAL FINANCING FOR HEALTH

Most of the increase of fiscal space for health is a result of much higher upfront inflows of aid earmarked for the health sector either as projects or sector support (Figure 4.2). Aid commitments for the health sector rose to \$251 million in 2008 or \$27 per head. These data also exclude any health spending that may have been financed by general budget support.



There is a high concentration of sources of funding, with the United States government accounting for over half of aid, and the largest three donors account for three quarters of aid (Table 4.3) highlighting the vulnerability of health financing to changes in donor behavior.

Table 4.3 Health Aid by Country/Agency

	2008 Commitments (US\$ million)	Share of total (percent)
United States	129.7	52
Global Fund	32.5	13
Belgian Coop	30.3	12
UN agencies	13.0	5
DFID (UK)	10.7	4
German Coop	9.7	4
CF	6.5	3
World Bank	6.3	3
Other	5.7	2
GAVI	3.9	2
Swiss Coop	1.3	1
Lux. Dev	1.0	0
Columbia Univ	0.5	0
Total	251	100

Source: Joint Annual Work Plan, 2008

External assistance for the health sector is projected remain constant in nominal terms after 2008 (and to fall on a per capita basis) as this appears to be a consensus amongst the main stakeholders. The Ministry of Health in interviews expressed the view that aid would remain stable or decline in future. The United States expects its three main

programs, which account for half of total aid for the health sector to decline to modestly in nominal terms through 2010 (Table 4.4). In the period ahead nominal increases are likely from the UK and support through the Global Fund (Round 7 funding), while World Bank project support for the health sector will likely reduce on the imminent completion of HIV/AIDs projects. On balance, unchanged nominal aid flows seems a reasonable assumption.

Table 4.4 US Government Aid for Health, Rwanda 2007-2010

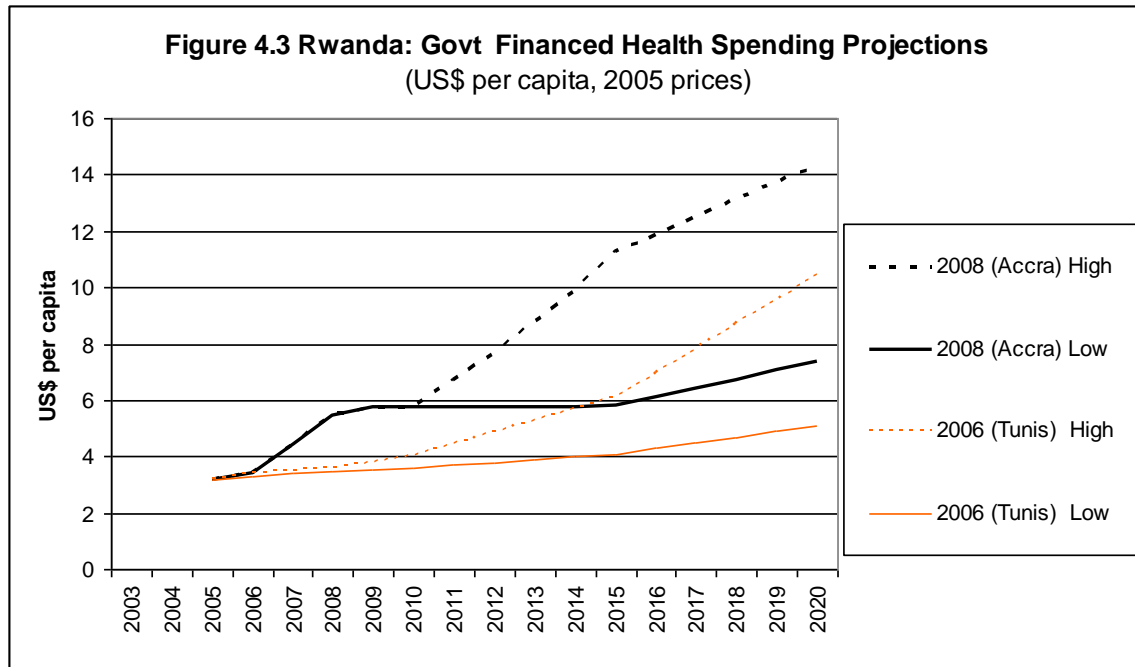
	2007	2008	2009	2010
	US\$ millions			
PEPFAR (HIV/Aids)	103	123	123	123
PMI (Malaria)	20	17	11	5
MCH (Mother and child health)	5	8	9	9
Total	128	148	143	137

Source: Based on estimates from USAID, Kigali.

Constant nominal aid and declining nominal aid per capita declining after 2008 implies a potential reduction in the level of fiscal space going forward, and underlines the health sector's vulnerability to changes in aid policy or aid priorities. The overall impact on fiscal space depends on whether or not budgetary policies shift in favor of health.

4.3 DOMESTIC GOVERNMENT FINANCING FOR HEALTH

The updated fiscal space scenario shows government financing for health (excluding earmarked aid financing going through the budget) rising from close to \$4 per capita in 2006, to \$6 in the 2008 budget and between \$8 and \$15 per capita by 2015 (Figure 4.3).



The upward revisions to domestic health financing from government are due to two technical factors. First, an appreciation of the exchange rate has increased the US\$ value of domestic financing since 2006. Second, the latest projections include spending financed by general budget support which implicitly were included as aid financing in the earlier projections. For projection purposes the exchange rate is assumed to be fixed).

The wide range of potential outcomes for domestic financing rests in part on some ambiguity on the path of health spending and the definition of the “health share” of spending.

In early 2008, agreement was reached between the Ministries of Health and Finance that public expenditure on health would rise from 6.5 percent of total recurrent spending to 11 percent by 2012 (end of the PRS) and 15 percent by 2015, as assumed in the high scenario. Spending would include that financed by sector and budget support, and would cover the budgetary allocation to the Ministry of Health and transfers to health districts and regions but not spending on health by the Ministry of Defense or other ministries. However, there is no path or intermediate year targets to assess annual progress to these goals.

In other documents produced by the Ministry of Finance, there is little or no explicit sign that spending on health will increase as a share of total government spending. In the EDPRS (2007) and the Budget Framework paper, health sector spending is shown as an average for the whole period 2008-2012 of 9.1 percent of recurrent spending. However, in the more detailed medium term expenditure plans shown in the 2008 budget through 2010, health as a share of recurrent spending rises from 7.3 percent in 2008 to 8.3 percent by 2010. Spending remaining at this share after 2010 is taken as the low case scenario, although it would not be consistent with EDPRS or the MTEF averages.

5. FISCAL SPACE AND HEALTH COSTS

5.1 MBB COSTS AND AVAILABLE FISCAL SPACE

The required level of health expenditure to come close to achieving the health targets set out in the Government Vision 2020 has been estimated by Government, with World Bank and UNICEF support, using the Marginal Budgeting for Bottlenecks (MBB) methodology. The MBB approach focuses on where additional funding should be concentrated in order to overcome bottlenecks and maximize the impact on the MDGs. The MBB methodology identified six steps covering disease prevention, provider incentives, risk pooling mechanisms, and improvements to curative services (Table 5.1).

Table 5.1: Interventions in Support of Health MDGs

Step	Description
1. Information and social mobilization for behavior change	Reduced child mortality due to HIV, malaria, diarrhea; reduced HIV transmission; reduced malaria mortality and morbidity.
2. Performance based contracting with health centers	Reduced child mortality, reduced mother to child HIV transmission, 40 percent reduction in deaths due to pregnancy, reduced malaria mortality and morbidity, reduced child malnutrition.
3. Scaling up mutuelle membership by the indigent	Further decreases of child mortality, maternal mortality, malaria morbidity and mortality, TB
4. Expand and upgrade district hospitals	Further reduction of child mortality, maternal mortality, HIV mother to child transmission, severe malaria treatment
5. Strengthen national hospitals	
6. Scale up anti-retroviral treatment for HIV/AIDS	Extension of HAART together with treatment for resistant TB achieves further reduction in U5MR, MMR, and mother to child transmission of HIV, prolongs the life of those on treatment.

Sources: Rwanda MDGs Needs Assessment and “*Scaling up to achieve the health MDGs in Rwanda*”.

The MBB approach to costing is not without disadvantages. Firstly, it makes the strong assumption that spending is targeted on the more cost-effective health interventions. While this appears to be consistent with Rwanda’s health strategy, it would not address risks from the political economy of health spending, e.g., that parts of the health system that are less cost-effective may be of particular interest to political elites. Implicitly it is assumed that these health care costs are financed by private spending, given the scarcity of government and aid financing. Second, it should be recognized the MBB is almost exclusively focused on spending to achieve health millennium development goals whereas there are other legitimate health goals. Nonetheless, Rwanda’s strategy is to leverage donor financing for health by linking it to the achievement of health MDGs, and this implicitly accords a higher political priority to these specific objectives.

Impact of Health Interventions in the Scaling Up Exercise

The impact of each intervention on health status is calculated by epidemiological modeling of the expansion of the coverage. Based on the assumption of increasing spending on health services by US\$ 29 per capita by 2014 (relative to a 2005 baseline) progress towards a broad range of MDG indicators is substantial, although not complete (Table 5.2). In relation to the HSSP strategic objectives, 60 percent of the reduction of child and maternal mortality is projected to be achieved while the reduction of child malnutrition and the fertility rate is only 30 percent achieved, presumably because health interventions are one of many factors affecting these indicators.

High rates of progress (achieving 75 percent or more of the intervention goal by 2014 are achieved for the reduction of anemia (90 percent), reduction of the maternal lifetime risk of dying (78 percent), reduction of malaria mortality (79 percent) and reduction of HIV/AIDS mortality (99 percent).

Table 5.2 Projected Progress towards the MDGs

% achievement MDG1 malnutrition goal	2006-08	2009-11	2012-14
Anemia	51	72	90
Reduction of Low Birth weight	19	43	54
Estimated reduction in stunting	19	21	23
% achievement of MDG4			
U5MR reduction	33	53	59
IMR reduction	32	51	59
NNMR reduction	25	45	56
% achievement of MDG5			
MMR reduction	29	57	60
Lifetime Risk of Dying	31	60	78
Total fertility rate (TFR)	9	22	31
% achievement MDG6			
Reduction of Malaria Mortality	68	66	79
Reduction in AIDS mortality	51	82	99
Reduction in TB Mortality	4	20	55
% achievements MDG7			
Quality of drinking water	40	63	73
Use of sanitary latrines	39	62	72
Hand washing by mother	33	55	65
Cost per capita per year in US\$, 2005 prices	8.83	19.98	29.35

Source: Government of Rwanda, MBB model spreadsheet June 2008.

The MBB model indicates that the total additional cost of the MDG-related interventions is an additional expenditure of \$29.8 per capita by 2014 relative to a 2005 baseline. Earlier costs had been estimated at \$20.5 per capita by 2015 in the Rwanda MDG needs assessment. Costs are expressed in 2005 prices. Only labor services are assumed to increase in real terms, using the rate of real GDP growth a proxy for the real cost of labor change.

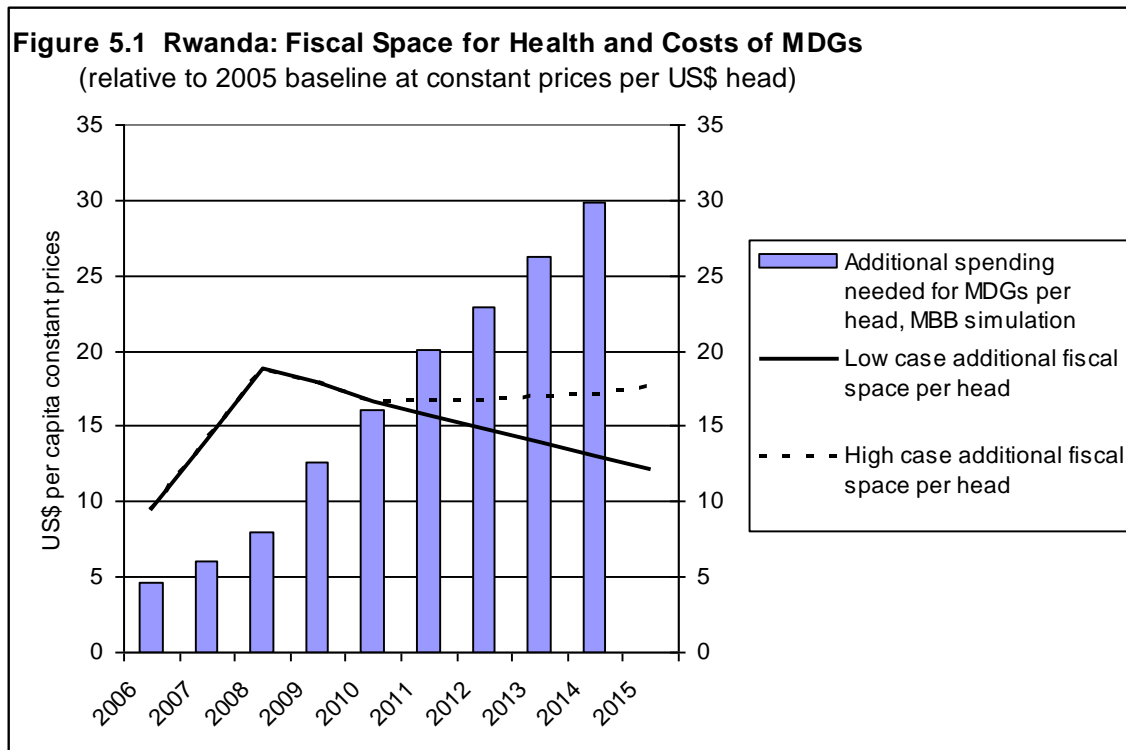
Disease control services account for over 60 percent of total costs, with AIDS, TB and malaria alone accounting for 40 percent of costs (Table 5.3). These costs are estimated by calculating the services required to deliver specific improvements in the targeted health interventions.

Table 5.3 Distribution and Impact of Incremental Spending in MBB Model

	2008	2014
	Share of additional spending relative to 2005 baseline	
Institutional Capacity Building	0.2	0.3
Human Resources for Health	7.5	9.6
Financial Access to Health Services	6.3	3.8
Geographical Access to Health Services	5.5	12.1
Availability of medicines and vaccines	6.5	12.0
Quality of and demand for disease control services, of which:	73.3	61.4
Malaria	9.0	10.0
HIV/AIDs	23.0	23.8
TB	8.0	5.7
Maternal & child health	6.7	6.7
Performance based payments to health centers	17.1	6.4
Specialized services and research	0.7	0.9
Total incremental costs, US\$ per capita	8.0	29.8
Progress against strategic Objectives		
Reduction of U5 mortality (percent)	33	59
Reduction of maternal mortality (percent)	29	60
Reduction of total fertility rate (percent)	9	31
Reduction of stunting in under-5s (percent)	19	23

Source: Government of Rwanda, MBB model spreadsheet June 2008.

Combining the MBB costing exercise with estimates of fiscal space for health developed in section 4, suggests that the scale up in aid and government spending on health since 2005 may well be sufficient to cover about half of the required incremental costs by 2014 (Figure 5.1).



The projected expansion of fiscal space for health exceeds the phased in incremental costs through 2010, reflecting a rapid frontloaded increase of external aid. The “excess” fiscal space in the period 2006-08 may result in a more rapid achievement of improved health outcomes than projected in the MBB model, for example as observed in the reduction of child and infant mortality through 2007 (Section 1.4).

The assumption in the fiscal space scenario of constant external aid in nominal US dollars from 2008 onwards leads, puts total additional government and aid financing of health on a downward trend and contributes to a financing gap from 2011 onwards. If the share of health spending in government spending rises to 15 percent by 2015 as assumed in the high case scenario, total incremental health spending per capita levels out from 2010 (as the increase in government financing cancels out the effect of declining per capita aid flows for health). In contrast, the low case scenario of a constant 8.3 percent share of health in government spending would imply declining fiscal space for health through 2014 as the expansion of government spending does not offset the reduction of aid flows per capita.

Overall, the comparison of potential fiscal space for health and the projected costs of scaling up MDG interventions demonstrates:

- The already observed surge of aid for health through 2008 may finance more rapid expansion of health services and improved health outcomes than assumed in the MBB projections through 2010;
- After 2010, substantial financing gaps emerge against the MBB expenditure profile rising to \$16 per capital in the low case financing scenario;

- The financing gaps can be reduced by: raising the share of health share of spending to 15 percent (contributes close to \$5 per capita), maintaining external aid for health per capita at \$25 in 2005 prices (contributes an extra \$6 per capita compared to constant nominal aid flows).
- The financing gap in 2014 could be closed by raising the health share of government spending to 15 percent and increasing aid flows per capita from \$25 in 2008 to \$31 in 2014.

5.2 ALIGNMENT OF HEALTH SPENDING WITH NEED

Will additional government and aid financed spending on health lead to the desired health outcomes?

This will depend on whether the additional resources are allocated across targeted budget programs i.e. allocative efficiency, and whether the spending is delivered at lowest cost (technical efficiency).

There are several ways the allocation of available resources for health can be compared to the needs estimates, although problems with data comparability limit the validity of such comparisons. We compare: 1) the amount of available government and aid financial resources by program in the 2008 annual work plan with MBB needs; 2) the distribution of government and donor commitments in the 2008 work plan, 3) the funding gaps identified in the 2008 work plan and 4) the composition of expenditure by major disease by financing source in the 2006 national health accounts.

The main conclusions of these comparisons are that health support services (access to health services, institutional strengthening) are less well financed than health service delivery (prevention, diagnosis and treatment) in 2008. There are notable shortfalls against MBB needs and health program identified needs for improving financial access to health services, through subsidized access to mutuelles. The relatively well funded areas include disease treatment, particularly donor funding of HIV/AIDS and more broadly drugs and vaccines availability.

Our first comparison of alignment looks at how the additional resources needed in the MBB projections are allocated compared to the mapping of total government and aid funds in 2008. MBB projections for both 2008 and 2014 show a similar distribution to total work plan planned spending in 2008 (Table 5.4), with over half of spending on prevention, diagnosis and treatment of diseases (demand for and quality of health services category). Differences arise in the share of resources allocated to human resources for health and institutional capacity for health. However, because we are comparing total planned spending with incremental spending in the MBB it is not possible to draw definitive conclusions on the alignment of current plans with MDG-based scaling up projections. With data on the actual spending in 2005 across the same categories a good comparison of alignment could be presented.

Table 5.4. Marginal Costs of MBB Package and Pledged Resources for Health

	MBB Additional 2008	MBB Additional 2014	Joint workplan Total 2008
	In US\$ per capita		
1. Human resources for health	0.6	2.9	5.0
2. Availability of drugs, vaccines and consumables	0.5	3.6	0.8
3. Geographical access to health services	0.4	3.6	2.2
4. Financial access to health services	0.5	1.1	0.9
5. Demand and quality of health services	5.9	18.3	17.5
6. National reference facilities and research	0.1	0.3	0.3
7. Institutional capacity for health	0.0	0.1	5.0
Sub total	8.0	29.8	31.6
<u>Items unallocated from pledged 2008 Resources</u>			
Sector Budget Support			2.3
<u>Overall total</u>	8.0	29.8	33.9

Source: MBB calculations and Joint Annual Workplan 2008

By comparing the allocation of resources by donors and the government across programs in 2008 it is possible to observe significant differences in spending priorities (Table 5.5). Overall, government finance covers 20 percent of total health spending, including 22 percent of health care delivery programmed spending and the same share of support services excluding spending financed by sector budget support. However, government finances less than 10 percent of spending on disease prevention, diagnosis and treatment, drugs and vaccines availability, improving geographical access to health services i.e. constructing new health centers, and research. Government spending is particularly concentrated on overheads for service delivery, i.e. wages, improving utilization and quality of services (performance based transfers to facilities), financial access (subsidies to low income households), and training of staff and these may represent areas of under funding relative to disease prevention, diagnosis and treatment.

Table 5.5 Comparison of Donor and Government Health Spending Allocations, 2008

	2008 Donor Commitments	2008 Government Commitments	Government as share of total
	In US\$ millions		In percent
1. Strengthen Reproductive health and family planning services	11	2	16
2. Disease Prevention	43	2	4
3. Diagnosis and Disease Treatment	83	6	7
Overhead Health Care Delivery	4	30	89
Total health care delivery	141	39	22
4. Improve Quality and Increase utilization of Health Services	15	10	41
5. Improve Quality and Quantity of Human Resources	3	1	33
6. Improve sustainable financial access to health services, in particular for the poor	5	4	47
7. Increase geographical access to health care services	19	1	7
8. Increase availability & logistics of quality drugs, vaccines and consumables	8	1	6
9. Strengthen institutional capacity at all health facility and administrative levels	26	5	15
10. Research	2	0	3
Overhead Support Services	9	2	20
Total support services	87	25	22
11. Sector Budget Support	23	0	0
Total	251	65	20

Source: 2008 Joint Annual Work Plan

The third comparison of resource allocation looks at the mismatch between committed resources in 2008 by program and the financing needs expressed by each program. The definition of need is assumed to represent needs for implementation of the Health Sector Strategic Plan as calculated by the Ministry of Health on the basis of inputs from health providers. The main conclusion of this comparison is that financing gaps are significantly larger for health system support services (35 percent of need) than health care delivery (17 percent), confirming the hypothesis above that areas financed predominantly by government are most at risk of under funding. The largest proportionate financing gaps are for increasing geographical access, improving financial access and improving the quality of human resources (Table 5.6). Conversely the smallest gaps are for disease treatment, health service quality, and drugs and vaccines availability.

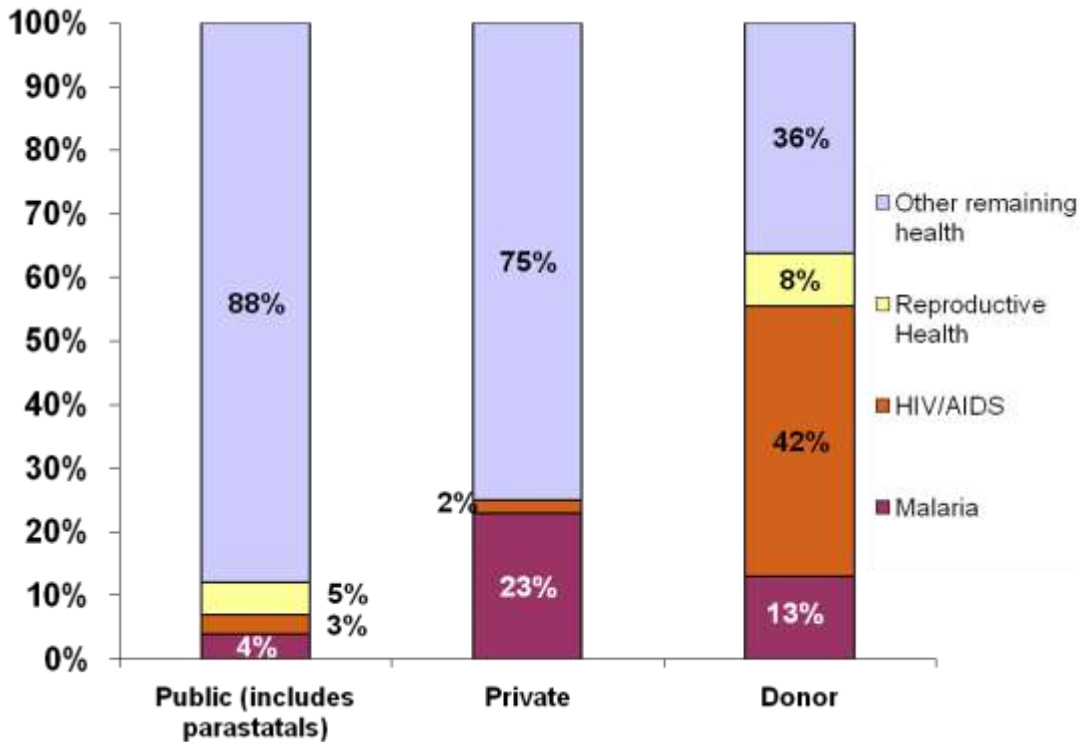
Table 5.6 Financing Gaps in the 2008 Joint Annual Work plan

Strategies	Required US\$ millions	Available US\$ millions	Shortfall percent
1. Strengthen RH and FP services	16	14	13
2. Disease Prevention	58	44	24
3. Diagnosis and Disease Treatment	98	89	9
Overhead Health Care Delivery	45	33	25
TOTAL HEALTH CARE DELIVERY	216	180	17
4. Improve Quality and Increase utilization of Health Services	26	25	2
5. Improve Quality and Quantity of Human Resources	7	4	38
6. Improve sustainable financial access to health services, in particular for the poor	16	9	42
7. Increase geographical access to health care services	67	22	67
8. Increase availability & logistics of quality drugs, vaccines and consumables	9	8	8
9. Strengthen institutional capacity at all health facility and administrative levels	63	49	22
10. Research	4	2	35
Overhead Support Services	11	11	1
TOTAL SUPPORT SERVICES	203	132	35
11. Sector Budget Support	0	23	
GRAND TOTAL in USD	419	335	20

Source: 2008 Joint Annual Work Plan

A fourth comparison of resource allocation uses the NHA from 2006 to indicate the share of donor, government and private financing for HIV/AIDS, malaria, reproductive health and other health spending. The main conclusion from this data source is that donor spending is disproportionately targeted at HIV/AIDS in comparison to both government and private spending (Figure 5.2). This does not necessarily imply overspending on HIV by donors, but does confirm the high priority assigned by donors to spending on HIV/AIDS relative to government and the private sector.

Figure 5.2 Composition of health spending, 2006



Source: National Health Accounts, 2006.

Finally, an internal Ministry of Health assessment of the 2008 Joint Work plan for Health noted that despite the high levels of gross support, much of it is not targeted to Ministry of Health priorities for 2008, in particular: (1) community health worker delivery of health services; (2) human resources for health, in particular the funding of staff in underserved areas (3) scaling up rural health services and (4) family planning and reproductive health given its importance for controlling the rate of population growth particularly human resources, equipment and infrastructure.

5.3 ENSURING THE LONG TERM AVAILABILITY OF AID FOR HEALTH

Aid dependence in the health sector reached 80 percent in the 2008 work plan (aid as a share of total aid and government spending). If future aid flows for health were to remain unchanged in nominal US dollar terms, as assumed in the fiscal space scenarios of this paper, the level of aid dependence will remain above 67 percent through 2020 even if the government can deliver the domestic health financing levels envisaged in the poverty reduction strategy and beyond. Moreover, the largest bilateral source of health aid, which accounts for more than half of external assistance for health, cannot make firm commitments of future support beyond one year.

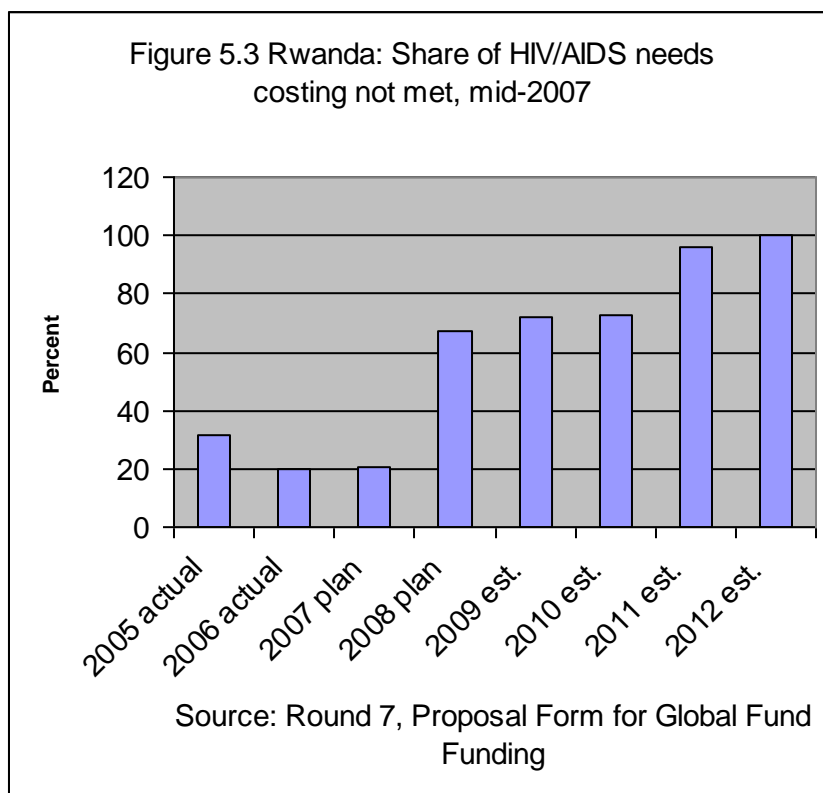
The HIV/AIDS sector illustrates the short duration of external funding extremely well. In a funding request dated mid-2007, the funding gap for the sector increased from 20 percent of coasted needs in 2007 to 67 percent in 2008 and near 100 percent by 2011. The largest single funder (PEPFAR) does not commit funds beyond the current calendar year,

while government commitments stretch to 2010, the end of the present medium term expenditure framework (Table 5.7 and Figure 5.3).¹

Table 5.7 HIV/AIDS Needs and Costing at mid-2007

	2005 Actual	2006 Actual	2007 Planned	2008 Planned	2009 :estimated	2010 :estimated	2011 :estimated	2012 :estimated
In US\$ millions								
HIV/AIDS needs costing including health system needs	130.2	152.5	177.1	240.9	244.9	246.9	249.9	251.9
Domestic (Govt) resources	23.1	27.8	33.5	41.8	50.1	59.0		
External sources	66.2	93.9	106.7	36.5	19.1	8.8	9.5	
Total resources	89.3	121.7	140.1	78.3	69.2	67.8	9.5	0.0
Unmet need	40.9	30.8	37.0	162.6	175.8	179.1	240.4	251.9
Unmet need/ needs costing	31.4	20.2	20.9	67.5	71.8	72.5	96.2	100.0

Source: p77-78, Rwanda Proposal Form Round 7 for Global Fund funding.



¹ The costing estimates are not generated from the MBB model but by the agency charged with making funding requests for HIV/AIDS support from donors. Accordingly, the assumptions used to generate the costing are not necessarily the same as used in the MBB model costing.

6. A GOVERNMENT- DEVELOPMENT PARTNER COMPACT FOR HEALTH SECTOR FINANCING

The high level of aid dependence and the uncertainty over future commitments poses a contingent fiscal risk for the continuity of health services that could not be covered by domestic financing. Accordingly there is a clear need to extend the period of aid commitments in support of the health strategy and to identify which activities can be financed in a sustainable manner during the health sector strategy period. This will require new aid instruments or ways of pledging funds in support of the health sector.

A Memorandum of Understanding (MoU) between the Ministry of Health and Health Sector Development Partners was agreed in 2007 to summarize the key principles of sector wide cooperation. The MoU notes that general budget support is the preferred modality of the Government of Rwanda followed by sector budget support. Partners are encouraged but not limited to these aid modalities. While the MoU stresses the importance of incorporating aid flows in the medium term expenditure framework and encourages the sharing of information on the nature, value, timing and financing modality of future aid flows there are no specific paragraphs that set out commitments to reduce the uncertainty of future aid flows.

The elaboration of a government-development partner compact for the health sector appears to be the best vehicle for improving the terms of aid for health in support of a long term strategy. Partners not able to participate in the compact would in essence opt out of direct support of the health sector plan and would fund services that would exist for as long as the financing supporting them. These services would in essence be provided by the private sector with no future financial obligation for the government.

6.1 STEPS TOWARDS A COMPACT

The coverage of the compact would be defined by negotiation between the government and development partners. The following steps to drawing up a compact covering a particular planning horizon might be envisaged:

As a first step, partners would need to distinguish between expenditures that are of a recurring nature particularly those associated with service provision and those, such as technical assistance and capital projects that are not. Without this information, the government is not in a position to assess what are the continuing costs of aid activities, which is a major issue given the level of aid dependence.

At a minimum the compact should cover all aid activities that imply a recurring commitment i.e. recurrent or operating costs that represents a contingent fiscal risk for the government if it is included in the health sector plan/ poverty reduction strategy.²

² It is important to note that some capital spending with high depreciation rates, such as equipment and vehicles, also involve future replacement expenditures unless clearly designated for temporary use.

As a second step, partners would need to indicate the duration of time for funding their recurrent costs and if funding falls or ends, the likely continuing cost of maintaining these health expenditures for the remainder of the planning horizon e.g., health sector plan period through 2012.

The government in turn would assess the likely fiscal space for health from domestic financing sources for the duration of the health sector plan by drawing on MTEF financing projections. Fiscal space would arise from budgetary allocations for health plus sector budget support.

A period of negotiation and discussion would then be required to define which future unfunded continuing costs of development partner activities could be covered by the identified fiscal space for health in the MTEF. These activities would be covered by the compact and constitute the core of the health sector plan that could be sustainably funded for the duration of the MTEF and health sector plan. All activities that are funded by partners for the duration of the health plan would be included in the compact. Where there are unfunded continuing costs, a determination would need to be made of which activities are most critical to the achievement of health sector strategic objectives.

In order to make this determination, an assessment of priorities across donor activities that have unfunded continuing costs would need to be made by the government in consultation with partners. This assessment could be made on the basis of relevance of objectives, cost-effectiveness, evidence of impact and other criteria as appropriate.

Those activities that are not fully funded by development partners for the duration of the health sector plan but are judged to have a high priority and can be covered by the projected available fiscal space would also be included in the compact. Activities that could not be funded would not be in the compact, but treated as supporting activities that do not obligate in any way future funding by the government of Rwanda.

The compact terms would therefore set incentives for development partners to commit funding for sector budget support and for programs or projects for the duration of the health sector plan. There would also be incentives to align with the priorities of the plan where there are unfunded continuing obligations. On the government side, the projected fiscal space would be allocated to the highest priority activities that have unfunded continuing costs.

For activities that are not included in the compact there would be a clear signal that either the duration of support is too short and therefore sustainability not assured, or that they have relatively low relevance or cost effectiveness for achieving the strategic goals of the health sector plan.

REFERENCES

-
- ¹ Republic of Rwanda. 2006. Scaling up to achieve the health MDGs in Rwanda. Ministry of Finance and Economic Planning and Ministry of Health, Background study for High-Level Forum on Health Millennium Development Goals Meeting in Tunis, June 12-13, 2006.
- ² Lannes, Laurence. 2007. Draft paper: “Fiscal Space for Health in Rwanda”; World Bank and Ministry of Health, 2008, draft note “Health Care Financing Policy”; Siadat, Banafsheh, Rwanda Health Services Delivery Case Study.
- ³ Rwanda General Population and Housing Census (RGPH), 2002.
- ⁴ Rwanda Demographic and Health Survey, 2005.
- ⁵ *Ibid.*
- ⁶ Rwanda DHS, 2005.
- ⁷ Ministry of Health Rwanda, 2008. Unpublished presentation: Scaling Up: Rwanda on Track for the Health MDGs. The role of Autonomization, Decentralization and Results-Based Financing.
- ⁸ Rwanda DHS, 2005.
- ⁹ Ministry of Health Rwanda. 2008. op cit.
- ¹⁰ Ministry of Health Rwanda. 2008. op cit.
- ¹¹ This section draws on Health Care Financing Policy. 2008. Note by Ministry of Health, Republic of Rwanda.
- ¹² Republic of Rwanda, 2006, p.6.
- ¹³ Joint Annual Work Plan is prepared by the Ministry of Health Planning Department.
- ¹⁴ Republic of Rwanda. 2007. Budget Framework Paper 2008-12. Ministry of Finance and Economic Planning.
- ¹⁵ International Monetary Fund. 2007. Rwanda Article IV Consultation. Paper no.
- ¹⁶ Deloitte. 2007. Areas of Interest for Broadening the Tax Base in Rwanda. Report prepared for Ministry of Finance and Economic Planning, October 2007.
- ¹⁷ IMF. 2007. Summary of the IMF Fiscal Affairs Department Mission the Rwanda Revenue Authority. “Next steps in RRA modernization” October 2007



HEALTH, NUTRITION,
AND POPULATION



HUMAN DEVELOPMENT NETWORK

THE WORLD BANK

About this series...

This series is produced by the Health, Nutrition, and Population Family (HNP) of the World Bank's Human Development Network. The papers in this series aim to provide a vehicle for publishing preliminary and unpolished results on HNP topics to encourage discussion and debate. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations or to members of its Board of Executive Directors or the countries they represent. Citation and the use of material presented in this series should take into account this provisional character. For free copies of papers in this series please contact the individual authors whose name appears on the paper.

Enquiries about the series and submissions should be made directly to the Editor Homira Nassery (hnassery@worldbank.org) or HNP Advisory Service (healthpop@worldbank.org, tel 202 473-2256, fax 202 522-3234). For more information, see also www.worldbank.org/hnppublications.



THE WORLD BANK

1818 H Street, NW
Washington, DC USA 20433
Telephone: 202 473 1000
Facsimile: 202 477 6391
Internet: www.worldbank.org
E-mail: feedback@worldbank.org